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CAT-17 (EMEA)



SIEMON SYSTEM CATALOGUE

NETWORK CABLING SOLUTIONS

CATALOGUE

CONNECTING THE WORLD TO A HIGHER STANDARD

WWW.SIEMON.COM

# Siemon Innovation

Inspired by our past, focused on the future

In 1903, Carl Siemon launched The Siemon Company on the strength of his own innovative plastic compounds and soon began pioneering new telecommunication technologies.

Over a century later that spirit of innovation is still at the core of everything we do at Siemon – driving us to develop the most forward-looking, high-quality line of network cabling solutions in the world.

This catalog represents over a century of Siemon expertise, detailing the latest innovations and key products within Siemon's high quality, high performance product portfolio.

New in this edition:

- ▶ **SkinnyPatch™ 28 AWG Modular Cords** with reduced diameter for improved airflow, increased flexibility and improved cable management in high-density patching areas.
- ▶ **High Density FCP3 Base 8 Plug and Play Fibre System** with Base 8 trunk assemblies, jumpers and equipment cords for 100% fibre utilisation in 8-fibre applications and superior migration to 400 Gig.
- ▶ **LightBow™ Fibre Termination System** with innovative termination tool and connectors that reduces termination time, prevents contamination and enables easy verification with visual fault locator.
- ▶ **Aisle Containment Solutions** that prevent the mixing of hot and cold air in the data centre to improve efficiency and reduce cost while enabling increased capacity for greater heat densities.
- ▶ **Full range of vertical and horizontal PowerMax™ PDUs**, including basic and metered and intelligent PDUs in monitored, smart, switched and managed with industry leading accuracy.
- ▶ **New range of enclosures** to support cost-saving zone cabling designs ideal for intelligent buildings, including the 24-Port MAX® Zone Unit Enclosure and Passive Ceiling Zone Enclosure.
- ▶ **Feature-rich Wall Mount Cabinet** with integrated cable management, easy rear access and a fully adjustable mounting rail system for a wide range of applications

▶ And more...



## WheelHouse™ Advanced Data Centre Solutions

A wide range of advanced copper and fibre cabling systems, high speed interconnects, cabinets, aisle containment, PDUs and comprehensive data centre design services to support any size and type of data centre, including hyperscale, cloud, colocation and enterprise data centres.

Link: [www.siemon.com/wheelhouse](http://www.siemon.com/wheelhouse)



## ConvergeIT™ Cabling Solutions for Intelligent Buildings

Siemon's comprehensive line of advanced copper and fibre cabling technology, connectivity and zone enclosures with patented innovative technologies to provide superior support for any digital building device, including PoE lighting, building automation and the Internet of Things (IoT).

Link: [www.siemon.com/convergeit](http://www.siemon.com/convergeit)

## Enterprise LAN Solutions

Siemon's Category copper solutions; connecting blocks; fibre optic cable, connectors, adapter plates, enclosures, jumpers and pigtails; work area support products; racks and cable management; and tools and testers are designed for ease of installation in every day enterprise LAN applications.

Link: [www.siemon.com/e-catalog](http://www.siemon.com/e-catalog)



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# Category 7/7<sub>A</sub>/Class F/F<sub>A</sub> Products

Exceeding ISO/IEC Category 7/7<sub>A</sub>/Class F/F<sub>A</sub> specifications, Siemon's fully shielded TERA® end-to-end cabling solution is the highest-performing, most secure twisted-pair copper cabling system available. TERA supports performance of 10Gb/s and passes stringent TEMPEST security testing.

Beyond industry best speed and best total cost of ownership, TERA's unique cable-sharing ability in support of lower speed applications results in a more "Green" solution and can also provide up-front savings through the reduction of cable counts. By combining the use of one TERA outlet dedicated for high-speed applications of 10Gb/s and another for cable sharing of lower speed voice and video applications, end-users simultaneously benefit from the highest performing and most cost effective copper solution.

The only non-RJ connector approved as a Category 7/7<sub>A</sub>/Class F/F<sub>A</sub> interface, TERA fits within a standard RJ45 footprint and is easily connected to RJ45 equipped electronics via hybrid TERA to RJ patch cords.

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# TERA® Outlet

Invented by Siemon in 1999 and subsequently chosen as an industry standard interface for Category 7/Class F and Category 7A/Class FA, the Siemon TERA outlet still is by far the highest performing twisted-pair copper connector in the world. When installed as part of a TERA solution, each pair delivers 1.2 GHz of bandwidth — exceeding Category 7A/Class FA specifications. This extra bandwidth supports demanding applications like 10GBASE-T and broadband video.

**Bend Relief** — Rear boot provides bend relief for cable exiting the plug and outlet

**Compact Design** — Slim, compact design allows outlets to be side-stacked and inserted from either the front or rear of faceplates and patch panels

**Tempest Security Tested** — The TERA system is the first and only copper system to pass TEMPEST emissions testing by an independent, NSA certified lab, Dayton T. Brown Inc.

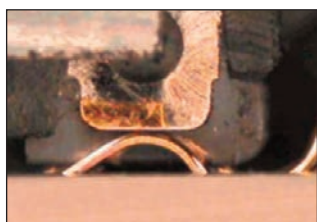
**Shielded Termination** — Connector automatically assures proper termination of cable shield — no additional processes required for grounding cable

**Application Sharing** — TERA's ability to support multiple applications over a single 4-pair cable and outlet can save significant material and installation costs

**Quadrant Isolation** — Shielded quadrant design fully isolates pairs for optimum NEXT performance

**Fully Shielded** — Terminates fully shielded (F/FTP and S/FTP) cable - virtually eliminates alien crosstalk

**Hinged Door** — Outlets include a hinged door to prevent exposure to dust and other contaminants



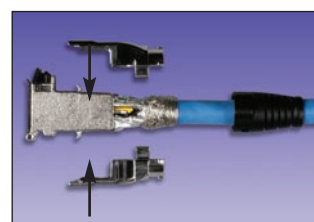
## Contact Integrity

Featuring Siemon's patented crowned jack contact geometry that improves electrical and mechanical performance and ensures that any jack or plug contact damage due to arcing caused by unmating under PoE load occurs well away from the final mated contact position.



## Easy Installation

CPT-T tool reduces preparation and termination time.



## Quick-Ground™ Termination

No additional steps required for termination. Cable shield is automatically terminated within the outlet without additional steps or tools.

## TERA® 4-Pair Outlet

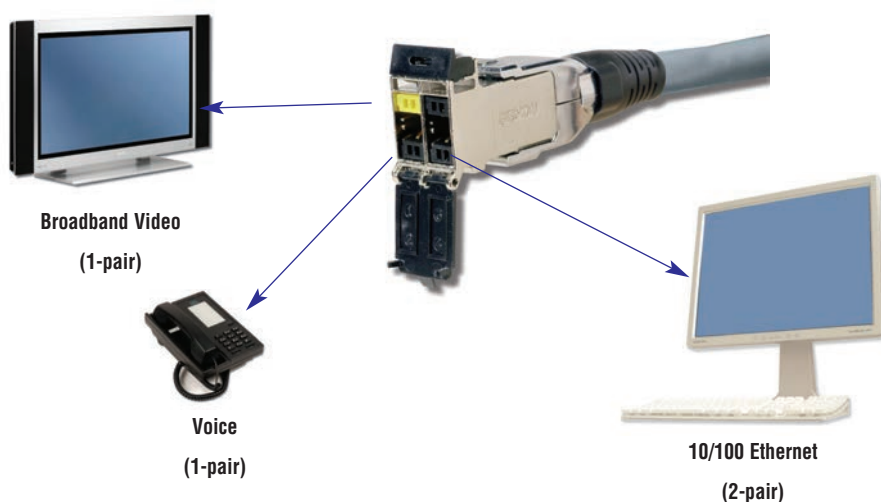
TERA outlets are the industry's highest performing network cabling connectors. Outlets accept 1-, 2- and 4-pair plugs and terminate fully shielded Category 7 and 7<sub>A</sub> cables. TERA outlets can be used in both the work area and in the telecommunications room.



Part #	Description
T7F-01-1.....	TERA 4-pair outlet with black door, latch and boot. Compatible with 0.64-0.55mm (22-23 AWG) solid S/FTP and F/FTP cable

## TERA Cable Sharing

Up to four simultaneous applications can be served from a single 4-pair, S/FTP cable and TERA outlet, saving significant materials, labour, pathway and rack space.



One TERA replaces four 1-pair analog voice outlets — perfect for call centres.



# TERA®-MAX® Patch Panels

TERA-MAX 19 inch patch panels provide outstanding performance and reliability in a shielded, high-density modular solution. As outlets are snapped into place, resilient ground tabs assure that each outlet is properly grounded. No secondary outlet grounding operations are required, reducing overall installation time.

**Angled TERA-MAX** — Allows direct routing of cables to vertical managers, eliminating the need for horizontal cable managers



**Standard Fit** — Panels can be mounted directly on standard 19 inch relay rack or cabinet

**Durable** — High strength steel with black or metallic finish

**Port Identification** — Bold port numbering enables quick identification of outlets



**Installation Friendly** — Individual modules snap into place, providing integrated grounding without additional steps



## Cable Management

Integral rear cable manager facilitates the orderly routing of horizontal cables as well as maintaining proper bend radius for optimum performance.



## Slim Design

Use TERA outlets in TERA-MAX patch panel for telecommunications room applications.



## Integrated Grounding

Panels feature integrated grounding via resilient ground tabs engaged during module insertion.

## TERA-MAX Patch Panels

Part #	Description
TM-PNLZ-24-01 . . . . .	24-Port flat TERA-MAX panel, 1U, black
TM-PNLZ-24 . . . . .	24-Port flat TERA-MAX panel, 1U, metallic
TM-PNLZA-24-01 . . . . .	24-Port angled TERA-MAX panel, 1U, black
TM-PNLZA-24 . . . . .	24-Port angled TERA-MAX panel, 1U, metallic
PNLA-CVR-01 . . . . .	Angled panel cover, black

*Panels include designation labels, cable ties and mounting hardware.*

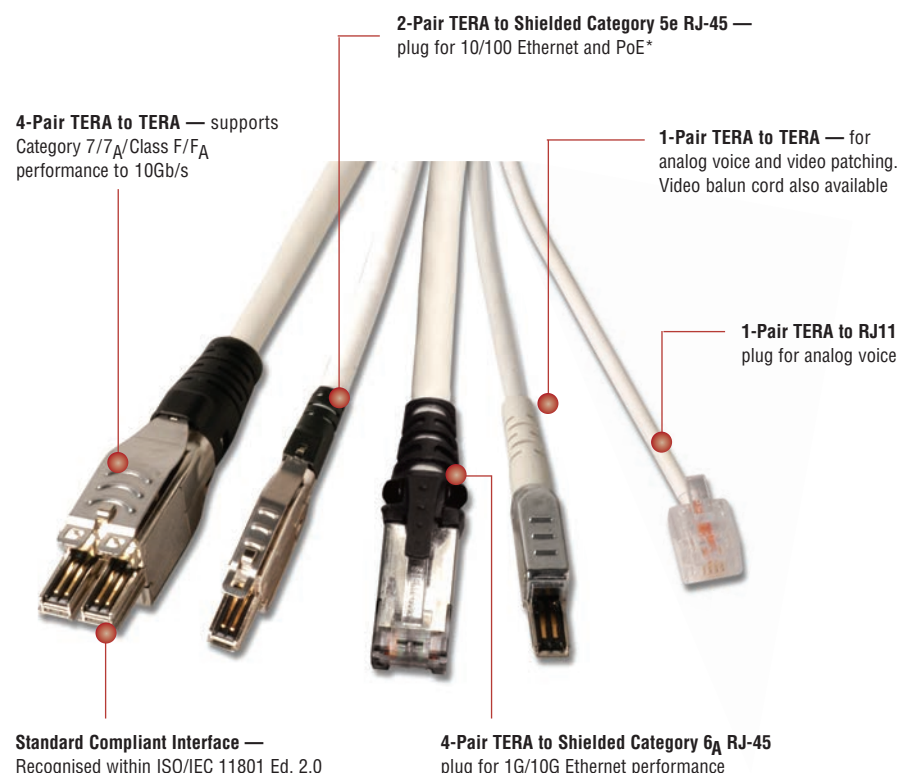
*Note: 1U = 44.5mm (1.75 in.)*





# TERA® - Patch Cords

Part of the TERA cabling solution, TERA-to-TERA patch cords exceed bandwidth of Category 7<sub>A</sub>/Class F<sub>A</sub> specifications when combined with the TERA outlet. TERA delivers up to 1.2 GHz of bandwidth per pair, providing the extra bandwidth for demanding applications like 10GBASE-T and Broadband Video. Facilitated by 1- and 2-pair patch cords, TERA's extended performance also supports cable sharing — the simultaneous convergence of video, voice data and remote powering onto a single 4-pair cable and outlet.



**Standard Footprint**  
ISO recognised interface allows TERA cords and outlets to fit within a standard RJ45 footprint.



**Fully Compatible With Active Electronics**  
TERA to RJ45 patch cords allow the TERA system to be easily connected to RJ45 equipped active electronics.



**Cable Sharing**  
Multiple applications can be run over one 4-pair cable and outlet, saving significant material and pathway space.

## TERA Field-Terminated Plug

TERA 4-pair plugs can be used to terminate horizontal cable into exact lengths for consolidation point applications. Plugs terminate fully shielded Category 7 and 7<sub>A</sub> solid cable.

Part #	Description
T7P4-B(XX)-1.....	4-Pair TERA plug with coloured boot. Compatible with 0.64 – 0.55mm (22 – 23 AWG) solid S/FTP and F/FTP cable
T7P4-B(01)-2.....	4-Pair TERA plug with black boot. Compatible with 0.48mm (26 AWG) stranded S/FTP and F/FTP cable

Use (XX) to specify boot colour: 01 = Black, 02 = White, 03 = Red, 05 = Yellow, 06 = Blue, 07 = Green

\* One TERA Category 7<sub>A</sub>/Class F<sub>A</sub> channel can support two 10/100 BASE-T Ethernet data and two Type 1 or Type 2 PoE applications as long as power is delivered using IEEE Std 802.3™ -2015 PSE pinout Alternative A.



# TERA® - Patch Cords

## TERA Category 7<sub>A</sub> Patch Cords

Category 7<sub>A</sub> compatible, TERA to TERA, LS0H cable assembly, ivory jacket, coloured boot.

T(X)-(XX)M-B(XX)L		
Plug Type		Boot Colour
1 = 1-Pair		01 = Black
4 = 4-Pair		02 = White
		03 = Red
		05 = Yellow
		06 = Blue
		07 = Green
Cord Length		
01 = 1m (3.3 ft.)		
02 = 2m (6.6 ft.)		
03 = 3m (9.8 ft.)		
05 = 5m (16.4 ft.)		

## TERA Category 5e Compatible Patch Cords

TERA to shielded RJ-45, or TERA to 6 position (voice) modular plug, LS0H cable assembly, ivory jacket, coloured boot.

T(XXX)-(XX)M-B(XX)L		
Plug Type		Boot Colour
2E2 = 2-Pair, RJ-45, 10/100BASE-T		01 = Black
2UT = 2-Pair, RJ-45, Token Ring		02 = White
1SU1 = 1-Pair, UTP, 6-position, Voice		03 = Red
		05 = Yellow
		06 = Blue
		07 = Green
Cord Length		
01 = 1m (3.3 ft.)		
02 = 2m (6.6 ft.)		
03 = 3m (9.8 ft.)		
05 = 5m (16.4 ft.)		

## TERA Category 6A Patch Cords

Category 6A, TERA to shielded RJ-45 modular plug, LS0H cable assembly, ivory jacket, coloured boot

T4(X)-S(XX)M-B(XX)L		
Plug Type		Boot Colour
A = T568B		01 = Black
T = T568A		02 = White
		03 = Red
		05 = Yellow
		06 = Blue
		07 = Green
Cord Length		
01 = 1m (3.3 ft.)		
02 = 2m (6.6 ft.)		
03 = 3m (9.8 ft.)		
05 = 5m (16.4 ft.)		

CLIP-(XX)..... Colour coding clip, bag of 25

Clip Colour	
01 = Black	06 = Blue
02 = White	07 = Green
03 = Red	08 = Violet
04 = Grey	09 = Orange
05 = Yellow	



## TERA Video Balun Cords

TERA CATV baluns provide the optimum solution for the transmission of TV or CATV signals over structured cabling systems that were historically limited to voice and data transmission. These products convert the unbalanced TV signals designed for coaxial cabling (75 Ω impedance) to balanced signals (100 Ω impedance) as required for transmission over twisted pair (balanced) cabling. The TERA CATV adapters are specified and usable to 862 MHz. The 1-pair TERA to PAL and TERA to "F" patch cords utilise an integrated balun. The 1-pair shielded TERA to shielded RJ45 patch cord allows connection to third-party RJ45 baluns.

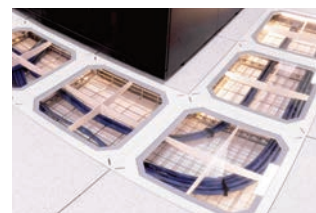
Part #	Description
T1VC-(XX)M-B01L.....	1-Pair TERA to PAL connector, LS0H cable assembly, grey jacket
T1VF-(XX)M-B01L.....	1-Pair TERA to F connector, LS0H cable assembly, grey jacket
T1S4V-(XX)M-B01L.....	1-Pair shielded TERA to RJ45 patch cord

Use (XX) to specify length: 01 = 1m (3.3 ft.), 1.5 = 1.5m (4.9 ft.), 02 = 2m (6.6 ft.), 03 = 3m (9.8 ft.), 05 = 5m (16.4 ft.)



# TERA® - S/FTP Trunking Cable Assemblies

Simon's TERA copper trunking cable assemblies provide an efficient and cost effective alternative to individual field-terminated components. Combining factory terminated and tested TERA outlets and fully shielded Siemon Category 7<sub>A</sub> cable, Siemon TERA trunking cable assemblies offer industry leading performance to 10Gb/s. Standard configurations also help maintain consistent cable layout, facilitate efficient moves, adds and changes and significantly reduce scrap versus typical field installation. Modular design, in conjunction with reduced scrap, makes trunks the most "Green" method for copper cabling installations.



## Data Centres

Ideal for data centre, raised floor and ladder rack environments enabling up to 75% faster deployment time. Well organised cable bundles improve cable management and air flow.



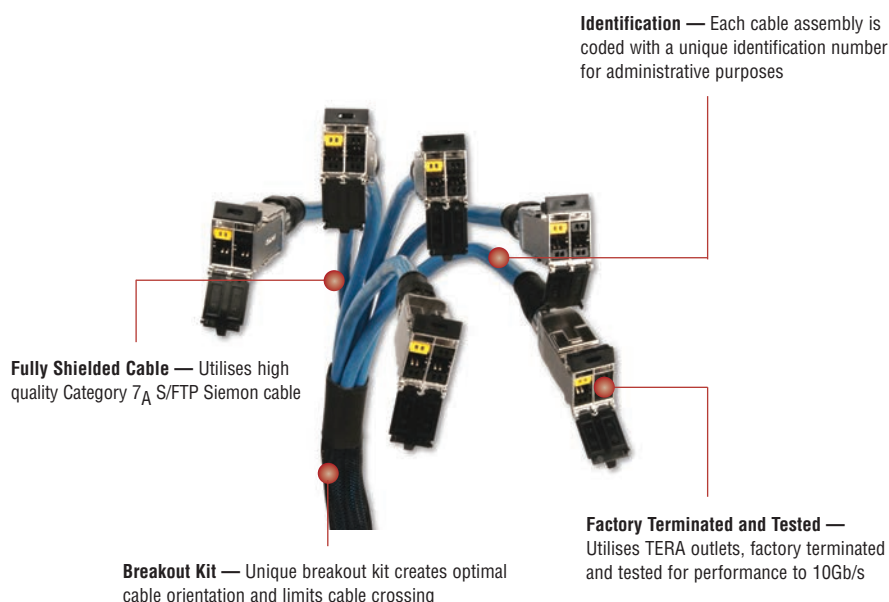
## Simple, Snap-In Installation

Straight Cut aligns TERA outlets for optimal snap in installation into TERA- MAX patch panels and allows left, right or centre exit.



## Protective Packaging

Each assembly is packaged individually to protect factory terminations.



**Fully Shielded Cable** — Utilises high quality Category 7<sub>A</sub> S/FTP Siemon cable

**Identification** — Each cable assembly is coded with a unique identification number for administrative purposes

**Breakout Kit** — Unique breakout kit creates optimal cable orientation and limits cable crossing

**Factory Terminated and Tested** — Utilises TERA outlets, factory terminated and tested for performance to 10Gb/s

## TERA S/FTP Trunking Cable Assemblies

### 6 Leg Double-Ended Trunking Cable Assemblies

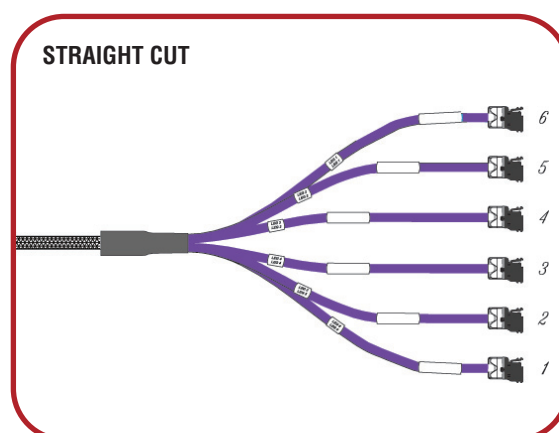
Part #	Description
TJLD8E-F1F1(XXX)M. . . . .	LSOH rated (IEC 60332-1), violet jacket, 1000MHz

Use (XXX) to specify length: 2.7 - 90m in (8.9 - 295 ft.) increments of 1 metre (3.3 ft.)

Other lengths and configurations available upon request.

Trunk cable assembly constructed with EU CPR rated cable  
- Cca (pending completion of System 1+ requirement)

Note: These products are made to order. Call for lead time and part number availability in your region.





# Category 7 600 MHz Cable - International

## COMPLIANCE

- ISO/IEC 11801: Ed 2.2 (Class F)
- IEC 61156-5 Ed 2.1 (Category 7)
- EN 50288 • EN 55022
- EN 50173 • EN 55024
- LSOH: IEC 60332-1, IEC 60754, and IEC 61034
- EN 50399 Class C<sub>ca</sub>S<sub>1a</sub>d<sub>1a</sub>\*

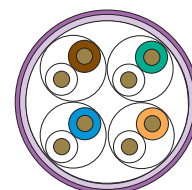
## CABLE CONSTRUCTION

- S/FTP
- Nominal jacket OD: 7.1mm (0.28 in.)
- 0.56mm (0.022 in.) solid (non-tinned) copper
- Reverse sequential measurement markings
- Pairs individually shielded
- Overall tinned-copper braid

## Ordering Information:

Part #	Description
9T7L4-E6.....	LSOH (IEC 60332-1), violet jacket, Class E <sub>ca</sub> , D <sub>ca</sub> , C <sub>ca</sub> *, 305m (1000 ft.)
9T7L4-E6-5CR.....	LSOH (IEC 60332-1), violet jacket, Class E <sub>ca</sub> , D <sub>ca</sub> , C <sub>ca</sub> *, 500m (1640 ft.)
9T7L4-E6-1KR.....	LSOH (IEC 60332-1), violet jacket, Class E <sub>ca</sub> , D <sub>ca</sub> , C <sub>ca</sub> *, 1000m (3281 ft.)

\*Initial type test complete. System 1+ requirements pending



## ELECTRICAL SPECIFICATIONS (Nominal)

DC Resistance	<7.32 Ω/100m
DC Resistance Unbalance	2%
Mutual Capacitance	5.6 nF/100m
Capacitance Unbalance	<160 pF/100m
Characteristic Impedance (ohms)	1-100 MHz: 100 ± 15% 100-600 MHz: 100 ± 22%
NVP	72%
TCL	40-10 x log(f)dB
Delay Skew	≤25ns/100m

## PHYSICAL PROPERTIES

	LSOH
Pulling Tension (max)	80N (18 lbf)
Bend Radius (min)	50mm (2.0 in.)
Installation Temperature	0 to 75°C (+32 to 167°F)
Storage Temperature	-20 to 75°C (-4 to 167°F)
Operating Temperature	-20 to 75°C (-4 to 167°F)

## TRANSMISSION PERFORMANCE



GUARANTEED WORST CASE



SIEMON TYPICAL

Frequency (MHz)	Insertion Loss (dB)		NEXT (dB)		PS NEXT (dB)		ACR (dB)		PSACR (dB)		ACR-F (dB)		PS ACR-F (dB)		Return Loss (dB)	
1.0	2.1	1.8	78.0	103.7	75.0	110.0	75.9	101.9	72.9	108.2	78.0	94.8	75.0	102.3	20.0	32.7
4.0	3.7	3.4	78.0	106.8	75.0	117.2	74.3	103.4	71.3	113.8	78.0	90.5	75.0	91.8	23.0	27.4
10.0	5.8	5.3	78.0	111.6	75.0	121.1	72.2	106.3	69.2	115.8	78.0	109.0	75.0	116.2	25.0	35.9
16.0	7.3	6.8	78.0	113.9	75.0	121.9	70.7	107.0	67.7	115.1	78.0	107.0	75.0	114.5	25.0	36.6
20.0	8.2	7.6	78.0	110.2	75.0	117.4	69.8	102.5	66.8	109.7	78.0	115.7	75.0	117.7	25.0	36.4
31.25	10.3	9.7	78.0	112.4	75.0	119.5	67.7	102.7	64.7	109.8	75.4	106.8	72.4	109.8	23.6	39.2
62.5	14.6	13.9	78.0	114.0	75.0	121.6	63.4	100.1	60.4	107.7	69.4	102.4	66.4	109.8	21.5	33.6
100.0	18.5	17.7	78.0	108.3	75.0	117.5	59.5	90.6	56.5	99.8	65.3	100.8	62.3	103.0	20.1	37.8
200.0	26.5	25.2	73.9	112.5	70.9	118.7	47.4	87.3	44.4	93.6	59.3	85.9	56.3	90.9	18.0	38.9
250.0	29.7	28.3	72.4	108.6	69.4	115.0	42.7	80.3	39.7	86.8	57.3	88.2	54.3	89.5	17.3	35.2
300.0	32.7	31.1	71.2	106.2	68.2	112.2	38.6	75.1	35.6	81.1	55.8	84.7	52.8	90.1	17.3	36.9
400.0	38.0	36.1	69.4	108.0	66.4	116.9	31.4	71.9	28.4	80.8	53.3	71.9	50.3	76.8	17.3	36.2
500.0	42.8	40.4	67.9	96.1	64.9	103.4	25.2	55.7	22.2	62.9	51.3	79.6	48.3	83.6	17.3	32.8
600.0	47.1	44.4	66.7	97.0	63.7	101.8	19.6	52.5	16.6	57.4	49.7	69.9	46.7	71.7	17.3	34.8
700.0*	-	48.2	-	98.8	-	106.0	-	50.6	-	57.8	-	59.9	-	61.0	-	33.5
800.0*	-	51.8	-	94.6	-	103.7	-	42.8	-	51.9	-	60.9	-	62.9	-	29.9
850.0*	-	53.9	-	82.2	-	94.7	-	28.4	-	40.8	-	48.1	-	55.2	-	31.0

\*Values above 600 MHz are for information only.

All performance based on 100 metres (328 ft.)

# Category 7<sub>A</sub> 1000 MHz Cable - International

## COMPLIANCE

- ISO/IEC 11801: Ed 2.2 (Class F<sub>A</sub>)
- IEC 61156-5 Ed 2.1 (Category 7<sub>A</sub>)
- EN 50288 • EN 55022
- EN 50173 • EN 55024
- LSOH: IEC 60332-1, IEC 60754, and IEC 61034
- EN50399 Class C<sub>ca</sub>S<sub>1a</sub>d<sub>1a1</sub>\*

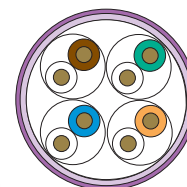
## CABLE CONSTRUCTION

- S/FTP
- Nominal jacket OD: 7.7mm (0.30 in.)
- 0.57mm (0.022 in.) solid (non-tinned) copper
- Sequential measurement markings on jacket
- Pairs individually shielded with aluminium-polyester foil
- Overall tinned-copper braid

## Ordering Information:

Part #	Description
9T7L4-E10.....	LSOH (IEC 60332-1), violet jacket, Class E <sub>ca</sub> , D <sub>ca</sub> , C <sub>ca</sub> *, 305m (1000 ft.)
9T7L4-E10-5CR.....	LSOH (IEC 60332-1), violet jacket, Class E <sub>ca</sub> , D <sub>ca</sub> , C <sub>ca</sub> *, 500m (1640 ft.)
9T7L4-E10-1KR.....	LSOH (IEC 60332-1), violet jacket, Class E <sub>ca</sub> , D <sub>ca</sub> , C <sub>ca</sub> *, 1000m (3281 ft.)

\*Initial type test complete. System 1+ requirements pending



## ELECTRICAL SPECIFICATIONS

DC Resistance	<7.32 Ω/100m
DC Resistance Unbalance	≤ 2%
Mutual Capacitance	5.6 nF/100m
Capacitance Unbalance	≤160 pF/100m
Characteristic Impedance (ohms)	1-100 MHz: 100 ± 15% 100-250 MHz: 100 ± 22% 250-1000 MHz: 100 ± 25%
NVP	70%
TCL	40-10 x log(f)dB
Delay Skew	25ns/100m

## PHYSICAL PROPERTIES

	LSOH
Pulling Tension (max)	110N (25 lbf)
Bend Radius (min)	50mm (2.0 in.)
Installation Temperature	0 to 75°C (+32 to 167°F)
Storage Temperature	-20 to 75°C (-4 to 167°F)
Operating Temperature	-20 to 75°C (-4 to 167°F)

## TRANSMISSION PERFORMANCE



GUARANTEED WORST CASE



SIEMON TYPICAL

Frequency (MHz)	Insertion Loss (dB)		NEXT (dB)		PS NEXT (dB)		ACR (dB)		PSACR (dB)		ACR-F (dB)		PS ACR-F (dB)		Return Loss (dB)		Propagation Delay (ns)	
1.0*	1.9	1.6	78.0	105.0	75.0	102.0	76.1	103.0	73.1	100.0	77.0	96.0	75.0	94.0	20.0	31.0	536	512
4.0	3.5	3.0	78.0	105.0	75.0	102.0	74.6	102.0	71.6	99.0	77.0	96.0	75.0	94.0	23.0	34.0	518	494
10.0	5.4	4.9	78.0	105.0	75.0	102.0	72.6	100.0	69.6	97.0	74.0	96.0	71.0	94.0	25.0	35.0	511	487
16.0	6.8	6.3	78.0	105.0	75.0	102.0	71.2	99.0	68.2	96.0	70.0	96.0	67.0	94.0	25.0	35.0	509	485
20.0	7.5	7.0	78.0	105.0	75.0	102.0	70.3	98.0	67.4	95.0	68.0	96.0	65.0	94.0	25.0	35.0	508	484
31.25	9.6	8.9	78.0	105.0	75.0	102.0	68.5	96.0	65.5	93.0	64.0	93.0	61.0	91.0	23.6	34.0	506	482
62.5	13.7	12.8	78.0	105.0	75.0	102.0	64.3	92.0	61.3	89.0	58.0	88.0	55.0	86.0	21.5	32.0	505	481
100.0	17.5	16.5	76.0	105.0	73.0	102.0	58.5	89.0	55.5	86.0	54.0	82.0	51.0	80.0	20.1	31.0	504	480
200.0	25.3	23.5	71.0	102.0	68.0	100.0	46.2	79.0	43.2	77.0	48.0	78.0	45.0	75.0	18.0	29.0	503	479
250.0	28.5	28.2	70.0	102.0	67.0	100.0	41.5	74.0	38.5	72.0	46.0	75.0	43.0	70.0	17.3	28.0	502	502
300.0	31.5	28.9	69.0	102.0	66.0	97.0	37.3	73.0	34.3	68.0	44.0	70.0	41.0	68.0	17.3	28.0	502	478
350.0	34.3	31.5	68.0	100.0	65.0	97.0	33.6	69.0	30.6	66.0	43.0	70.0	40.0	63.0	17.3	28.0	502	478
400.0	36.9	33.1	67.0	95.0	64.0	93.0	30.1	62.0	27.1	60.0	42.0	66.0	39.0	59.0	17.3	28.0	502	478
550.0	44.1	40.2	65.0	95.0	62.0	93.0	20.8	55.0	17.8	53.0	39.0	60.0	36.0	56.0	17.3	28.0	502	478
600.0	46.3	41.7	64.0	95.0	61.0	93.0	18.0	53.0	15.0	51.0	38.0	55.0	35.0	53.0	17.3	28.0	502	478
800.0	54.5	47.6	62.0	90.0	59.0	87.0	7.9	42.0	4.9	39.0	36.0	47.0	33.0	44.0	16.1	28.0	501	477
1000.0	62.0	54.5	61.0	85.0	58.0	83.0	-1.0	31.0	-4.0	29.0	34.0	40.0	31.0	38.0	15.5	27.0	501	477
1200.0*		59.8		80.0		77.0		20.0		17.0		35.0		33.0		27.0		477

\*Values below 4 MHz are for information only.

\*\*Values for IEC 61156-5 above 1000 MHz are for information only.

All performance based on 100 metres (328 ft.)

# Category 7<sub>A</sub> 1200 MHz Cable - International

## COMPLIANCE

- ISO/IEC 11801: Ed. 2.2 (Class F<sub>A</sub>)
- ISO/IEC 15018 BCT Channel Application
- IEC 61156-7 Ed 1.1
- IEC 61156-5 Ed 2.1 (Category 7<sub>A</sub>)
- EN 50288 • EN 55022
- EN 50173 • EN 55024
- LSOH: IEC 60332-1, IEC 60754, and IEC 61034
- EN50399 Class C<sub>ca</sub>S<sub>1A</sub>d<sub>1A</sub>\*

## CABLE CONSTRUCTION

- S/FTP
- Nominal jacket OD: 8mm (0.31 in.)
- 0.64mm (0.025 in.) solid (non-tinned) copper
- Sequential measurement markings on jacket
- Pairs individually shielded with aluminium-polyester foil
- Overall tinned-copper braid

## ELECTRICAL SPECIFICATIONS

DC Resistance	<17.0 Ω/100m
DC Resistance Unbalance	2%
Mutual Capacitance	5.6 nF/100m
Capacitance Unbalance	<330 pF/100m
Characteristic Impedance (ohms)	1-100 MHz: 100 ± 15% 100-250 MHz: 100 ± 22% 250-1000 MHz: 100 ± 25%
NVP	80%
TCL	40-10 x log(f)dB
Delay Skew	≤25ns

## Ordering Information:

Part #	Description
9T7L4-E12.....	LSOH (IEC 60332.1), violet jacket, Class E <sub>ca</sub> , D <sub>ca</sub> , C <sub>ca</sub> *, 305m (1000 ft.)
9T7L4-E12-5CR.....	LSOH (IEC 60332.1), violet jacket, Class E <sub>ca</sub> , D <sub>ca</sub> , C <sub>ca</sub> *, 500m (1640 ft.)
9T7L4-E12-1KR.....	LSOH (IEC 60332.1), violet jacket, Class E <sub>ca</sub> , D <sub>ca</sub> , C <sub>ca</sub> *, 1000m (3281 ft.)

\*Initial type test complete. System 1+ requirements pending



## PHYSICAL PROPERTIES

	LSOH
Pulling Tension (max)	110N (25 lbf)
Bend Radius (min)	50mm (2.0 in.)
Installation Temperature	0 to 75°C (+32 to 167°F)
Storage Temperature	-20 to 75°C (-4 to 167°F)
Operating Temperature	-20 to 75°C (-4 to 167°F)

## TRANSMISSION PERFORMANCE

GUARANTEED WORST CASE

SIEMON TYPICAL

Frequency (MHz)	Insertion Loss (dB)		NEXT (dB)		PS NEXT (dB)		ACR (dB)		PSACR (dB)		ACR-F (dB)		PS ACR-F (dB)		Return Loss (dB)		Propagation Delay (ns)	
1.0*	1.9	1.7	78.0	105.2	75.0	99.5	76.1	103.5	73.1	97.7	78.0	99.6	75.0	96.6	20.0	30.0	536.0	455
4.0	3.5	3.2	78.0	107.8	75.0	102.8	74.5	104.6	71.5	99.7	78.0	107.5	75.0	102.6	23.0	27.8	518.0	452
10.0	5.4	4.8	78.0	105.2	75.0	99.4	72.6	100.4	69.6	94.6	74.0	103.1	71.0	97.4	25.0	34.1	511.4	449
16.0	6.8	6.1	78.0	109.1	75.0	101.7	71.2	103.0	68.2	95.6	69.9	104.2	66.9	99.9	25.0	33.1	509.0	447
20.0	7.6	6.9	78.0	107.2	75.0	101.3	70.4	100.3	67.4	94.4	68.0	105.0	65.0	97.4	25.0	34.4	508.0	446
31.25	9.6	8.8	78.0	106.8	75.0	100.0	68.4	98.0	65.4	91.2	64.1	102.3	61.1	96.7	23.6	35.9	506.4	445
62.5	13.7	12.7	78.0	108.3	75.0	102.7	64.3	95.7	61.3	90.0	58.1	104.6	55.1	98.4	21.5	41.1	504.6	444
100.0	17.5	16.2	76.0	105.5	73.0	97.8	58.5	89.3	55.5	81.6	54.0	104.1	51.0	97.7	20.1	36.0	503.6	444
200.0	25.3	23.1	71.5	107.7	68.5	101.9	46.2	84.6	43.2	78.8	48.0	101.6	45.0	95.6	18.0	30.4	502.5	444
250.0	28.5	25.8	70.0	110.4	67.0	101.4	41.5	84.6	38.5	75.5	46.0	107.0	43.0	99.1	17.3	33.5	502.3	443
300.0	31.5	28.3	68.8	105.5	65.8	100.0	37.3	77.2	34.3	71.6	44.5	100.8	41.5	95.3	17.3	34.9	502.1	443
350.0	34.3	30.8	67.8	108.4	64.8	101.0	33.6	77.2	30.6	70.3	43.1	107.5	40.1	97.8	17.3	39.0	501.9	443
400.0	36.9	33.0	67.0	111.2	64.0	103.3	30.1	78.2	27.1	70.2	42.0	107.2	39.0	99.5	17.3	35.5	501.8	443
550.0	44.1	39.0	64.9	105.0	61.9	99.1	20.8	66.0	17.8	60.0	39.2	102.0	36.2	94.9	17.3	33.8	501.5	443
600.0	46.3	40.8	64.3	108.3	61.3	99.3	18.0	67.5	15.0	58.5	38.4	105.2	35.4	96.6	17.3	35.9	501.5	443
800.0	54.5	47.5	62.5	98.7	59.5	93.8	7.9	51.2	4.9	46.2	35.9	93.1	32.9	90.1	16.1	34.0	501.3	443
1000.0	62.0	53.7	61.0	100.2	58.0	93.9	-1.0	46.5	-4.0	40.2	34.0	83.3	31.0	77.1	15.1	25.3	501.1	443
1100.0	65.6	56.6	60.4	106.2	57.4	98.0	-5.2	49.6	-8.2	41.4	33.2	80.9	30.2	74.6	14.7	30.0	501.1	443
1200.0	65.6	61.8	59.8	100.1	56.8	92.6	-9.2	38.3	-12.2	30.8	32.4	78.1	29.4	67.4	14.3	24.8	501.1	441
1300.0*	-	62.2	-	95.2	-	87.6	-	33.0	-	25.4	-	66.1	-	59.6	-	19.7	-	445
1500.0*	-	68.4	-	101.3	-	90.4	-	32.9	-	22.0	-	37.5	-	57.5	-	19.0	=	441

\*Values below 4 MHz and above 1200 MHz are for information only.

All performance based on 100 metres (328 ft.)



# Siemon's Z-MAX® Network Cabling Solutions

The development of the Z-MAX line began with a simple goal — design and build the best RJ-45 based cabling solution — period.

And “best” was not a vague metric. Z-MAX was built to be best across the board:

- Highest performance margins across all critical transmission parameters
- Fastest, easiest and most reliable termination process
- Superior transmission consistency
- The best customer focused usability, efficiency and ergonomic features

To meet these goals, we did what we have done for over a century — innovate.

As you explore the Z-MAX line, you'll see Siemon innovation at every turn. From our patent-pending Zero-Cross™ termination to the exclusive PCB-based smart plug technology integrated into every Z-MAX cord to our hybrid flat/angled outlets to the easy-to-use Z-TOOL™, no opportunity to improve this family was overlooked.

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# DON'T BLINK

Best-in-class Category 6A performance for UTP and shielded **in just 45 seconds.**

While average termination time including cable preparation is 60 seconds, some Siemon Certified Installers<sup>SM</sup> have set world records for Category 6A Z-MAX<sup>®</sup> terminations at less than 30 seconds.



**① 0:20 sec.**

Prepare cable and place into Z-MAX's patent-pending Zero-Cross<sup>™</sup> lacing cap. Close hinged cable retention/grounding clip.



**② 0:40 sec.**

Lace conductor pairs into colour-coded linear lacing channels and trim excess.



**③ 0:45 sec.**

Insert lacing cap into Z-MAX outlet and terminate with the one-step Z-TOOL<sup>™</sup>.



**○ Complete!**



Watch Z-MAX termination video at [www.siemon.com/uk/zmax](http://www.siemon.com/uk/zmax)

# Siemon Innovations that make it possible. . .

## Highest-Performing Category 6A Systems

	Z-MAX 6A UTP	Z-MAX 6A F/UTP
IL	3%	3%
NEXT	3.0 dB	3.0 dB
PSNEXT	3.5 dB	3.5 dB
ACR-F	7 dB	7 dB
PSACR-F	10 dB	10 dB
RL	3 dB	3 dB
PSANEXT	1 dB	10 dB
PSAACR-F	1 dB	5 dB
ACR-N	6 dB	6 dB
PSACR-N	6.5 dB	6.5 dB

Performance based on use of 24 x 2M cords and 24 port /1U density. Because we continually improve our product, Siemon reserves the right to change specifications and availability without prior notice.

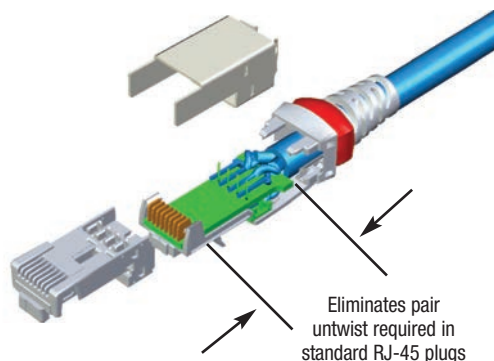
With Z-MAX®, Siemon has shattered the RJ-45 barrier. We have achieved best-in-class performance through an innovative “matched” system which combines an optimally tuned plug with a higher performance outlet.

- Best UTP and F/UTP Category 6A margins
- Leading performance on all parameters, not just NEXT
- Exceptional alien crosstalk performance
- ISO channel, link and component compliant
- TIA channel, link and component compliant
- Consistent, superior performance, eliminates marginal testing (\*PASS)



## Patent-Pending Smart Plug Technology

A critical element of Z-MAX systems' exceptional performance is our smart-plug technology. The Z-MAX smart plug contains a tuned printed circuit board (PCB), normally only found in outlets, to achieve high performance tuning. This advancement in miniaturisation has packaged the tuning capability and consistency of a PCB in an industry standard RJ-45 footprint, giving the Z-MAX patch cord unsurpassed performance capabilities.

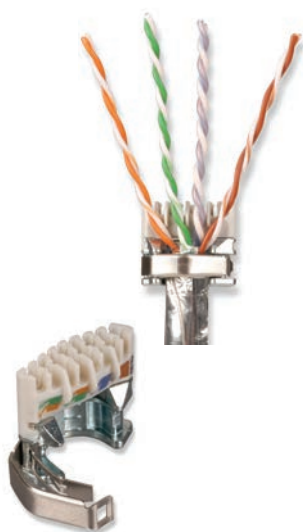


- Patent pending PCB-based plug enables performance levels not possible with traditional cords
- Narrower NEXT range provides capability to tune to higher channel performance levels
- Advanced contact technology and automated assembly results in decreased performance variability compared with crimp-type plugs
- Smart-Plug is fully backwards-compatible and standards compliant
- PCB-based contacts eliminate pair-crossing condition present in traditional cords
- Solderless, press-fit contact technology ensures long-term reliability



## Zero-Cross™ Terminations

The crossing of cable pairs has long been recognised as a source of variability and performance degradation in connector systems. The linear design of the Z-MAX® termination module allows conductors to feed naturally into position without the need for pair crossing.



The development of the Z-MAX line began with a simple goal — design and build the best RJ45 based cabling solution — period.

And “best” was not a vague metric. Z-MAX was built to be best across the board:

- Highest performance margins across all critical transmission parameters
- Fastest, easiest and most reliable termination process
- Superior transmission consistency
- The best customer focused usability, efficiency and ergonomic features

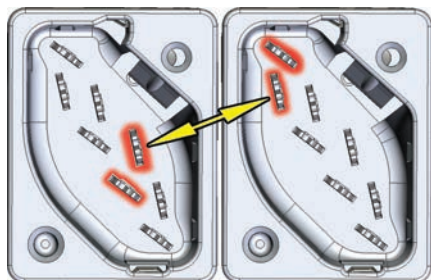
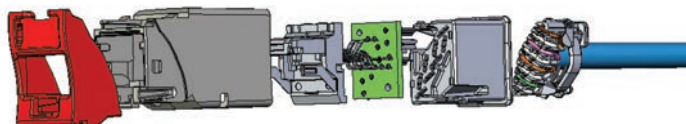
To meet these goals, we did what we have done for over a century — innovate.

As you explore the Z-MAX line, you’ll see Siemon innovation at every turn.

From our patent-pending Zero-Cross™ termination to the exclusive PCB-based smart plug technology integrated into every Z-MAX cord to our hybrid flat/angled outlets to the easy-to-use Z-TOOL™, no opportunity to improve this family was overlooked.

## Diagonal IDC Contact Orientation

Siemon engineers thought “outside of the box” when they developed our diagonally-oriented IDC contact technology. This unique configuration places contacts on a single plane yet varies the alignment of each individual contact within the Z-MAX outlet. This design provides distinct performance benefits compared with traditional rectangular contact layouts.

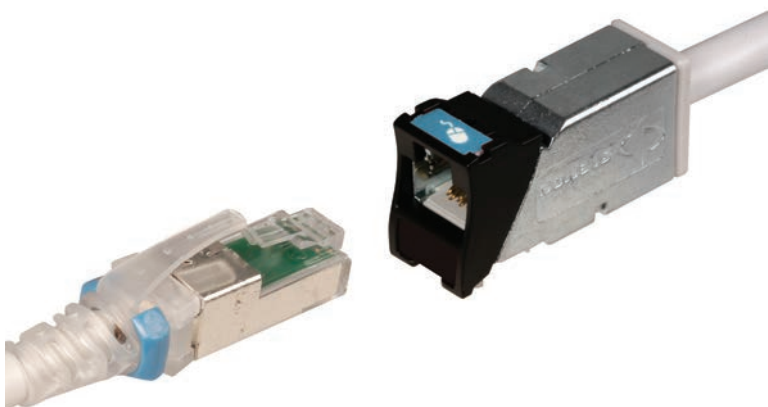


- Maximises pair-to-pair separation from adjacent outlets to minimise alien crosstalk even in the most dense Category 6A patching environments
- Enhances NEXT performance within outlets
- Limits untwist of pairs at termination to maximise cable performance
- Fully enclosed IDC's eliminates exposure of uninsulated conductors

# Z-MAX® 6A Shielded System Features and Benefits

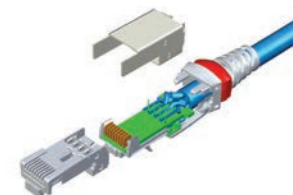
Combining consistent best-in-class performance, unparalleled usability and speed of termination with the security and robust noise immunity of a shielded cabling system, Siemon's Z-MAX 6A shielded end-to-end solution represents the cutting edge of Category 6A cabling. The Z-MAX 6A shielded system provides the highest margins on all ISO and TIA performance requirements for Category 6A/Class E<sub>A</sub>, including critical alien crosstalk parameters.

Siemon's Z-MAX 6A shielded channel consists of the shielded Z-MAX 6A outlet, Siemon Category 6A shielded cable and Z-MAX patch panels as well as stranded and solid options.



## Z-TOOL™ Termination

- Fast
- Simple
- Consistent



## PCB-based Smart Plug™

Z-MAX cords feature exclusive PCB-based smart plug specifically tuned to maximise overall system performance

## Features and Benefits

- Hybrid work area outlets mount in either flat or angled orientation
- Industry's fastest termination time accelerates project completion
- Guided, tool-based termination process enhances system quality and reliability
- Field-terminated outlets or pre-terminated trunking cables can be quickly snapped into patch panels and released to enable rapid deployment or changes
- High density 48 port, 1U options provide the flexibility to work within strict space limitations saving valuable rack and cabinet space
- Integrated Quick-Ground™ outlet shield and panel connections ensures fast and reliable grounding
- Shielded outlet and modular cord colour-coding provides the capability to code and customise your cabling system



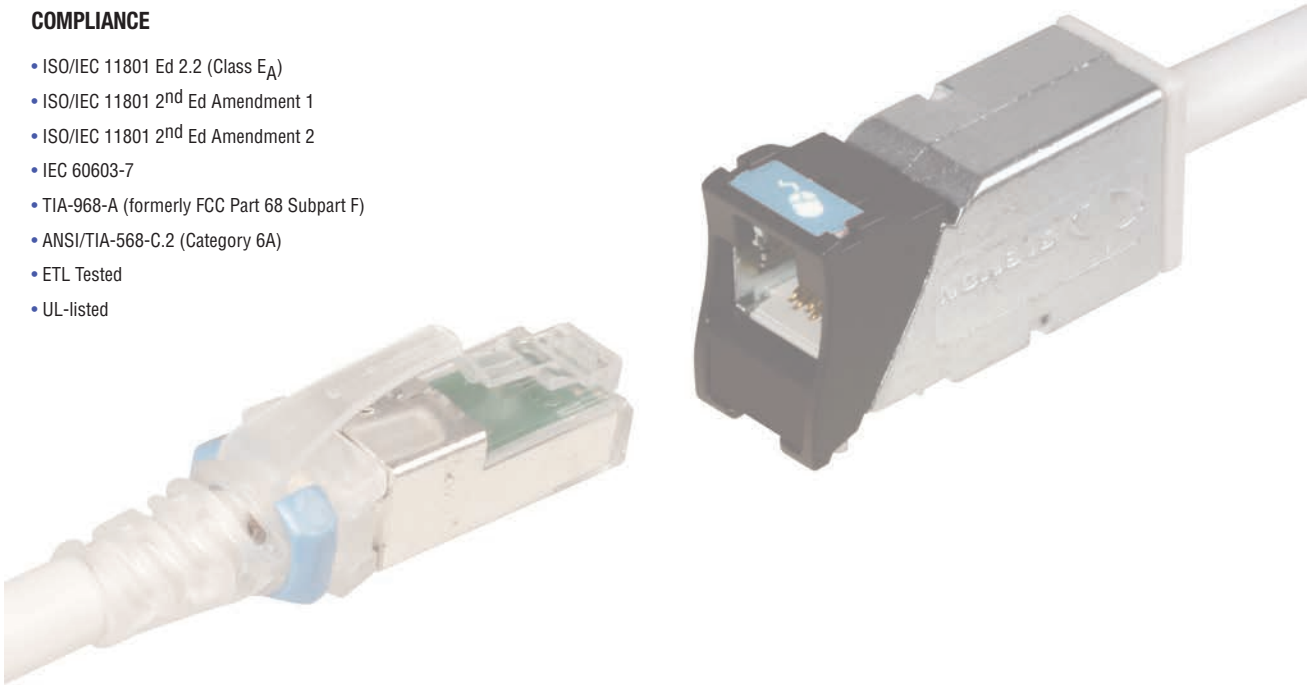
## Rapid Deployment

Modular Quick-Snap panel design speeds initial deployment and subsequent MACs

# System Performance Overview

## COMPLIANCE

- ISO/IEC 11801 Ed 2.2 (Class E<sub>A</sub>)
- ISO/IEC 11801 2<sup>nd</sup> Ed Amendment 1
- ISO/IEC 11801 2<sup>nd</sup> Ed Amendment 2
- IEC 60603-7
- TIA-968-A (formerly FCC Part 68 Subpart F)
- ANSI/TIA-568-C.2 (Category 6A)
- ETL Tested
- UL-listed



## Z-MAX 6A Shielded Channel Performance

GUARANTEED 4-CONNECTOR CHANNEL MARGINS TO ISO / IEC 11801 ED 2.2 (1 - 500 MHz)

PARAMETER	VALUE
IL	3%
NEXT	3.0 dB
PSNEXT	3.5 dB
ACR-F	7 dB
PSACR-F	10 dB
RL	3 dB
PSANEXT	10 dB
PSAACR-F	5 dB
ACR-N	6 dB
PSACR-N	6.5 dB

Performance based on use of 24 x 2M cords and 24 port /1U density.

# Z-MAX® 6A Shielded Outlets

The shielded Z-MAX outlet offers best-in-class performance in every critical specification, exceeding all Category 6A performance requirements, including alien crosstalk. Its innovative features not only speed and simplify termination, but remove installation variability for consistently high and repeatable performance — every termination, every time!

**Compact** — Slim and side-stackable for high-density applications. Supports “pass-thru” feature to mount from the front or rear of a faceplate

**High-Visibility Icon System** — Printed icons allow designation for voice / data applications and also provide an additional colour coding option

**Guided Termination Features** — Linear lacing channels guide correct conductor placement while 2-sided colour-coding provides wiring verification before and after lacing

**Fastest Termination Time** — Zero-Cross™ termination module and Z-TOOL™ termination process combine for best-in-class termination time

**Robust Hinged Cable Retention** — Clip accommodates multiple cable diameters

**Compliant** — Is compliant with UL2043 and is appropriate for use in air handling spaces

**Colour Coding Capability** — Bezel allows outlets to be colour-coded for customer identification to match faceplates and other mounting accessories

**Flexibility and Simplified Ordering**  
A single hybrid outlet supports both angled and flat mounting orientations.

**Enhanced Shielding Effectiveness**  
High level of shielded effectiveness exceeds ISO 360 degree shielding requirements via die cast housing and hinged cable retention/grounding clip.

**100% Jack-to-Jack Plastic Isolation**  
Plastic bezels prevent contact between metal housings when side stacking to ensure ground quality and ANEXT performance.

**Quick-Ground™ Termination**  
Cable shield is automatically terminated to the outlet without additional steps.

## Ordering Information:

Z6A-S(X)(XX)(X). . . . . Shielded Z-MAX 6A outlet, T568A/B		
		<b>Door Option</b>
		(Blank) = No Door
		D = Door (Hybrid only)
<b>Mounting Style</b>	<b>Bezel Colour</b>	
(Blank) = Hybrid Flat/Angled	01 = Black	06 = Blue
K = Keystone	02 = White	07 = Green
	03 = Red	09 = Orange
	04 = Grey	20 = Ivory
	05 = Yellow	80 = Light Ivory

Outlet terminates S/FTP, F/FTP and F/UTP cable constructions with 22 – 26 AWG (0.64 – 0.51mm) solid and 26 AWG (0.48mm) stranded conductors, with up to 0.60mm diameter conductors and up to 1.48mm diameter over insulation.

Add “D” to end of part number for spring door option.

Ⓢ Add “B” to end of part number for bulk project pack of 100 modules (hybrid modules include icons).

Note: Keystone version is designed for integration with various 3rd party mounting products and is not compatible with MAX® mounting hardware.



**Contact Integrity** — Featuring Siemon's patented crowned jack contact geometry that improves electrical and mechanical performance and ensures that any jack or plug contact damage due to arcing caused by unmating under PoE load occurs well away from the final mated contact position.



### Spring Door Option

Minimises exposure to dust and other contaminants.

Each Z-MAX 6A hybrid outlet includes 1 printed icon set with the following colour/print options.



Front	Rear
1 - Red Data	1 - Red Voice
1 - Blue Data	1 - Blue Voice
1 - Bezel Colour-Matching Data	1 - Bezel Colour-Matching Voice
1 - White Blank	1 - Bezel Colour-Matching Blank



# Z-MAX® 6A Shielded Modular Cords

Combining the unparalleled performance of an exclusive PCB-based plug, noise-resistant shielded construction and a host of innovative user friendly features, the shielded Z-MAX 6A modular cords are the ultimate Category 6A cord. All cords are 100% factory-tested to ensure performance and compliance.

**High Performance Cable** — Patch cords feature Category 7 S/FTP stranded cable for optimal transmission performance while eliminating alien cross-talk

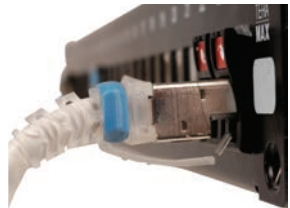
**Low Profile Boot Design** — Optimises side-stackability of patch cords and allows use in even the most dense patching environments

**Integrated PCB** — PCB equipped Smart Plug optimises signal tuning for exceptional transmission

**Fixed Front Contacts** — Ensure proper mating with outlets to eliminate the performance variability of traditional crimp-style terminations

**Superior Performance Consistency** — Rear contacts maintain cable twist to point of termination and provide robust strain relief. Solderless, press-fit contact technology ensures long-term reliability

**Cantilevered Latch** — Allows latch activation from further back on the boot for superior accessibility in high density environments



**Excellent Bend Relief**  
Boot ensures proper bend relief, critical for Category 6A performance.



**Coloured Clips**  
Removable clips allow field colour coding even when cords are connected.



**Solid Cord Option**  
Solid F/UTP assemblies are available for consolidation point and equipment cord applications.

## Ordering Information:

ZM6A-S(XX)M-(XX) . . . . . Z-MAX 6A shielded (S/FTP), double-ended, stranded modular cord, clear boot, T568A/B, CM/ LSOH

Length	Jacket Colour
01 = 1m (3.3 ft.)	01 = Black 04 = Grey 07 = Green
1.5 = 1.5m (5 ft.)	02 = White 05 = Yellow 08 = Violet
02 = 2m (6.6 ft.)	03 = Red 06 = Blue 09 = Orange
03 = 3m (9.8 ft.)	
04 = 4m (13.1 ft.)	
05 = 5m (16.5 ft.)	
7.5 = 7.5m (24.6 ft.)	

ZC6A-S(XX)M(X)-L(X) . . . . . Z-MAX 6A shielded (F/UTP) solid modular cord, violet jacket, clear boot, LSOH

Length	Plugs	Wiring
03 = 3m (10 ft.)	(Blank) = Single-Ended	A = T568B
05 = 5m (16.4 ft.)	D = Double-Ended (T568A/B)	T = T568A
10 = 10m (33 ft.)		
15 = 15m (49 ft.)		
20 = 20m (65.6 ft.)		

Cable assembly constructed with EU CPR rated cable - Dca

ⓑ Add "B" to end of part number for bulk project pack of 100 cords.

CLIP-(XX) . . . . . Colour coding clip, bag of 25

Clip Colour
01 = Black 04 = Grey 07 = Green
02 = White 05 = Yellow 08 = Violet
03 = Red 06 = Blue 09 = Orange

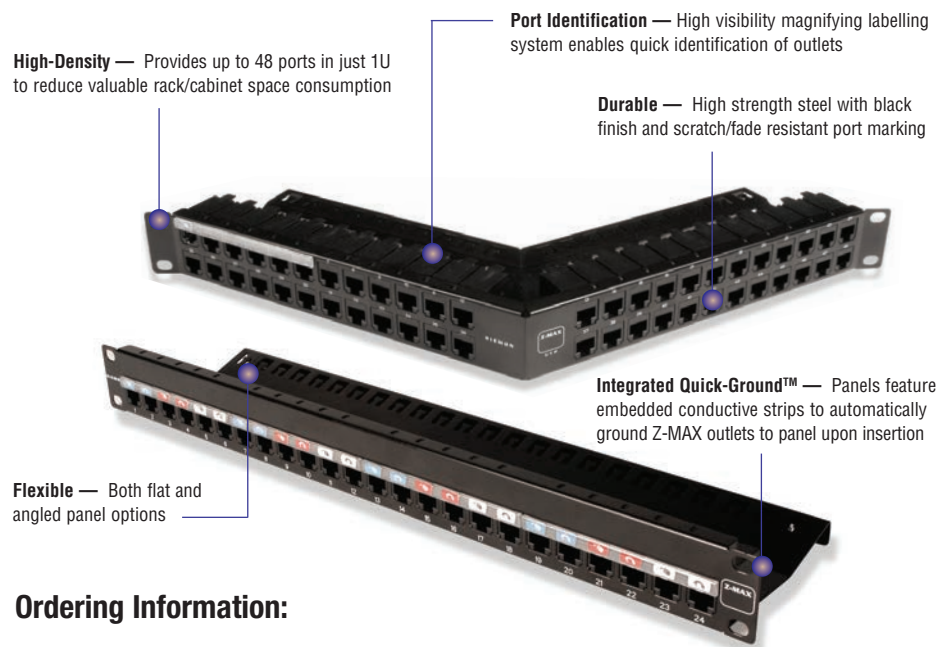


Product is compliant with UL2043 and is appropriate for use in air handling spaces

# Z-MAX® 6A Shielded Patch Panels

Z-MAX patch panels provide outstanding performance and aesthetics in a shielded, high-density modular solution. The Z-MAX panels provide rapid and reliable installation by accelerating outlet mounting, grounding, and cable tie-down operations.

In addition to traditional 24 port / 1U flat and angled versions, the Z-MAX shielded panels are also available in 48 port / 1U configurations to permit high density installations.



## Ordering Information:

### Part # Description

*Fixed Wire Manager:*

Z6AS-PNL(X)-24K.....	Z-MAX 24-port, Category 6A shielded patch panel kit, 1U, black, with outlets
Z6AS-PNL(X)-U48K.....	Z-MAX 48-port, Category 6A shielded patch panel kit, 1U, black, with outlets
ZS-PNL(X)-24E.....	Z-MAX 24-port shielded patch panel, 1U, black, empty
ZS-PNL(X)-U48E.....	Z-MAX 48-port shielded patch panel, 1U, black, empty

Use (X) to specify mounting style: (Blank) = Flat, A = Angled

*Removable Wire Manager:*

Z6AS-P(X)-24.....	Z-MAX 24-port, Category 6A shielded patch panel with removable wire manager kit, 1U, black, with outlets
Z6AS-P(X)-48.....	Z-MAX 48-port, Category 6A shielded patch panel with removable wire manager kit, 1U, black, with outlets
ZS-P(X)-24.....	Z-MAX 24-port shielded patch panel with removable wire manager, 1U, black, empty
ZS-P(X)-48.....	Z-MAX 48-port shielded patch panel with removable wire manager, 1U, black, empty

Use (X) to specify mounting style: F = Flat, A = Angled

Panels include Z-TOOL\*, label / icon holders, designation labels, cable ties, grounding lugs, and mounting hardware.

\* included in kit only

Note: 1U = 44.5mm (1.75 in.)

## Panel Accessories:

### Part # Description

Z-PNL-PL24 .....	Patch panel label sheet, numbered 1 to 24, bag of 100
Z-PNL-PL48 .....	Patch panel label sheet, numbered 25 to 48, bag of 100
Z-PNL-PS .....	Patch panel label holder, bag of 25
Z6A-SP .....	Z-MAX 6A shielded panel outlet
PNLA-CVR-01 .....	Angled panel cover, black
Z-BL-01 .....	Z-MAX panel blank, bag of 10, black



PNLA-CVR-01



Z-BL-01

Note: Z-MAX shielded patch panels designed for use with Z-MAX shielded panel outlets only



### Installation Friendly

Quick-Snap feature allows Z-MAX panel outlets to be quickly inserted and removed.



### Trunking Applications

Ideal for Trunking applications combine Z-MAX trunk assemblies (with panel outlets) and empty Z-MAX panels for rapid data centre deployment.



### Kits

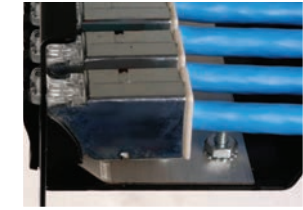
Panels available as complete kits including patch panel, Z-MAX panel outlets and all necessary accessories. Empty panels are also available for use with Z-MAX trunk assemblies.



# TERA®-MAX® Patch Panels

TERA-MAX patch panels provide outstanding performance and reliability in a shielded, high-density modular solution. As outlets are snapped into place, resilient ground tabs assure that each outlet is properly grounded for maximum protection from outside interference. No secondary outlet grounding operations are required, reducing overall installation time.

**Angled TERA-MAX** — Allows direct routing of cables to vertical managers, eliminating the need for horizontal cable managers



## Integrated Grounding

Panels feature integrated grounding via resilient Quick-Ground™ tabs automatically engaged during Z-MAX® outlet insertion.



## Single Outlet Solution

Hybrid (flat/angled) shielded Z-MAX outlets used in the work area are required for use in TERA-MAX panels creating a common outlet solution for all locations.



**High Density** — 24 ports in 1U

**Port Identification** — Bold port numbering enables quick identification of outlets

**Durable** — High strength steel with black or metallic finish

## Future Flexibility

TERA-MAX panels also accept TERA® outlets to support potential future infrastructure upgrades.

## Ordering Information:

Part #	Description
TM-PNLZ-24-01 . . . . .	24-Port flat TERA-MAX panel, 1U, black
TM-PNLZ-24 . . . . .	24-Port flat TERA-MAX panel, 1U, metallic,
TM-PNLZA-24-01 . . . . .	24-Port angled TERA-MAX panel, 1U, black,
TM-PNLZA-24 . . . . .	24-Port angled TERA-MAX panel, 1U, metallic,
PNLA-CVR-01 . . . . .	Angled panel cover, black

*Panels include designation labels, cable ties, grounding lug and mounting hardware.*



*Note: TERA-MAX panels are designed for use with hybrid (flat/angled) shielded Z-MAX outlets. Also compatible with TERA outlets*



# Z-MAX® 6A Shielded Trunking Cable Assemblies

Featuring factory terminated and tested shielded Z-MAX outlets and Siemon Category 6A shielded cable, Z-MAX 6A shielded copper trunking cable assemblies were designed with data centre applications in mind, providing high-performance Category 6A performance in a quickly implemented, efficient and cost effective alternative to individual field-terminated components.

**Category 6A F/UTP Cable** — Utilises high quality Siemon Category 6A F/UTP cable

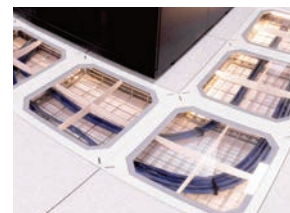
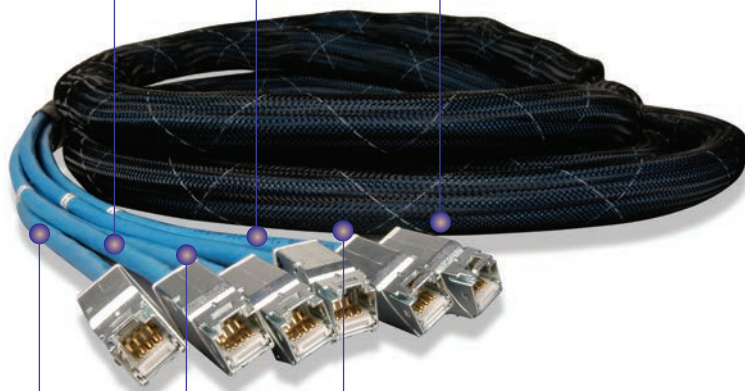
**Identification** — Each cable assembly is coded with a unique identification number for administrative purposes

**Quick-Ground™** — Shielded Z-MAX 6A outlets are automatically grounded upon insertion into Z-MAX panels

**Proper Orientation** — Each leg is labelled for proper outlet orientation

**Factory Terminated and Tested** — Utilises shielded Z-MAX outlets, factory terminated and tested for high performance

**Breakout Kit** — Unique breakout kit creates optimal cable orientation and limits cable crossing



## Data Centres

Ideal for data centres, raised floor and ladder rack environments enabling up to 75% faster deployment time.



## Simple Installation

Pre-terminated Z-MAX panel outlets utilise a Quick-Snap feature for easy installation and removal from Z-MAX panels.



## Protective Packaging

Each assembly is packaged individually to protect factory terminations.

## Ordering Information:

TELD8E-(XXX)(XXX)M. . . . . 6 Leg solid cable double-ended trunking cable assembly, LSOH, violet jacket

### Length

003-090 = Indicate length in metres

### Connector Types

**P7P7** = Z-MAX Panel Outlets (for use with Z-MAX panels)

**H1H1** = Z-MAX Hybrid Flat/Angled Outlets (for use with TERA-MAX panels)

**P7J7** = Z-MAX Panel Outlets to Z-MAX Plugs

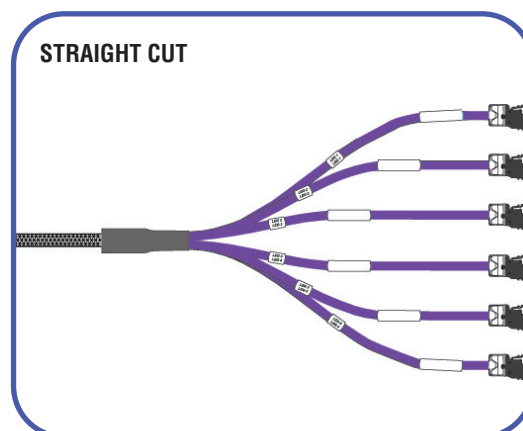
**H1J7** = Z-MAX Hybrid Flat/Angled Outlets to Z-MAX Plugs

Standard wiring is T568B. Other lengths and configurations available upon request.

Keystone versions also available.

Trunk cable assembly constructed with EU CPR rated cable - Dca

Note: These products are made to order. Call for lead time and part number availability in your region.





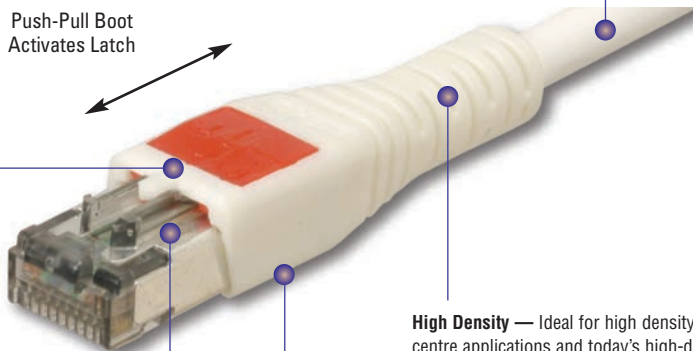
# Category 6A Shielded BladePatch® Modular Cords

Category 6A shielded BladePatch patch cord offers a unique Category 6A solution for high-density patching environments. It features an innovative push-pull boot design to control the latch, enabling easy access and removal of the cord in tight-fitting areas. The BladePatch cord is ideal for patching blade servers, patch panels, or any equipment with high density RJ-45 outlets.

**Snagless** — Push-pull latch design eliminates external thumb latch used in standard modular plug designs which can snag and break

**High Performance** — Cords feature Category 7 S/FTP stranded cable for optimal transmission performance while eliminating alien crosstalk

Push-Pull Boot  
Activates Latch



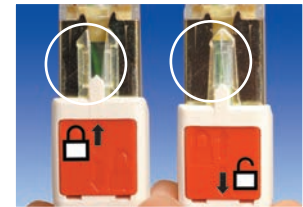
**Easy Access and Removal** — RJ-45 patch cord with patent-pending push-pull latch design enables easy access and removal in high density patching environments

**High Density** — Ideal for high density data centre applications and today's high-density blade servers

**Low Profile Boot Design** — Optimises side-stackability of patch cords and allows use in even the most dense equipment



**Universal Compatibility**  
Fits within any standard RJ-45 outlet.



**Revolutionary Latch**  
Simply push the boot forward to latch into the outlet and pull back to release.



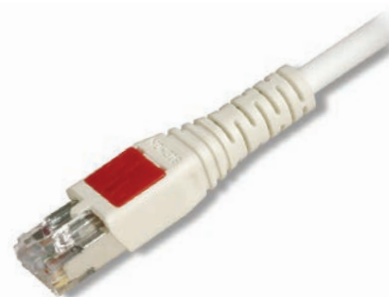
**High Density**  
The push-pull design enables easy access and removal via the push/pull boot in tight-fitting areas.

## Ordering Information:

Shielded Category 6A BladePatch LS0H, double-ended, RJ-45 modular patch cord with push-pull latching design, colour matching cord/boot, T568A/B.

10GBPS-(XX)M-(XX)L

Cord Length	Cord Colour
01 = 1m (3.3 ft.)	01 = Black
1.5 = 1.5m (5 ft.)	02 = White
02 = 2m (6.6 ft.)	03 = Red
03 = 3m (9.8 ft.)	04 = Grey
04 = 4m (13.1 ft.)	05 = Yellow
05 = 5m (16.5 ft.)	06 = Blue
	07 = Green



The use of Category 6A shielded BladePatch modular cords will provide Category 6A channel performance if used in a Z-MAX 6A system.

Z-MAX 6A warranty margins do not apply.

# Category 6A F/UTP 4-Pair Cable - International

## COMPLIANCE

- ISO/IEC 11801 Ed 2.2
- ANSI/TIA-568-C.2 (Category 6A)
- IEC 61156-5 Ed 2.0 (Category 6A)
- UL CMR and CSA FT4
- UL CM, IEC 60332-1, Class E<sub>ca</sub>
- LSOH: IEC 60332-1, IEC 60332-3-22, IEC 60754, IEC 61034, and EN 50399 Class D<sub>ca</sub>S<sub>2</sub>d<sub>2</sub>a<sub>1</sub>

## CABLE CONSTRUCTION

- F/UTP
- Nominal jacket OD: 6.8mm (0.27 in.)
- 0.57mm (0.022 in.) solid (non-tinned) copper
- Central isolation member
- Shield is an aluminium foil tape enclosing a 0.51mm (24 AWG) tinned copper drain wire

## Ordering Information:

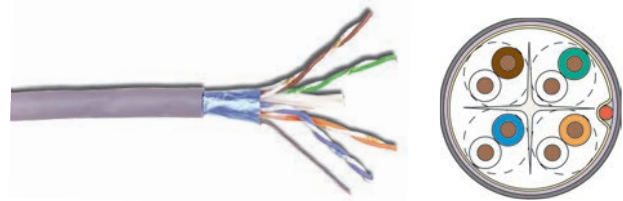
9A6(X)4-A5. .... 305m (1000 ft.) reel

### Jacket Material

**M** = PVC (CM, IEC 60332-1), Grey Jacket, Class E<sub>ca</sub>

**R** = Riser (CMR, CSA FT4), Blue Jacket

**L** = LSOH (IEC 60332-1, IEC 60332-3-22), Violet Jacket, Class E<sub>ca</sub>, D<sub>ca</sub>



## ELECTRICAL SPECIFICATIONS

DC Resistance	<8.5 Ω/100m
DC Resistance Unbalance	5%
Mutual Capacitance	5.6 nF/100m
Capacitance Unbalance	<160 pF/100m
Characteristic Impedance (ohms)	1-100 MHz: 100 ± 15% 100-750 MHz: 100 ± 22%
NVP	67%
TCL	30-10 log(f/100) dB
Delay Skey	≤45ns
PoE	Suitable for PoE & PoE +

## PHYSICAL PROPERTIES

	LSOH	CM/CMR
Pulling Tension (max)	110N (25 lbf)	110N (25 lbf)
Bend Radius (min)	50mm (2 in.)	50mm (2 in.)
Installation Temperature	0 to 60°C (+32 to 140°F)	0 to 60°C (+32 to 140°F)
Storage Temperature	-20 to 75°C (-4 to 167°F)	-20 to 75°C (-4 to 167°F)
Operating Temperature	-20 to 75°C (-4 to 167°F)	-20 to 75°C (-4 to 167°F)

## TRANSMISSION PERFORMANCE



GUARANTEED WORSE CASE



SIEMON TYPICAL

Frequency (MHz)	Insertion Loss (dB)		NEXT (dB)		PS NEXT (dB)		ACR (dB)		PSACR (dB)		ACR-F (dB)		PS ACR-F (dB)		Return Loss (dB)		Propagation Delay (ns)	
1.0*	2.1	1.8	75.3	86.0	73.3	82.3	73.2	84.2	71.2	80.5	73.3	91.0	71.3	85.0	20.0	33.0	570	570
4.0	3.8	3.4	66.3	77.0	64.3	73.3	62.5	73.6	60.5	69.9	61.3	79.0	59.3	73.0	23.0	35.5	545	545
10.0	5.9	5.4	60.3	71.0	58.3	67.3	54.4	65.6	52.4	61.9	53.3	71.0	51.3	65.0	25.0	38.0	543	543
16.0	7.5	6.9	57.2	68.0	55.2	64.2	49.8	61.1	47.8	57.3	49.2	67.0	47.2	61.0	25.0	35.2	542	542
20.0	8.4	7.7	55.8	67.0	53.8	62.8	47.4	59.3	45.4	55.1	47.3	65.0	45.3	59.0	25.0	35.0	540	540.4
31.25	10.5	9.9	52.9	64.0	50.9	59.9	42.4	54.1	40.4	50.0	43.4	61.0	41.4	55.0	23.6	33.1	539	538.6
62.5	15.0	14.3	48.4	59.0	46.4	55.4	33.4	44.7	31.4	41.1	37.4	55.0	35.4	49.0	21.5	32.2	538	537.6
100.0	19.1	18.1	45.3	56.0	43.3	52.0	26.2	37.9	24.2	33.9	33.3	51.0	31.3	45.0	20.1	31.6	537	536.5
200.0	27.6	27.3	40.8	52.0	38.8	47.8	13.2	24.7	11.2	20.5	27.3	45.0	25.3	39.0	18.0	29.8	536	536.3
250.0	31.1	31.1	39.3	50.0	37.3	46.0	8.3	18.9	6.3	14.9	25.3	43.0	23.3	37.0	17.3	28.7	536	536.1
300.0	34.3	35.0	38.1	49.0	36.1	45.0	3.9	14.0	-1.9	10.0	23.8	38.0	21.8	35.0	17.3	28.0	536	535.8
400.0	40.1	40.0	36.3	47.0	34.3	43.0	-3.8	7.0	-5.8	3.0	21.3	36.0	19.3	33.0	17.3	27.1	536	535.6
500.0	45.3	42.0	34.8	47.0	32.8	42.0	-10.4	5.0	-12.4	0.0	19.3	34.0	17.3	32.0	17.3	26.0	536	510
550.0*	-	43.0	-	46.0	-	42.0	-	3.0	-	-1.0	-	33.0	-	31.0	-	26.0	536	-
625.0*	-	44.9	-	46.0	-	41.0	-	1.1	-	-3.9	-	33.0	-	29.0	-	25.0	535	-
750.0*	-	49.0	-	45.0	-	41.0	-	-4.0	-	-8.0	-	32.0	-	27.0	-	25.0	535	-

\*Values for frequencies above industry requirements are for information only.

All performance based on 100 metres (328 ft.).

# Category 6A F/UTP Shielded OSP Cable - Global

## COMPLIANCE

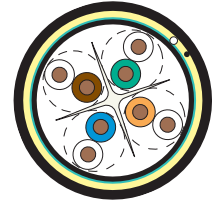
- ISO/IEC 11801 Ed 2.0 (Class E<sub>A</sub>)
- ANSI/TIA-568-C.2 (Category 6A)
- RoHS
- IEC 61156-5 (Category 6A)
- ICEA-107-2012
- REACH

## CABLE CONSTRUCTION

- F/UTP
- Water blocking construction (aramid yarn & gel)
- UV-resistant polyethylene (PE) jacket
- F/UTP shielded OSP, 4-pair

## Ordering Information:

Part #	Description
9A6O4-A5-01-R1A. ....	Category 6A outside plant direct burial cable, 4-pair, 23-AWG, F/UTP, black, 305m (1000 ft.) reel



## ELECTRICAL SPECIFICATIONS

DC Resistance	<7.32Ω/100m
DC resistance Unbalance	5%
Mutual Capacitance	5.6 nF/100m
Capacitance Unbalance	<330 pF/100m
NVP	66%
TCL	30-10log(f/100)dB
Delay Skew	≤45ns/100m

## PHYSICAL PROPERTIES

Pulling Tension (max)	110N (25 lbf)
Bend Radius (min)	76mm (3 in.)
Installation Temperature	-20 to 70°C (-4 to 158°F)
Storage Temperature	-40 to 70°C (-40 to 158°F)
Operating Temperature	-40 to 70°C (-40 to 158°F)

## TRANSMISSION PERFORMANCE

■ GUARANTEED WORSE CASE

□ SIEMON TYPICAL

Frequency (MHz)	Insertion Loss (dB/100m)		NEXT (dB)		PS NEXT (dB)		ACR (dB)		PS ACR (dB)		ACR-F (dB)		PS ACR-F (dB)		Return Loss (dB)		Propagation Delay** (ns)	
1.0	-2.1	-1.3	-75.3	-95.6	-73.3	-94.9	-73.2	-94.3	-71.2	-93.5	-73.3	-93.8	-71.3	-91.1	-20.0	-28.5	597	574
4.0	-3.8	-3.0	-66.3	-86.3	-64.3	-83.2	-62.5	-83.0	-60.5	-80.1	-61.3	-82.3	-59.3	-79.2	-23.0	-24.6	578	570
10.0	-5.9	-5.0	-60.3	-79.0	-58.3	-76.9	-54.4	-73.9	-52.4	-71.8	-53.3	-72.8	-51.3	-70.7	-25.0	-29.4	572	566
16.0	-7.5	-6.4	-57.2	-74.3	-55.2	-71.8	-49.8	-67.8	-47.8	-65.0	-49.2	-67.9	-47.2	-65.6	-25.0	-28.9	570	565
20.0	-8.4	-7.2	-55.8	-76.5	-53.8	-72.5	-47.4	-68.8	-45.4	-65.2	-47.3	-67.2	-45.3	-64.9	-25.0	-27.0	569	565
31.25	-10.5	-9.0	-52.9	-73.1	-50.9	-70.6	-42.4	-63.4	-40.4	-60.9	-43.4	-63.5	-41.4	-62.5	-23.6	-29.2	567	564
62.5	-15.0	-12.9	-48.4	-69.7	-46.4	-66.6	-33.4	-56.1	-31.4	-52.8	-37.4	-57.6	-35.4	-54.9	-21.5	-27.7	565	563
100.0	-19.1	-16.4	-45.3	-66.0	-43.3	-64.3	-26.2	-48.6	-24.2	-46.9	-33.3	-56.8	-31.3	-55.0	-20.1	-26.3	564	563
200.0	-27.6	-23.5	-40.8	-62.0	-38.8	-58.9	-13.2	-38.2	-11.2	-35.2	-27.3	-46.7	-25.3	-44.7	-18.0	-28.0	563	562
250.0	-31.1	-26.5	-39.3	-58.8	-37.3	-57.9	-8.3	-32.0	-6.3	-29.3	-25.3	-46.0	-23.3	-44.4	-17.3	-25.3	563	562
300.0	-34.3	-29.2	-38.1	-60.2	-36.1	-56.4	-3.9	-29.9	-1.9	-25.5	-23.8	-43.8	-21.8	-42.4	-17.3	-23.2	563	562
400.0	-40.1	-34.2	-36.3	-58.2	-34.3	-55.0	3.8	-20.3	5.8	-17.3	-21.3	-43.7	-19.3	-40.0	-17.3	-20.6	562	562
500.0	-45.3	-38.5	-34.8	-55.3	-32.8	-54.0	10.4	-15.7	12.4	-13.5	-19.3	-42.4	-17.3	-39.0	-17.3	-19.9	562	562
550.0*	-	-40.7	-	-56.5	-	-52.9	-	-10.3	-	-6.7	-	-39.0	-	-36.6	-	-20.5	-	562
625.0*	-	-43.9	-	-54.0	-	-51.5	-	-6.8	-	-4.4	-	-36.4	-	-35.4	-	-17.3	-	562
750.0*	-	-49.4	-	-47.0	-	-45.5	-	3.2	-	7.4	-	-33.3	-	-31.9	-	-15.3	-	562

\* Values for frequencies beyond industry requirements are for information only.

All performance based on 100 meters (328 ft.).

\*\* Maximum distance limitations are 85m (279ft) - Permanent Link and 95m (312ft) - Channel due to a degradation in propagation delay from water blocking gel.

# Category 6A F/FTP Cable - LSFROH - International

## COMPLIANCE

- ISO/IEC 11801 Ed 2.2 (Class E<sub>A</sub>)
- ANSI/TIA-568-C.2 (Category 6A)
- IEC 61156-5 Ed 2.0 (Category 6A)
- IEC 60332-3-25, IEC 60754-2, IEC 61034
- EN 50399 Class C<sub>ca</sub>S<sub>1a</sub>d<sub>2a1</sub>\*

## CABLE CONSTRUCTION

- Conductor Insulation: Foam PE
- Material: LSFROH
- Drain Wire: (Solid Tinned Copper)
- Aluminium Foil Overall Shield
- Conductor: 23 AWG (0.56mm) Solid Copper
- Aluminium Foil Pair Shield

## Ordering Information:

Part #	Description
9N6J4-A5. . . . .	LSFROH (IEC 60332-3-25), violet jacket, Class E <sub>ca</sub> , D <sub>ca</sub> , C <sub>ca</sub> *, 305m (1000 ft.) reel

\*Initial type test complete. System 1+ requirements pending



## ELECTRICAL SPECIFICATIONS

DC Resistance	73.2 Ω/Km max. @20°C
DC Resistance Unbalance	2%
Mutual Capacitance	56 nF/km (nom.) @ 1KHz
Capacitance Unbalance	<1600pF/km
Characteristic Impedance Function Fitted (ohms)	100 ± 15% @ 100 MHz
NVP	74%
TCL	40-10 log (f/dB
Coupling Attenuation	≥55 dB
Delay Skew	20ns/100m max.

## PHYSICAL PROPERTIES

	LSOH
Pulling Tension (max)	110N (25 lbf)
Bend Radius (min)	50mm (2.0 in.)
Installation Temperature	0 to 50°C (32 to 122°F)
Operating Temperature	-20 to 75°C (-4 to 167°F)

## TRANSMISSION PERFORMANCE

WORSE CASE

SIEMON TYPICAL

Frequency (MHz)	Insertion Loss (dB)		NEXT (dB)		PSNEXT (dB)		ACR (dB)		PSACR (dB)		ACR-F (dB)		PSACR-F (dB)		Return Loss (dB)		Propagation Delay (ns)	
1	2.1	1.8	75.3	93.5	73.3	92.7	73.2	93.1	71.2	90.9	73.3	97.1	71.3	93.7	20.0	23.9	570.0	448
4	3.8	3.6	66.3	98.3	64.3	95.9	62.5	94.7	60.5	92.4	61.3	96.4	59.3	93.9	23.0	27.3	552.0	442
10	5.9	5.5	60.3	87.5	58.3	87.2	54.4	82.0	52.4	81.6	53.3	86.4	51.3	85.7	25.0	32.7	545.4	439
16	7.5	7.1	57.2	83.4	55.2	82.9	49.8	76.3	47.8	75.8	49.2	81.2	47.2	81.1	25.0	31.2	543.0	438
20	8.4	8.0	55.8	77.4	53.8	76.7	47.4	69.4	45.4	68.7	47.3	75.0	45.3	74.4	25.0	32.4	542.0	437
31.25	10.5	10.1	52.9	81.1	50.9	80.4	42.4	71.0	40.4	70.3	43.4	73.5	41.4	73.1	23.6	30.0	540.4	436
62.5	15.0	14.3	48.4	87.1	46.4	84.1	33.4	72.7	31.4	69.8	37.4	74.2	35.4	73.1	21.5	31.8	538.6	435
100	19.1	18.2	45.3	80.6	43.3	79.4	26.2	62.3	24.2	61.1	33.3	68.3	31.3	66.8	20.1	31.3	537.6	435
200	27.6	25.8	40.8	74.4	38.8	71.2	13.2	48.5	11.2	45.4	27.3	63.9	25.3	62.4	18.0	31.3	536.5	434
250	31.1	28.9	39.3	74.4	37.3	7.8	8.3	45.9	6.3	42.7	25.3	61.0	23.3	59.5	17.3	29.5	536.3	434
300	34.3	31.9	38.1	72.5	36.1	69.8	3.9	41.9	1.9	37.8	23.8	62.0	21.8	60.3	17.3	26.2	536.1	434
400	40.1	37.2	36.3	68.9	34.3	65.7	-3.8	31.7	-5.8	28.4	21.3	54.6	19.3	52.3	17.3	26.2	535.8	434
500	45.3	41.6	34.8	65.9	32.8	64.0	-10.4	23.9	-12.4	22.1	19.3	55.9	17.3	53.8	17.3	28.0	535.6	434
550*		44.0	-	58.2	-	54.9	-	14.0	-	10.4	-	41.5	-	40.4	-	20.3	-	434
625*	-	46.2	-	57.6	-	56.5	-	11.2	-	9.3	-	41.5	-	39.8	-	22.6	-	434
750*	-	51.9	-	58.6	-	56.0	-	6.6	-	4.2	-	42.6	-	40.4	-	19.2	-	434

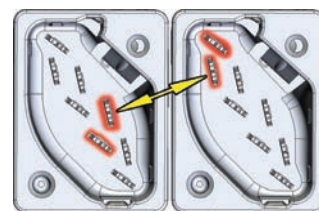
\*Values for frequencies beyond 500 mHz are for information only.

All performance based on 100 metres (328 ft.).

# Z-MAX® 6A UTP System Features and Benefits

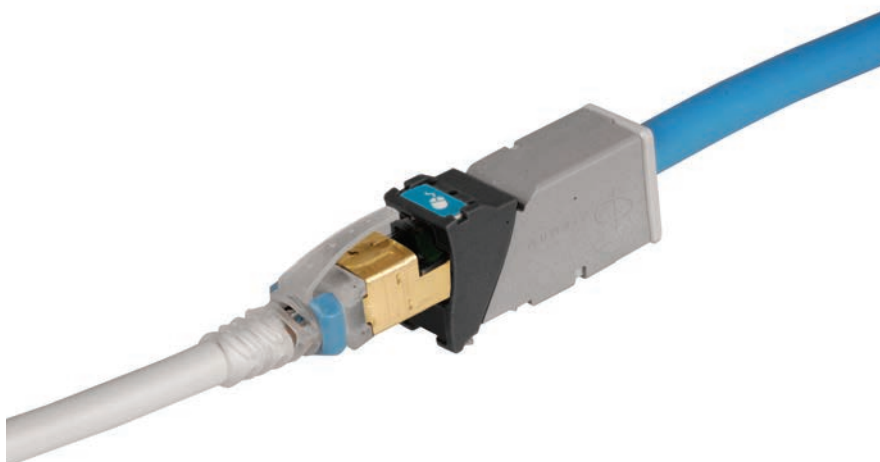
Siemon's Z-MAX 6A UTP solution was developed from the ground up with a single goal: shattering the limitations of Category 6A UTP cabling as we know it today. Combining patented PCB-based Smart Plugs, optimised outlets and high-density patch panels, the Z-MAX 6A UTP system provides outstanding margin on all ISO and TIA performance requirements for Category 6A/Class E<sub>A</sub>, including critical alien crosstalk parameters.

And, the innovative Z-TOOL™ termination process eliminates the variability of field terminations, providing faster, more user-friendly and less-error-prone Category 6A UTP installations.



## Optimised For Alien Crosstalk Elimination

Diagonal IDC alignment maximises outlet to outlet pair separation to achieve AXT performance in high-density environments



## PCB-Based Smart Plug

Exclusive PCB-based Smart Plug is specifically tuned to maximise overall system performance

## Features and Benefits

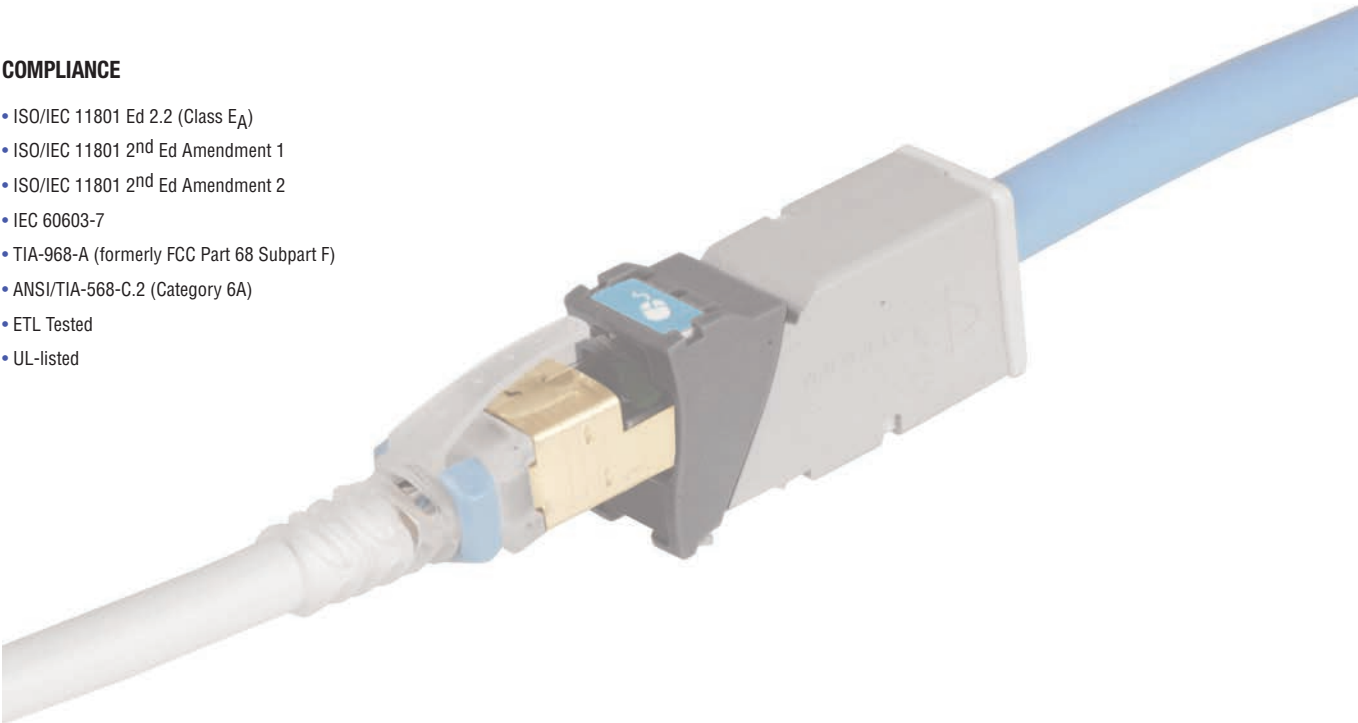
- High density 48 port, 1U panels provide the flexibility to maximise rack/cabinet space while maintaining excellent alien crosstalk isolation
- Industry's fastest termination time accelerates project completion
- Guided, tool-based termination process enhances system quality and reliability
- Hybrid work area outlets can be mounted in either flat or angled orientation
- Field-terminated outlets or pre-terminated trunking cables can be quickly snapped into patch panels and released enabling rapid deployment or changes
- Outlet and modular cord colour-coding provides the capability to code and customise your cabling system



# System Performance Overview

## COMPLIANCE

- ISO/IEC 11801 Ed 2.2 (Class E<sub>A</sub>)
- ISO/IEC 11801 2<sup>nd</sup> Ed Amendment 1
- ISO/IEC 11801 2<sup>nd</sup> Ed Amendment 2
- IEC 60603-7
- TIA-968-A (formerly FCC Part 68 Subpart F)
- ANSI/TIA-568-C.2 (Category 6A)
- ETL Tested
- UL-listed



## Z-MAX 6A UTP Channel Performance

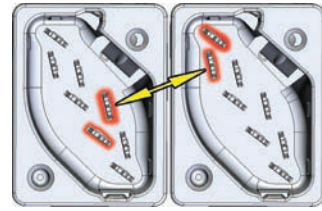
GUARANTEED 4-CONNECTOR CHANNEL MARGINS TO ISO / IEC 11801 ED 2.2 (1 - 500 MHz)

PARAMETER	VALUE
IL	3%
NEXT	3.0 dB
PSNEXT	3.5 dB
ACR-F	7 dB
PSACR-F	10 dB
RL	3 dB
PSANEXT	1 dB
PSAACR-F	1 dB
ACR-N	6 dB
PSACR-N	6.5 dB

Performance is based on the use of 24 x 2M cords and 24 port/1U density.

# Z-MAX® 6A UTP Outlets

The Category 6A UTP Z-MAX outlet offers best-in-class performance in every critical specification, exceeding all Category 6A performance requirements, including alien crosstalk. Its innovative features not only accelerate and simplify termination, but remove installation variability for consistently high and repeatable performance — every termination, every time!



## Optimised For Alien Crosstalk Isolation

Diagonal IDC alignment maximises outlet to outlet pair separation to achieve AXT performance in high-density environments.

**Compact** — Slim and side-stackable for high-density applications. Supports “pass-thru” feature to mount from the front or rear of a faceplate



**Guided Termination Features** — Lacing channels guide correct conductor placement while 2-sided colour-coding provides wiring verification before and after lacing



**Enclosed IDC Terminations** — IDC terminations are fully enclosed in the outlet housing for robust protection

**High-Visibility Icon System** — Printed icons allow designation for voice / data applications and also provide an additional colour coding option

**Robust Hinged Cable Retention** — Hinged clip accommodates multiple cable diameters



**Fastest Termination Time** — Zero-Cross™ termination module and 2-step Z-TOOL™ termination process combine for best-in-class termination time

**Compliant** — Is compliant with UL2043 and is appropriate for use in air handling spaces



## Flexibility and Simplified Ordering

A single hybrid outlet supports both angled and flat mounting orientations.



## Spring Door Option

Minimises exposure to dust and other contaminants.

## Ordering Information:

Z6A-(X)(XX)(X) . . . . . UTP Z-MAX 6A outlet, T568A/B

Mounting Style	Bezel Colour	Door Option
(Blank) = Hybrid Flat/Angled	01 = Black	(Blank) = No Door
K = Keystone	02 = White	D = Door (Hybrid only)
	03 = Red	
	04 = Grey	
	05 = Yellow	
	06 = Blue	
	07 = Green	
	09 = Orange	
	20 = Ivory	
	80 = Light Ivory	

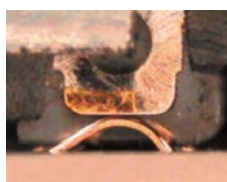
Outlet terminates UTP cable constructions with 23 – 26 AWG (0.64 – 0.51mm) solid and 26 AWG (0.48mm) stranded conductors, with up to 0.60mm diameter conductors and up to 1.48mm diameter over insulation.

ⓑ Add “B” to end of part number for bulk project pack of 100 modules (hybrid modules include Icons).

Note: Keystone version is designed for integration with various 3rd party mounting products and is not compatible with MAX® mounting hardware.



Z-MAX 6A UTP outlets utilise 10G MAX faceplates and cannot be side-stacked in standard MAX faceplates.



**Contact Integrity** — Featuring Siemon’s patented crowned jack contact geometry that improves electrical and mechanical performance and ensures that any jack or plug contact damage due to arcing caused by unmating under PoE load occurs well away from the final mated contact position.

Each Z-MAX 6A UTP hybrid flat/angled outlet includes 1 printed icon set with the following colour/print options.



Front

Rear

- |                                |                                 |
|--------------------------------|---------------------------------|
| 1 - Red Data                   | 1 - Red Voice                   |
| 1 - Blue Data                  | 1 - Blue Voice                  |
| 1 - Bezel Colour-Matching Data | 1 - Bezel Colour-Matching Voice |
| 1 - White Blank                | 1 - Bezel Colour-Matching Blank |

# Z-MAX® 6A UTP Modular Cords

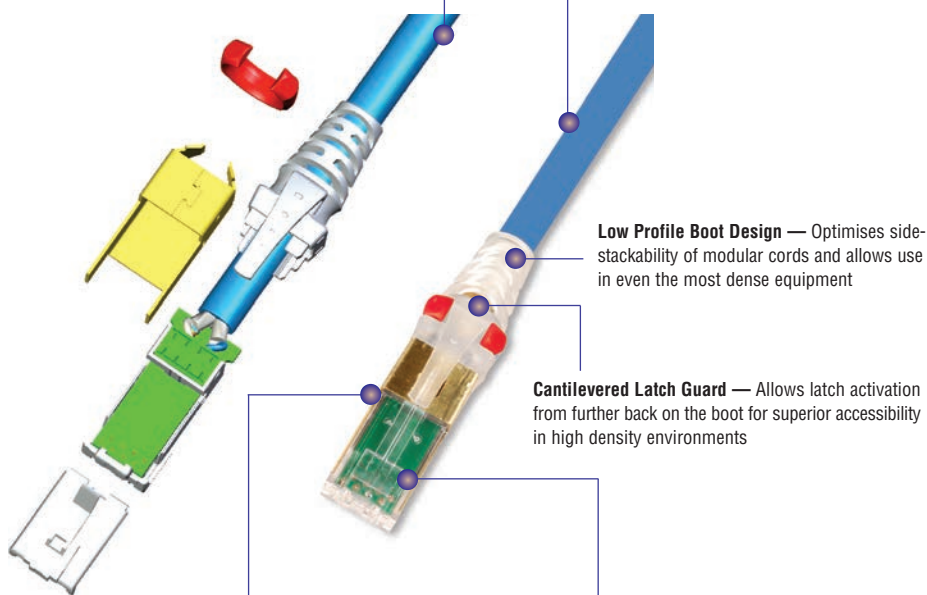
Combining the unparalleled performance of an exclusive PCB-based smart plug, alien crosstalk resistant construction and a host of innovative end-user features, Z-MAX 6A UTP modular cord sets the bar for Category 6A UTP patching.

**High Performance Cable** — Z-MAX 6A UTP cords feature dual jacket construction for excellent alien crosstalk performance

**Solid Cord Option** — Solid UTP cords are available for consolidation point and equipment cord applications

## Coloured Clips

Removable clips allow field colour coding even when cords are connected.



**Superior Performance Consistency** — Precision PCB-based conductor terminations eliminate the performance variability of traditional crimp-style terminations. Rear contacts maintain cable twist to point of termination and provide robust strain relief

## Excellent Bend Relief

Boot ensures proper bend relief, critical for Category 6A performance.



## Solid Cord Option

Solid UTP assemblies are available for consolidation point and equipment cord applications.

## Ordering Information:

ZM6A-(XX)M-(XX) . . . . . Z-MAX 6A UTP, double-ended, stranded modular cord, clear boot, T568A/B, CMG	
Length	Jacket Colour
01 = 1m (3.3 ft.)	01 = Black 05 = Yellow
1.5 = 1.5m (5 ft.)	02 = White 06 = Blue
02 = 2m (6.6 ft.)	03 = Red 07 = Green
03 = 3m (9.8 ft.)	04 = Grey 09 = Orange
04 = 4m (13.1 ft.)	
05 = 5m (16.5 ft.)	
7.5 = 7.5m (24.6 ft.)	

ZC6A-(XX)M(X)-L(X) . . . . . Z-MAX 6A UTP, solid modular cord, violet jacket, clear boot, LSOH	
Length	Plugs
03 = 3m (10 ft.)	(Blank) = Single-Ended
05 = 5m (16.4 ft.)	D = Double-Ended (T568A/B)
10 = 10m (33 ft.)	
15 = 15m (49 ft.)	
20 = 20m (65.6 ft.)	
	Wiring
	A = T568B
	T = T568A

Cable assembly constructed with EU CPR rated cable - Eca

Ⓢ Add "B" to end of part number for bulk project pack of 100 cords.

CLIP-(XX) . . . . . Colour coding clip, bag of 25

Clip Colour		
01 = Black	04 = Grey	07 = Green
02 = White	05 = Yellow	08 = Violet
03 = Red	06 = Blue	09 = Orange



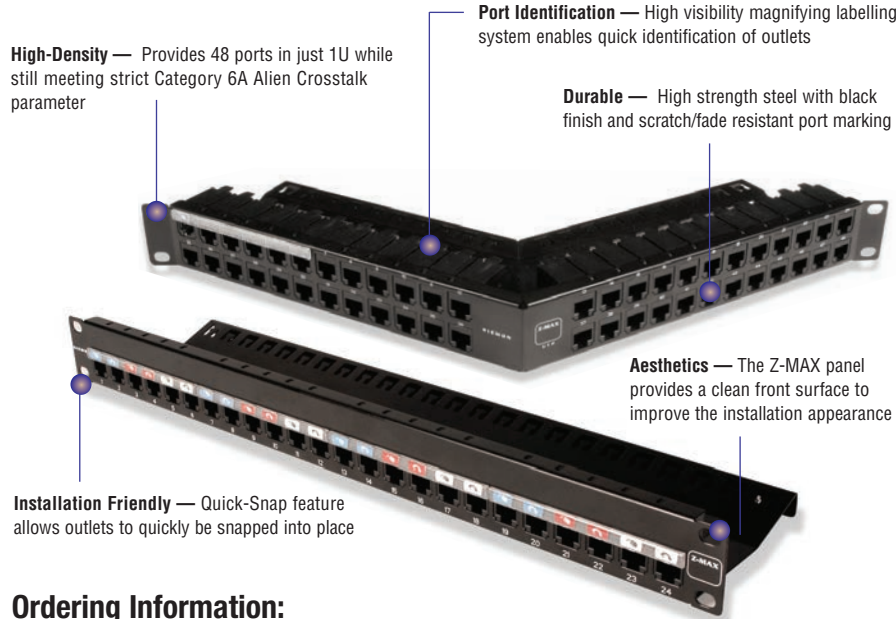
Product is compliant with UL2043 and is appropriate for use in air handling spaces



# Z-MAX® 6A UTP Patch Panels

Z-MAX patch panels provide outstanding 10 Gb/s performance and aesthetics in a high-density, modular UTP solution. The Z-MAX UTP panels provide rapid and reliable installation by accelerating module mounting, and cable tie-down operations.

In addition to traditional 24 port / 1U flat and angled versions, the Z-MAX UTP panels are also available in 48 port / 1U configurations to permit high density installations.



## Ordering Information:

Part #	Description
<i>Fixed Wire Manager</i>	
Z6A-PNL(X)-24K.....	Z-MAX 24-port, Category 6A UTP patch panel, kit, 1U, black, with outlets
Z6A-PNL(X)-U48K.....	Z-MAX 48-port, Category 6A UTP patch panel kit, 1U, black, with outlets
Z-PNL(X)-24E.....	Z-MAX 24-port UTP patch panel, 1U, black, empty
Z-PNL(X)-U48E.....	Z-MAX 48-port UTP patch panel, 1U, black, empty
<i>Use (X) to specify mounting style: (Blank) = Flat, A = Angled</i>	
<i>Removable Wire Manager</i>	
Z6A-P(X)-24.....	Z-MAX 24-port, Category 6A UTP patch panel with removable wire manager kit, 1U, black with outlets
Z6A-P(X)-48.....	Z-MAX 48-port, Category 6A UTP Patch Panel with removable wire manager kit, 1U, black with outlets
Z-P(X)-24.....	Z-MAX 24-port, UTP patch panel with removable wire manager, 1U, black, empty
Z-P(X)-48.....	Z-MAX 48-port, UTP patch panel with removable wire manager, 1U, black, empty

*Use (X) to specify mounting style: F = Flat, A = Angled*

*Panels include Z-TOOL \*, label / icon holders, designation labels, cable ties, grounding lugs, and mounting hardware.  
\* included in kit only*

*Note: 1U = 44.5mm (1.75 in.)*

## Panel Accessories:

Part #	Description
Z-PNL-PL24 . . . . .	Patch panel label sheet, numbered 1 to 24, bag of 100
Z-PNL-PL48 . . . . .	Patch panel label sheet, numbered 25 to 48, bag of 100
Z-PNL-PS . . . . .	Patch panel label holder, bag of 25
Z6A-P . . . . .	Z-MAX 6A UTP panel outlet
PNLA-CVR-01 . . . . .	Angled panel cover, black
Z-BL-01 . . . . .	Z-MAX panel blank, bag of 10, black



Z-BL-01



*Note: Z-MAX UTP patch panels are designed for use with Z-MAX UTP panel outlets only*



### Kits

Panels available as complete kits including patch panel, Z-MAX panel outlets and all necessary accessories. Empty panels are also available for use with Z-MAX trunk assemblies.



### Ideal for Trunking Applications

Combine Z-MAX trunk assemblies (with preterminated panel outlets) and empty Z-MAX panels for rapid data centre deployment.



### Integrated Cable Management

Ensures proper cable management practices for all installations, critical to Category 6A performance.





# Z-MAX® 6A UTP Trunking Cable Assemblies

Siemon's Z-MAX 6A UTP trunking cable assemblies provide an easily installed and cost effective alternative to individual field-terminated channels. Combining factory terminated and tested Z-MAX outlets with Siemon's Category 6A UTP cable in a high-performance modular cable assembly, Z-MAX 6A UTP trunking cable assemblies are designed to simplify the installation of Category 6A systems in data centres and other high-density high-performance environments.

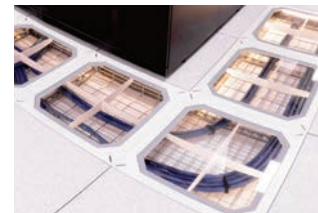
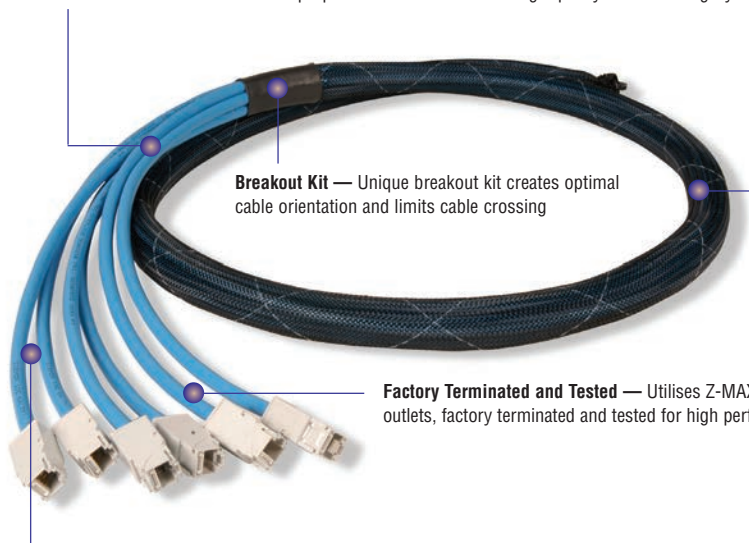
**Identification** — Each cable assembly is coded with a unique identification number for administrative purposes

**Siemon Category 6A UTP Cable** — Utilises high quality Siemon Category 6A UTP cable

**Breakout Kit** — Unique breakout kit creates optimal cable orientation and limits cable crossing

**Factory Terminated and Tested** — Utilises Z-MAX 6A UTP outlets, factory terminated and tested for high performance

**Proper Orientation** — Each leg is cut and labelled for proper module orientation



## Data Centres

Ideal for Data Centres, raised floor and ladder rack environments enabling up to 75% faster deployment time.



## Simple Installation

Pre-terminated Z-MAX panel outlets utilise a Quick-Snap feature for easy installation and removal from Z-MAX panels.



## Protective Packaging

Each assembly is packaged individually to protect factory terminations.

## Ordering Information:

TDLD8E-(XXX)(XXX)M. . . . . 6 Leg solid cable double-ended trunking cable assembly, LSOH, violet jacket

**Length**

001-090 = Indicate length in metres

### Connector Types

**POPO** = Z-MAX Panel Outlets (for use with Z-MAX panels)

**H1H1** = Z-MAX Hybrid Flat/Angled Outlets (for use with TERA-MAX panels)

**POJO** = Z-MAX Panel Outlets to Z-MAX Plugs

**H1JO** = Z-MAX Hybrid Flat/Angled Outlets to Z-MAX Plugs

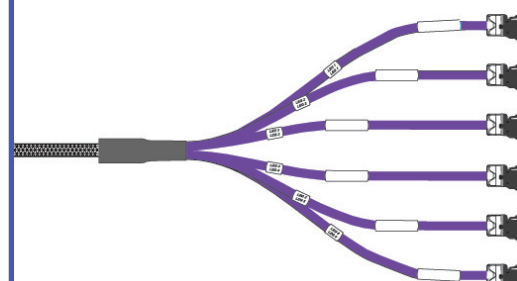
Trunk cable assembly constructed with EU CPR rated cable - Eca

Standard wiring is T568B. Other lengths and configurations available upon request.

Keystone versions also available.

*Note: These products are made to order. Call for lead time and part number availability in your region.*

## STRAIGHT CUT





# Category 6A UTP BladePatch® Modular Cords

Siemon's Category 6A UTP BladePatch patch cord offers a unique Category 6A solution for high-density patching environments. It features an innovative push-pull boot design to control the latch, enabling easy access and removal of the cord in tight-fitting areas.

The BladePatch cord is ideal for patching blade servers, patch panels, or any equipment with high density RJ-45 outlets.

**Snagless** — Push-pull latch design eliminates external thumb latch used in standard modular plug designs which can snag and break

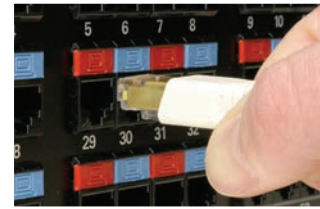
**High Performance** — Cords feature dual jacket construction for excellent alien crosstalk performance

Push-Pull Boot  
Activates Latch

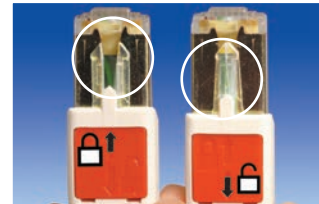
**Easy Access and Removal** — RJ-45 patch cord with patent-pending push-pull latch design enables easy access and removal in high density patching environments

**High Density** — Ideal for high density data centre applications and today's high-density blade servers

**Low Profile Boot Design** — Optimises side-stackability of patch cords and allows use in even the most dense equipment



**Universal Compatibility**  
Fits within any standard RJ-45 outlet.



**Revolutionary Latch**  
Simply push the boot forward to latch into the outlet and pull back to release.



**High Density**  
The push-pull design enables easy access and removal via the boot in tight-fitting areas.

## Ordering Information:

Category 6A BladePatch double ended, 4-pair UTP stranded modular cord with push-pull latching design, colour matching cord/boot, T568A/B, CMG

BP6A-(XX)M-(XX)			
Cord Length		Cord Colour	
01 = 1m (3.3 ft.)	01 = Black	04 = Grey	07 = Green
1.5 = 1.5m (5 ft.)	02 = White	05 = Yellow	08 = Violet
02 = 2m (6.6 ft.)	03 = Red	06 = Blue	09 = Orange
03 = 3m (9.8 ft.)			
04 = 4m (13.1 ft.)			
05 = 5m (16.5 ft.)			

The use of Category 6A UTP BladePatch modular cords will provide Category 6A channel performance if used in a Z-MAX 6A system.

Z-MAX 6A warranty margins do not apply.



# Category 6A UTP 4-Pair Cable - International

## COMPLIANCE

- ISO/IEC 11801 Ed. 2.2 (Class E<sub>A</sub>)
- ISO/IEC 61156-5 (Category 6A)
- TIA-568-C.2 (Category 6A)
- LSOH: ISO/IEC 60332, IEC 60754, IEC 61034
- EN50399 Class E<sub>ca</sub>

## CABLE CONSTRUCTION

- UTP
- Nominal jacket OD: 8.5mm (0.33 in.)
- 0.58mm (0.02 in.) solid (non-tinned) copper
- Centre Isolation Member

## Ordering Information:

Part #	Description
9C6L4-A5. . . . .	LSOH (IEC 60332-1), violet jacket, Class E <sub>ca</sub> , 305m (1000 ft.) reel



## ELECTRICAL SPECIFICATIONS

DC Resistance	<8.5 Ω/100m
DC Resistance Unbalance	2%
Mutual Capacitance	5.6 nF/100m
Capacitance Unbalance	<160 pF/100m
Characteristic Impedance (ohms)	1 - 250 MHz: 100 ± 15% 100 - 750 MHz: 100 ± 22%
NVP	67%
TCL	30-10 log (f/100)dB
PSANEXT	62.5-15log(f/100)dB
PSAACR-F	38.2-20log(f/100)dB
Delay Skew	≤ 45ns

## PHYSICAL PROPERTIES

	LSOH
Pulling Tension (max)	110N (25 lbf)
Bend Radius (min)	45.7mm (1.8 in.)
Installation Temperature	0 to 60°C (+32 to 140°F)
Storage Temperature	-20 to 75°C (-4 to 167°F)
Operating Temperature	-20 to 60°C (-4 to 140°F)

## TRANSMISSION PERFORMANCE

GUARANTEED WORST CASE
  SIEMON TYPICAL

Frequency (MHz)	Insertion Loss (dB)		NEXT (dB)		PS NEXT (dB)		ACR (dB)		PSACR (dB)		ACR-F (dB)		PS ACR-F (dB)		Return Loss (dB)		Propagation Delay (ns)	
1.0	2.1	1.8	75.3	96.0	72.3	92.0	73.2	94.2	70.2	90.2	68.0	92.0	65.0	85.0	20.0	29.0	570	540
4.0	3.8	3.5	66.3	89.0	63.3	83.0	62.5	85.7	59.5	79.7	56.0	80.0	53.0	73.0	23.0	32.0	552	522
10.0	5.9	5.5	60.3	83.0	57.3	77.0	54.4	77.8	51.4	71.8	48.0	72.0	45.0	65.0	25.0	36.0	545	515
16.0	7.5	6.7	57.2	80.0	54.2	74.0	49.8	73.3	46.8	67.3	43.9	68.0	40.9	61.0	25.0	36.0	543	513
20.0	8.4	7.5	55.8	79.0	52.8	73.0	47.4	71.5	44.4	65.5	42.0	68.0	39.0	59.0	25.0	36.0	542	512
31.25	10.5	9.4	52.9	76.0	49.9	70.0	42.4	66.6	39.4	60.6	38.1	62.0	35.1	55.0	23.6	34.0	540	510
62.5	15.0	13.7	48.4	71.0	45.4	65.0	33.4	57.3	30.4	51.3	32.1	56.0	29.1	49.0	21.5	34.0	539	509
100.0	19.1	17.8	45.3	68.0	42.3	62.0	26.2	50.2	23.2	44.2	28.0	52.0	25.0	45.0	20.1	33.0	538	507
200.0	27.6	25.8	40.8	64.0	37.8	58.0	13.2	38.2	10.2	32.2	22.0	46.0	19.0	39.0	18.0	31.0	537	506
250.0	31.1	29.2	39.3	62.0	36.3	56.0	8.3	32.8	5.3	26.8	20.0	44.0	17.0	37.0	17.3	31.0	536	506
300.0	34.3	31.5	38.1	61.0	35.1	55.0	3.9	29.5	0.9	23.5	18.5	42.0	15.5	35.0	17.3	29.0	536	505
400.0	37.2	33.8	37.1	60.0	34.1	54.0	-0.1	26.2	-3.1	20.2	17.1	41.0	14.1	34.0	17.3	28.0	535	505
500.0	40.1	37.9	36.38	59.0	33.3	53.0	-3.8	21.1	-6.8	15.1	16.0	40.0	13.0	33.0	17.3	27.0	535	505
550.0*	45.3	42.1	34.8	57.0	31.8	51.0	-10.4	14.9	-13.4	8.9	14.0	39.0	11.0	32.0	-	26.0	535	505
625.0*	-	44.9	-	53.0	-	50.0	-	8.1	-	5.1	-	36.0	-	29.0	-	25.0	-	505
750.0*	-	49.0	-	51.0	-	49.0	-	2.0	-	0.0	-	35.0	-	27.0	-	25.0	-	504

\*Values for frequencies above industry requirements are for information only.

All performance based on 100 metres (328 ft.).



# Category 6 UTP

Siemon offers multiple systems levels of system performance based on our high-performance Category 6 connectivity.

- Pair Siemon System 6® UTP cable with Siemon connectivity Category 6 for an end-to-end System 6 UTP cabling solution. System 6 exhibits exceptional margin on all parameters beyond Category 6 — exceeding connecting hardware and channel performance specifications set forth for Category 6/Class E by the ISO/IEC and TIA
- When deployed with Solution 6™ UTP cable, Siemon Category 6 connectivity delivers a very cost-effective, standards-compliant system designed for installations where the additional performance headroom of System 6 is not required

## Section Contents

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# Z-MAX® 6 UTP Outlets

The Category 6 UTP Z-MAX outlet offers best-in-class performance exceeding all Category 6 performance requirements. Its innovative features not only accelerate and simplify termination, but remove installation variability for consistently high and repeatable performance - every termination, every time! This consistency eliminates troubleshooting time due to marginal passes during field testing.

**Compliant** — Is compliant with UL2043 and is appropriate for use in air handling spaces

**Compact** — Slim and side-stackable for high-density applications. Supports “pass-thru” feature to mount from the front or rear of a faceplate

**Guided Termination Features** — Lacing channels guide correct conductor placement while 2-sided colour-coding provides wiring verification before and after lacing



**Enclosed IDC Terminations** — IDC terminations are fully enclosed in the outlet housing for robust protection

**Robust Hinged Cable Retention** — Hinged clip accommodates multiple cable diameters

**High-Visibility Icon System** — Printed icons allow designation for voice / data applications and also provide an additional colour coding option

**Fastest Termination Time** — Zero-Cross™ termination module and 2-step Z-TOOL™ termination process combine for best-in-class termination time



**Flexibility and Simplified Ordering**  
A single hybrid outlet supports both angled and flat mounting orientations.

## Ordering Information:

Z6-(X)(XX)(X) . . . . . UTP Z-MAX 6 outlet, T568A/B

Mounting Style	Bezel Colour	Door Option
(Blank) = Hybrid Flat/Angled	01 = Black 06 = Blue	(Blank) = No Door
K = Keystone	02 = White 07 = Green	D = Door (Hybrid only)
	03 = Red 09 = Orange	
	04 = Grey 20 = Ivory	
	05 = Yellow 80 = Light Ivory	

Outlet terminates UTP cable constructions with 23 – 26 AWG (0.64 – 0.51mm) solid and 26 AWG (0.48mm) stranded conductors, with up to 0.60mm diameter conductors and up to 1.48mm diameter over insulation.

Add “D” to end of part number for spring door option. (Hybrid only)

ⓑ Add “B” to end of part number for bulk project pack of 100 modules (hybrid modules include icons).

Note: Z-MAX outlets utilise the Z-TOOL termination tool. Included with each standard pack of Z-MAX outlets.

Note: Keystone version is designed for integration with various 3rd party mounting products and is not compatible with MAX® mounting hardware.



**Contact Integrity** — Featuring Siemon's patented crowned jack contact geometry that improves electrical and mechanical performance and ensures that any jack or plug contact damage due to arcing caused by unmating under PoE load occurs well away from the final mated contact position.

**Spring Door Option**  
Minimises exposure to dust and other contaminants.



Hybrid



Door Option



Keystone

Each Z-MAX 6 UTP hybrid flat/angled outlet includes 1 printed icon set with the following colour/print options. Additional colour options available.



Front

Rear

1 - Red Data  
1 - Blue Data  
1 - Bezel Colour-Matching Data  
1 - White Blank

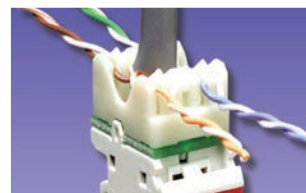
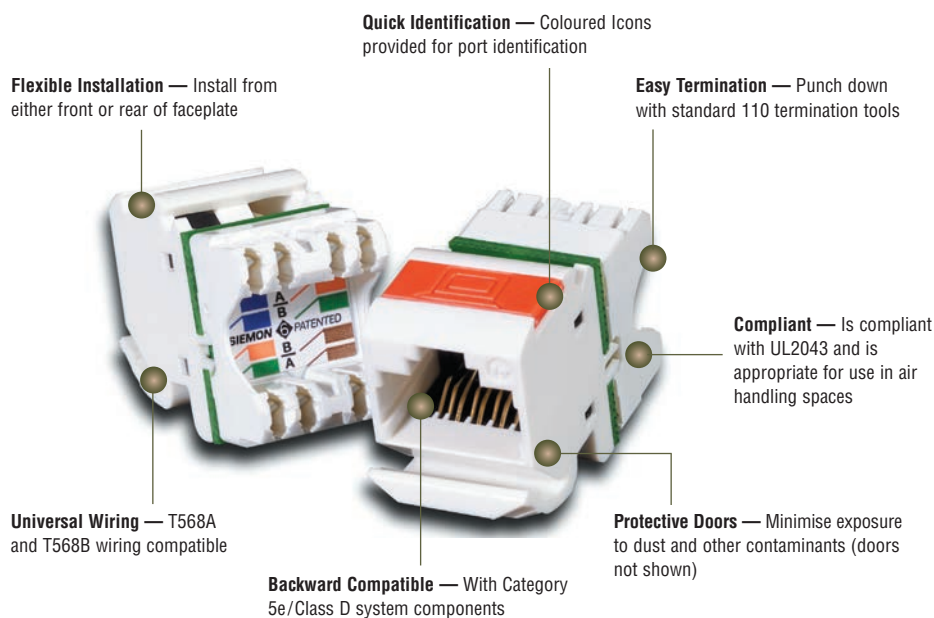
1 - Red Voice  
1 - Blue Voice  
1 - Bezel Colour-Matching Voice  
1 - Bezel Colour-Matching Blank



# MAX® 6 UTP Modules

Part of Siemon's Category 6 UTP end-to-end Cabling Solution, the MAX 6 outlet exceeds Category 6 connecting hardware performance specifications.

Compact design is ideal for high density applications. Up to six modules can be utilised in a single gang faceplate and twelve outlets in a double gang faceplate. Also, the angled MAX module provides a gravity feed, low-profile design for the work area — greatly improving cable management in installations where front or rear clearance is at a minimum.



## Quick Installation

Pyramid wire entry system on S310 blocks separates paired conductors when lacing cables to simplify and reduce installation time.



## Ultra Fast Termination

MAX 6 UTP outlets can be terminated using Siemon's MAX TurboTool™, in as little as 18 seconds.



## Contact Integrity

Featuring Siemon's patented crowned jack contact geometry that improves electrical and mechanical performance and ensures that any jack or plug contact damage due to arcing caused by unmating under PoE load occurs well away from the final mated contact position.

## MAX 6 UTP Outlets



MX6-(XX).....

Category 6 angled MAX outlet, T568A/B, rear strain relief cap and protective colour-matching rubber door\*



MX6-F(XX).....

Category 6 flat MAX outlet, T568A/B, rear strain relief cap



MX6-K(XX).....

Category 6 keystone MAX outlet, T568A/B, rear strain relief cap

Use (XX) to specify colour: 01 = Black, 02 = White, 03 = Red, 04 = Grey, 05 = Yellow, 06 = Blue, 07 = Green, 09 = Orange, 20 = Ivory, 25 = Bright White, 80 = Light Ivory

Angled outlets include one colour-matching, one red, and one blue icon.

\*Door colour is clear for red, yellow, blue and orange angled modules.

Flat outlets include one colour-matching, one red, and one blue icon.

ⓑ Add "B" to end of part number for bulk project pack of 100 outlets (angled and flat outlets include icons).

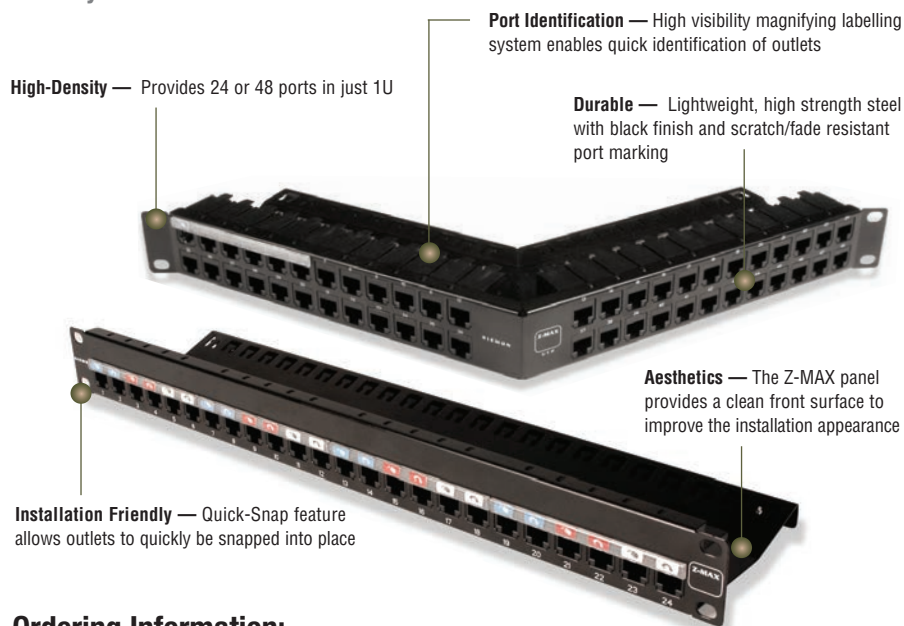
Add "VP" to end of part number for value pack option. Value pack is a kit of 250 outlets, doors, terms caps and colour match icons. (Available in flat/ angled only. Door only included with angled version.)

Note: Keystone version is designed for integration with various 3rd party mounting products and is not compatible with MAX® mounting hardware.

# Z-MAX® 6 UTP Patch Panels

Z-MAX patch panels provide outstanding performance and aesthetics in a high-density, modular UTP solution. The Z-MAX UTP panels provide rapid and reliable installation by accelerating outlet mounting, and cable tie-down operations.

In addition to traditional 24-port / 1U flat and angled versions, the Z-MAX UTP panels are also available in 48-port / 1U configurations for ultra high density installations.



## Ordering Information:

### Part # Description

#### Fixed Wire Manager

Z6-PNL(X)-24K.....	Z-MAX 24-port, Category 6 UTP patch panel, 1U, black with outlets
Z6-PNL(X)-U48K.....	Z-MAX 48-port, Category 6 UTP patch panel, 1U, black, with outlets
Z-PNL(X)-24E.....	Z-MAX 24-port UTP patch panel, 1U, black, empty
Z-PNL(X)-U48E.....	Z-MAX 48-port UTP patch panel, 1U, black, empty

Use (X) to specify mounting style: (Blank) = Flat, A = Angled

#### Removable Wire Manager

Z6-P(X)-24.....	Z-MAX 24-port, Category 6 UTP patch panel with removable wire manager kit, 1U, black, with outlets
Z6-P(X)-48.....	Z-MAX 48-port, Category 6 UTP patch panel with removable wire manager kit, 1U, black, with outlets
Z-P(X)-24.....	Z-MAX 24-port UTP patch panel with removable wire manager, 1U, black, empty
Z-P(X)-48.....	Z-MAX 48-port UTP patch panel with removable wire manager, 1U, black, empty

Use (X) to specify mounting style: F = Flat, A = Angled

Panels include Z-TOOL\*, label / icon holders, designation labels, cable ties, and mounting hardware.

\* included in kit only

Note: 1U = 44.5mm (1.75 in.)

## Panel Accessories:

### Part # Description

Z-PNL-PL24.....	Patch panel label sheet, numbered 1 to 24, bag of 100
Z-PNL-PL48.....	Patch panel label sheet, numbered 25 to 48, bag of 100
Z-PNL-PS.....	Patch panel label holder, (6 port ea.) bag of 25
Z6-P.....	Z-MAX 6 UTP panel outlet
Z-BL-01.....	Z-MAX panel blank, bag of 10, black



Note: Z-MAX UTP patch panels are designed for use with Z-MAX UTP panel outlets only



### Kits

Panels available as complete kits including patch panel, Z-MAX panel outlets, Z-TOOL™ and all necessary accessories. Empty panels are also available for use with Z-MAX trunk assemblies



### Ideal for Trunking Applications

Combine Z-MAX trunk assemblies (with panel outlets) and empty Z-MAX panels for rapid data centre deployment



### Integrated Cable Management

Ensures proper cable management practices for all installations

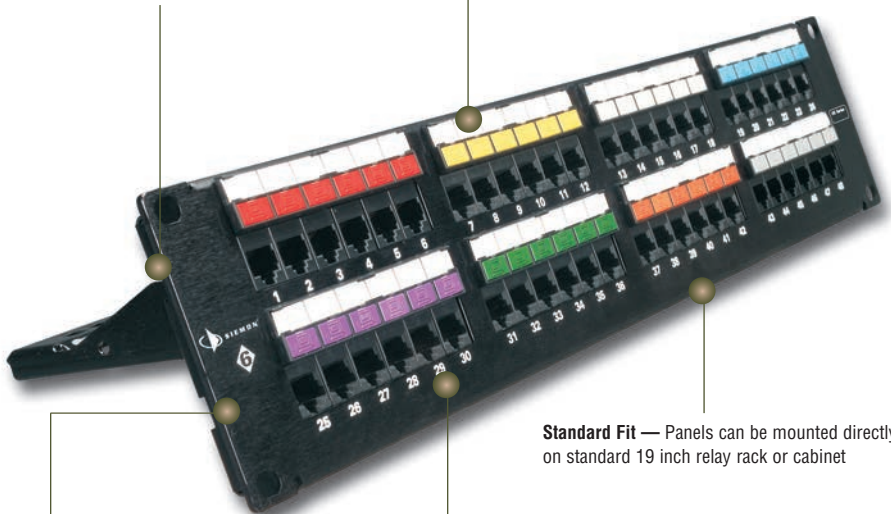


# HD® 6 UTP Patch Panels

Simon's HD 6 patch panel was the industry's first patch panel to exceed Category 6 connecting hardware specifications for all pair combinations up to 250 MHz. Get superior performance and user-friendly termination, labelling, and cable management features with Simon's popular Category 6 patch panel.

**Universal Wiring** — HD 6 patch panels feature universal wiring for both T568A/B compatible with standard 110 style single position punch tool.

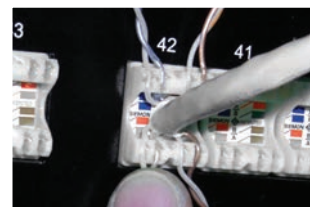
**Installer Friendly** — Icon label holders and designation labels included



**Aesthetics** — Front surface is uninterrupted by screw heads for a clean appearance

**Standard Fit** — Panels can be mounted directly on standard 19 inch relay rack or cabinet

**Port Identification** — Bold port numbering enables quick identification of outlets



### Pyramid™ Wire Entry System

Pyramid wire entry system on S310 blocks separates paired conductors when lacing cables to reduce installation time.



### Circuit Protection

Rear metal enclosure protects printed circuitry.



### Cable Management

Includes built-in cable manager to properly guide cables to point of termination.

## HD6 UTP Patch Panels

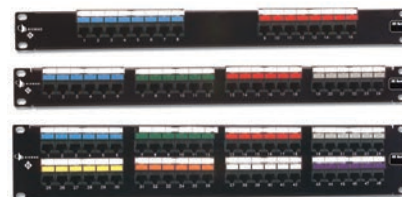
Part #	Description
HD6-16	16-Port Category 6 UTP HD patch panel, 1U, black
HD6-24	24-Port Category 6 UTP HD patch panel, 1U, black
HD6-48	48-Port Category 6 UTP HD patch panel, 2U, black
HD6-96	96-Port Category 6 UTP HD patch panel, 4U, black

Panels include rear cable manager(s), icon/label holders, designation labels, cable ties, and mounting hardware.

ⓑ Add "B" for bulk project pack of 5 panels (rear cable managers (p/n: HD-RWM) not included but can be ordered separately).

Note: 1U = 44.5mm

S310 termination blocks are not compatible with S110® multi-pair termination tools.



## HD6 Angled Patch Panels

Part #	Description
HD6-24A	24-Port angled Category 6 UTP HD patch panel, 1U, black
HD6-48A	48-Port angled Category 6 UTP HD patch panel, 2U, black
PNLA-CVR-01	Angled panel cover, black

Angled panels include one rear cable manager, designation labels, cable ties, and mounting hardware

ⓑ Add "B" for bulk project pack of 5 panels (rear cable managers not included but can be ordered separately).

Note: 1U = 44.5mm (1.75 in.)



## HD Panel Accessories

Part #	Description
HD-RWM.....	Rear cable management bracket for HD patch panels (not compatible with HD5-S-24)
HD5-ICON6.....	10 Sheets of labels for HD5-ICON6 for laser printing (48 labels per sheet)*
HD5-LBL-480.....	Adhesive strips for sequentially numbering panel ports 1 through 480 for 24-, 48-, or 96-port panels
HD5-LBL6-2.....	White removable designation strips in a package of eight for 24-, 48-, or 96-port panels
HD5-ICON6.....	Adhesive-backed strips in a package of 8 for colour-coding and port designation for 24-, 48-, or 96-port panels (icons not included)
CT-ICON-(XX).....	25 Coloured icon tabs (phone on one side, computer on reverse)

Use (XX) to specify colour: 00 = clear (TAB-XX only), 01 = Black, 02 = White, 03 = Red, 04 = Grey, 05 = Yellow, 06 = Blue, 07 = Green, 08 = Violet, 09 = Orange, 20 = Ivory, 25 = Bright White, 60 = Brown, 80 = Light Ivory

Ⓢ Add "B" for bulk pack of 100 icons.

\*Visit our web site or contact our Technical Support Department for labelling software.



HD-RWM



HD5-LBL-480



HD5-LBL6-2



HD5-ICON6



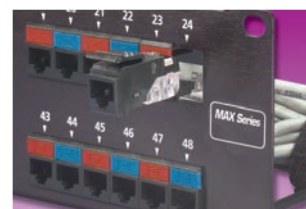
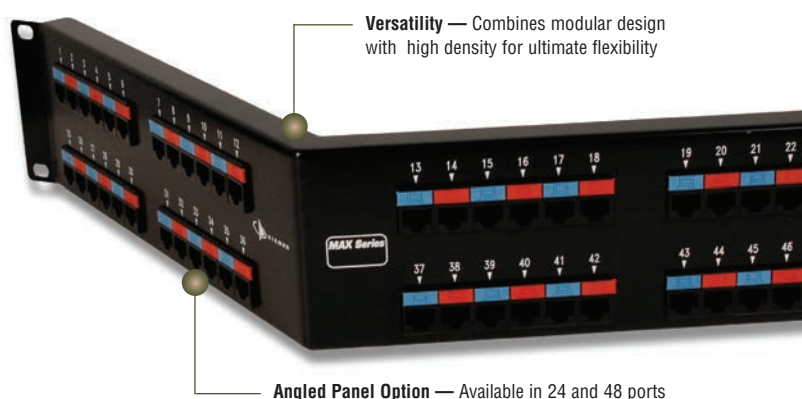
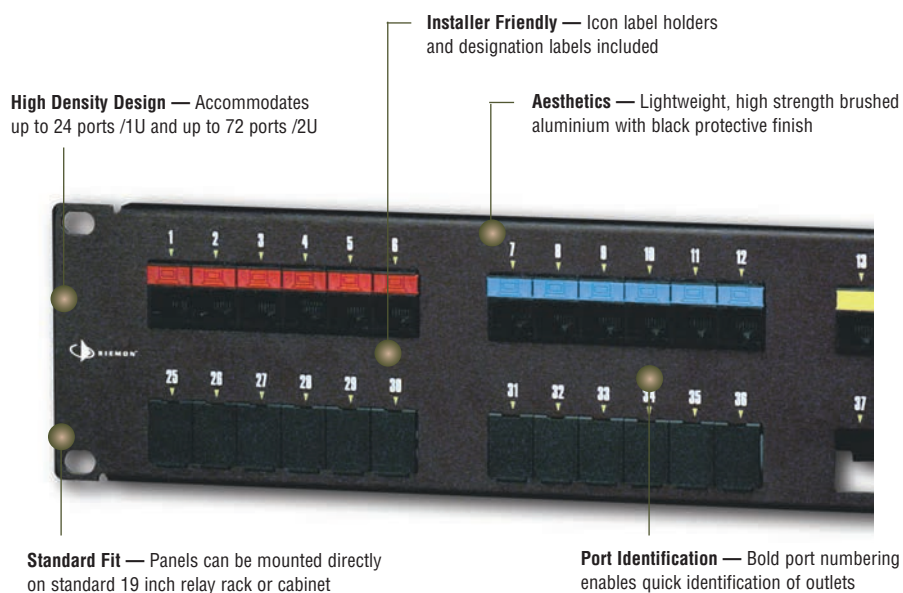
CT-ICON



# MAX® Patch Panels

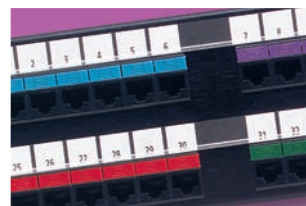
MAX patch panels provide a flexible, high density termination solution for the telecommunications room. Using the full line of Z-MAX® or MAX modules (available separately), the panel can be configured for a variety of multimedia applications. Blank modules can be used to reserve ports for future capacity.

Siemon's MAX series angled patch panels route cables directly into the vertical cable managers eliminating the need for horizontal cable management between panels.



## Installation Friendly

Individual modules snap into place from front or rear of panel for added installation flexibility.



## Designation labels

Removable designation labels can be laser printed and enable proper circuit identification for each port.



## Cable Management

Rear Cable management bar included for routing horizontal cables to terminations.



## Eliminates Horizontal Cable Managers

Angled panels route patch cords directly into vertical cable managers saving valuable rack space.



## MAX® Patch Panels

Part #	Description
--------	-------------

MX-PNL-16. . . . .	16-Port MAX patch panel, 1U, black
--------------------	------------------------------------



MX-PNL-24. . . . .	24-Port MAX patch panel, 1U, black
--------------------	------------------------------------



Part #	Description
--------	-------------

MX-PNL-48. . . . .	48-Port MAX patch panel, 2U, black
--------------------	------------------------------------



MX-PNL-72. . . . .	72-Port MAX patch panel, 2U, black
--------------------	------------------------------------



Panels include rear cable manager, designation labels, cable ties, and mounting hardware.

MAX Panels are not compatible with shielded MAX or shielded Z-MAX® modules. Use the TERA-MAX® or Z-MAX shielded panel.

Note: 1U= 44.5mm (1.75 in.)

## Angled MAX Patch Panels

Siemon's MAX series angled patch panels route cables directly into the vertical cable managers, eliminating the need for horizontal cable management between panels.

Part #	Description
--------	-------------

MX-PNLA-24. . . . .	24-Port angled MAX patch panel, 1U, black
---------------------	---



Part #	Description
--------	-------------

MX-PNLA-48. . . . .	48-Port angled MAX patch panel, 2U, black
---------------------	---



Part #	Description
--------	-------------

PNLA-CVR-01. . . . .	Angled panel cover, black
----------------------	---------------------------

Angled MAX panels are not compatible with shielded Z-MAX or shielded MAX modules. Use the TERA-MAX or Z-MAX shielded panel.

Angled MAX panels are not recommended for use with RS3 rack series. RS series racks with VPC vertical patching channels are recommended.

Panels include mounting hardware. Rear cable manager not included.

Note: 1U = 44.5mm (1.75 in.)

## MAX Panel Accessories

MX-PNL-LBL4*. . . . .	
-----------------------	--

10 Sheets of laser printable labels for 16-port MAX panels
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MX-PNL-LBL6*. . . . .	
-----------------------	--

10 Sheets of laser printable labels for 24- and 48-port MAX panels
---



\*Visit our web site or contact our Technical Support Department for labelling software.

# MAX® In-Line Coupler Panel

Siemon's In-Line Coupler Panel is a 1U patch panel that allows users the ability to patch on the front and rear of the patch panel with standard RJ45 patch cables. When used with Siemon factory tested solid double ended IC and stranded MC cords, active equipment ports can be very quickly duplicated at the patch panel. The compact 1U design features a removable rear cable management bar and is available with Category 5e or 6 UTP couplers.

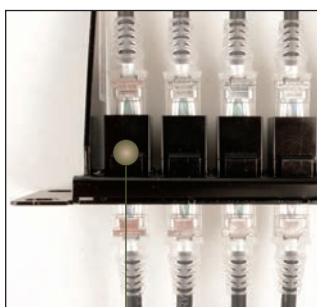
**Management** — RJ45 connections at the front and rear of the panel enables faster installation and deployment

**Strength** — Lightweight high strength steel with black finish

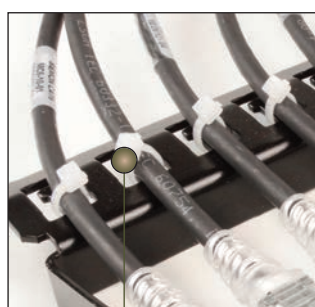
**Labelling** — Panel labelling area provided allowing unique panel identifiers

**Preassembly** — Panel pre-assembled with 24 Category 5e or 6 UTP couplers

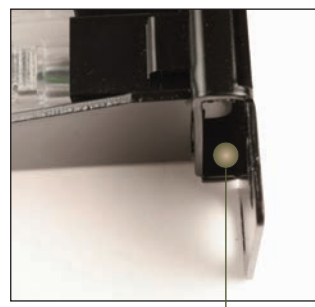
**Mounting** — Panels can be mounted directly on standard 19 inch rack or cabinet. CEA 310-E compliant



**In-Line Couplers** — Allow you to plug a RJ45 plug into both sides of a coupler



**Cable Management** — Integrated cable manager provides ability to secure cables at the rear of the panel for proper strain relief



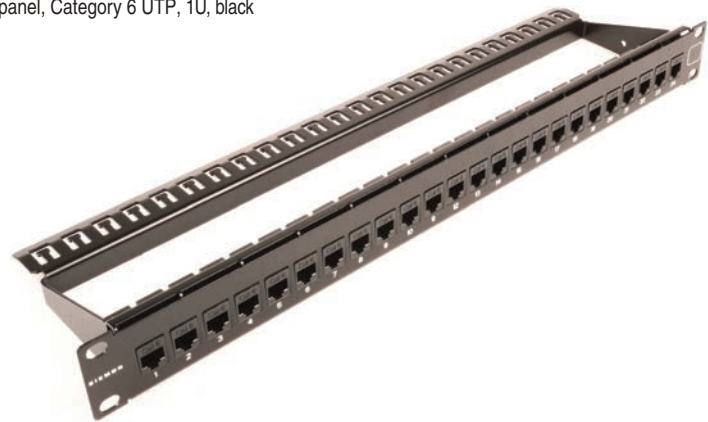
**Latches** — Individual coupler latches are recessed within the panel, creating a clean front surface

# Product Information

	MECHANICAL PROPERTIES
Dimensions	109.2mm x 482.6mm x 44.2mm (4.30 in. x 19.00 in. x 1.74 in.)
Mounting	EIA/ECA-310-E
Material	Panel: 16 AWG CRS. Wire Manager: 14 AWG CRS.
Operating Temperature	-10 °C to +60 °C (+14 °F to +140 °F)
Relative Humidity	Up to 95%, non-condensing
Storage Temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Insertion cycles	750 Mating cycles
Application requirements	Maximum one In-Line coupler per channel
Colour	Black

## Ordering Information:

Part #	Description
MX-K-C5-IL-24 . . . . .	In-line coupler panel, Category 5e UTP, 1U, black
MX-K-C6-IL-24 . . . . .	In-line coupler panel, Category 6 UTP, 1U, black



*Panels include tie-wraps, wire manager and mounting screws. Also offered in Category 5e UTP.*

# MC® 6 UTP Modular Cords

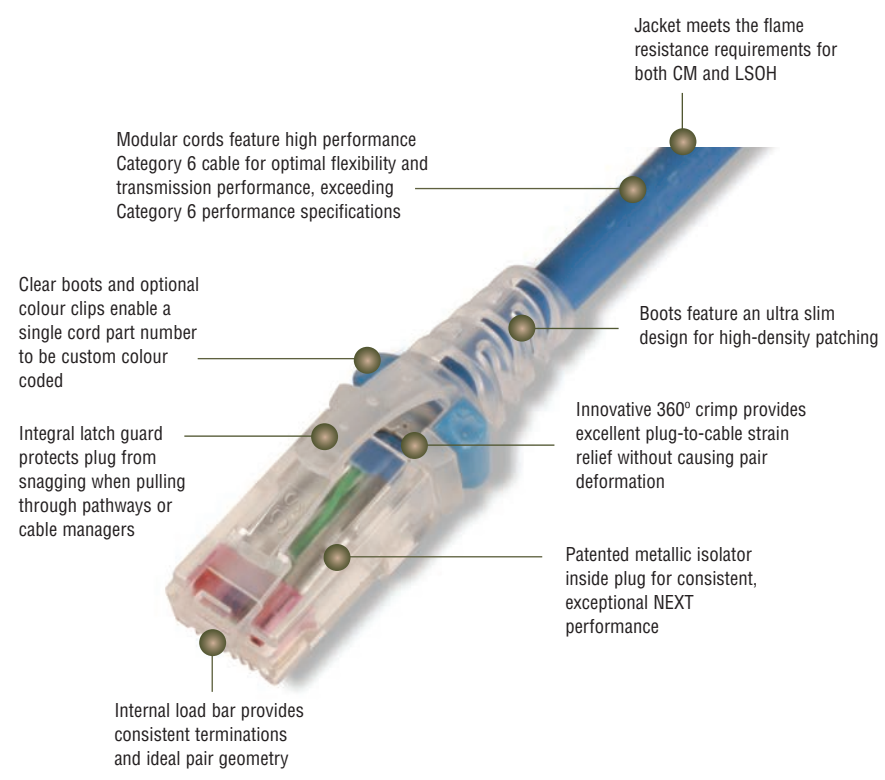
Siemon's Category 6 series of modular cords are key components to ensure optimum channel performance of our Category 6 UTP systems. A variety of product enhancements contribute to the cord's superior performance — including 250 MHz rated stranded cordage, a patented crosspair isolator and an innovative 360° crimp, which provides excellent plug-to-cable strain relief without causing pair deformation.



**Excellent Bend Relief**  
Boot and integrated strain relief ensures proper bend relief, critical for Category 6 performance.



**Colour Coding**  
Optional coloured clips enable field colour coding and can easily be snapped into place without having to disconnect cords.



## STANDARDS COMPLIANCE

- ISO/IEC 11801 Ed 2.2 (Class E<sub>A</sub>)
- IEC 60603-7
- ANSI/TIA-568-C.2 (Category 6)
- TIA-968-A (formerly FCC Part 68 Subpart F)
- IEEE 802.3af (PoE)
- IEEE 802.3at (PoE+)
- UL US Listed

## MC 6 UTP Modular Cords

Category 6 MC, double-ended, 4-pair UTP stranded modular patch cord, T568A/B, clear boot.



MC6-(XX)M-(XX)	
Cord Length	Cord Colour
01 = 1m (3.3 ft.)	01 = Black
1.5 = 1.5m (5.0 ft.)	02 = White
02 = 2m (6.6 ft.)	03 = Red
03 = 3m (9.8 ft.)	04 = Grey
05 = 5m (16.4 ft.)	05 = Yellow
7.5 = 7.5m (24.6 ft.)	06 = Blue
	07 = Green
	08 = Violet
	09 = Orange

CLIP-(XX). . . . . Colour coding clip, bag of 25

Clip Colour		
01 = Black	04 = Grey	07 = Green
02 = White	05 = Yellow	08 = Violet
03 = Red	06 = Blue	09 = Orange

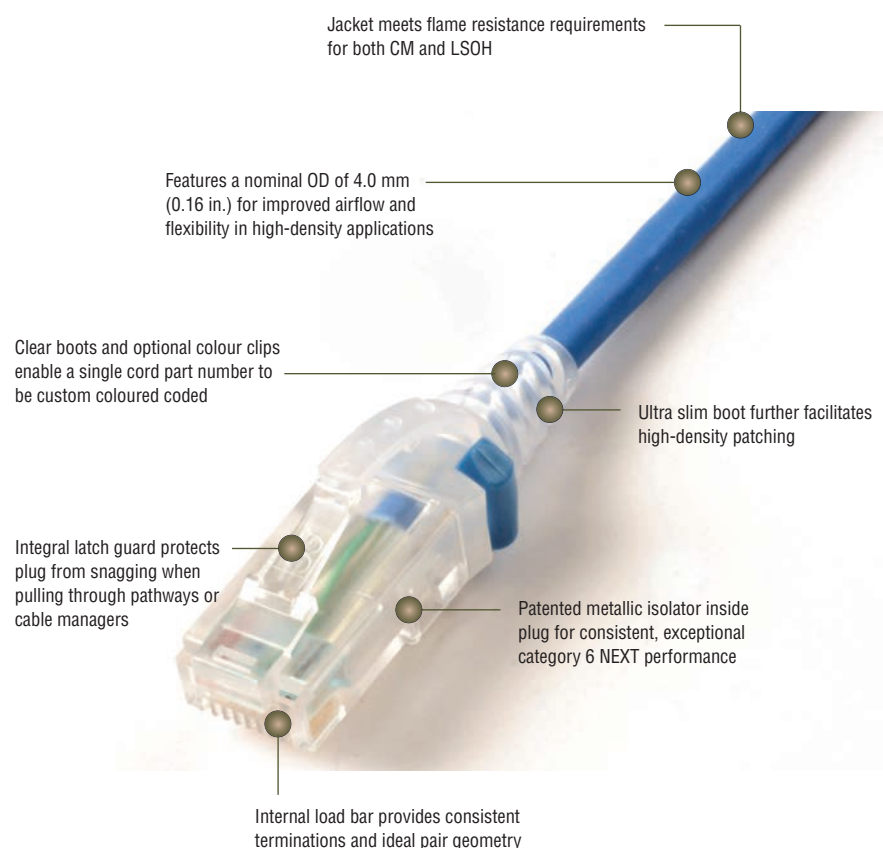


ⓑ Add "B" for bulk pack of 100 modular cords.



# SkinnyPatch™ 6 UTP Modular Cords – International

Siemon's SkinnyPatch 6 Modular Cords deliver Category 6 performance with a reduced cable diameter for improved airflow and increased flexibility in high-density patching areas. The cord's smaller 28 AWG stranded copper construction offers a significantly tighter bend radius for easier cable routing and enhanced cable management, providing pathway space savings in racks and cabinets while facilitating moves, adds and changes in tight spaces. Confirmed by Intertek, an independent third party test lab, SkinnyPatch 6 Modular Cords exceed ISO/IEC 11801 Edition 2.2 and ANSI/TIA-568-C.2 Category 6/Class E performance standards. These cords also feature Siemon's patented metallic isolator for exceptional NEXT performance and innovative 360-degree crimp for excellent plug-to-cable strain relief.



## Colour Coding

Optional coloured clips enable field colour coding and can be easily snapped into place without having to disconnect cords



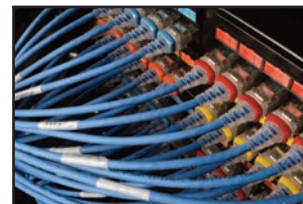
## Excellent Bend Relief

Boot and integrated strain relief ensures minimum bend radius for category 6 performance



## Diameter

Smaller diameter cable significantly reduces bundle and pathway fill for space savings.



## Improved Airflow

Offers improved airflow, accessibility and cable management in high-density applications.

## PERFORMANCE SPECIFICATIONS •

- ISO/IEC 11801 Ed 2.2 (Class E)\*
- IEEE 802.3 PoE Type 1, Type 2\*\*
- ANSI/TIA-568-C.2\* (Category 6)
- TIA 968-A
- ANSI/TIA-1096-A
- UPoE\*\*
- Power over HDBASE-T (PoH)\*\*
- IEC 60603-7
- cUL US Listed
- IEC 60332-1, 60754, 61034

\* Patch cord length is limited to 8 metres for a maximum channel length of 98 metres.

\*\* See table for recommended maximum bundle size

# Product Information

## PERFORMANCE SPECIFICATIONS\*

ELECTRICAL	
Contact Resistance	20 mΩ
Input to Output DC Resistance	200 mΩ
Min. Dielectric Withstand Voltage (contact to contact)	1000 V DC or AC peak
Insulation Resistance	500 mΩ
Compatibility	Category 6 and 5e
Current Rating @ 25°C (77°F)	1.5 A
Remote Powering	PoE Type 1, Type 2, UPoE, PoH
Attenuation De-rating Factor	1.9
MECHANICAL — GENERAL	
Operating Temperature	-10 to 60 °C, (14 to 140 °F)
Flammability Rating	UL 94 - V0
Green Features	RoHS, lead-free, halogen-free, PVC free
Contact Materials	Copper alloy with contact plating of 50 microinches gold or equivalent
Plastic Materials	Flame retardant thermoplastic
Marking	P/N, length, performance level

MECHANICAL — PLUG	
Number of Plug Insertion Cycles	750
Min. Plug Retention Force	50N (11.24 lbf)
Plug Compatibility	Compatible with RJ45 outlets
MECHANICAL — CABLE	
Wire Size (Nominal)	28 AWG 7x36 Stranded bare copper
Construction	UTP
Cable O.D. (Nominal)	4.0mm (0.16 in.)
Wiring	T568A/B as specified by part #
Jacket Type	CM/LSOH
Bend Radius	16mm (0.64 in.)

MAXIMUM RECOMMENDED BUNDLE SIZE		
Application	Current per Pair (mA)	28 AWG Patch Cords
PoE Type 1	350	48
PoE Plus Type 2	600	48
UPoE	600	24
PoH	1000	24

## Ordering Information:

MC6-(XX)M-(YY)-28. . . . . SkinnyPatch Category 6 double-ended, 4-pair, 28 AWG UTP stranded modular patch cord, T568A/B, clear boot.

Length	Jacket Colour		
01 = 1m (3.3 ft.)	01 = Black	04 = Grey	07 = Green
1.5 = 1.5m (5.0 ft.)	02 = White	05 = Yellow	08 = Violet
02 = 2m (6.6 ft.)	03 = Red	06 = Blue	09 = Orange
03 = 3m (9.8 ft.)			
05 = 5m (16.4 ft.)			
7.5 = 7.5m (24.6 ft.)			

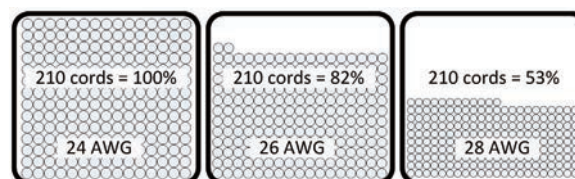
Ⓢ Add "B" to end of part number for bulk project pack of 100 cords.

CLIP-(XX). . . . . Colour coding clip, bag of 25

Clip Colour		
01 = Black	04 = Grey	07 = Green
02 = White	05 = Yellow	08 = Violet
03 = Red	06 = Blue	09 = Orange



Because we continuously improve our products, Siemon reserves the right to change specifications and availability without prior notice.



Fill Comparison: Category 6 Cords in a 101mm cable manager

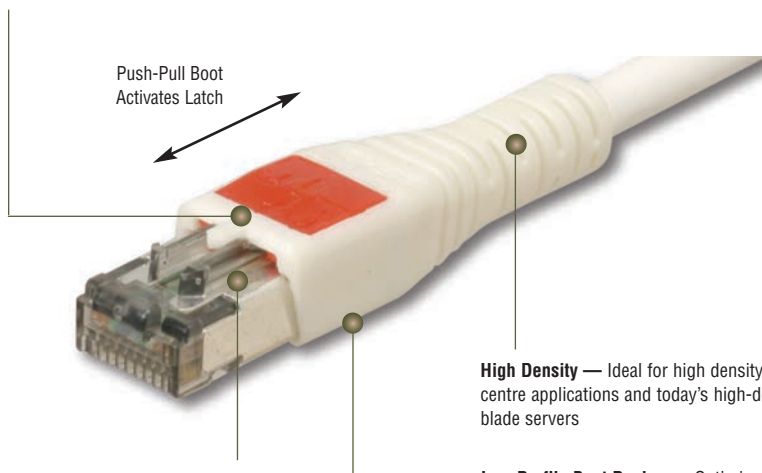


**Construction**  
Smaller 28 AWG construction results in a smaller bend radius for easier routing in tight spaces.

# BladePatch® 6 UTP Modular Cords

Siemon's BladePatch 6 offers a unique Category 6 solution for high-density patching environments. It features an innovative push-pull boot design to control the latch, enabling easy access and removal of the cord in tight-fitting areas. The BladePatch cord is ideal for patching blade servers, patch panels, or any equipment with high density RJ-45 outlets.

**Snagless** — Push-pull latch design eliminates external thumb latch used in standard modular plug designs which can snag and break



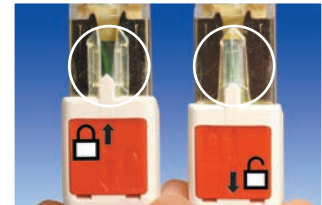
**Easy Access and Removal** — RJ-45 patch cord with patent-pending push-pull latch design enables easy access and removal in high density patching environments

**High Density** — Ideal for high density data centre applications and today's high-density blade servers

**Low Profile Boot Design** — Optimises side-stackability of patch cords and allows use in even the most dense equipment



**Universal Compatibility**  
Fits within any standard RJ-45 opening.



**Revolutionary Latch**  
Simply push the boot forward to latch into the outlet and pull back to release.



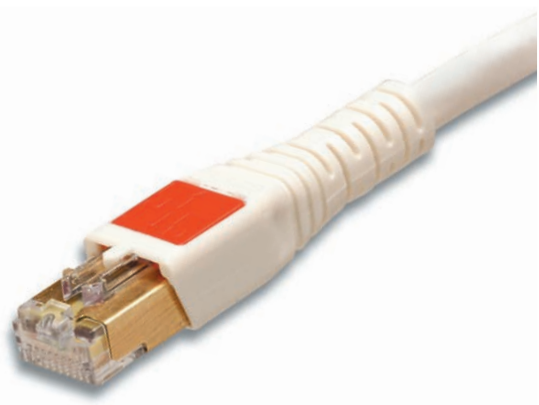
**High Density**  
The push-pull design enables easy access and removal via the boot in tight-fitting areas.

## BladePatch 6 UTP

Category 6 UTP BladePatch, double-ended, RJ-45 modular patch cord with push-pull latching design, colour matching cord/boot, T568A/B.

BP6-(XX)-(XX)

Cord Length	Cord Colour
01 = 1m (3.3 ft.)	01 = Black
1.5 = 1.5m (5.0 ft.)	02 = White
02 = 2m (6.6 ft.)	03 = Red
03 = 3m (9.8 ft.)	04 = Grey
05 = 5m (16.4 ft.)	05 = Yellow
7.5 = 7.5m (24.6 ft.)	06 = Blue
	07 = Green
	08 = Violet
	09 = Orange



© Add "B" for bulk pack of 100 modular cords.

# IC 6 UTP Solid Modular Cords

Siemon’s Category 6 IC solid single-ended and double-ended modular cords are designed for use in Category 6 applications where one end is plugged into a patch panel in a consolidation point (CP) and the other end is terminated to the back of a work area outlet or in a cross connect where one end is terminated to the back of a patch panel and the other end is plugged into equipment. The cords are 100% factory transmission tested to 250 MHz and feature the same plug construction used in Siemon’s stranded Category 6 modular cords.

## System 6® IC Modular Cords

Part #	Description
IC6-8A-(XX)M-B(XX)L . . . . .	System 6 IC, single-ended, 4-pair UTP 23 AWG solid, modular cord, violet jacket with coloured boot T568B, LSOH
IC6-8T-(XX)M-B(XX)L . . . . .	System 6 IC, single-ended, 4-pair UTP 23 AWG solid, modular cord, violet jacket with coloured boot, T568A, LSOH



Use 1st (XX) to specify cord length: 03 = 03m ((9.8 ft.), 05 = 05m (16.4 ft.), 10 = 10m (32.8 ft.), 15 = 15m (49.2 ft.), 20 = 20m (65.6 ft.)

Use 2nd (XX) to specify colour of boot: 01 = Black, 02 = White, 03 = Red, 04 = Grey, 05 = Yellow, 06 = Blue, 07 = Green

Add “D” to denote double-ended.

Cable assembly constructed with EU CPR rated cable - Dca



# Category 6 UTP Trunking Cable Assemblies

Siemon's Category 6 UTP copper trunking cable assemblies provide an efficient and cost effective alternative to individual field-terminated components. Combining factory terminated and tested UTP Z-MAX® or MAX® modules with Siemon System 6® cable, Siemon copper trunking cable assemblies were designed with data centre applications in mind. In addition to providing simple and aesthetically pleasing cable management, standard configurations also help maintain consistent cable layout and facilitate efficient moves, adds and changes. the modular design and reduced scrap of trunk assemblies make them the most "Green" method for Category 6 cabling.

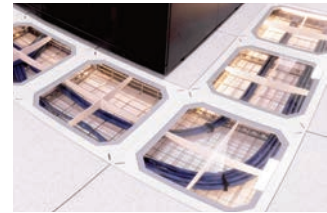
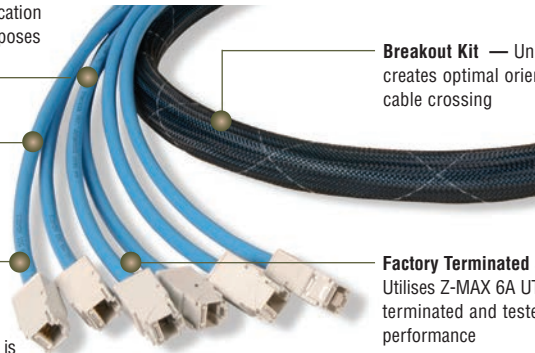
**Identification** — Each cable assembly is coded with a unique identification number for administrative purposes

**Siemon Cable** — Utilises high quality Siemon cable

**Proper Orientation** — Each leg is cut and labelled for proper module orientation

**Breakout Kit** — Unique breakout kit creates optimal orientation and limits cable crossing

**Factory Terminated and Tested** — Utilises Z-MAX 6A UTP outlets, factory terminated and tested for high performance



## Data Centres

Ideal for data centres, raised floor and ladder rack environments enabling up to 75% faster deployment time. Well organised cable bundles improve cable management and air flow.



## Straight Cut

Typical installation utilising Straight Cut ensures each cable is terminated at the proper length and allows left, right or centre exit.



## Protective Packaging

Each assembly is packaged individually to protect factory terminations.

## Ordering Information:

### MAX System 6 Double-Ended Trunking Cable Assemblies

Part #	Description
TCLD8E-A1A1(XXX)M. . . . .	6 Leg solid cable trunking cable assembly, violet jacket, LSOH

### Z-MAX System 6 Double-Ended Trunking Cable Assemblies w/Panel Outlets

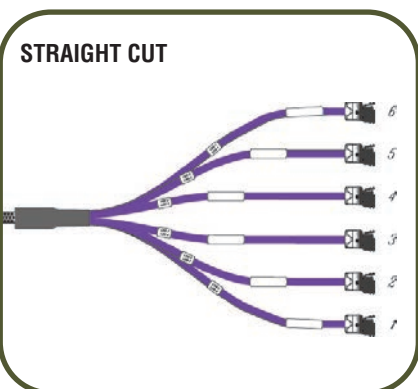
Part #	Description
TCLD8E-P0P0(XXX)M. . . . .	6 Leg solid cable trunking cable assembly, violet jacket, LSOH

Use (XXX) to specify length: 004-090m in increments of 1 metre (3.3 ft.)

Standard wiring is T568B.

Other lengths and configurations available upon request.

Trunk cable assembly constructed with EU CPR rated cable - Dca



# System 6® UTP 4-Pair Cable (International)

System 6 cable provides significant headroom above all ISO/IEC and ANSI/TIA Category 6/Class E transmission performance specifications. Combine our high performance category 6 connectivity with System 6 cable and the result is a system with superior electrical performance for optimum applications support.

## COMPLIANCE

- ISO/IEC 11801 Ed. 2.2 (Class E)
- IEC 61156-5:2009 (Category 6)
- ANSI/TIA-568-C.2 (Category 6)
- UL CMR and CSA FT4
- UL CM, IEC 60332-1, Class E<sub>ca</sub>
- LSOH: IEC 60332-1, IEC 60332-3-22, IEC 60754, IEC 61034, and EN 50399 Class D<sub>ca</sub>S<sub>2</sub>d<sub>2</sub>a<sub>1</sub>

## CABLE CONSTRUCTION

- UTP, 4-Pair
- CM, CMR and LSOH jacket types available
- Centre isolation member maintains pair geometry for optimal NEXT performance

## Part #

## Description

9C6(X)4-E3-RXA.....	305m (1000 ft.) Reelex
9C6(X)4-E3-5CR.....	500m (1640 ft.) reel
9C6(X)4-E3-1KR.....	1000m (3280 ft.) reel

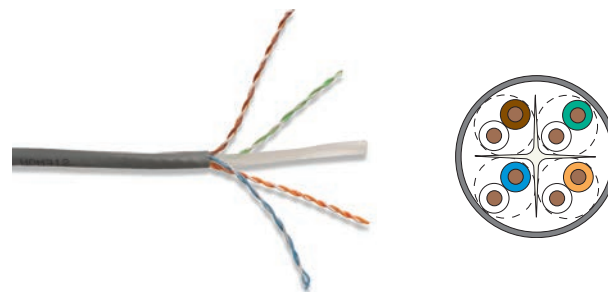
Use (X) to specify jacket type:

L = LSOH (IEC 60332-1, IEC 60332-3-22), Violet Jacket, Class E<sub>ca</sub>, D<sub>ca</sub>

M = PVC (CM, IEC 60332-1), Grey Jacket, Class E<sub>ca</sub>

R = PVC (CMR, CSA FT4), Blue Jacket

For special colour or packaging requests, please contact Siemon Customer Service



## ELECTRICAL SPECIFICATIONS

DC Resistance	<7.32Ω/100m
DC Resistance Unbalance	5%
Mutual Capacitance	5.6 nF/100m
Capacitance Unbalance	<160 pF/100m
NVP	68%
Delay Skew	≤35ns

## PHYSICAL PROPERTIES

	LSOH	CM/CMR
Pulling Tension (max)	110N (25 lbf)	110N (25 lbf)
Bend Radius (min)	25mm (0.98 in.)	25mm (0.98 in.)
Installation Tempera-	0 to 50°C (+32 to 122°F)	0 to 50°C (+32 to 122°F)
Storage Temperature	-20 to 60°C (-4 to 140°F)	-20 to 60°C (-4 to 140°F)
Operating Temperature	-20 to 60°C (-4 to 140°F)	-20 to 60°C (-4 to 140°F)

## TRANSMISSION PERFORMANCE

■ GUARANTEED WORST CASE □ SIEMON TYPICAL

Frequency (MHz)	Insertion Loss (dB)		NEXT (dB)		PS NEXT (dB)		ACR-F (dB)		PS ACR-F (dB)		Return Loss (dB)		ACR-N (dB)		PS ACR-N (dB)		TCL (dB)		Propagation Delay (nS) (ns)	
1.0	2.0	1.8	77.3	87.3	75.3	82.3	70.8	84.8	68.8	79.8	21.0	29.0	75.3	85.5	73.3	80.5	40.0	57.1	550.0	545.0
4.0	3.7	3.5	68.3	78.3	66.3	73.3	58.8	72.8	56.8	67.8	24.0	32.0	64.5	74.8	62.5	69.8	40.0	47.4	532.0	527.0
10.0	5.9	5.6	62.3	72.3	60.3	67.3	50.8	64.8	48.8	59.8	26.0	38.0	56.4	66.7	54.4	61.7	40.0	50.5	525.0	520.0
16.0	7.5	7.1	59.2	69.2	57.2	64.2	46.7	60.7	44.7	55.7	26.0	34.0	51.8	62.1	49.8	57.1	38.0	49.4	523.0	518.0
20.0	8.4	7.9	57.8	67.8	55.8	62.8	44.8	58.8	42.8	53.8	26.0	34.0	49.4	59.9	47.4	54.9	37.0	54.6	522.0	517.0
31.25	10.6	10.0	54.9	64.9	52.9	59.9	40.9	54.9	38.9	49.9	24.6	32.0	44.3	54.9	42.3	49.9	35.1	48.2	520.0	515.0
62.5	15.2	14.4	50.4	60.4	48.4	55.4	34.9	48.9	32.9	43.9	22.5	32.0	35.1	46.0	33.1	41.0	32.0	48.4	519.0	514.0
100.0	19.6	18.6	47.3	57.3	45.3	52.3	30.8	44.8	28.8	39.8	21.1	32.0	27.7	38.7	25.7	33.7	30.0	53.6	518.0	513.0
160.0	25.4	24.1	44.2	54.2	42.2	49.2	26.7	40.7	24.7	35.7	19.7	31.0	18.9	30.1	16.9	25.1	28.0	45.6	517.0	512.0
200.0	28.7	26.8	42.8	52.8	40.8	47.8	24.8	38.8	22.8	33.8	19.0	29.0	14.1	26.0	12.1	21.0	27.0	44.7	517.0	512.0
250.0	32.6	30.5	41.3	51.3	39.3	46.3	22.8	37.0	20.8	31.8	18.3	29.0	8.8	20.8	6.8	15.8	26.0	38.8	516.0	511.0
300.0*	-	33.7	-	50.0	-	45.0	-	36.0	-	30.0	-	27.0	-	16.3	-	11.3	-	44.6	-	511.0
400.0*	-	40.3	-	48.0	-	43.0	-	32.0	-	27.0	-	26.0	-	7.7	-	2.7	-	42.1	-	511.0
500.0*	-	39.9	-	48.0	-	42.0	-	31.0	-	26.0	-	25.0	-	8.1	-	2.1	-	36.8	-	511.0
550.0*	-	39.7	-	46.0	-	42.0	-	30.0	-	26.0	-	24.0	-	6.3	-	2.3	-	34.9	-	510.0

\*Values for frequencies above industry requirements are for information only.

All performance based on 100 metres (328 ft.).

# System 6® UTP 4-Pair Cable (International)

## COMPLIANCE

- ISO/IEC 11801 Ed. 2.2 (Class E)
- IEC 61156-5:2002 (Category 6)
- TIA-568-C.2 (Category 6)
- PVC: UL CM, IEC 60332-1
- LSOH: IEC 60332-1, IEC 60754, and IEC 61034
- EN 50399 Class E<sub>ca</sub>

## CABLE CONSTRUCTION

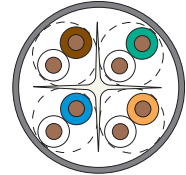
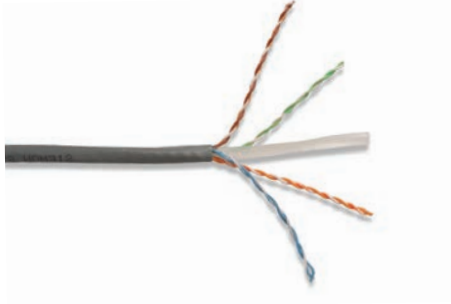
- UTP
- Nominal jacket OD: 5.6mm (0.22 in.)
- 0.52mm (0.02 in.) solid (non-tinned) copper
- Central isolation member
- Reverse sequential numbering

## Part #

## Description

9C6M4-E2 ..... CM, grey jacket, Class E<sub>ca</sub>, 305m (1000 ft.) Reel-in-Box  
 9C6L4-E2 ..... LSOH, violet jacket, Class E<sub>ca</sub>, 305m (1000 ft.) Reel-in-Box

Other cable lengths also available: Add "-5CR" for 500m (1640 ft.) reel, "-1KR" for 1000m (3280 ft.) reel



## ELECTRICAL SPECIFICATIONS

DC Resistance	≤9.50Ω/100m
DC Resistance Unbalance	≤2.5%
Mutual Capacitance	5.6 nF/100m
Capacitance Unbalance	<330 pF/100m
Characteristic Impedance (ohms)	1-100 MHz: 100 ± 15% 200-250 MHz: 100 ± 22%
NVP	65%
TCL	30-10 log(#/100) dB
Delay Skew	45ns

## PHYSICAL PROPERTIES

	CM & LSOH
Pulling Tension (max)	80N (18 lbf)
Bend Radius (min)	25mm (0.98 in.)
Installation Temperature	5 to 60°C (41 to 140°F)
Storage Temperature	0 to 60°C (+32 to 140°F)
Operating Temperature	-10 to 60°C (14 to 140°F)

## TRANSMISSION PERFORMANCE



GUARANTEED WORST CASE



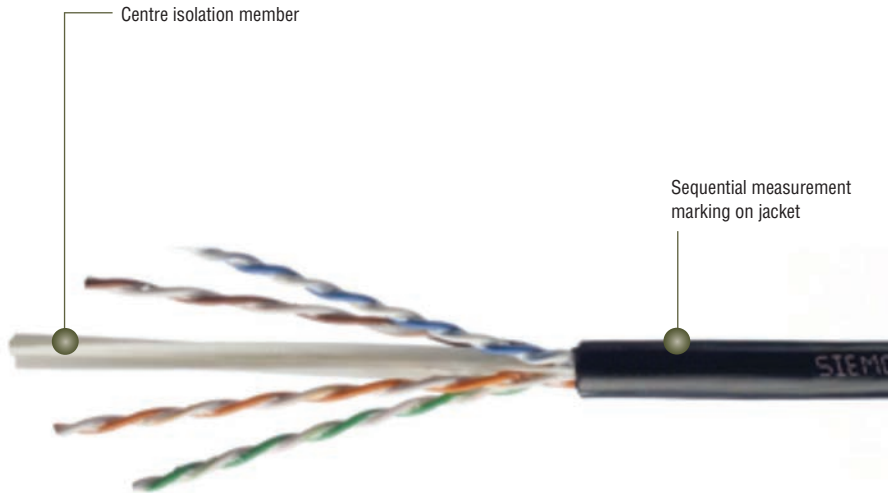
SIEMON TYPICAL

Frequency μ(MHz)	Insertion Loss (dB)		NEXT (dB)		PS NEXT (dB)		ACR (dB)		PS ACR (dB)		ACR-F (dB)		PS ACR-F (dB)		Return Loss (dB)		Propagation Delay (ns)	
1.0	2.1	1.7	75.3	102.5	72.3	95.4	73.2	100.8	70.2	93.7	68.0	99.6	65.0	92.4	20.0	27.8	570	508
4.0	3.8	3.6	66.3	93.5	63.3	87.6	62.4	89.9	59.4	84.0	56.0	86.9	53.0	79.0	23.0	29.5	552	504
10.0	6.0	5.8	60.3	90.1	57.3	81.2	54.3	84.3	51.3	75.4	48.0	78.3	45.0	70.5	25.0	33.4	545	499
16.0	7.6	7.4	57.2	83.4	54.2	77.1	49.6	76.0	46.6	69.7	43.9	74.6	40.9	67.7	25.0	33.8	543	498
20.0	8.5	8.3	55.8	81.0	52.8	75.5	47.3	72.7	44.3	67.2	42.0	70.3	39.0	63.7	25.0	34.5	542	497
31.25	10.7	10.5	52.9	82.1	49.9	74.1	42.1	71.6	39.1	63.7	38.1	65.1	35.1	59.4	23.6	33.1	540	497
62.5	15.5	14.9	48.4	72.3	45.4	65.4	32.9	57.5	29.9	50.6	32.1	57.5	29.1	52.0	21.5	32.6	539	496
100.0	19.9	19.1	45.3	70.5	42.3	64.6	25.4	51.3	22.4	45.5	28.0	58.8	25.0	51.6	20.1	34.6	538	495
160.0	25.7	24.4	42.2	67.9	39.2	61.0	16.5	43.5	13.5	36.5	23.9	51.4	20.9	42.9	18.7	33.5	537	495
200.0	29.1	27.3	40.8	67.9	37.8	61.7	11.6	40.6	8.6	34.4	22.0	50.8	19.0	43.8	18.0	32.9	537	494
250.0	33.0	31.8	39.3	66.6	36.3	59.0	6.3	34.7	3.3	27.2	20.0	47.6	17.0	40.1	17.3	32.5	536	494

All performance based on 100 metres (328 ft.).

# Solution 6™ OSP UTP Cable (ERA/IME)

Siemon Category 6 compatible UTP Outside Plant (OSP) direct burial cable. Suitable for direct burial, aerial, and underground conduit applications

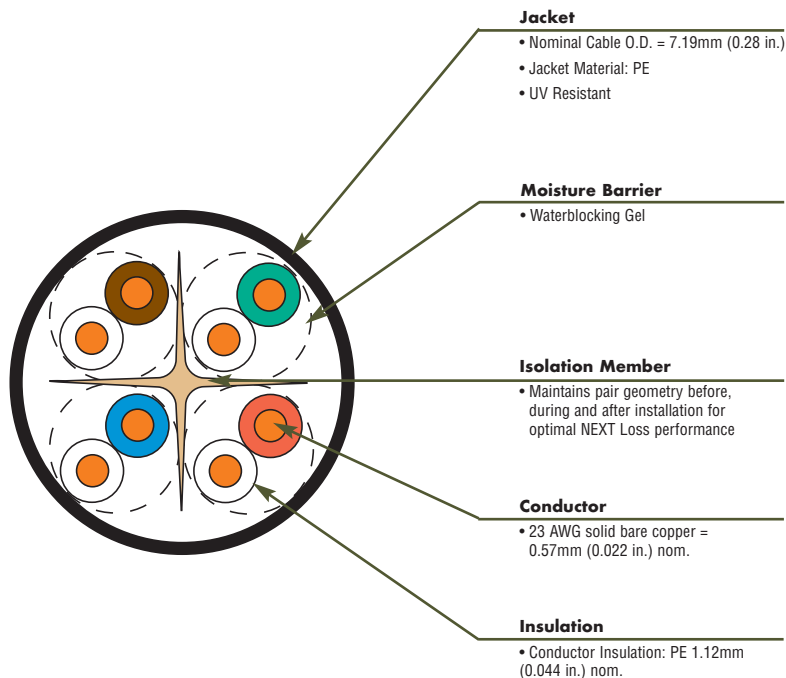


## HIGHLIGHTS

- UTP, 4-pair
- Polyolefin Jacket, UV Resistant
- Gel filled (Non Conductive)
- Supports all applications designed to operate over category 6 or lower rated systems.
- RoHS
- Approved for use in direct burial, aerial and underground conduit applications

## STANDARDS COMPLIANCE

- ISO/IEC 11801 Ed 2.2 (Class E)
- ANSI/TIA - 568-C.2 (Category 6)
- IEC 61156-5 Ed 2.0 (Category 6)
- EN 50173-1
- EN-50288-6-1



# Product Information

## ELECTRICAL SPECIFICATIONS

DC Resistance	<8.8 Ω/100m
DC Resistance Unbalance	5%
Mutual Capacitance	5.6 nF/100m
Capacitance Unbalance	<1500 pF/km
NVP	67%
TCL	30-10log(f/100)dB
Delay Skew	45 ns/100m
Propagation Delay	565 ns/100m @10 MHz Max

## PHYSICAL PROPERTIES

Pulling Tension (max)	100N (25 lbf)
Bend Radius (min)	28.8mm (1.132 in.)
Installation Temperature	-15 to 50°C (-59 to 122°F)
Storage Temperature	-55 to 70°C (-131 to 158°F)
Operating Temperature	-55 to 60°C (-131 to 140°F)

## TRANSMISSION PERFORMANCE



GUARANTEED WORST CASE



SIEMON TYPICAL :

Based on data from a randomly selected cable sample.

Frequency (MHz)	Insertion Loss (dB/100)		NEXT (dB)		PS NEXT (dB)		ACR-N (dB)		PS ACR-N (dB)		ACR-F (dB)		PS ACR-F (dB)		Return Loss (dB)	
1	2.00	1.64	74.3	88.59	72.3	88.37	72.3	86.85	70.3	86.64	67.8	92.95	64.8	91.3	20.00	30.62
4	3.80	3.31	65.3	74.6	63.3	74.57	61.5	71.29	59.5	71.28	55.8	79.03	52.8	78.07	23.00	37.22
10	6.00	5.27	59.3	78.58	57.3	77.75	53.3	73.31	51.3	72.66	47.8	66.59	44.8	66.38	25.00	38.23
16	7.60	6.71	56.2	72.19	54.2	71.85	48.7	65.48	46.7	65.36	43.7	59.13	40.7	59.2	25.00	39.91
20	8.50	7.51	54.8	71.5	52.8	71.39	46.3	63.98	44.3	63.71	41.8	55.49	38.8	55.37	25.00	41.7
31.25	10.70	9.47	51.9	73.7	49.9	71.06	41.2	64.24	39.2	61.92	37.9	47.78	34.9	47.75	23.60	34.02
62.5	15.40	13.53	47.4	66.9	45.4	65.31	32.00	53.37	30.00	52.29	31.9	42.88	28.9	42.32	21.50	38.61
100	19.80	17.28	44.3	66.08	42.3	64.24	24.5	49.99	22.5	47.92	27.8	29.73	24.8	29.73	20.10	30.64
160	25.60	22.18	41.2	61.77	39.2	60.93	15.6	41.12	13.6	40.11	23.7	29.93	20.7	29.93	18.70	27.29
200	29.00	24.89	39.8	61.8	37.8	60.7	10.8	38.63	8.8	37.53	21.8	25.05	18.8	25.51	18.00	26.26
250	32.80	28.08	38.3	59.31	36.3	57.28	5.5	34.2	3.5	30.34	19.8	25.99	16.8	25.98	17.3	24.85

\*Cable compliant to Category 6 requirements with the exception of propagation delay.

## Ordering Information:

### Category 6 Outside Plant Direct Burial 4-Pair Cable 23 AWG UTP (Black PE Jacket)

Part # Description  
9C6O4-E2. .... 305m (1000 ft.) reel



# S210® Connecting Block System

The Siemon S210 connection system provides superior Category 6 connecting block performance. The S210 block is the ideal for Voice over IP (VoIP) applications. It can be used to support existing cross-connects for standard phone systems today and enables upgrades to a Category 6 rated solution for a seamless network transition.

## Section Contents

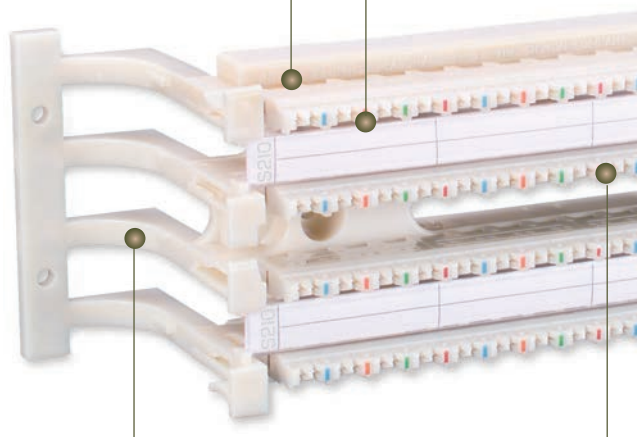
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# S210® Connection System

The Siemon S210 offers the best connecting block performance in the telecommunications industry. Its NEXT performance is so exceptional that it is essentially transparent when used as a consolidation point in a Category 6 channel.

**Coloured Labels** — Designation strip with interchangeable coloured labels can be mounted between each row of connecting blocks

**Easy Termination** — Utilises same termination practices as existing S110 product and is compatible with all single-position S110 termination tools as well as Siemon's S210 multi-pair termination tool



**Stand-off Legs** — Patented stand-off legs may be detached from the block before, during, or after installation on 64-pair version

**Compatibility** — Utilises same wiring base footprint as standard S110® products to be fully compatible with existing S110 mounting and cable management solutions



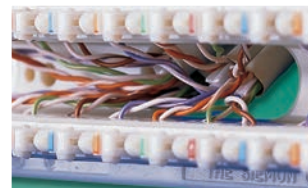
## Internal Crosstalk Barriers

Provide superior NEXT performance (13 dB NEXT margin over Category 6 specifications) via 360° pair isolation.



## Pyramid™ Wire Entry System

Separates paired conductors when lacing cables to simplify and reduce installation time.



## Patented Cable Access Openings

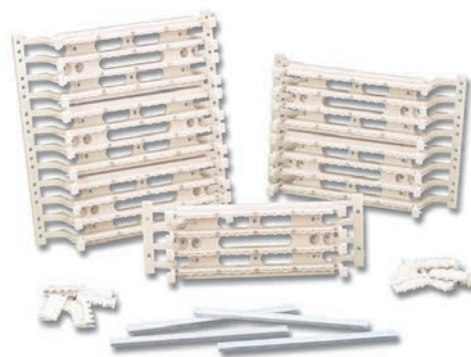
Allow cables to be routed through the rear of the block directly to the point of termination.

## S210 Field Termination Kits

Complete S210 installation kits include S210 wiring blocks with detachable legs\*, S210 connecting blocks, and label holders with white designation labels.

Part #	Description
S210AB2-64FT. ....	64-Pair, S210 field termination kit height: 91.4mm (3.6 in.) width: 272mm (10.7 in.) depth: 82.8mm (3.3 in.)
S210AB2-128FT. ....	128-Pair, S210 field termination kit height: 182.9mm (7.2 in.) width: 272mm (10.7 in.) depth: 82.8mm (3.3 in.)
S210AB2-192FT. ....	192-Pair, S210 field termination kit height: 275mm (10.8 in.) width: 272mm (10.7 in.) depth: 82.8mm (3.3 in.)

\*Legs detachable on 64-pair version only.

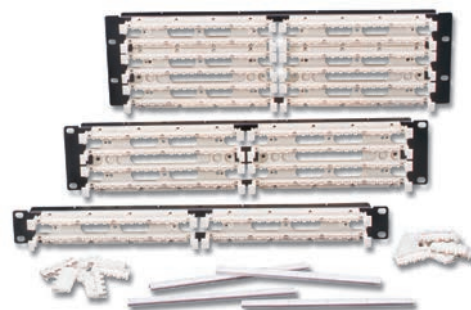


## S210® Field Terminated 19 inch Panels

S210 panels allow wiring blocks to be mounted directly to a 19 inch rack or cabinet. Each panel includes the appropriate quantity of S210 connecting blocks, mounting hardware and label holders with white designation labels. Patented openings between rows allow horizontal cables to be routed from behind the panel and enter the block from the rear, helping to maintain cable jacket and twist up to the point of termination.

Part #	Description
S210DB2-64RFT. ....	64-Pair, 19 inch S210 field termination kit, 1U
S210DB2-128RFT. ....	128-Pair, 19 inch S210 field termination kit, 2U
S210DB2-192RFT. ....	192-Pair, 19 inch S210 field termination kit, 3U

*Note: 1U = 44.5mm (1.75 in.)*

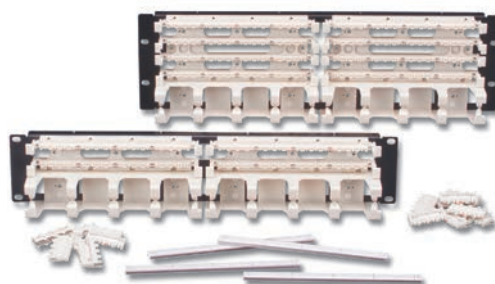


## S210 Field Terminated 19 inch Panels with Cable Managers

Part #	Description
S210DB2-64RWM. ....	64-Pair, 19 inch S210 field termination kit, 2U with cable managers and covers
S210DB2-128RWM. ....	128-Pair, 19 inch S210 field termination kit, 3U with cable managers and covers

*Note: 1U = 44.5mm (1.75 in.)*

*Each kit includes adequate connecting blocks to fully populate panel.*



## Vertically Mounted S210 Field Termination Kits

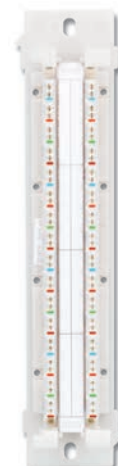
These 32-pair or 48-pair S210 blocks can be mounted on the same S89B or S89D brackets that hold our S66™ blocks. The high density 48-pair kit provides Category 6 performance in the same footprint as a standard M1-50 66 block. Field-termination kits include the S210 connecting blocks, designation labels and label holders.

Part #	Description
S210DB1-48FT-89. ....	48-Pair S210 field termination kit on an 89-type retainer*
S210DB1-32FT-89. ....	32-Pair S210 field termination kit on an 89-type retainer*

*\*S89 Brackets are not included and must be ordered separately.*



S210DB1-48FT-89



S210DB1-32FT-89

## S210® Tower Field Termination Kits

Part #	Description
S210MB2-192FT. ....	192-Pair, S210 Tower field termination kit height: 406mm (16 in.), width: 216mm (8.5 in.), depth: 152mm (6 in.)
S210MB2-256FT. ....	256-Pair, S210 Tower field termination kit height: 541mm (21.3 in.), width: 216mm (8.5 in.), depth: 152mm (6 in.)
S210MB2-320FT. ....	320-Pair, S210 Tower field termination kit height: 676mm (26.6 in.), width: 216mm (8.5 in.), depth: 152mm (6 in.)

Each kit includes adequate connecting blocks to fully populate tower.



## Large-Scale Vertical Cable Managers

The S188 large scale vertical cable manager for the S110®/S210 Towers accommodates our quarter-turn RS-CH cable managers. With the RS-CH managers installed, additional vertical channels can be integrated into the main channel to segregate patch cables and cross-connect wire.

Part #	Description
S188-300 .....	Large-scale vertical cable manager for use with 192-pair S210 Tower height: 406mm (16 in.), width: 216mm (8.5 in.), depth: 152mm (6 in.)
S188-400 .....	Large-scale vertical cable manager for use with 256-pair S210 Tower height: 541mm (21.3 in.), width: 216mm (8.5 in.), depth: 152mm (6 in.)
S188-500 .....	Large-scale vertical cable manager for use with 320-pair S210 Tower height: 676mm (26.6 in.), width: 216mm (8.5 in.), depth: 152mm (6 in.)



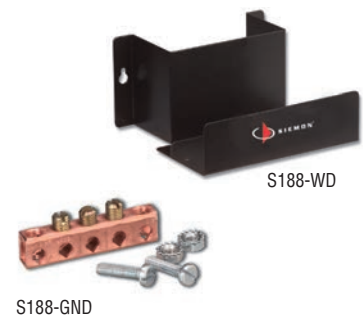
## Small-Scale Vertical Cable Managers

Part #	Description
S110M-WM-300. ....	Small-scale vertical cable manager, for use with 192-pair S210 Tower height: 406mm (16 in.), width: 76.2mm (3 in.), depth: 152mm (6 in.)
S110M-WM-400. ....	Small-scale vertical cable manager, for use with 256-pair S210 Tower height: 541mm (21.3 in.), width: 76.2mm (3 in.), depth: 152mm (6 in.)
S110M-WM-500. ....	Small-scale vertical cable manager, for use with 320-pair S210 Tower height: 676mm (26.6 in.), width: 76.2mm (3 in.), depth: 152mm (6 in.)



## S210 Tower Optional Accessories

Part #	Description
S188-WD .....	Metal duct for additional horizontal cable management at base of S210 Tower height: 114.3mm (4.5 in.), width: 215.9mm (8.5 in.), depth: 203.2mm (8 in.)
S188-GND .....	Ground kit consists of one, 3-position grounding busbar height: 9.0mm (0.35 in.), width: 50.8mm (2.0 in.), depth: 12.3mm (0.49 in.)



## S210® Connecting Block

Siemon S210 blocks terminate 22 – 26 AWG (0.64mm – 0.40mm) solid or 7-strand wires. They also incorporate markings to designate tip and ring conductors, colour-coded pairs on each block and Siemon's patent-pending Pyramid™ wire entry system to expedite lacing of pairs.

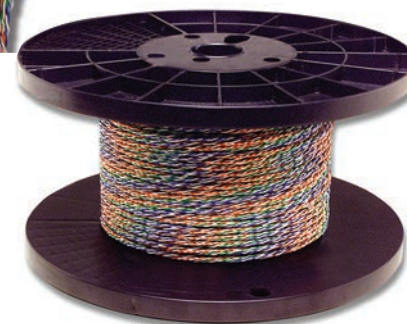
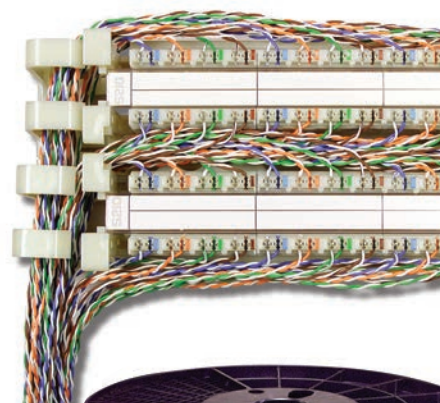
Part #	Description
S210C-4 . . . . .	4-Pair, S210 connecting block



## System 6® Cross-Connect Wire

Siemon's System 6 cross-connect is ideal for cross-connect applications up to 5 metres (15 ft.). It can be used for System 6 installations using S210® wiring blocks.

Part #	Description
CJ6-W4-1000 . . . . .	Category 6, 4-pair, 24 AWG (0.05mm), solid cross-connect wire, pair colours blue / orange / green / brown, 305mm spool



### COMPLIANCE

- ISO/IEC 11801:2002 2nd Edition (Category 6)
- IEC 61156-5:2002 (Category 6)
- TIA-568-C.2 (Category 6)

### CABLE CONSTRUCTION

- 0.5mm (0.02 in.) 24 AWG bare copper conductors
- 1.02mm (0.04 in.) insulation diameter nominal

## S110®/S210 Covers

The Siemon Company S110/S210 covers are available in 50- and 100-pair sizes (32- and 64-pair for S210). The cover easily snaps on and off wiring blocks and S110/S210 cable managers, and enhances the appearance of the S110/S210 installation. Removable icon tabs provide colour-coding on the front for compliance with the ANSI/TIA/EIA-606-A administration standard.

Part #	Description
S110-CVR-50-(XX) . . . . .	50-Pair S110 cover/32-pair S210 cover
S110-CVR-100-(XX) . . . . .	100-Pair S110 cover/64-pair S210 cover

Use (XX) to specify colour: 00 = Clear, 01 = Black, 20 = Ivory



Clear covers protect connections yet allow full viewing of circuits and individual station ID's.



## Wall Mount S110®/S210® Cable Managers

The Siemon S110/S210 cable managers are the foundation of a series of cable management products that are designed to support S110 or S210 cross-connects and patch panel applications. They can be ordered individually for field assembly in wall-mount applications. The cable managers are manufactured with high-strength, flame-retardant thermoplastic, and have been designed for easy cable insertion or withdrawal. The 2 RMS cable manager provides additional capacity for high-density patching applications.



### Cable Managers Without Legs

S110B1RMS. ....  
1U white cable manager  
without legs



S110B2RMS. ....  
2U white cable manager  
without legs



S110B1RMS-01. ....  
1U black cable manager  
without legs



S110B2RMS-01. ....  
2U black cable manager  
without legs



### Cable Managers With Legs

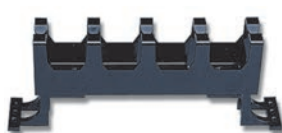
S110A1RMS. ....  
1U white cable manager  
with legs



S110A2RMS. ....  
2U white cable manager  
with legs



S110A1RMS-01. ....  
1U black cable manager  
with legs



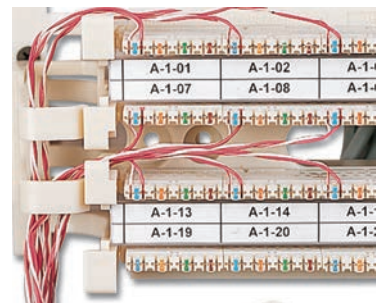
S110A2RMS-01. ....  
2U black cable manager  
with legs



Note: 1U = 44.5mm (1.75 in.)

## S100A2 Wire Manager

The S100A2 wire manager snaps onto the legs of the S110 or S210 blocks/legs to provide a channel for routing cross-connect wire or patch cords. One S100A2 is designed to be used with each 100-/64-pair leg (2 for 200-/128-pair, 3 for 300-/192-pair) to allow space to access the wires. The S100A2 can also be mounted side-by-side. The outside edges are flared and tapered for smoother wire entry and exit and preventing damage to the conductor insulation.



Part #	Description
S100A2. ....	Snap-on S110/S210, wire manager, white
S100A2-01. ....	Snap-on S110/S210, wire manager, black



## S210® Patch Plugs

The S210 patch plug utilises internal pair isolation, pair-to-pair compensation and layered contacts to improve cross-talk performance so that the mated plug and connecting block far exceed Category 6 connecting hardware transmission requirements. The clear housing keeps the conductor colours/positions visible to aid matching termination positions on the other end.

**Proper Orientation** — Directional arrow provided to assist in proper insertion orientation

**Tapered Lacing** — Enable easy lacing of pairs for quick field termination

**Ergonomic Handle** — Aids insertion and removal of patch plug

**Clear Housing** — Durable, flame-retardant, clear thermoplastic housing keeps conductors visible during and after termination

**Polarisation** — Each plug housing includes polarisation features to ensure proper orientation of the plug when connecting to the S210 block

### Technical Tip!

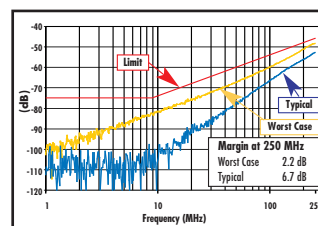
S210 to MC® 6 cable assemblies can be configured in the field. Siemon MC 6 modular cords can be purchased and cut in half. The cut end of the cord can then be field terminated to the S210P patch plug while the factory terminated and tested modular plug end remains undisturbed.

S210 patch plugs can be field-terminated to 23 – 26 AWG (0.40mm – 0.51mm) solid or 7-strand twisted-pair cable.



### Field Installable

Terminates 24-26 AWG (0.40mm-0.51mm) solid or 7-strand twisted-pair cable.



### NEXT Performance

The S210 4-pair plug provides unparalleled performance, with 6.7 dB NEXT (typical) and 2.2 dB NEXT (worst case) at 250 MHz.



### Easy Field Termination

Simply snap the base and cover together to mass terminate all conductors.

## S210 Patch Plugs

S210P4. ....  
4-Pair, field-terminated,  
S210 patch plug



S210P2. ....  
2-Pair, field-terminated,  
S210 patch plug



S210P1. ....  
1-Pair, field-terminated,  
S210 patch plug



## S210 Cable Assemblies

The S210 cable assemblies utilise Siemon's S210P4 patch plugs for easy and reliable connections between S210 termination fields. These assemblies use high performance stranded cable which exceeds Category 6 specifications and are 100% factory transmission tested to ensure optimum Category 6 channel performance. Coloured icons are available for colour-coding S210 plugs.

Part #	Description
S210P4-P4-(XX)M. ....	4-Pair, double-ended, S210 stranded cable assembly, white jacket
S210P2-P2-(XX)M. ....	2-Pair, double-ended, S210 stranded cable assembly, white jacket
S210P1-P1-(XX)M. ....	1-Pair, double-ended, S210 stranded cable assembly, white jacket

Use (XX) to specify cord length: 01 = 1m (3.3 ft.), 1.5 = 1.5m (5 ft.), 02 = 2m (6.6 ft.), 03 = 3m (9.8 ft.), 05 = 5m (16.4 ft.)

Custom lengths available upon request. Contact our Customer Service Department for more information.



## S210® to MC® 6 Cable Assemblies

The S210 to modular cable assemblies combine Siemon's high performing plugs for patching network equipment to S210 connecting blocks or providing test access to S210 termination fields. The combination of plugs, high performance cable and 100% factory transmission testing ensures performance is compatible with Category 6 channel specifications.

Part #	Description
S210P4A4-(XX)M-(XX) . . . . .	4-Pair, S210P4 to MC 6 stranded cable assembly, colour matching jacket/boot, T568B, CMG
S210P4T4-(XX)M-(XX) . . . . .	4-Pair, S210P4 to MC 6 stranded cable assembly, colour matching jacket/boot, T568A, CMG
S210P2E2-(XX)M-B(XX) . . . . .	2-Pair, S210P2 to MC 6 stranded cable assembly, white jacket with coloured boot, 10/100BASE-T, CMG

Use 1st (XX) to specify cord length:

01 = 1m (3.3 ft.), 1.5 = 1.5m (5 ft.), 02 = 2m (6.6 ft.), 03 = 3m (9.8 ft.), 05 = 5m (16.4 ft.)

Use 2nd (XX) to specify colour:

01 = Black, 02 = White, 03 = Red, 04 = Grey, 05 = Yellow, 06 = Blue, 07 = Green



## S210 Designation Labels

Siemon S210 wiring blocks allow for designation labels to be mounted between each row of connecting blocks. S210 designation labels feature S210 listings on the side to clearly identify the termination type, 4-pair markings and can also be used for colour-coding.

Part #	Description
S110-HLDR. . . . .	Transparent plastic label holders, bag of 6
S210-LBL-2. . . . .	4-Pair S210 marked white labels, bag of 6



## S110®/S210 Designation Label Sheets

Siemon's S110/S210 designation label sheets provide the ability to custom print labels used on S110 or S210 blocks.\*The sheets can be used to print 2-, 3-, 4-, or 5-pair labels and eliminate the need to order separate sheets for different configurations. There are 20 labels per side and both sides are marked so they can be reversed and re-printed in case of an error.

Part #	Description
S110-SHT(X). . . . .	S110/S210 Designation label sheets, package of 6

Use (X) to specify colour: 2 = White, 3 = Red, 4 = Grey, 5 = Yellow, 6 = Blue, 7 = Green, 8 = Violet, 9 = Orange, 60 = Brown

\*Visit our web site or contact our Technical Support Department for labelling software.



# Category 5e Shielded

In addition to the excellent EMI resistance and signal security provided by its shielded construction, Siemon's end-to-end Category 5e shielded system is guaranteed to deliver transmission performance margins in excess of industry standards for Category 5e. And thanks to the ultra-fast terminating Z-MAX® Category 5e shielded outlets and Quick-Ground™ patch panels, deploying a high-performance, noise-resistant shielded system is every bit as fast and easy as UTP.

## Section Contents

Z-MAX 5e Shielded Outlets . . . . . 4.1

Z-MAX 5e Shielded Patch Panels . . . . . 4.2

TERA®-MAX® Shielded Patch Panels . . . . . 4.2

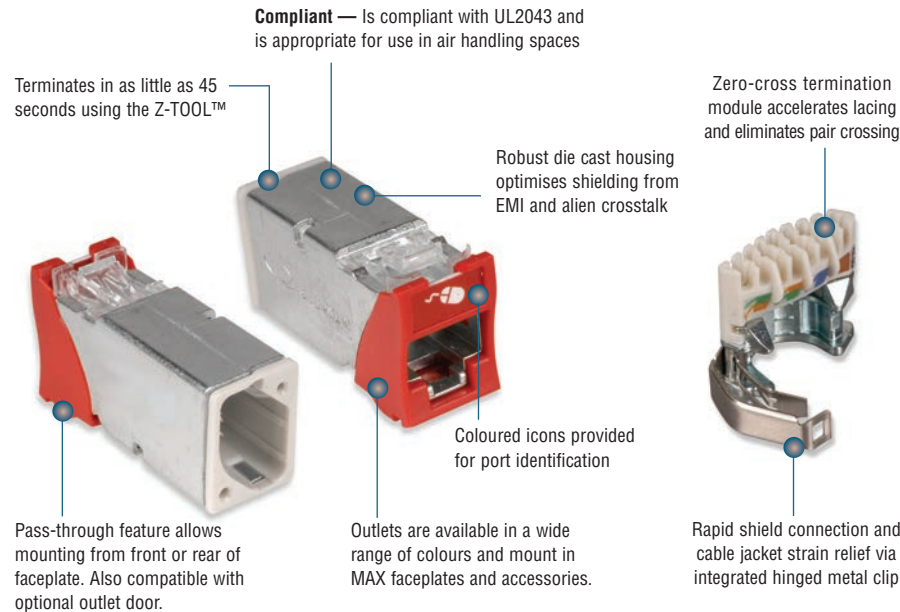
BladePatch® 5e Shielded Modular Cords . . . . . 4.3

MC® 5e Shielded Modular Cords . . . . . 4.4

Premium 5e™ F/UTP Cable (International) . . . . . 4.5

# Z-MAX® 5e Shielded Outlets

Combining exceptional Category 5e performance with best-in-class termination time, the Z-MAX 5e shielded outlet is a vital part of an end-to-end Z-MAX 5e shielded cabling system. The Z-MAX module exceeds all applicable Category 5e/Class D industry standards, including Amendments 1 and 2 of ISO/IEC 11801 Ed 2.0 and ANSI/TIA-568-C.2.



## User Friendly

The ergonomic and easy-to-use Z-TOOL ensures a fast, low force termination.



## Flexibility and Simplified Ordering

Hybrid design allows the same outlet to be mounted in flat or angled orientations.



## Ordering Information:

Z5-S(X)(XX)(X) . . . . . Shielded Z-MAX Category 5e outlet, T568A/B

Mounting Style	Bezel Colour	Door Option
(Blank) = Hybrid Flat/Angled	01= Black 06= Blue	(Blank) = No Door
K = Keystone	02= White 07= Green	D = Spring Door (Hybrid only)
	03= Red 09= Orange	
	04= Grey 20= Ivory	
	05= Yellow 80= Light Ivory	

Outlet terminates S/FTP, F/FTP and F/UTP cable constructions with 22 – 26 AWG (0.64 – 0.51mm) solid and 26 AWG (0.48mm) stranded conductors, with up to 0.60mm diameter conductors and up to 1.48mm diameter over insulation.

Ⓢ Add "B" to end of part number for bulk project pack of 100 modules. (hybrid modules include icons.).

Note. Keystone version is designed for integration with various 3rd party mounting products and is not compatible with MAX® mounting hardware.

## STANDARDS COMPLIANCE

- ISO/IEC 11801 Ed 2.0 Amendment 1
- ISO/IEC 11801 Ed 2.0 Amendment 2
- IEC 60603-7
- ANSI/TIA-568-C.2 (Category 5e)
- TIA-968-A (formerly FCC Part 68 Subpart F)



- |                                |                                 |
|--------------------------------|---------------------------------|
| Front                          | Rear                            |
| 1 - Red Data                   | 1 - Red Voice                   |
| 1 - Blue Data                  | 1 - Blue Voice                  |
| 1 - Bezel Colour-Matching Data | 1 - Bezel Colour-Matching Voice |
| 1 - White Blank                | 1 - Bezel Colour-Matching Blank |



# Z-MAX® 5e Shielded Patch Panels

Z-MAX 5e shielded patch panels provide unprecedented performance and reliability in a high-density modular solution. These complete patch panel kits combine 19 inch shielded patch panels with Z-MAX 5e shielded panel outlets to offer the industry's highest performing Category 5e patching solution.

These panels also accelerate installation through quick-snap module insertion and automatic grounding of modules via an embedded grounding conductor. The panel allows one- or two-hole ground lug connections to rack on cabinet grounding system. This complete shielded solution provides maximum protection from outside interference and superior 5e performance.

## Ordering Information:

### Part # Description

#### Fixed Wire Manager

Z5S-PNL(X)-24K.....	Z-MAX 24-port, Category 5e shielded patch panel kit, 1U, black, with outlets
Z5S-PNL(X)-U48K.....	Z-MAX 48-port, Category 5e shielded patch panel kit, 1U, black, with outlets
ZS-PNL(X)-24E.....	Z-MAX 24-port shielded patch panel, 1U, black, empty
ZS-PNL(X)-U48E.....	Z-MAX 48-port shielded patch panel, 1U, black, empty

Use (X) to specify mounting style: (Blank) = Flat, A = Angled

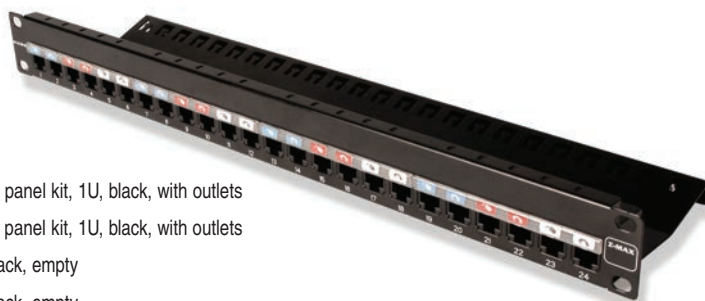
#### Removable Wire Manager

Z5S-P(X)-24.....	Z-MAX 24-port, Category 5e shielded patch panel with removable wire manager kit, 1U, black, with outlets
Z5S-P(X)-48.....	Z-MAX 48-port, Category 5e shielded patch panel with removable wire manager kit, 1U, black, with outlets
ZS-P(X)-24.....	Z-MAX 24-port shielded patch panel with removable wire manager, 1U, black, empty
ZS-P(X)-48.....	Z-MAX 48-port shielded patch panel with removable wire manager, 1U, black, empty

Use (X) to specify mounting style: F = Flat, A = Angled

Panels include Z-TOOL\*, label / icon holders, designation labels, cable ties, grounding lugs, and mounting hardware. Note: 1U = 44.5mm (1.75 in.)

\* included in kit only



## Panel Accessories:

### Part # Description

Z-PNL-PL24.....	Patch panel label sheet, numbered 1 to 24, bag of 100
Z-PNL-PL48.....	Patch panel label sheet, numbered 25 to 48, bag of 100
Z-PNL-P .....	Patch panel label holder (6-port each), bag of 25
Z5-SP .....	Z-MAX 5e shielded panel outlet
Z-BL-01.....	Z-MAX panel blank, bag of 10, black



Z-BL-01

Note: Z-MAX shielded patch panels designed for use with Z-MAX shielded panel outlets only

## TERA®-MAX® Patch Panels

### Part # Description

TM-PNLZ-24-01 .....	24-Port TERA-MAX panel, black, 1U
TM-PNLZ-24 .....	24-Port TERA-MAX panel, metallic, 1U
TM-PNLZA-24-01 .....	24-Port angled TERA-MAX panel, black, 1U
TM-PNLZA-24 .....	24-Port angled TERA-MAX panel, metallic, 1U

Panels include designation labels, cable ties, grounding lug and mounting hardware.

Note: 1U = 44.5mm (1.75 in.)

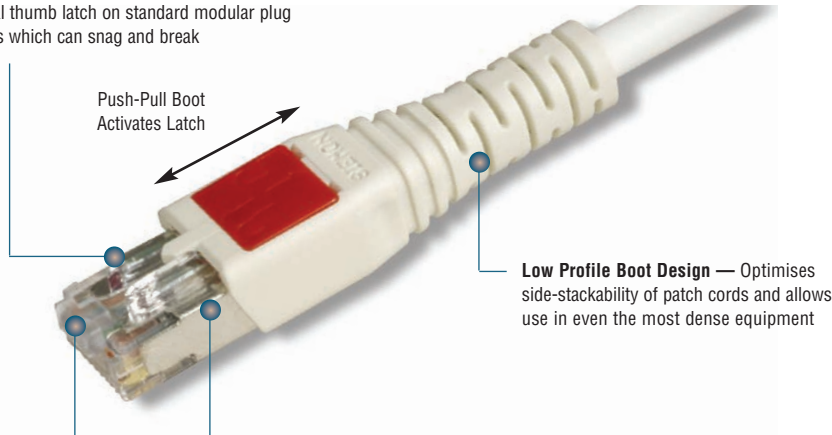


Note: TERA-MAX panels are designed for use with hybrid (flat/angled) shielded Z-MAX outlets. Also compatible with TERA outlets

# BladePatch® 5e Shielded Modular Cords

Siemon's Category 5e BladePatch cords offer a unique solution for high-density patching environments. They feature an innovative push-pull boot design to control the latch, enabling easy access and removal of the cord in tight-fitting areas. The BladePatch cords are ideal for patching blade servers, patch panels, or any equipment with high density RJ-45 outlets.

**Snagless** — Push-pull latch design eliminates external thumb latch on standard modular plug designs which can snag and break

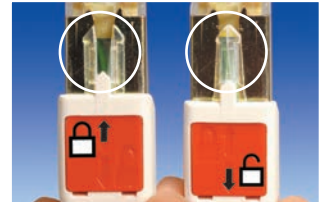


**Universal Wiring** — Compatible with T568A/B wiring schemes

**Revolutionary Design** — Patented push-pull latch design eliminates need to defeat thumb latch used in standard modular plug designs. Enables easy access and removal in high density patching environments



**Universal Compatibility**  
Fits within any standard RJ-45 outlet.



**Revolutionary Latch**  
Simply push the boot forward to latch into the outlet and pull back to release.



**High Density**  
The push-pull design enables easy access and removal via the boot in tight-fitting areas.

## Ordering Information:

Category 5e shielded BladePatch, double-ended modular patch cord with push-pull latching design, colour matching cord/boot, T568A/B, LSOH

BP5S-(XX)M-(XX)

Cord Length:	Cord Colour:		
03 = 0.9m (3 ft.)	01 = Black	04 = Grey	07 = Green
05 = 1.5m (5 ft.)	02 = White	05 = Yellow	08 = Violet
07 = 2.1m (7 ft.)	03 = Red	06 = Blue	09 = Orange
10 = 3.1m (10 ft.)			
15 = 4.6m (15 ft.)			
20 = 6.1m (20 ft.)			

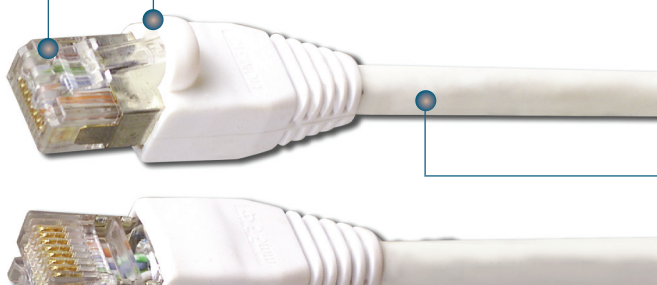
ⓑ Add "B" for bulk project pack of 100 modular cords.

# MC® 5e Shielded Modular Cords

Siemon's shielded MC 5e modular cords are manufactured using stranded shielded cable that meets all Category 5e specifications. Modular plugs have an overall shield and meet IEC 60603-7 and TIA-968-A specifications. T568A/B wired assemblies include coloured strain-relief boots and are available in a wide range of lengths.

**Universal Wiring** — Compatible with T568A/B wiring schemes

**Latch Guard** — Boots feature a latch guard to protect plug from snagging when pulling through pathways or cable managers



**Colour Options** — Variety of colour options available for circuit identification

**Superior Quality** — Quality plug components ensure long-term resistance to corrosion from humidity, extreme temperatures, and airborne contaminants



## Factory-Tested

Cords are factory terminated and transmission tested to ensure compliance with applicable standards requirements.

## Compliance

- Plug geometry meets IEC 60603-7 and TIA-968-A specifications for modular plugs
- Exceeds ISO/IEC 11801:2002 requirements for transfer impedance, coupling attenuation and shield effectiveness
- Stranded Cable: IEC 61156-6:2002 compliant
- LSOH Cordage: IEC 60332-1, IEC 60754, and IEC 61034 compliant



## Excellent Bend Relief

Boot ensures proper bend relief.

## Ordering Information:

Category 5e shielded MC, double-ended 4-pair stranded modular cord, colour matching jacket/boot, T568A/B, LSOH

MC5S-(XX)M-(XX)L

Cord Length	Cord Colour		
01 = 1m (3.3 ft.)	01 = Black	04 = Grey	07 = Green
1.5 = 1.5m (4.9 ft.)	02 = White	05 = Yellow	08 = Violet
02 = 2m (6.6 ft.)	03 = Red	06 = Blue	09 = Orange
03 = 3m (9.8 ft.)			
05 = 5m (16.4 ft.)			
7.5 = 7.5m (24.6 ft.)			



Ⓢ Add "B" to end of part number for bulk project pack of 100 cords.

# Premium 5e® F/UTP Cable (International)

## COMPLIANCE

- ISO/IEC 11801Ed 2.2 (Class D)
- IEC 61156-5 Ed 2.0 (Category 5e)
- ANSI/TIA-568-C.2 (Category 5e)
- EN 50288
- EN 50173
- UL CM, IEC 60332-1, Class E<sub>ca</sub>
- UL CMR and CSA FT4
- LSOH: IEC 60332-1, IEC 60754, IEC 61034, and Class E<sub>ca</sub>

## CABLE CONSTRUCTION

- F/UTP
- Nominal jacket OD: 6.1mm (0.24 in.)
- 0.5mm (0.02 in.) solid non-tinned copper
- 1.0mm (0.04 in.) max conductor insulation diameter
- Shield is an aluminium foil tape enclosing a 7 strand 0.6mm (0.02 in.) tinned copper drain wire
- Reverse sequential numbering

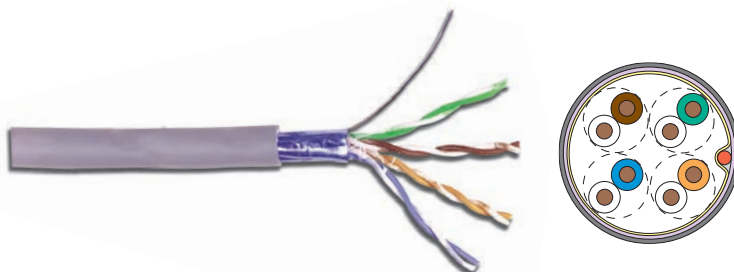
## Part #

## Description

9A5R4-E2 .....	PVC (CMR), blue jacket, 305m (1000 ft.) Reel-in-Box
9A5M4-E2 .....	PVC (CM, IEC 60332-1), grey jacket, Class E <sub>ca</sub> , 305m (1000 ft.) Reel-in-Box
9A5L4-E2 .....	LSOH (IEC 60332-1), violet jacket, Class E <sub>ca</sub> , 305m (1000 ft.) Reel-in-Box

Other cable lengths also available:

Add "-5CR" for (1640 ft.) 500m reel, "-1KR" for 1000m (3281 ft.) reel



## ELECTRICAL SPECIFICATIONS

DC Resistance	<9.38Ω/100m
DC resistance Unbalance	5%
Mutual Capacitance	5.6 nF/100m
Capacitance Unbalance	<330 pF/100m
Characteristic Impedance (ohms)	1-100 MHz: 100 ± 15% 100 - 250 MHz: 100 ± 22%
NVP	65%
LCL	40-10 log(f) dB
Delay Skew	≤40ns

## PHYSICAL PROPERTIES

	LSOH	CMR/CM
Pulling Tension (max)	110N (25 lbf)	110N (25 lbf)
Bend Radius (min)	25mm (1.0 in.)	25mm (1.0 in.)
Installation Temperature	0 to 60°C (+32 to 140°F)	-36 to 60°C (-33 to 140°F)
Storage Temperature	-20 to 75°C (-4 to 167°F)	-34 to 75°C (-29 to 167°F)
Operating Temperature	-20 to 60°C (-4 to 140°F)	-34 to 60°C (-29 to 140°F)

## TRANSMISSION PERFORMANCE

GUARANTEED WORSE CASE

SIEMON TYPICAL

Frequency (MHz)	Insertion Loss (dB)		NEXT (dB)		PS NEXT (dB)		ACR (dB)		PSACR (dB)		ACR-F (dB)		PS ACR-F (dB)		Return Loss (dB)		Propagation Delay (ns)	
1.0	2.1	1.9	65.3	79.3	62.3	72.3	63.2	77.4	60.2	70.4	63.8	84.8	60.8	78.8	20.0	27.0	570	545
4.0	4.1	3.7	56.3	70.3	53.3	63.3	52.2	66.6	49.2	59.6	51.8	72.8	48.8	66.8	23.0	32.0	552	527
10.0	6.5	5.8	50.3	64.3	47.3	57.3	43.8	58.5	40.8	51.5	43.8	64.8	40.8	58.8	25.0	32.0	545	520
16.0	8.3	7.4	47.2	61.2	44.2	54.2	39.0	53.8	36.0	46.8	39.7	60.7	36.7	54.7	25.0	32.0	543	518
20.0	9.3	8.3	45.8	59.8	42.8	52.8	36.5	51.5	33.5	44.5	37.8	58.8	34.8	52.8	25.0	32.0	542	517
31.25	11.7	10.5	42.9	56.9	39.9	49.9	31.1	46.4	28.1	39.4	33.9	54.9	30.9	48.9	23.6	30.0	540	515
62.5	17.0	15.0	38.4	52.4	35.4	45.4	21.4	37.4	18.4	30.4	27.9	48.9	24.9	42.9	21.5	30.0	539	514
100.0	22.0	19.3	35.3	49.3	32.3	42.3	13.3	30.0	10.3	23.0	23.8	44.8	20.8	38.8	20.1	30.0	538	513
160.0*	28.6	25.1	32.2	46.2	29.2	39.3	3.7	21.1	0.7	14.1	19.7	40.7	16.7	34.7	18.7	28.0	537	512
200.0*	32.4	28.1	30.8	44.8	27.8	37.8	-1.6	16.7	-4.6	9.7	17.8	38.8	14.8	32.8	18.0	27.0	536	512
250.0*	36.9	31.4	29.3	43.3	26.3	36.3	-7.5	11.9	-10.5	4.9	15.8	36.8	12.8	30.8	17.3	26.0	536	511
300.0*	41.0	34.5	28.1	42.1	25.1	35.1	-12.8	7.6	-15.8	0.6	14.3	35.3	11.3	29.3	16.8	25.0	536	511
350.0*	44.9	39.4	27.1	41.1	24.1	34.1	-17.7	1.7	-20.7	-5.3	12.9	33.9	9.9	27.9	16.3	24.0	536	511

\*Values above 100 MHz are for information only.

All performance based on 100 metres (328 ft.).

# Premium 5e® and Solution 5e™ UTP

Siemon’s end-to-end Premium 5e UTP cabling solution is guaranteed to provide transmission performance margins in excess of industry standards for Category 5e/Class D parameters, and has been independently verified to perform to 160 MHz.

All components are approved for use in a Premium 5e channel unless otherwise indicated. Only Premium 5e components are eligible for use in a Premium 5e channel.

Siemon’s Solution 5e UTP system is designed for 100 MHz Category 5e/Class D installations in which additional performance margins provided by the Premium 5e solution are not required.

Components specifically designed for use in a Solution 5e channels are indicated by product title. Both Solution 5e and Premium 5e components are eligible for use in a Solution 5e channel.

## Section Contents

MAX® 5e UTP Outlets . . . . . 5.1

HD® 5e UTP Patch Panels . . . . . 5.2 - 5.3

MAX® UTP Patch Panels . . . . . 5.4

MC® 5e UTP Modular Cords . . . . . 5.5 - 5.6

IC® 5e UTP Solid Modular Cords (International) . . . . 5.7 - 5.8

Premium 5e® UTP Cable (International) . . . . . 5.9



# MAX<sup>®</sup> 5e UTP Outlets

MAX 5e outlets exceed Category 5e performance with component and channel performance to 160 MHz. These outlets offer all the functional advantages of our MAX 6 modules in a variety of colour options. All outlets utilise our S310 punch-down block — making termination quick and easy.

**Easy Installation** — Install from either front or rear of faceplate

**Quick Identification** — Icons provided for port identification

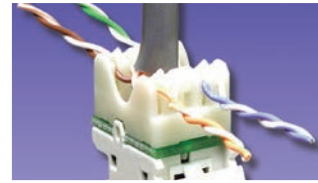
**Easy Termination** — Punch-down with standard single position 110 termination tools

**Compliant** — Is compliant with UL2043 and is appropriate for use in air handling spaces

**Universal Wiring** — T568A and T568B wiring compatible

**Protective Doors** — Minimise exposure to dust and other contaminants

**Slim Design** — Allows jacks to be side-stacked in faceplates to provide maximum density



## Quick Installation

Pyramid wire entry system on S310<sup>®</sup> blocks separates paired conductors when lacing cables to simplify and reduce installation time.



## Ultra Fast Termination

MAX 6 UTP outlets can be terminated using Siemon's MAX TurboTool<sup>™</sup>, in as little as 18 seconds.



## Contact Integrity

Featuring Siemon's patented crowned jack contact geometry that improves electrical and mechanical performance and ensures that any jack or plug contact damage due to arcing caused by unmating under PoE load occurs well away from the final mated contact position.



MX5-XX).....  
Angled MAX 5e outlet, T568A/B, rear strain relief cap and protective colour-matching rubber door



MX5-F(XX). ....  
Flat MAX 5e outlet, T568A/B, rear strain relief cap



MX5-K(XX). ....  
Keystone MAX 5e outlet, T568A/B, rear strain relief cap

Use (XX) to specify colour: 01 = Black, 02 = White, 03 = Red, 04 = Grey, 05 = Yellow, 06 = Blue, 07 = Green, 09 = Orange, 20 = Ivory, 25 = Bright White, 80 = Light Ivory

Angled outlets include one colour-matching, one red, and one blue icon.  
Door colour is clear for red, yellow, blue and orange angled outlets.

Flat modules include one colour-matching, one red, and one blue icon.

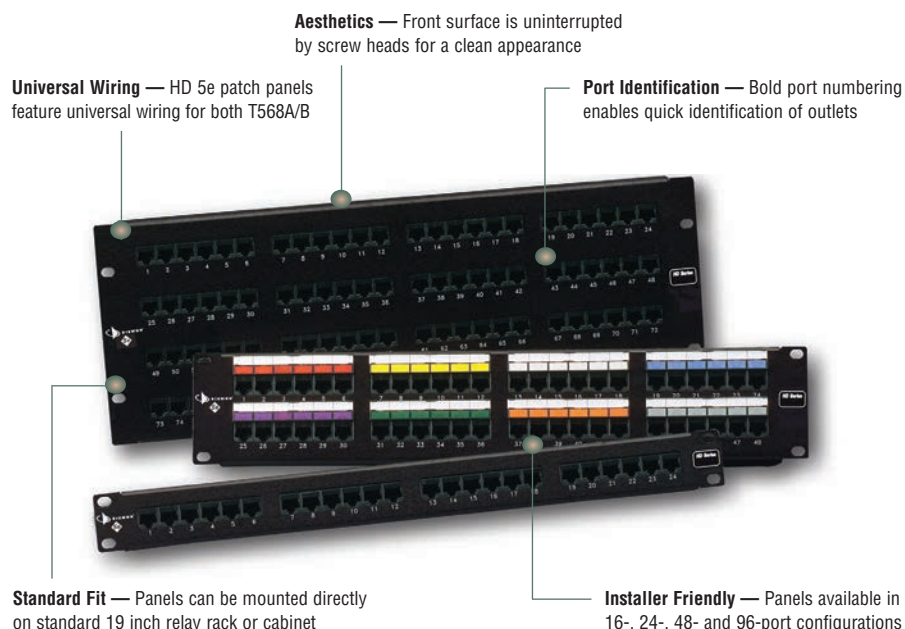
ⓑ Add "B" to end of part number for bulk project pack of 100 outlets (angled and flat outlets include icons).

Add "VP" to end of part number for value pack option. Value pack is a kit of 250 outlets, doors, terms caps and colour match icons.  
(Available in flat/ angled only. Door only included with angled version.)

Note: Keystone version is designed for integration with various 3rd party mounting products and is not compatible with MAX mounting hardware.

# HD® 5e UTP Patch Panels

Siemon's HD 5e series patch panels offer the most robust Category 5e patching solution in the industry. HD 5e panels feature universal T568A/B wiring and exceed Category 5e requirements with component and channel performance to 160 MHz. Compliant pin technology enables the use of multi-pair S110® punch-down tools to reduce termination time.



**Compliant Pin Technology**  
Allows the use of Siemon's multi-pair impact tool to significantly reduce termination time. S110 termination openings on the rear are compatible with S110 patch plugs.



**Rear Cable Management**  
Integrated rear cable manager properly guides cables to and from the rear of the panel.



**Quick Identification**  
Icon and label holder kits are included with every panel.

## HD 5e UTP Flat Patch Panels

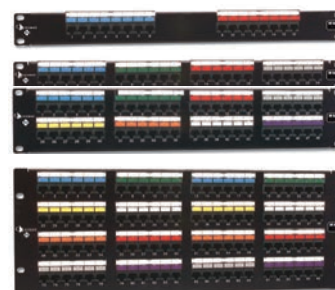
Part #	Description
HD5-16.....	16-Port Category 5e UTP HD patch panel, T568A/B, 1U, black
HD5-24.....	24-Port Category 5e UTP HD patch panel, T568A/B, 1U, black
HD5-32.....	32-Port Category 5e UTP HD patch panel, T568A/B, 2U, black
HD5-48.....	48-Port Category 5e UTP HD patch panel, T568A/B, 2U, black
HD5-96.....	96-Port Category 5e UTP HD patch panel, T568A/B, 4U, black

Panels include rear cable manager, icon/label holders, designation labels, cable ties, and mounting hardware.

Ⓢ Add "B" for bulk project pack of 5 panels (rear cable managers (p/n: HD-RWM) not included but can be ordered separately).

Note: 1U = 44.5mm (1.75 in.)

S310 termination blocks on 16- and 32-port HD 5e panels are not compatible with S110 multi-pair termination tools.



## HD 5e UTP Angled Patch Panels

Part #	Description
HD5-24A.....	24-Port angled Category 5e UTP HD patch panel, T568A/B, 1U, black
HD5-48A.....	48-Port angled Category 5e UTP HD patch panel, T568A/B, 2U, black
PNLA-CVR-01.....	Angled panel cover, black

Angled panels include one rear cable manager, designation labels, cable ties, and mounting hardware

Ⓢ Add "B" for bulk project pack of 5 panels (rear cable managers not included but can be ordered separately).

Note: 1U = 44.5mm (1.75 in.)



# HD5 Quick-Patch™ Panel\*

Siemon's HD5 Quick-Patch panel provides a quick and easy Category 5 channel patching solution for 10/100BASE-T hubs with 25-pair connectors. The HD5 Quick-Patch Panel incorporates many user-friendly features and benefits, including rear connectors that are staggered to enable easy routing of 25-pair cable to the connection point and a rear metal enclosure that protects printed circuitry. The black anodised panel can be mounted directly to a standard 19 inch rack or cabinet with the mounting hardware included. Icon/label holders and designation labels included.

Part #	Description
HD5-QP-48. . . . .	48-Port 10/100BASE-T panel (Active pins 1, 2, 3 & 6 only), four 25-pair connectors (female), 2U, black

Panel includes icon/label holders, designation labels, and mounting hardware.

Note: 1U = 44.5mm

\*Not eligible for Premium 5e or Solution 5e warranty



# MAX® UTP Patch Panels

## MAX UTP Patch Panels

Part #	Description
MX-PNL-16. . . . .	16-Port MAX patch panel, 1U, black



MX-PNL-24. . . . .	24-Port MAX patch panel, 1U, black
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Part #	Description
MX-PNL-48. . . . .	48-Port MAX patch panel, 2U, black



MX-PNL-72. . . . .	72-Port MAX patch panel, 2U, black
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Panels include rear cable manager, designation labels, cable ties, and mounting hardware.  
 MAX Panels are not compatible with shielded Z-MAX® or TERA® modules. Use the TERA-MAX® or Z-MAX shielded panel.  
 Note: 1U = 44.5mm (1.75 in.)

## Angled MAX UTP Patch Panels

Siemon's MAX series angled patch panels route cables directly into the vertical cable managers, eliminating the need for horizontal cable management between panels.

Part #	Description
MX-PNLA-24. . . . .	24-Port angled MAX UTP patch panel, 1U, black



Part #	Description
MX-PNLA-48. . . . .	48-Port angled MAX UTP patch panel, 2U, black

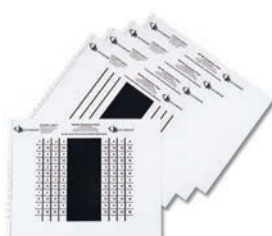


Part #	Description
PNLA-CVR-01. . . . .	Angled panel cover, black

Angled MAX panels are not compatible with shielded Z-MAX or TERA outlets. Use the angled TERA-MAX or Z-MAX shielded panel.  
 Angled MAX panels are not recommended for use with RS3 rack series. RS series racks are recommended.  
 Panels include mounting hardware. Rear cable manager not included.  
 Note: 1U = 44.5mm (1.75 in.)

## Optional Accessories

MX-PNL-LBL4*. . . . .	10 Sheets of laser printable labels for 16-port MAX panels
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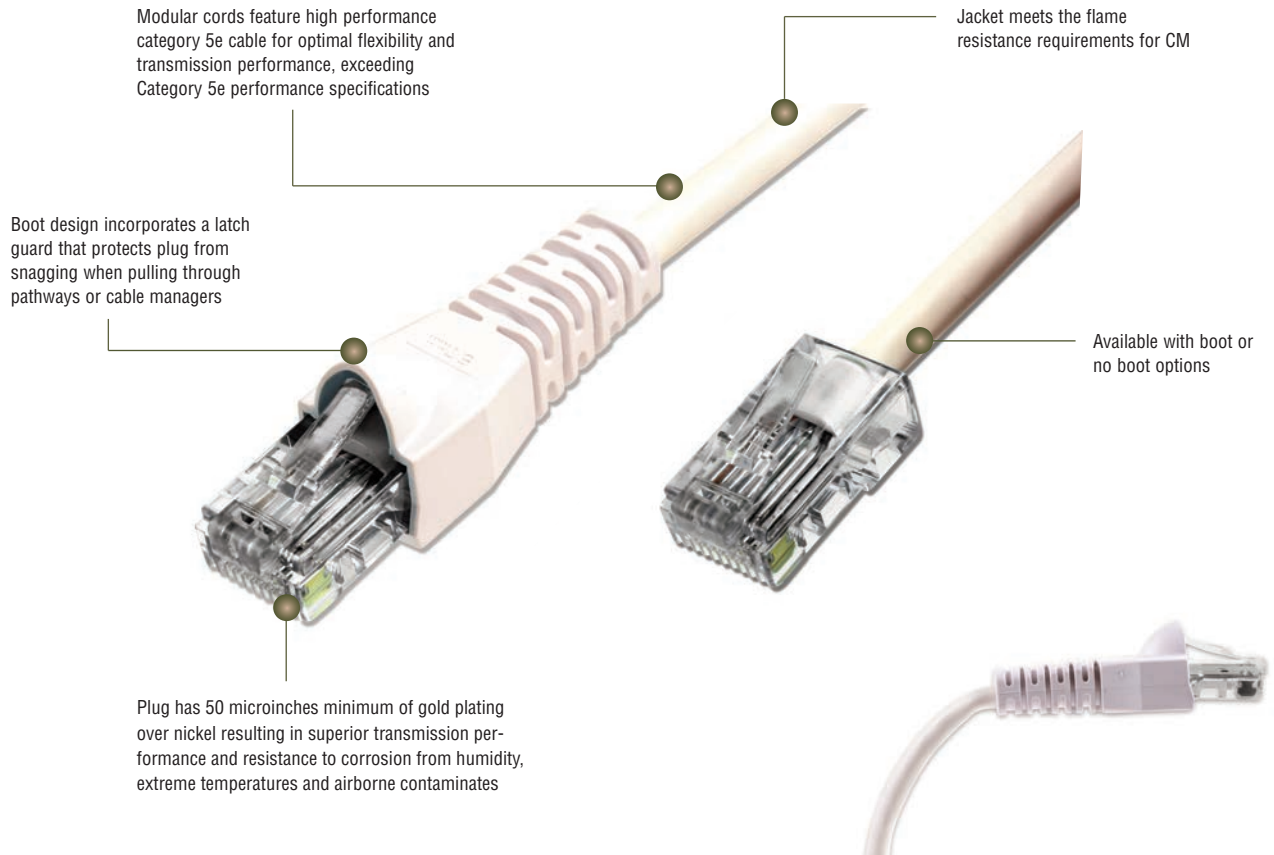
MX-PNL-LBL6*. . . . .	10 Sheets of laser printable labels for 24- and 48-port MAX panels
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\*Visit our web site or contact our Technical Support Department for labelling software.

# MC® 5e UTP Modular Cords - International

Siemon's MC series category 5e modular cords are key components to ensure optimum channel performance of our category 5e UTP systems. The cable used to manufacture the category 5e patch cords exceeds the Category 5e/Class D specifications set forth by both ISO/IEC 11801:2002 Ed 2.2 and ANSI/TIA-568-C.2.



## Excellent Bend Relief

Boot and integrated strain relief ensures proper bend relief, critical for category 5e performance



## STANDARDS COMPLIANCE

- ISO/IEC 11801: Ed 2.2 (Class D)
- IEC 60603-7
- ANSI/TIA-568-C.2 (Category 5e)
- cUL US Listed
- TIA-968-A (formerly FCC Part 68 Subpart F)



# Product Information

## PERFORMANCE SPECIFICATIONS

ELECTRICAL	
Contact Resistance	20 mΩ
Input to Output DC Resistance	200 mΩ
Min. Dielectric Withstand Voltage (contact to contact)	1000 V DC or AC peak
Insulation Resistance	500 mΩ
Current Rating @ 25° C	1.5 A
Power over Ethernet	Suitable for PoE and PoE+
MECHANICAL — GENERAL	
Operating Temperature	-10 to 60 °C, (14 to 140 °F)
Flammability Rating	UL 94 - V0
Green Features	RoHS
Contact Materials	Copper alloy with contact plating of 50 micro inches gold or equivalent
Plastic Materials	Flame retardant thermoplastic
Marking	P/N, length, performance level, QC
MECHANICAL — PLUG	
Number of Plug Insertion Cycles	750
Min. Plug Retention Force	50N (11.24 lbf)
Plug Compatibility	Compatible with RJ45 outlets

MECHANICAL — CABLE (STRANDED)	
Wire Size Range (nominal)	26 AWG 7x34 Stranded tinned copper
Cable Construction	UTP
Cable O.D. (nominal)	4.9mm (0.19 in.)
Wiring	T568B*
Jacket Type	CM
Bend Radius	6mm (0.24 in.)

\* Double-ended cords wired T568B are suitable for both T568A & T568B applications

## MC 5e UTP Modular Cords

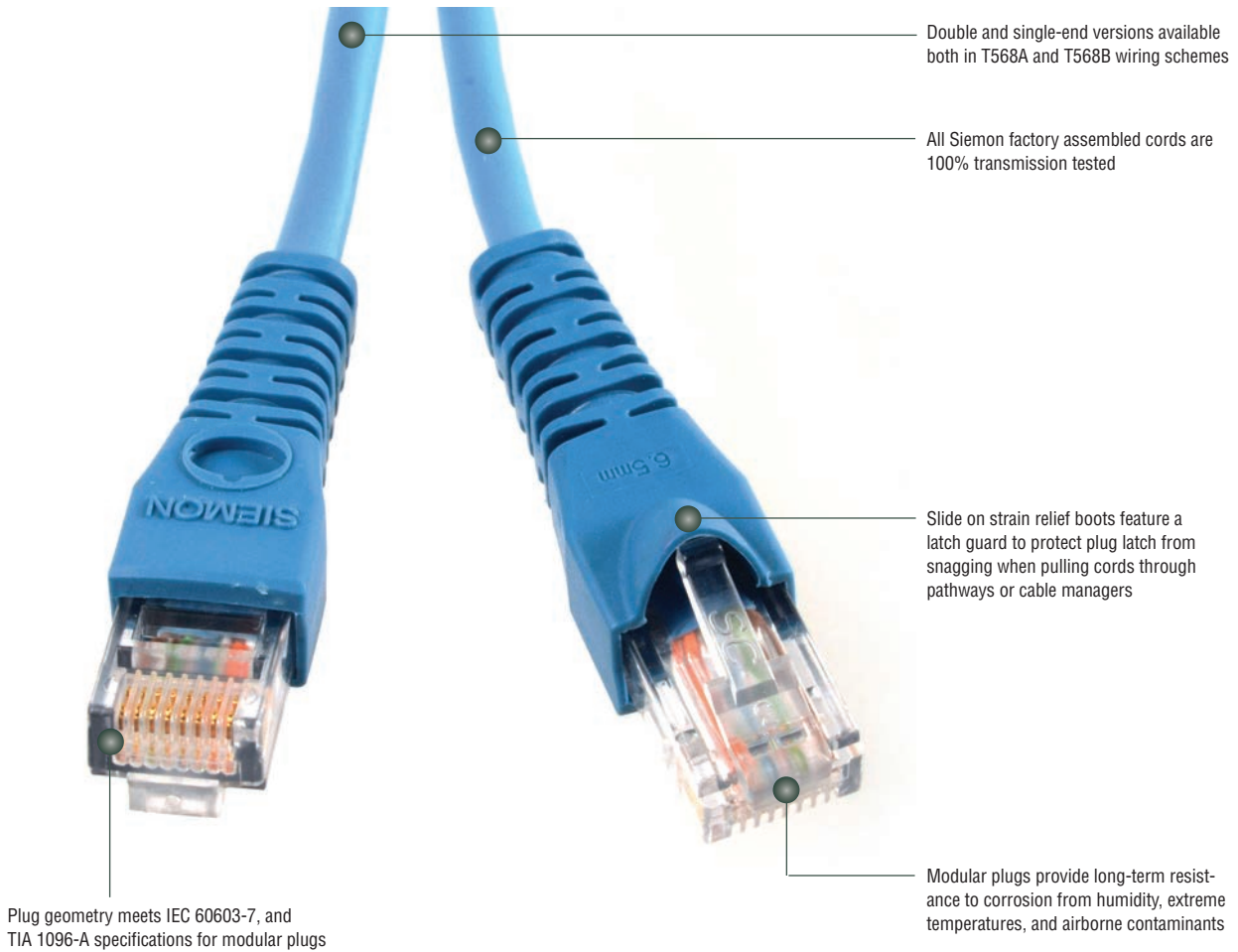
MC Category 5e, double-ended, 4-pair UTP stranded modular patch cord, booted and non-booted options available.

MC5-(XX)M-(XX)(XX)			
Cord Length	Boot Colour		
01 = 1m (3.3 ft.)	01 = Black	04 = Grey	07 = Green    Blank = No Boot
1.5 = 1.5m (5 ft.)	02 = White	05 = Yellow	08 = Violet
02 = 2m (6.5 ft.)	03 = Red	06 = Blue	09 = Orange
03 = 3m (9.8 ft.)	Cord Colour		
05 = 5m (16.4 ft.)	01 = Black	04 = Grey	07 = Green
7.5 = 7.5m	02 = White	05 = Yellow	08 = Violet
	03 = Red	06 = Blue	09 = Orange

Ⓑ Add “B” for bulk pack of 100 modular cords.

# IC® 5e UTP Solid Modular Cords - International

Siemon's Category 5e IC solid conductor modular cords are designed for use in Category 5e applications requiring a consolidation point (CP) or cross-connect (as an equipment cord). The cords are 100% factory transmission tested. These cords are available in CM, LSOH, and riser jacket and can be ordered single-ended for direct terminations or double-ended for extended length direct connections.



Non-Booted version also available



Strain and bend relief provides improved plug-to-cable retention and maximum performance by preventing pair deformation, as caused by mechanical strain

## COMPLIANCE

- ISO/IEC 11801 Ed. 2.2
- IEC 60603-7
- ANSI/TIA-568-C.2
- TIA-1096-A
- IEEE 802.3af (PoE)
- IEEE 802.3at (PoE+)
- ANSI/TIA-968-B
- UL CMR and CSA FT4
- UL CM
- LSOH: IEC 60332-1, IEC 60754, and IEC61034

# Product Information

## PERFORMANCE SPECIFICATIONS\*

ELECTRICAL	
Contact Resistance	20 mΩ
Input to Output DC Resistance	200 mΩ
Min. Dielectric Withstand Voltage (contact to contact)	1000 V DC or AC peak
Insulation Resistance	500 mΩ
Current Rating @ 25° C	1.5 A
Power over Ethernet	Suitable for all PoE applications
MECHANICAL — GENERAL	
Operating Temperature	-10 to 60 °C, (14 to 140 °F)
Flammability Rating	UL 94 - V0
Contact Materials	copper alloy
Plastic Materials	Flame retardant thermoplastic
Marking	P/N, length, performance level, QC

MECHANICAL — PLUG	
Number of Plug Insertion Cycles	750
Min. Plug Retention Force	50N (11.2 lbf)
Plug Compatibility	Compatible with RJ45 outlets
MECHANICAL — CABLE	
Wire Size (Nominal)	24 AWG solid
Construction	UTP
Cable O.D. (Nominal)	0.19 in. (4.8mm)
Wiring	T568A/B as specified by part #
Jacket Type	LSOH-1 CM Riser as specified by part #
Bend Radius	1.0 in. (25mm)

\*Refer to Siemon Cable spec sheets for additional performance, electrical and mechanical information.



## IC 5e Solid UTP Modular Cords

Siemon's IC5e solid conductor modular cords are available as single-ended or double-ended T568A or T568B assemblies. Siemon's solid, single-ended IC5e cable assemblies are designed for patching between the consolidation point and the back of the work area outlet or as equipment cords in cross-connect applications. These assemblies are constructed using cable that exceeds all Category 5e specifications.

## Ordering Information:

**NON-BOOT** IC5-8(X)-(XX)M(X)(X) . . . . . Category 5e IC, UTP solid cord,

<b>Wiring</b> <b>A</b> = T568B <b>T</b> = T568A	no boot
<b>Length</b> <b>03</b> = 3m (9.8 ft.) <b>05</b> = 5m (16.4 ft.) <b>10</b> = 10m (32.8 ft.) <b>15</b> = 15m (49.2 ft.) <b>20</b> = 20m (65.6 ft.)	<b>Termination Type</b> <b>Blank</b> = Single-Ended (RJ45 on one end) <b>D</b> = Double-Ended (RJ45 on both ends)
<b>Jacket Material</b> <b>*L</b> = LSOH, Violet Jacket <b>*M</b> = CM, Grey Jacket <b>R</b> = Riser, Blue Jacket	

**BOOT** IC5-8(X)-(XX)M-B(XX)(X)(X) . . . . . Category 5e IC, UTP solid cord, coloured boot

<b>Wiring</b> <b>A</b> = T568B <b>T</b> = T568A	coloured boot
<b>Length</b> <b>03</b> = 3m (9.8 ft.) <b>05</b> = 5m (16.4 ft.) <b>10</b> = 10m (32.8 ft.) <b>15</b> = 15m (49.2 ft.) <b>20</b> = 20m (65.6 ft.)	<b>Termination Type</b> <b>Blank</b> = Single-Ended (RJ45 on one end) <b>D</b> = Double-Ended (RJ45 on both ends)
<b>Boot Colour</b> <b>01</b> = Black <b>02</b> = White <b>03</b> = Red <b>04</b> = Grey <b>05</b> = Yellow <b>06</b> = Blue <b>07</b> = Green	<b>Jacket Material</b> <b>*L</b> = LSOH, Violet Jacket <b>*M</b> = CM, Grey Jacket <b>*R</b> = Riser, Blue Jacket

\*Cable assembly constructed with EU CPR rated cable - Eca

# Premium 5e® UTP 4-Pair Cable - International

## COMPLIANCE

- ISO/IEC 11801: Ed. 2.2 (Class D)
- IEC 61156-6-5 Ed. 2.0 (Category 5e)
- IEEE 802.3
- ANSI/TIA-568-C.2 (Category 5e)
- UL CM, IEC 60332-1, Class E<sub>ca</sub>
- UL CMR and CSA FT4
- LSOH: IEC 60332-1, IEC 60754, IEC 61034, and Class E<sub>ca</sub>

## CABLE CONSTRUCTION

- UTP
- Nominal jacket OD: 5mm (0.20 in.)
- 0.5mm solid (non-tinned) copper
- 1.0mm max conductor insulation diameter
- Reverse sequential numbering

## Part #

## Description

9C5R4-E2.....	PVC (CMR, CSA FT4), blue jacket, 305m (1000 ft.) Reelex
9C5M4-E2.....	PVC (CM), grey jacket, Class E <sub>ca</sub> 305m (1000 ft.) Reelex
9C5L4-E2.....	LSOH (IEC 60332-1), violet jacket, Class E <sub>ca</sub> 305m (1000 ft.) Reelex

Other cable lengths also available:

Add "-5CR" for 500m (1640 ft.) reel, "-1KR" for 1000m (3280 ft.) reel



## ELECTRICAL SPECIFICATIONS

DC Resistance	<9.38Ω/100m
DC resistance Unbalance	5%
Mutual Capacitance	5.6 nF/100m
Capacitance Unbalance	<330 pF/100m
Characteristic Impedance (ohms)	1-100 MHz: 100 ± 15% 100-350 MHz: 100 ± 22%
NVP	65%
Delay Skew	≤40ns

## PHYSICAL PROPERTIES

	LSOH	CM/CMR
Pulling Tension (max)	110N (25 lbf)	110N (25 lbf)
Bend Radius (min)	25mm (1 in.)	25mm (1 in.)
Installation Temperature	0 to 60°C (+32 to 140°F)	0 to 60°C (+32 to 140°F)
Storage Temperature	-20 to 75°C (-4 to 167°F)	-20 to 75°C (-4 to 167°F)
Operating Temperature	-20 to 60°C (-4 to 140°F)	-20 to 60°C (-4 to 140°F)

## TRANSMISSION PERFORMANCE

GUARANTEED WORSE CASE

SIEMON TYPICAL

Frequency (MHz)	Insertion Loss (dB)		NEXT (dB)		PS NEXT (dB)		ACR (dB)		PSACR (dB)		ACR-F (dB)		PS ACR-F (dB)		Return Loss (dB)		Propagation Delay (ns)	
1.0	2.1	1.9	65.3	79.3	62.3	72.3	63.2	77.4	60.2	70.4	63.8	84.8	60.8	78.8	20.0	27.0	570	545
4.0	4.1	3.7	56.3	70.0	53.3	63.3	52.2	66.6	49.2	59.6	51.8	72.8	48.8	66.8	23.0	32.0	552	527
10.0	6.5	5.8	50.3	64.3	47.3	57.3	43.8	58.5	40.8	51.5	43.8	64.8	40.8	58.8	25.0	32.0	545	520
16.0	8.3	7.4	47.2	61.2	44.2	54.2	39.0	53.8	36.0	46.8	39.7	60.7	36.7	54.7	25.0	32.0	543	518
20.0	9.3	8.3	45.8	59.8	42.8	52.8	36.5	51.5	33.5	44.5	37.8	58.8	34.8	52.8	25.0	32.0	542	517
31.25	11.7	10.5	42.9	56.9	39.9	49.9	31.1	46.4	28.1	39.4	33.9	54.9	30.9	48.9	23.6	30.0	540	515
62.5	17.0	15.0	38.4	52.4	35.4	45.4	21.4	37.4	18.4	30.4	27.9	48.9	24.9	42.9	21.5	30.0	539	514
100.0	22.0	19.3	35.3	49.3	32.3	42.3	13.3	30.0	10.3	23.0	23.8	44.8	20.8	38.8	20.1	30.0	538	513
160.0*	28.6	25.1	32.2	46.2	29.2	39.2	3.7	21.1	0.7	14.1	19.7	40.7	16.7	34.7	18.7	28.0	537	512
200.0*	32.4	28.1	30.8	44.8	27.8	37.8	-1.6	16.7	-4.6	9.7	17.8	38.8	14.8	32.8	18.0	27.0	537	512
250.0*	36.9	31.4	29.3	43.3	26.3	36.3	-7.5	11.9	-10.5	4.9	15.8	36.8	12.8	30.8	17.3	26.0	536	511
300.0*	41.0	34.5	28.1	42.1	25.1	35.1	-12.8	7.6	-15.8	0.6	14.3	35.3	11.3	29.3	16.8	25.0	536	511
350.0*	44.9	39.4	27.1	41.1	24.1	34.1	-17.7	1.7	-20.7	-5.3	12.9	33.9	9.9	27.9	16.3	24.0	536	511

\*Values above 100 MHz are for information only.

All performance based on 100 metres (328 ft.).

# S110® Connecting Block System

Siemon's S110 connecting block systems and accessories combine Category 5e performance with user-friendly installation features.

- Multi-application support — Ideal for use in cross-connect and consolidation point applications
- Durable design — Rugged high impact, flame-retardant polycarbonate easily withstands force of impact tools
- Full line — Complete system includes field terminated and pre-wired blocks, connecting blocks, patch cords, cable managers and more.

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S110® Connecting Block System . . . . . 5.11 - 5.13

S110 Patch Plugs and Cable Assemblies . . . . . 5.14

S110 Tower Kits . . . . . 5.15

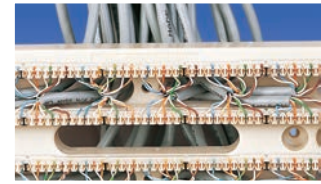
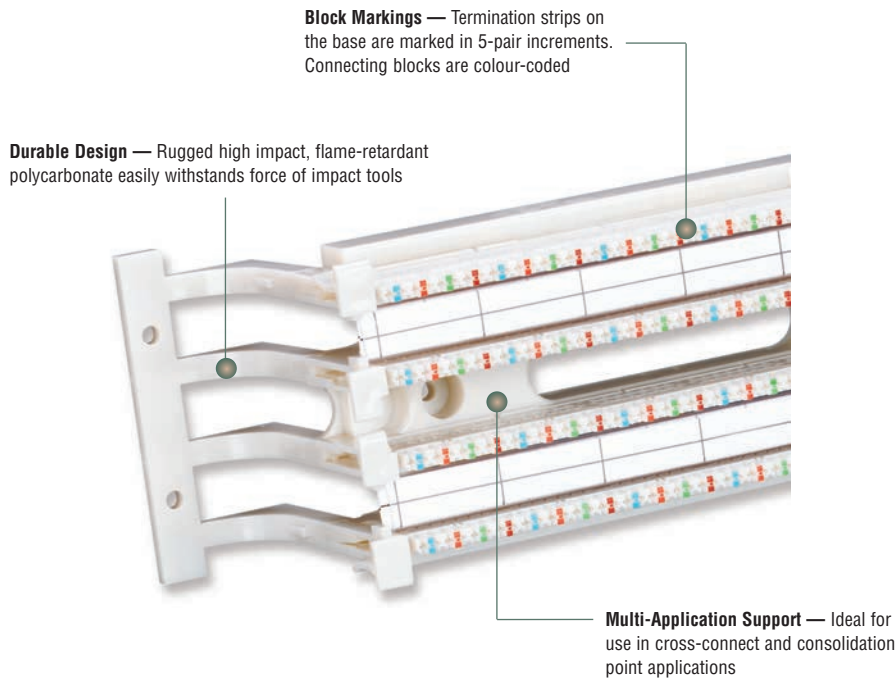
XLBET Frame . . . . . 5.16





# S110® Connection System

Siemon S110 field termination kits combine Category 5e performance with unparalleled installation features. Each kit includes connecting blocks to complete each 25-pair termination strip on the S110 wiring block.



## Patented Cable Access Openings

Allow cables to be routed through the rear of the block directly to the point of termination.



## Detachable Blocks

Another patented Siemon innovation allows 50- and 100-pair wiring blocks to be detached from their mounting legs providing easy access to cables.



## Labelling

Designation strips with interchangeable coloured labels can be mounted in the centre and/or outside positions.

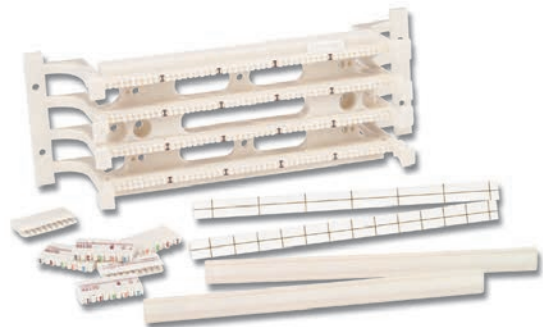
## S110 Field Termination Kits

Complete S110 installation kits include S110 wiring blocks with detachable legs\*, S110 connecting blocks, and label holders with white designation labels.

Part #	Description
S110A(X)1-50FT. ....	50-Pair S110 field termination kit height: 45.7mm (1.8 in.) width: 272mm (10.7 in.) depth: 82.8mm (3.3 in.)
S110A(X)2-100FT. ....	100-Pair S110 field termination kit height: 91.4mm (3.6 in.) width: 272mm (10.7 in.) depth: 82.8mm (3.3 in.)
S110A(X)2-300FT*. ....	300-Pair S110 field termination kit height: 274mm (10.8 in.) width: 272mm (10.7 in.) depth: 82.8mm (3.3 in.)

Use (X) to specify connecting block size: A = 5-Pair, B = 4-Pair

\*Legs detachable on 50- and 100-pair version only.



## S110® Connecting Blocks

Siemon category 5e S110C blocks terminate 22-26 AWG (0.64mm-0.40mm) solid or 7-strand wires. They also offer markings to designate tip and ring conductors and colour-coded pairs on each block and a patented single-piece, robust construction.



S110C-4. . . . .  
4-Pair connecting block,  
blue/orange/green/brown



S110C-5. . . . .  
5-Pair connecting block,  
blue/orange/green/ brown/slate

## S110 Wiring Blocks

### Wiring Blocks With Legs

S110AW1-50. . . . .  
50-Pair, 110 wiring block with legs  
*height: 45.7mm (1.8 in.)*  
*width: 272mm (10.7 in.)*  
*depth: 82.8mm (3.3 in.)*

S110AW2-100. . . . .  
100-Pair, 110 wiring block with legs  
*height: 91.4mm (3.6 in.)*  
*width: 272mm (10.7 in.)*  
*depth: 82.8mm (3.3 in.)*

S110AW2-200. . . . .  
200-Pair, 110 wiring block with legs  
*height: 182.9mm (7.2 in.)*  
*width: 272mm (10.7 in.)*  
*depth: 82.8mm (3.3 in.)*

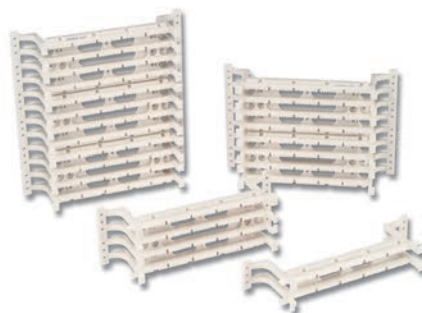
S110AW2-300. . . . .  
300-Pair, 110 wiring block with legs  
*height: 274.3mm (10.8 in.)*  
*width: 272mm (10.7 in.)*  
*depth: 82.8mm (3.3 in.)*

### Wiring Blocks Without Legs

S110DW1-25. . . . .  
25-Pair, 110 wiring block without legs  
*height: 16.0mm (.6 in.)*  
*width: 216mm (8.5 in.)*  
*depth: 35.8mm (1.4 in.)*

S110DW1-50. . . . .  
50-Pair, 110 wiring block without legs  
*height: 42.4mm (1.7 in.)*  
*width: 216mm (8.5 in.)*  
*depth: 35.8mm (1.4 in.)*

S110DW2-100. . . . .  
100-Pair, 110 wiring block without legs  
*height: 88.1mm (3.5 in.)*  
*width: 216mm (8.5 in.)*  
*depth: 35.8mm (1.4 in.)*



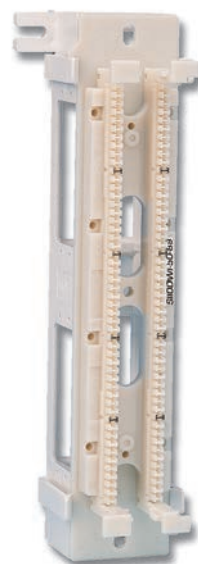
## Vertically Mounted S110 Blocks

This 50-pair S110 block can be mounted on the same S89B bracket that holds our S66™ blocks. The wiring base is available separately or as part of a field-terminated kit that includes the 4- or 5-pair connecting blocks and designation strips.

Part #	Description
S110DW1-50-89. . . . .	50-Pair S110 wiring base on an 89-type retainer.* S110 connecting blocks are not included <i>height: 254.0mm (10 in.)</i> <i>width: 85.9mm (3.4 in.)</i> <i>depth: 86.6mm (3.4 in.)</i> (dimensions include S89 bracket)
S110D(X)1-50FT-89. . . . .	50-Pair S110 field termination kit on an 89-type retainer.* Includes S110 connecting blocks and designation strips <i>height: 254.0mm (10 in.)</i> <i>width: 85.9mm (3.4 in.)</i> <i>depth: 86.6mm (3.4 in.)</i> (dimensions include S89 bracket)

Use (X) to specify connecting blocks: A = 5-Pair; B = 4-Pair

\*S89 brackets are not included and must be ordered separately.



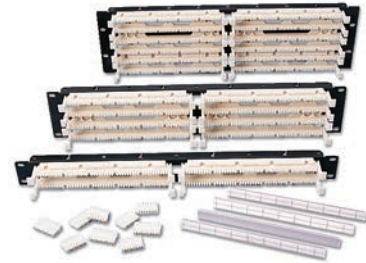
## S110® 19 Inch Field Termination Panels

S110 panels allow wiring blocks to be mounted directly to a 19 inch CEA rack or cabinet. Each panel includes adequate connecting blocks to complete each 25-pair termination strip on the S110 block (e.g. S110DB1-100RFT would include five 4-pair and one 5-pair connecting block per 25-pair termination strip, or a total of twenty 4-pair and four 5-pair connecting blocks).

Part #	Description
S110D(X)1-100RFT . . . . .	100-Pair, 19 inch panel, S110 field termination kit, 1U
S110D(X)1-200RFT . . . . .	200-Pair, 19 inch panel, S110 field termination kit, 2U
S110D(X)1-300RFT . . . . .	300-Pair, 19 inch panel, S110 field termination kit, 3U

Use (X) to specify connecting block size: A = 5-Pair, B = 4-Pair

Note: 1U = 44.5mm (1.75 in.)

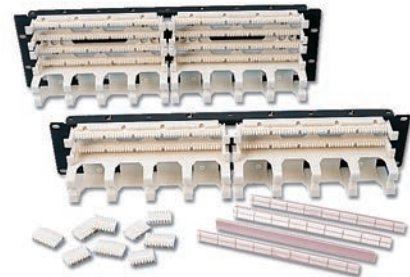


## S110 19 Inch Field Termination Panels with Cable Managers

Part #	Description
S110D(X)2-100RWM. . . . .	100-Pair, 19 inch panel, S110 field termination kit, 1U with cable managers and covers
S110D(X)2-200RWM. . . . .	200-Pair, 19 inch panel, S110 field termination kit, 2U with cable managers and covers

Use (X) to specify the connecting blocks: A = 5-Pair, B = 4-Pair

Note: 1U= 44.5mm (1.75.in.)



## S110 Designation Labels

Siemon S110 wiring blocks allow designation labels to be mounted between each row of connecting blocks. Each label has 2-, 3-, 4-, and 5-pair markings and may be used for colour-coding services in accordance with TIA/EIA-606-A.

Part #	Description
S110-HLDR. . . . .	Transparent plastic label holders, bag of 6
S110-LBL-(X). . . . .	2-, 3-, 4-, and 5-Pair marked coloured labels, bag of 6

Use (X) to specify colour: 2 = White, 6 = Blue, 7 = Green



# S110® Patch Plugs and Cable Assemblies

## S110 Patch Plugs

Siemon S110 patch plugs are both Category 5e compliant and can be field-terminated to either solid or stranded cable. 4-pair S110 patch plugs employ a patented design to improve electrical isolation between pairs, enhancing cross-talk performance so that the mated plug and connecting block significantly exceed Category 5e transmission requirements.

**Ergonomic Handle** — Aids insertion and removal of patch plug

**Clear Housing** — Durable, flame-retardant, clear thermoplastic housing keeps conductors visible during and after termination

**Easy Termination** — Simply snap the base and cover together to mass terminate all conductors

**Field Installable** — Terminates 24-26 AWG (0.40mm-0.51mm) solid or 7-strand twisted-pair UTP cable

**Polarisation** — Each plug housing includes polarisation features to ensure proper tip-ring orientation during connection

S110P4.....  
4-Pair, field-terminated,  
S110 patch plug



S110P2.....  
2-Pair, field-terminated,  
S110 patch plug



S110P1\*.....  
1-Pair, field-terminated,  
S110 patch plug



ⓑ Add “-B” to end of part number for bulk project pack of 100 patch plugs.

\*S110P1 includes protective insert for use with single pair cross-connect wire.

Coloured icons are available for colour-coding 4-pair S110 plugs (sold separately)

## S110 Cable Assemblies

The S110 cable assemblies utilise Siemon's S110P4 patch plugs for easy and reliable connections between S110 termination fields. These assemblies use high performance stranded cable which exceeds Category 5e specifications and are factory transmission tested to ensure optimum Category 5e channel performance. Coloured icons are available for colour-coding 4-pair S110 plugs.

Part #	Description
S110P4-P4-(XX)M.....	4-Pair, double-ended stranded S110 cord, CMG
S110P2-P2-(XX)M.....	2-Pair, double-ended stranded S110 cord, CMG
S110P1-P1-(XX)M.....	1-Pair, double-ended stranded S110 cord, CMG

Use (XX) to specify length: 03 = 3m (9.8 ft.), 05 = 5m (16.4 ft.), 07 = 7m (22.9 ft.), 10 = 10m (32.8 ft.), 15 = 15m (49.2 ft.), 20 = 20m (65.6 ft.)



## S110 to MC® Cable Assemblies

The S110 to modular cable assemblies combine Siemon's high performance modular plugs for patching network equipment to S110 connecting blocks or providing test access to S110 termination fields. The combination of plugs, high performance cable and factory transmission testing ensures performance is compatible with Premium 5e or lower systems.

Part #	Description
S110P4-A4-(XX)M.....	Category 5e, 4-pair, S110-to-modular plug, T568B, standard cable assembly, CMG
S110P4-T4-(XX)M.....	Category 5e, 4-pair, S110-to-modular plug, T568A, standard cable assembly, CMG
S110P2-UT-(XX)M.....	Category 5e, 2-pair, S110-to-modular 8-position plug, Token Ring, T568A, standard cable assembly, CMG
S110P2-E2-(XX)M.....	Category 5e, 2-pair, S110-to-modular 8-position plug, 10/100BASE-T, T568B, standard cable assembly, CMG
S110P1-U1-(XX)M.....	Category 5e, 1-pair, S110-to-modular 6-position plug, USOC, standard cable assembly, CMG
S110P1-U4-(XX)M.....	Category 5e, 1-pair, S110-to-modular 8-position plug, USOC, standard cable assembly, CMG

Use 1st (XX) to specify length: 03 = 3m (9.8 ft.), 05 = 5m (16.4 ft.), 07 = 7m (22.9 ft.), 10 = 10m (32.8 ft.), 15 = 15m (49.2 ft.), 20 = 20m (65.6 ft.)





# S110® Tower Kits

## S110 Tower Field Termination Kits

The S110 Tower System provides a modular high-density cross-connect cable management system. S110 Tower Systems are shipped unassembled to simplify field assembly and termination.

Part #	Description
S110M(X)2-300FT. . . . .	300-Pair S110 Tower field termination kit height: 406.4mm (16.0 in.), width: 215.9mm (8.5 in.), depth: 152.6mm (6.0 in.)
S110M(X)2-400FT. . . . .	400-Pair S110 Tower field termination kit height: 541.3mm (21.3 in.), width: 215.9mm (8.5 in.), depth: 152.6mm (6.0 in.)
S110M(X)2-500FT. . . . .	500-Pair S110 Tower field termination kit height: 676.1mm (26.6 in.), width: 215.9mm (8.5 in.), depth: 152.6mm (6.0 in.)

Use (X) to specify connecting block size: A = 5-Pair, B = 4-Pair



## S110 Tower Optional Accessories

Part #	Description	Part #	Description
S188-300. . . . .	Large-scale vertical cable manager for use with 300-pair Tower height: 406.4mm (16.0 in.), width: 215.9mm (8.5 in.), depth: 190.5mm (7.5 in.)	S110M-WM-300. . . . .	Small-scale vertical cable manager for use with 300-pair Tower height: 406.0mm (16.0 in.), width: 76.2mm (3.0 in.), depth: 153.0mm (6.1 in.)
S188-400. . . . .	Large-scale vertical cable manager for use with 400-pair Tower height: 541.3mm (21.3 in.), width: 215.9mm (8.5 in.), depth: 190.5mm (7.5 in.)	S110M-WM-400. . . . .	Small-scale vertical cable manager for use with 400-pair Tower height: 541.2mm (21.3 in.), width: 76.2mm (3.0 in.), depth: 153.0mm (6.1 in.)
S188-500. . . . .	Large-scale vertical cable manager for use with 500-pair Tower height: 676.1mm (26.6 in.), width: 215.9mm (8.5 in.), depth: 190.5mm (7.5 in.)	S110M-WM-500. . . . .	Small-scale vertical cable manager for use with 500-pair Tower height: 675.9mm (26.6 in.), width: 76.2mm (3.0 in.), depth: 153.0mm (6.1 in.)
S188-WD. . . . .	Metal duct for additional horizontal cable management at base of Tower height: 114.3mm (4.5 in.), width: 215.9mm (8.5 in.), depth: 203.2mm (8.0 in.)		



Tower with S188



S188



S188-WD



S110M-WM



# XLBET Frame

The Siemon XLBET (Extra Large Building Entrance Terminal) frames are designed for use in large installations where space is a premium. Compatible with Siemon’s vertical patching (VPCA, VCM) and cable management (RS-CNL) channels.

## XLBET Frame

Part #	Description
XL-(XX)00. ....	7 ft. x 23 in. XLBET frame. Includes rack, wire management and mounting hardware. S110® wiring blocks not included height: 2133.6mm (84.0 in.) width: 617.5mm (24.3 in.) depth: 406.4mm (16.0 in.)

Use (XX) to specify pair count: 36 = 3600-Pair, 72 = 7200-Pair

## XLBET Frame with S110 Wiring Blocks

Part #	Description
XL-(XX)00-W. ....	7 ft. x 23 in. XLBET frame. Includes rack, wire management, S110 wiring blocks, clear designation holders, labels, and mounting hardware (S110 connecting blocks not included)

Use (XX) to specify pair count: 36 = 3600-Pair, 72 = 7200-Pair

## Optional Accessories

Part #	Description
XL-CK. ....	Concrete mounting kit. Includes hardware to secure one 23 or 35 inch XLBET frame to a concrete floor
XL-(X)-3600. ....	S110 connecting block kit. Includes the appropriate number of 4- or 5-pair connecting blocks to fully populate a 3600-pair frame. Two kits can be ordered for 7200-pair frames

Use (X) to specify connecting blocks: A = 5-Pair, B = 4-Pair







**Siemon's LightHouse line of high-performance fibre optic cable and connectivity delivers a comprehensive solution set to meet nearly any network infrastructure need:**

- A complete line of rapidly-deployed, high-density Plug and Play solutions supporting up to 40 and 100Gb/s speeds - Including the innovative LightStack® ultra high-density Plug and Play system
- Comprehensive family of fibre enclosures, supporting up to 1152 fibre ports per enclosure
- High-performance, factory tested jumpers and pigtails including Siemon's innovative push-pull LC BladePatch®
- Field-terminated connectivity — multiple LC, SC and MTP configurations
- Preterminated and tested trunking cable assemblies available in custom lengths, fibre counts and configurations
- Fibre Cable — Multimode OM1 62.5/125, OM3 and OM4 50/125, and Singlemode OS1/OS2
- End-to-end line of fusion splice solutions

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# LightStack®

## Siemon's Ultra High Density Fibre Plug & Play System

### The Perfect Combination...

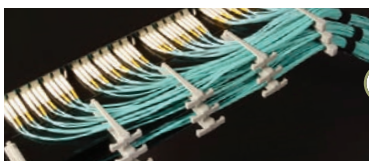
Siemon's LightStack system combines superior performance and ultra high density with unmatched accessibility - all packaged in a sleek, modern enclosure that manages fibre cabling like never before.

LightStack was specifically designed for advanced data centres, network and storage area environments, while providing a seamless migration to 40 and 100 gigabit applications.



#### Ultra High Density

Elegantly designed enclosures facilitate up to 144 fibres (LC) and 864 fibres (MTP) within 1U or 576 (LC) and 3456 (MTP) fibres within 4U



#### Superior Jumper Management

Unlatch and swing open clips for complete access to any jumper with ample capacity to route all jumpers in one direction



#### Unmatched Accessibility

Divider is there when you need it and gone when you don't. Slides inward for complete access to all connectivity at the rear of stacked enclosures



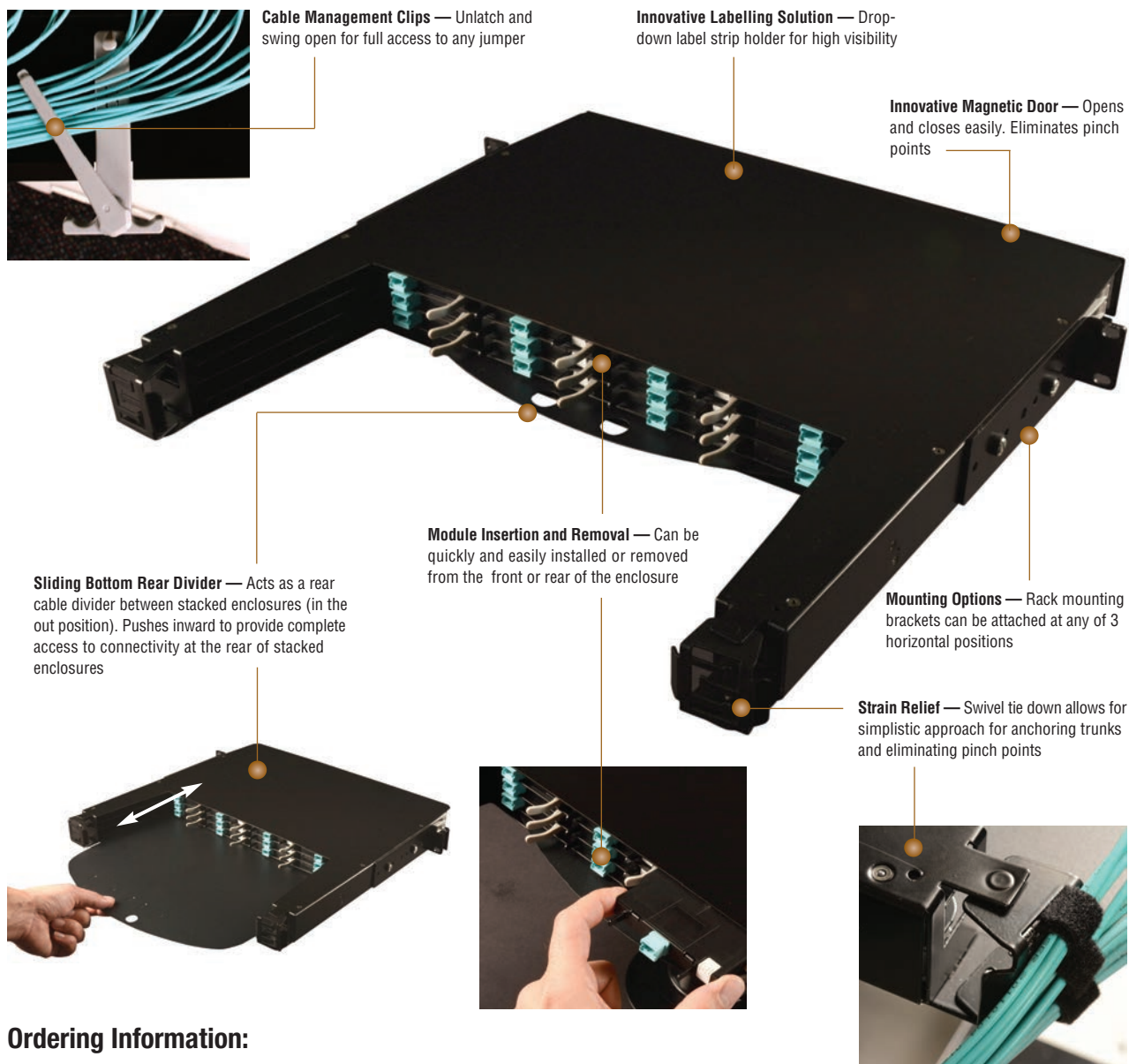
#### Low Loss Connectivity

Highest performing Plug and Play Modules and Adapters can be single-handedly installed and removed from the front or rear

To learn more about LightStack including its innovative labelling system and full range of preterminated trunks visit: [www.siemon.com/lightstack](http://www.siemon.com/lightstack)

## LightStack® Enclosures

Siemon's LightStack ultra high density fibre Plug and Play enclosure offers superior density, port access and cable management in a sleek, modern enclosure that easily supports today's advanced data centre and storage area network environments.



### Ordering Information:

Part #	Description
LS-1U-01.....	LightStack enclosure, up to 144 LC fibres or 864 MTP fibres, 1U
LS-4U-01.....	LightStack enclosure, up to 576 LC fibres or 3456 MTP fibres, mounts in 19 in. racks or cabinets, 4U



1U Enclosure



4U Enclosure



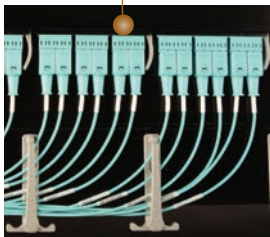
# LightStack® Modules

LightStack LC-to-MTP Low Loss Plug and Play modules deliver a quick and efficient way to deploy high-performance fibre cabling in a low-profile, high density package. Up to 12 of these ultra-slim modules can be installed in a single 1U LightStack enclosure, seamlessly providing up to 144 easily-managed LC fibre ports. Available in OM4 Multimode and Singlemode configurations, these modules offer industry leading loss performance of just 0.35dB.



**Ultra Slim Design** — LightStack modules have an ultra slim design to achieve maximum fibre density

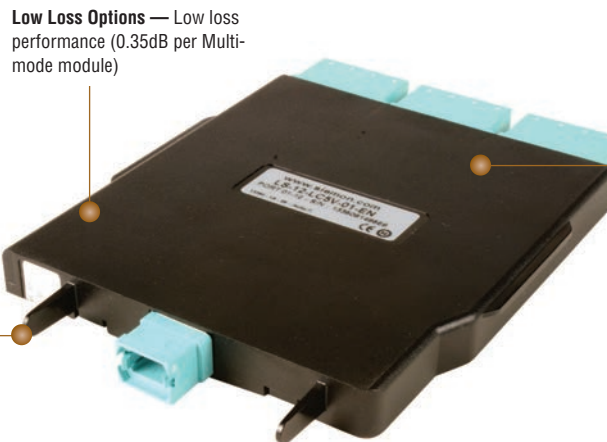
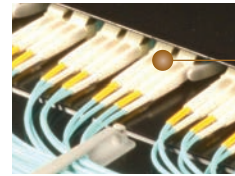
**High Fibre Count** — Up to 12 fibre count per module



**Rear Module Handles** — Handles in the rear of module help facilitate removal from the back of the enclosure

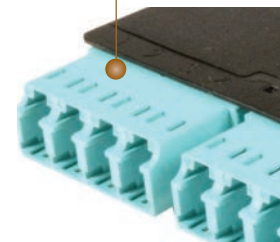


**Standard Interfaces** — LC to MTP interface. Available in OM4 and SM



**Low Loss Options** — Low loss performance (0.35dB per Multimode module)

**Multiple Adapter Configurations** — Aqua LC and MTP adapters for OM4; Blue LC adapters and black MTP adapters for SM



## Ordering Information:

Part #	Description
LS-12-LC5V-01	Module, 12 LC-to-MTP fibres, OM4, XGLO 550, aqua LC and MTP adapters
LS-12-LCEV-01	Module, 12 LC-to-MTP fibres, OM4, XGLO 550, erika violet LC and MTP adapters
LS-12-LCSM-01	Module, 12 LC-to-MTP fibres, Singlemode, blue LC adapters, black MTP adapters

## PERFORMANCE SPECIFICATIONS

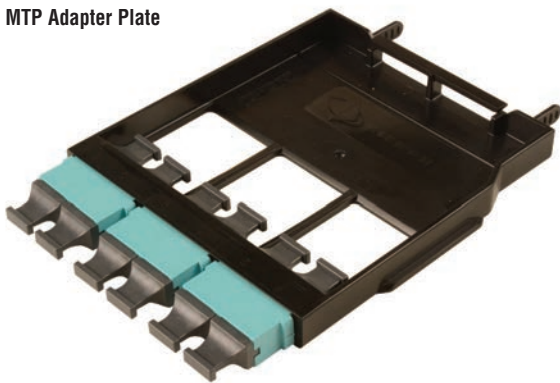
	Insertion Loss (dB)	Return Loss (dB)	Insertion Loss (dB)	Return Loss (dB)
	Multimode		Singlemode	
<b>MTP</b>	0.20	20	0.60	60
<b>LC</b>	0.15	30	0.40	55
<b>MTP to LC</b>	0.35	20	1.00	55

Reference Siemon's White Paper titled: "The Need for Low-Loss Multifibre Connectivity in Today's Data Centre" for information and guidance on design options, channel models and distances for 10, 40, 100Gb Ethernet and Fibre Channel applications.

## LightStack® Adapter Plates

Fully ready to support 40 and 100 gigabit applications, LightStack low-loss 0.2dB MTP pass-through adapters are available in 2, 4 and 6-port designs supporting up to 72 fibres per adapter and are offered in both aligned and opposed key orientation to accommodate all polarity methods. In addition, LightStack also offers industry exclusive 12-fibre LC pass-through adapter plates for current 10 gigabit Ethernet or Fibre Channel SAN applications.

MTP Adapter Plate



### LightStack MTP Adapter Plates

- Ultra slim design to achieve maximum fibre density
- Up to 72 fibre count
- Handles in the rear of module helps facilitate removal from the back of the enclosure

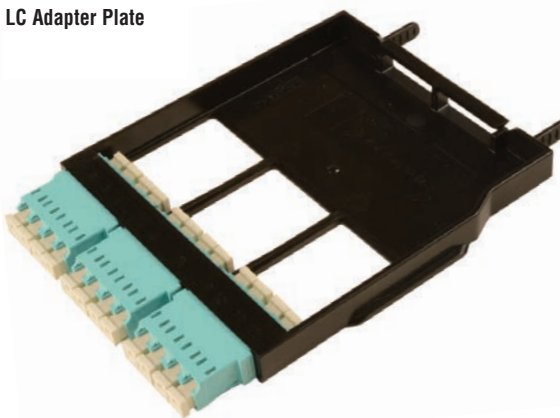
#### Ordering Information:

LS-MP(X)-01(X)(XX)	
MTP Port Count	Adapter Colour
2 = 2 MTP Ports	BG = Beige
4 = 4 MTP Ports	AQ = Aqua**
6 = 6 MTP Ports	EV = Erika Violet**
	BK = Black**
	GR = Grey*
Key Orientation	
	B = Aligned (key up to key up)
	C = Opposed (key up to key down)

\* Key Orientation B Only

\*\* Key Orientation C Only

LC Adapter Plate



### LightStack LC Adapter Plates

- Used in conjunction with LC BladePatch® RazorCore™ trunks for rear connections only
- 12 LC fibres

#### Ordering Information:

LS-LC12-01C-(XX)	
Adapter Colour	
BG = Beige	
AQ = Aqua	
EV = Erika Violet	
BL = Blue	

# LightStack® Surface Mount Fibre Enclosure

The Siemon LightStack Surface Mount Fibre Enclosure houses a single LightStack MTP to LC Module or an LC or MTP pass through adapter plate. Ideal for fibre distribution in a variety of tight spaces, the LightStack Surface Mount Enclosure can be easily mounted to walls, under floors or above the ceiling. It supports an optional splice accessory for fusion splicing and cable slack storage. The LightStack Surface Mount Fibre Enclosure enables the deployment of fibre consolidation points or zone distribution points that simplify moves, adds and changes by significantly reducing installation time and disruption. Rather than longer home run cabling links, MTP plug and play fibre assemblies can easily connect to the enclosure and then shorter MTP or LC fibre assemblies are used to connect from the enclosure to devices. For example, the LightStack Surface Mount Enclosure is ideal for placement under the floor to connect to banks of slot machines in a casino environment. It can also be used in passive optical network applications to distribute fibre from MTP splitters to optical network terminals or in other FTTX applications.

**Module Insertion and Removal** — Can be quickly and easily installed or removed from the front or rear of the enclosure

**Extremely Low Profile** — Measures just 179mm (7 in.) long X 119mm (4.7 in.) wide and 18mm (0.7 in.) high for easy deployment in tight spaces

**Easy Access** — Front lid pivots up for full access to connectivity

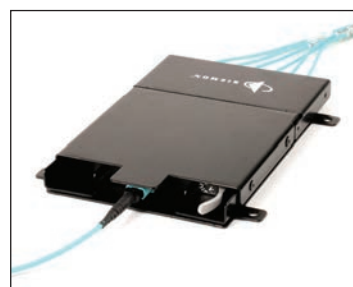
**Simple Mounting** — Mounts to any surface via four attachment holes



**Optional Splice Enclosure** — Mounts below main enclosure for managing slack and protecting single or mass fusion splices.



**Mounting Applications** — Mounts easily in tight spaces (e.g., under raised floors) for distributing fibre in a variety of applications and environments.



**Plug and Play** — LightStack MTP to LC module (not included) accepts an MTP trunk cable at the rear for fast deployment and pathway space savings.

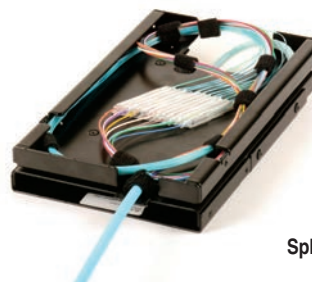
## Ordering Information

Part #	Description
LSE-01 .....	LightStack® surface mount module enclosure, accepts one (1) LightStack module/adaptor plate



Module Enclosure

Part #	Description
LSS-01 .....	LightStack surface mount splice enclosure, supports slack storage and up to 12 standard splices or up to 72 mass fusion splices



Splice Enclosure

	Module Enclosure	Splice Enclosure
<b>Height</b>	18mm (0.7 in.)	32mm (1.3 in.)
<b>Width</b>	119mm (4.7 in.)	119mm (4.7 in.)
<b>Length</b>	179mm (7.0 in.)	194mm (7.7 in.)
<b>Weight</b>	0.57kg (1.25 lb)	0.68kg (1.5 lb)
<b>Colour</b>	Black	Black
<b>Material</b>	Cold rolled steel	Cold rolled steel



# Rack Mount Interconnect Centre (RIC3)

The RIC3 provides the best overall value for exceptional fibre management. The RIC3 enclosure offers superior fibre density without sacrificing fibre protection and accessibility. Features include a fully removable tray, improved labeling, standard front and rear door locks, and single-finger door latches. With superior cable management, port identification, fibre accessibility and security, the RIC3 is the best way to protect mission critical fibre connections.

**Superior Design** — Top and bottom access holes located at the rear of the enclosure allow fibres to be routed between tandem enclosures without having to run fibres outside of the enclosure

**Complete Access** — Management tray has a positive stop in both front and rear working positions providing complete access for moving, adding, changing, or cleaning of fibre connections

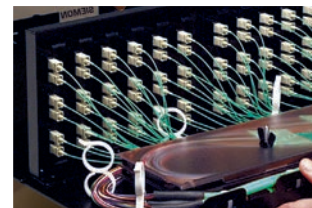
**Enhanced Labeling** — Label virtually any port configuration with our hinged labels. The labels hang on the front door for improved visibility. When the door is opened, labels flip down allowing ready viewing of the label and corresponding ports



**Rotating Grommets** — Patented rotating grommets facilitate loading and retention of jumpers and fibre while minimising microbending stress when using the sliding tray

**Quick-Release Hinges** — Spring loaded quick-release hinges enable easy opening and removal of front and rear doors for complete access to fibre connections

**Maximum Capacity** — The RIC3 enables a maximum amount of fibres to be patched or patched and spliced in a 2, 3, and 4U enclosure without compromising accessibility. This allows more efficient utilisation of rack space



## Removable Tray

The RIC3 cable management tray is fixed in place, but can be removed from the front or rear of the enclosure and moved to a work table for greater convenience.



## Latching and Locking

The RIC3 features a single-finger latch on both front and rear doors. Front and rear doors include a lock for added security.



## Quick-Pack® Adapter Plates

Siemon Quick-Pack adapter plates can be inserted or removed with a single-finger latch for quick and easy access to fibre connections.



## Rack Mount Interconnect Centre (RIC3)

Siemon RIC3 enclosures are designed for enhanced fibre management and ease of use. They are compatible with an array of Siemon fibre Quick-Pack® and MTP adapter plates for your choice of fibre adapters and port density.



Part #	Description
RIC3-24-01	24- to 96-fibre (384 fibres with MTP adapter plates) Rack Mount Interconnect Centre, accepts (4) Quick-Pack adapter plates, 2U, black height: 86.6mm (3.4 in.) width: 432mm (17.0 in.) depth: 380mm (15.0 in)



Part #	Description
RIC3-36-01	36- to 144-fibre (up to 576 fibres with MTP adapter plates) Rack Mount Interconnect Centre, accepts (6) Quick-Pack adapter plates, 2U, black height: 86.6mm (3.4 in.) width: 432mm (17.0 in.) depth: 380mm (15.0 in)



RIC3-48-01	48- to 192-fibre (up to 768 fibres with MTP adapter plates) Rack Mount Interconnect Centre, accepts (8) Quick-Pack adapter plates, 3U, black height: 133mm (5.2 in.) width: 432mm (17.0 in.) depth: 380mm (15.0 in)
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RIC3-72-01	72- to 288-fibre (up to 1152 fibres with MTP adapter plates) Rack Mount Interconnect Centre, accepts (2) Quick-Pack adapter plates, 4U, black height: 178mm (7.0 in.) width: 432mm (17.0 in.) depth: 380mm (15.0 in)
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Note: 1U = 44.5mm (1.75 in.)

Note: All RIC products include laser-printable labels\*, cable ties, rack-mounting hardware, and pre-installed fibre management clips.

\*Visit [www.siemon.com](http://www.siemon.com) for labelling software.

### MAXIMUM RIC3 FIBRE CAPACITY

# Fibres per Quick-Pack	Adapter Options	RIC24	RIC36	RIC48	RIC72
6	ST, SC	24	36	48	72
8	ST, SC	32	48	64	96
12	ST, SC, LC	48	72	96	144
16	LC	64	96	128	192
24	LC	96	144	192	288
96	MTP	384	567	768	1152

### MAXIMUM SPLICING CAPACITY

Splice Type	RIC24	RIC36	RIC48	RIC72
Fusion	96	96	96	144

# Wall Mount Interconnect Centre (SWIC3)

The Wall Mount Interconnect centre (SWIC3) is a cost-effective fibre enclosure designed to manage and protect up to 192 fibres using SC, ST or LC adapter plates and up to 768 with MTP adapter plates. The low-profile, compact design makes it ideal for telecommunications rooms or other installation areas where wall space is a premium. The adapter mounting method is based on Siemon's Quick-Pack® adapter plates also used in the family of Rack Mount Interconnect Centres (RIC3).

**Door Options** — Doors on enclosure and jumper guard can be ordered with independent key lock or latching options

**Convenient Labelling** — Convenient labelling system includes removable clear label holders for storing and protecting fibre documentation on each door

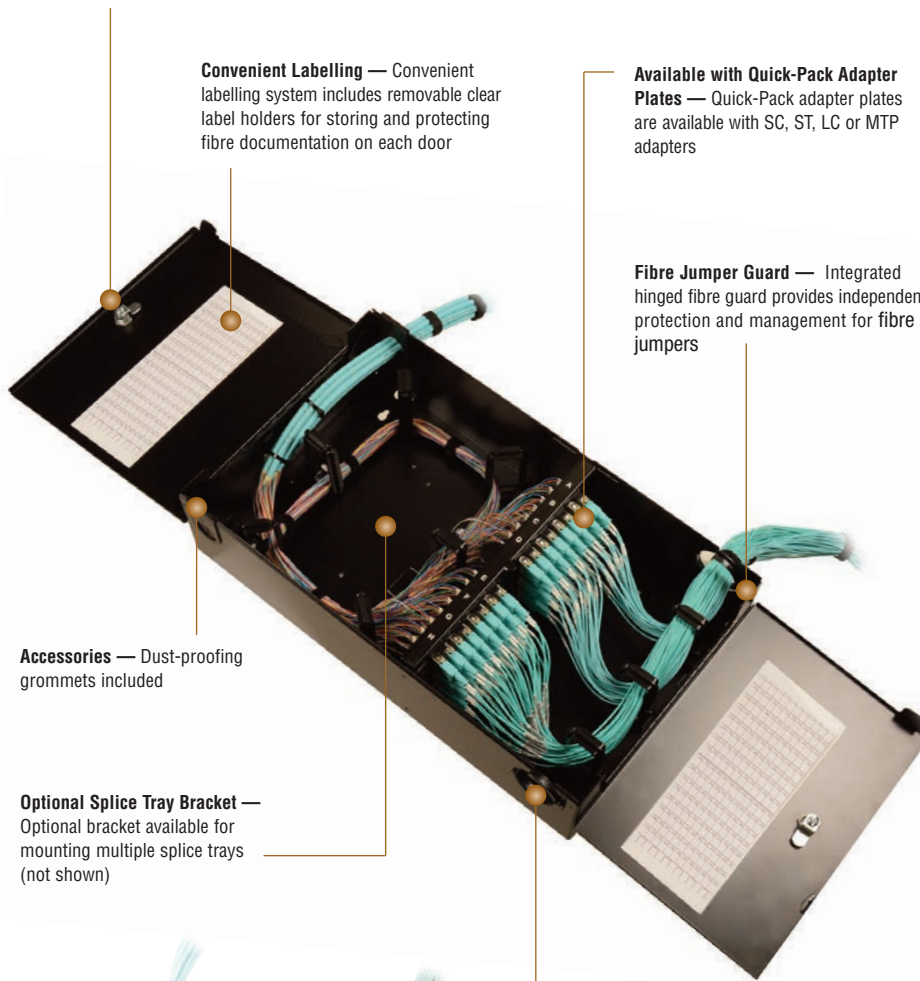
**Available with Quick-Pack Adapter Plates** — Quick-Pack adapter plates are available with SC, ST, LC or MTP adapters

**Fibre Jumper Guard** — Integrated hinged fibre guard provides independent protection and management for fibre jumpers

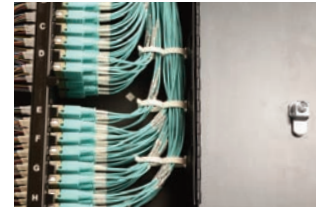
**Accessories** — Dust-proofing grommets included

**Optional Splice Tray Bracket** — Optional bracket available for mounting multiple splice trays (not shown)

**Patented rotating grommets** — Facilitate loading and retention of jumpers for extended SWIC only (SWIC3G-E)



SWIC3G-E



## Easy Access

Doors on enclosures and jumper guard swing open a full 180° to provide complete front and side access.



## SWIC3-M, SWIC3, SWIC3G

Dual-Level Fibre Managers incorporate two independent levels of storage to enable fibre to be routed at levels that correspond to the adapters.



## SWIC3G-E

Utilises Expanded Depth Fibre Managers to control greater capacity of fibre.



## Snap-In Adapter Plates

Utilises same Quick-Pack adapter plates as RIC3 enclosures with integrated latches for snap-in installation and single-finger removal.

## Ordering Information:

Part #	Description
SWIC3-M-01*	Mini Wall Mount Interconnect Centre, black, accepts 2 Quick-Pack® adapter plates height: 218.4mm (8.6 in.) width: 185.4mm (7.3 in.) depth: 82.6mm (3.25 in.) <i>* Does not accept splice trays</i>
SWIC3-(X)-01	Wall Mount Interconnect Centre, black. Includes dual-level fibre managers, port designation labels and removable pocket, dust-proofing grommets, strain relief hardware, cable ties, and mounting hardware, accepts 4 Quick-Pack adapter plates height: 311mm (12.25 in.) width: 311mm (12.25 in.) depth: 82.6mm (3.25 in.)
SWIC3G-(X)(X)-01	Wall Mount Interconnect Centre with integrated jumper guard, black. Includes dual-level fibre managers, port designation labels and removable pocket, stick-on port designation labels for guard, dust-proofing grommets, strain relief hardware, cable ties, and mounting hardware, accepts 4 Quick-Pack adapter plates height: 311mm (12.25 in.) width: 406mm (16 in.) depth: 82.6mm (3.25 in.)
SWIC3G-E-(X)(X)-(XX)	Wall Mount Interconnect Centre with integrated jumper guard, black. Includes dual-level fibre managers, port designation labels and stick on holder for front and rear dust-proofing grommets, strain relief hardware, cable ties and mounting hardware, accepts 8 Quick-Pack adapter plates height: 355mm (14.0 in.) width: 595mm (23.5 in.) depth: 165mm (6.5 in.)  Use (XX) to specify colour: 01 = Black, 80 = Ivory

Use 1st (X) to specify type of lock on the enclosure (left) door:  
A = Key Lock, C = Thumb-turn Latch  
Use 2nd (X) to specify type of lock on the guard (right) door:  
A = Key Lock, C = Thumb-turn Latch



## Accessories

### Fibre Splice Tray Brackets

Part #	Description
TRAY-B-01	Bracket for mounting splice trays to SWIC3 base
TRAY-EB-01	Bracket for mounting splice trays to SWIC3G-E base



### Fibre Splice Trays

Part #	Description
TRAY-M-3	Mini splice tray for up to 12 fusion splices with sleeve protection

### Fibre Adapter Bracket

Part #	Description
SWIC3G-E-BRKT	Bracket holds up to 4 FSC series Siemon fibre splitter cassettes (front leg exit only)



## MAXIMUM SWIC3 FIBRE CAPACITY

# Fibres per Quick-Pack	Adapter Options	SWIC3-M	SWIC3	SWIC3G-E
6	ST, SC	12	24	48
8	ST, SC	16	32	64
12	ST, SC	24	48	96
16	LC	32	64	128
24	LC	48	96	192
96	MTP	192	384	768

## MAXIMUM SPLICING CAPACITY

Splice Type	SWIC3	SWIC3G-E
Fusion	48	96

## MAXIMUM SWIC3G-E FIBRE SPLITTER CAPACITY

Type/Ratio	# Cassettes	Output		Input	
SC	# Cassettes	# RIC-F-SC(X)8-01	# Ports	# MX-F1-SC(X)-(XX)	# Ports
1x8	4	4	32	4	4
1x16	4	8	64	4	4
Dual (2) 1x16	3	6	48	6	6
1x32	2	8	64	2	2
LC	# Cassettes	# RIC-F-LC(X)16-01	# Ports	# MX-F1-LC(X)-(XX)	# Ports
1x8	4	2	32	4	4
1x16	4	4	64	4	4
Dual (2) 1x16	3	3	48	6	6
1x32	4	8	128	4	4
MTP	# Cassettes	# RIC-F-MP48-01	# Ports	# MX-F1-MP-(XX)	# Ports
1x32	4	4	128	4	4

# Fibre Connect Panel (FCP3)

Siemon's popular Fibre Connect Panels (FCP3-DWR and FCP3-RACK) economically connect, protect, and manage up to 72 fibres in 1U (up to 288 fibres with MTP to MTP adapters). It accepts Siemon's Quick-Pack® adapter plates with patented single-finger access. The FCP3-DWR makes access to the connections easy via a fixed tray that can be released and slid out of the front or rear of the enclosure.

**Lanced Tabs** — Provide convenient cable anchor points for incoming jacketed fibre cable

**Up to 3 Optional Splice Trays** — Can be mounted to manage and protect either mechanical or fusion splices



**Label Holder** — Protects fibre jumpers and is readily removable via release of factory-installed snap-latches

**Rear Fibre Clips** — Manage cable slack while maintaining minimum bend radius requirements

**Front Fibre Clips** — Manage up to 36 duplex fibre jumpers (72 fibres total) or 24-, 12-fibre MTP trunks



**High Density**  
FCP3 enclosures accommodate up to 72 fibres (288 with MTP adapter plates) in only 1U



**Sliding Tray**  
The FCP3-DWR (drawer version) features a tray that slides out from the front or rear, providing easy access to fibre connections. The entire tray can be removed and placed on a work table for more convenience.

## MAXIMUM FCP3 FIBRE CAPACITY

# Fibres per Quick-Pack	Adapter Options	FCP3
6	ST, SC	18
8	ST, SC	24
12	ST, SC, LC	36
16	LC	48
24	LC	72
96	MTP	288

## MAXIMUM SPLICING CAPACITY

Splice Type	FCP3
Fusion	72



## Fibre Connect Panel (FCP3)

Part #	Description
FCP3-DWR. . . . .	6- to 72-fibre (up to 288 fibres with MTP adapter plates) Fibre Connect Panel with sliding tray, accepts (3) Quick-Pack® adapter plates, 1U, black. Includes mounting brackets, housing/tray, fibre managers, grommets, label holders, and labels height: 43.2mm (1.7 in.) width: 482.6mm (19 in.) depth: 355.6mm (14 in.)
FCP3-RACK. . . . .	6- to 72-fibre (up to 288 fibres with MTP adapter plates) Fibre Connect Panel with fixed tray, accepts (3) Quick-Pack adapter plates, 1U, black. Includes mounting brackets, housing/cover, fibre managers and grommet height: 43.2mm (1.7 in.) width: 482.6mm (19 in.) depth: 241.3mm (9.5 in.) Note: 1U = 44.5 mm (1.75 in.)



FCP3-DWR



FCP3-RACK

## Compression Fittings

Compression fittings are utilized as an enhanced method for securing cables to FCP3 fibre enclosures. Acme threads on the body prevent skipping, allowing for faster installations of lock-nuts.

Part #	Description
CF-(XX). . . . .	Compression fitting

Use (XX) to specify fibre diameter:  
40 = 5.8 – 13.9mm, (0.22 in. - 0.5 in.)  
51 = 11.4 – 18.0mm (0.44 - 0.7 in.)  
60 = 15.0 - 25.4mm (0.59 - 1 in.)



## Splice Trays (XGLO® and LightSystem®)

These aluminium trays come with a clear, snap-on polycarbonate cover and can be stacked for high-density applications. The standard tray holds up to 24 splices. The mini-tray for use with the SWIC3, accommodates up to 12 splices.

Part #	Description
TRAY-3. . . . .	Standard splice tray for up to 24 fusion splices with sleeve protection. For use with RIC3 and FCP3 fibre enclosures
TRAY-M-3. . . . .	Mini splice tray for up to 12 fusion splices with sleeve protection.

### Standard Tray Dimensions

height: 103mm (4 in.)  
width: 298mm (11.7)  
depth: 8.13mm (0.32 in.)



TRAY-3

### Mini Tray Dimensions

height: 103mm (4 in.)  
width: 179mm (7.04 in.)  
depth: 8.13mm (0.32 in.)



TRAY-M-3

## Heat Shrink Sleeves

Heat shrink sleeves provide a safe and efficient method for protecting fusion splices on either 250 or 900 micron coated fibres. Heat shrink sleeves are threaded on to fibres prior to fusion splicing and then positioned directly over splice and heated via an oven or heat gun.\*

Part #	Description
HT-40. . . . .	40mm (1.57 in.) Heat shrink sleeve
HT-60. . . . .	60mm (2.36 in.) Heat shrink sleeve

\*Heating times may vary depending on heat source.



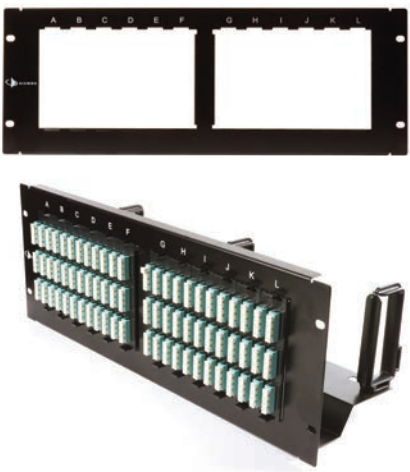


# RIC Fibre Panels

Siemon RIC Fibre panels are ideal for use with racks, cabinets, wall mount cabinets, zone enclosures and ceiling enclosures to support various fibre applications in Data Centres, LANs (Local Area Networks) and PONs (Passive Optical Networks). The RIC panels are available in 1U and 4U sizes, 19 inch rack mount and accept Siemon's Quick-Pack® fibre adapter plates, modules and cassettes.

## Ordering Information:

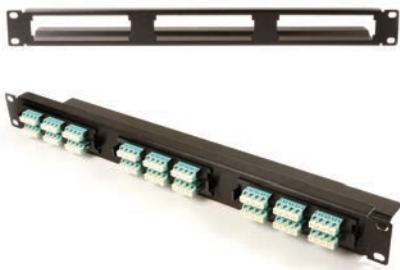
Part #	Description
RIC-PNL12-4U-01. . . . .	12 Quick-Pack openings, silkscreen port identification, includes mounting hardware and expanded depth rear fibre managers Colour: black, Material: steel, 4U



Part #	Description
RIC-PNL2-1U-01. . . . .	2 Quick-Pack openings, includes mounting hardware Colour: black, Material: aluminium, 1U



Part #	Description
RIC-PNL3-1U-01. . . . .	3 Quick-Pack openings, includes mounting hardware Colour: black, Material: aluminium, 1U



## Quick-Pack® Adapter Plates

Siemon's patented Quick-Pack adapter plates feature an integrated latch, which provides single-finger access to fibre even in fully populated enclosures.

### XGLO® & LightSystem®

RIC-F-SC6-01.....

3 Duplex SC adapters  
(6 fibres)



RIC-F-SC8-01.....

4 Duplex SC adapters  
(8 fibres)



RIC-F-SC12-01.....

6 Duplex SC adapters  
(12 fibres)



RIC-F-SCQ6-01.....

3 Duplex SC adapters  
(6 fibres), aqua adapters  
(not shown)

RIC-F-SCQ8-01.....

4 Duplex SC adapters  
(8 fibres), aqua adapters  
(not shown)

RIC-F-SCQ12-01.....

6 Duplex SC adapters  
(12 fibres), aqua adapters  
(not shown)

RIC-F-SCE6-01.....

3 Duplex SC adapters  
(6 fibres), erika violet adapters  
(not shown)

RIC-F-SCE8-01.....

4 Duplex SC adapters  
(8 fibres), erika violet adapters  
(not shown)

RIC-F-SCE12-01.....

6 Duplex SC adapters  
(12 fibres), erika violet adapters  
(not shown)

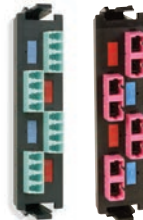
RIC-F-LC12-01C.....

3 Quad LC adapters  
(12 fibres), beige adapters  
(not shown)



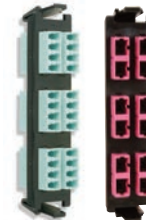
RIC-F-LC16-01C.....

4 Quad LC adapters  
(16 fibres), beige adapters  
(not shown)



RIC-F-LC24-01C.....

6 Quad LC adapters  
(24 fibres), beige adapters  
(not shown)



RIC-F-LCU12-01C.....

3 Quad LC adapters  
(12 fibres), blue adapters  
(not shown)

RIC-F-LCU16-01C.....

4 Quad LC adapters  
(16 fibres), blue adapters  
(not shown)

RIC-F-LCU24-01C.....

6 Quad LC adapters  
(24 fibres), blue adapters  
(not shown)

RIC-F-LCQ12-01C.....

3 Quad LC adapters  
(12 fibres), aqua adapters

RIC-F-LCQ16-01C.....

4 Quad LC adapters  
(16 fibres), aqua adapters

RIC-F-LCQ24-01C.....

6 Quad LC adapters  
(24 fibres), aqua adapters

RIC-F-LCE12-01C.....

3 Quad LC adapters  
(12 fibres), erika violet adapters

RIC-F-LCE16-01C.....

4 Quad LC adapters  
(16 fibres), erika violet adapters

RIC-F-LCE24-01C.....

6 Quad LC adapters  
(24 fibres), erika violet adapters

### LightSystem

RIC-F-SA6-01.....

3 Duplex ST adapters  
(6 fibres)



RIC-F-SA8-01.....

4 Duplex ST adapters  
(8 fibres)



RIC-F-SA12-01.....

6 Duplex ST adapters  
(12 fibres)\*



RIC-F-BLNK-01.....

Blank adapter plate



\* Only recommended for push-pull ST connectors due to limited access

Each adapter plate with icon pockets includes red, blue, black, and clear icons with paper labels. All SC and ST adapters are "universal" to support Multimode and Singlemode.

## Fibre Management Tray (FMT)

The Siemon Fibre Management Tray (FMT) is an economical solution for managing fibre cable slack and splice trays. The management tray has been designed to easily retrofit any standard 1 RMS CT® or MAX® Series Patch Panel and can organise up to 32 fibres. The tray is only 254mm deep, allowing it to readily fit into cabinet enclosures. Each enclosure can accept up to two fibre splice trays.

Part #	Description	RMS
CT-FMT-16.....	Fibre tray for 1U CT or MAX Panel.....	1

Note: 1U = 44.5mm



# Plug and Play Modules and Adapter Plates

## Siemon Plug and Play Modules

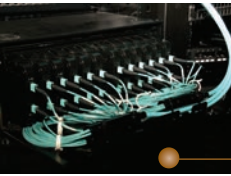
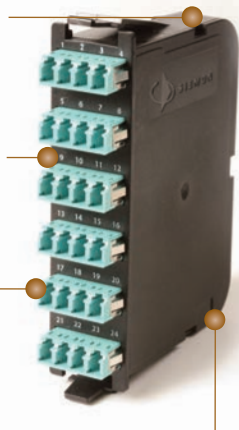
Siemon LC to MTP® and SC to MTP Plug and Play modules provide a quick and efficient way to deploy up to 24 LC or 12 SC fibres in a single module. These factory terminated and tested ports are protected within the housing for reliable high performance and simply connected via 12-strand MTP ports. Modules are available in Multimode (62.5/125 and laser optimised 50/125 OM3/OM4) and Singlemode cable.

**Compact Housing** — Reduces mounting depth for greater cable management space within enclosures

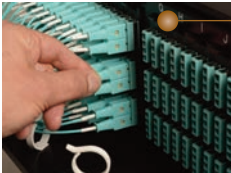
**Optimised Adapter Spacing** — Enables easy finger access to fibre jumper connector latches in high density patching environments

**Durable and Lightweight** — High-impact molded plastic body with single-finger access


**Multimode and Singlemode Modules** — Utilize zirconia ceramic sleeves for optimum performance



**Recessed Base** — Allows cable to be fit under the modules for added cable management space when installed in the horizontal orientation (i.e. within FCP drawer)




**Compatible with Existing Siemon Enclosures** — Fits within RIC, FCP and SWIC Siemon fibre enclosures and VersaPOD® vertical patch panels



PP2-12-(XX)(X)-01(X) . . . . . 12 Fibre P&P Module with 1 MTP port, black module

<b>Interface</b>	<b>Configuration</b>
LC = LC	L = Low Loss
SC = SC	Blank = Standard Loss
<b>Fibre Type</b>	
6 = OM1, 62.5/125 Multimode Beige adapters	
5L = OM3, XGLO 300 50/125 Multimode Aqua adapters	
5V = OM4, XGLO 550 50/125 Multimode Aqua adapters	
EV = OM4, XGLO 550 50/125 Multimode Erika Violet adapters	
SM = OS1/OS2, Singlemode Blue adapters	

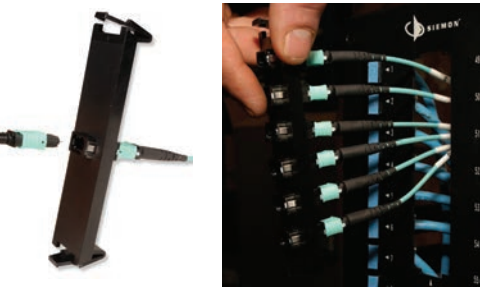


PP2-24-LC(X)-01(X) . . . . . 24 Fibre LC P&P Module with 2 MTP ports, black module


<b>Configuration</b>
L = Low Loss
Blank = Standard Loss
<b>Fibre Type</b>
6 = OM1, 62.5/125 Multimode Beige adapters
5L = OM3, XGLO 300 50/125 Multimode Aqua adapters
5V = OM4, XGLO 550 50/125 Multimode Aqua adapters
EV = OM4, XGLO 550 50/125 Multimode Erika Violet adapters
SM = OS1/OS2, Singlemode Blue adapters

## MTP to MTP Adapter Plates

Siemon MTP Adapter Plates offer a user friendly “pass-through” option for MTP connectors. Fitting within Siemon’s fibre enclosures and VersaPOD vertical patch panels, these plates secure MTP connectors, allowing efficient implementation of MTP to MTP reels and extenders as well as MTP to LC Trunks for direct equipment and patching connections.



- High Density**  
Supports up to 96 fibres per adapter plate - providing up to 1152 fibres in 4U
- Flexible Configurations**  
1, 2, 4, 6 and 8 port versions available, supporting both Singlemode and Multimode
- 40 Gb/s and 100 Gb/s Ready**  
Enables simple upgrade path to future 40 Gb/s and 100 Gb/s applications over Multimode 50/125 laser optimised fibre
- Popular RIC Adapter Footprint**  
Fits within RIC, FCP and SWIC Siemon fibre enclosures and VersaPOD vertical patch panels



RIC-F-MP(XX)-01(X) . . . . . MTP adapter plate

<b>Fibre Count</b>	<b>Key Orientation</b>
12 = 12 (1 MTP adapter)	Blank = Opposed (key up to key down) Black adapters
24 = 24 (2 MTP adapters)	Q = Opposed (key up to key down) Aqua adapters
48 = 48 (4 MTP adapters)	E = Opposed (key up to key down) Erika Violet adapters
72 = 72 (6 MTP adapters)	B = Aligned (key up to key up) Grey adapters
96 = 96 (8 MTP adapters)	

## Copper/Fibre Combo Panel

Siemon's Copper/Fibre Combo Panel provides users with exceptional versatility and robustness. The Combo Panel allows copper outlets to be mixed in the same rack mount space as fibre plug and play modules. The compact 1U design offers integrated cable management features and supports Category 5e to 7<sub>A</sub> and all Multimode and Singlemode fibre applications.

**Aesthetics** — Lightweight high strength steel with black finish

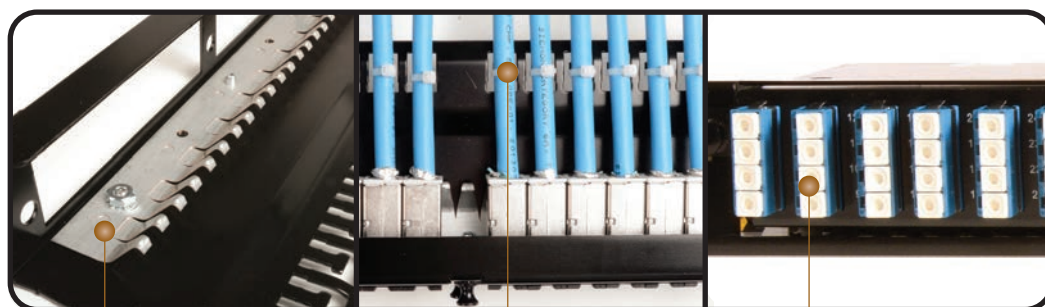
**Copper Adapter Plate** — Accepts 6 copper outlets with port identification on adapter plate

**EIA/ECA-310-E Compliant** — Panels can be mounted directly on standard 19 inch rack or cabinet

**Plug & Play** — Panel accepts up to 4 Plug & Play Modules or adapter plates

**Installer Friendly** — Individual UTP or shielded copper modules easily snap into place, providing integral grounding without additional steps

**Convenient Labelling** — Panel labelling area provided allows unique panel identifiers to be added



**Installer Friendly** — Panels feature an integrated grounding strip to ensure proper ground path from copper outlets to grounding point

**Cable Management** — Built in cable manager provides ability to secure cables for proper strain relief

**Plug & Play** — Panels utilise the Plug & Play adapter modules that utilise NY-LATCH (push-pull adapters) for ease of installation

### Ordering Information:

Part #	Description
PPM-SPNL4-01.....	PNL, high density, shielded copper/fibre combo, 1U, black



Part #	Description
PPM-SMX6-01.....	Copper adapter plate, 6-port, black



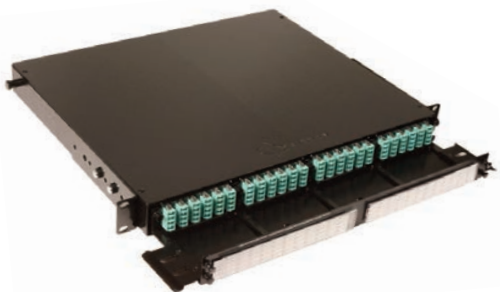
Panels include tie-wraps, grounding kit, and mounting screws.



# High Density 1U Fibre Connect Panel System

## High-Density FCP3 Fibre Connect Panel

Economically connect, protect and manage up to 96 fibres within 1 rack mount unit. Designed to integrate with high density FCP3 fibre Plug and Play modules.



### High Density

Supports up to 96 fibres in just 1U

### Enhanced Accessibility

Fibre drawer slides to the front and rear for maximum access to fibre connections

### Bend Radius Management

Recessed modules provide a high-capacity jumper management zone that helps maintain proper fibre bend radius



### Part #

### Description

FCP3-DWR-4A. . . . . High-density FCP3 fibre enclosure, black, 1U

*Note: Maximum fusion splice capacity is 72 fibres.*

## High Density FCP3 Connect Panel Plug and Play Modules and Adapter Plates

Siemon LC to MTP® FCP3 Plug and Play modules and LC adapter plates are designed for simple, snap-in deployment within the high density FCP3 Fibre Connect Panel. Providing up to 24 LC fibres per module, the factory terminated and tested modules are available in OM3 and OM4 multimode and singlemode configurations. The LC adapter plates provide a simple way to integrate traditional LC to LC connectivity within the high density FCP3 enclosure.



Base 12 Modules



Base 8 Modules



Adapter Plates



### High Density

Modules provide up to 24 LC fibres per module, supporting up to 96 ports within the 1U FCP3 Fibre Connect Panel

### 100% Fibre Utilisation and Future Application Support

Base 8 modules feature three 8-fibre MTPs for use with 8-fibre assemblies used in 40 and 100 Gig applications and beyond, eliminating the need for conversion cords

### Fast Deployment

Snap-in mounting and multi-fibre MTP connectivity offers ultra-fast deployment of high-performance fibre channels

### Easy Identification

Modules are colour coded black for Base 12 and grey for Base 8 to easily distinguish between the two systems

### Compact Housing

Reduces mounting depth for greater cable management space within enclosures

### Optimised Adapter Spacing

Enables easy finger access to fibre jumper connector latches in high density patching environments

### Multimode and Singlemode Modules

Utilises zirconia ceramic sleeves for optimum performance



# High Density 1U Fibre Connect Panel System

## Ordering Information:

### Base 12 Modules



PPM-(XX)-LC(XX)-01(X) . . . . . Base 12 HD FCP3 LC to MTP modules, black module

#### Fibre Count

12 = 12 Fibres  
24 = 24 Fibres

#### Performance

Blank = Standard Loss  
L = Low Loss (OM3/OM4 only)

#### Fibre Type

5L = OM3, XGLO 300 50/125 Multimode Aqua adapters  
5V = OM4, XGLO 550 50/125 Multimode Aqua adapters  
EV = OM4, XGLO 550 50/125 Multimode, Erika Violet adapters  
SM = OS1/OS2, Singlemode Blue adapters

### Base 8 Modules



PEM(X)24-LC(X)(X)-(XX)A . . . . . 24 Fibre base 8 HD FCP3 LC to MTP modules, grey module

#### Gender

F = Female  
M = Male

#### Performance

S = Standard Loss  
L = Low Loss (OM3/OM4 only)

#### Polarity

AC = Method A or C  
B1 = Method B (Side 1)  
B2 = Method B (Side 2)

#### Fibre Type

L = OM3 XGLO 300 50/125 Multimode, Aqua adapters  
V = OM4 XGLO 550 50/125 Multimode, Aqua adapters  
EV = OM4, XGLO 550 50/125 Multimode, Erika Violet adapters  
A = OS1/OS2 Singlemode, Blue adapters

### Adapter Plates



PPM-F-LC(X)(XX)-01 . . . . . High-density FCP3 LC adapter plates, black

#### Adapter Colour

Blank = Beige  
Q = Aqua  
E = Erika Violet  
U = Blue

#### Fibre Count

12 = 12 Fibres  
24 = 24 Fibres



PPM-F-MP(XX)-01-(X) . . . . . High-density FCP3 MTP adapter plates, black

#### Fibre Count

12 = 1 Port  
24 = 2 Port  
48 = 4 Port  
72 = 6 Port  
96 = 96 Fibre

#### Adapter Colour/Key Orientation

Q = Aqua - Opposed  
E = Erika Violet - Opposed  
B = Grey - Aligned  
Blank = Black - Opposed

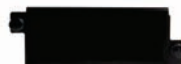
## PERFORMANCE SPECIFICATIONS (STANDARD)

Fibre Type		MAX Insertion (dB)		Min. Return Loss (dB)		Performance Class
		MTP	LC	MTP	LC	
5L-MM	50/125 10G (OM3)	0.40	0.25	20	30	XGLO® 300
5V-MM	50/125 10G (OM4)	0.40	0.25	20	30	XGLO 550
SM-LWP	SM (OS1/OS2)	0.60	0.40	60	55	XGLO

## PERFORMANCE SPECIFICATIONS (LOW LOSS)

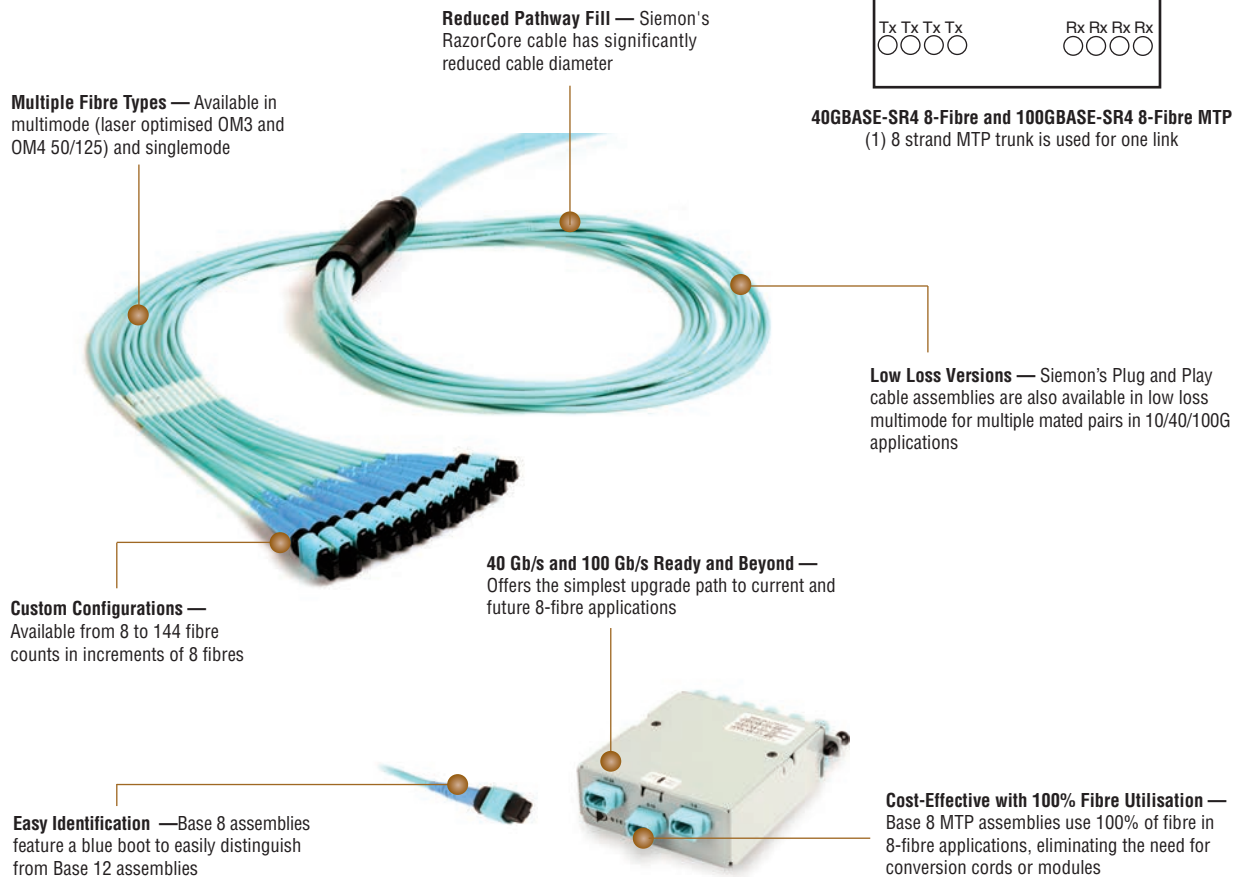
Fibre Type		MAX Insertion (dB)		Min. Return Loss (dB)		Performance Class
		MTP	LC	MTP	LC	
5L-MM	50/125 10G (OM3)	0.20	0.15	20	30	XGLO 300
5V-MM	50/125 10G (OM4)	0.20	0.15	20	30	XGLO 550

Part # Description  
PPM-BLNK. . . . . Blank adapter plate, black



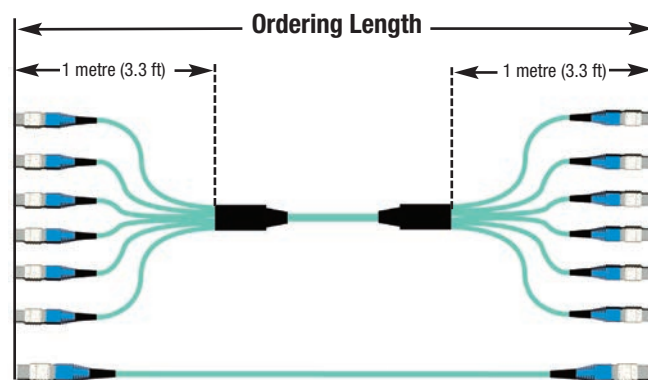
# Base 8 Plug and Trunk Assemblies

Combining Siemon's reduced-diameter RazorCore™ cable with 8-fibre MTP connectors, Base 8 Plug and Play MTP Trunk Assemblies are designed to be quickly routed and connected to Siemon Plug and Play Modules and MTP Adapter Plates. Custom configurable to precise application requirements, these Base 8 assemblies put high-performance, high density fibre connections exactly where you need them while providing more efficient migration to support high-speed 8-fibre applications.



## Ordering Information:

G(X)(XXX)(X)(XX)(X)(XXX)(X)-(X)..... Base 8 MTP to MTP assemblies, 8-fibre MTP connectors	
<b>Performance</b>	<b>Polarity</b>
R = Standard Loss (SM only)	A = Method A
L = Low Loss (OM3/OM4 only)	B = Method B
	C = Method C
<b>Fibre Count</b>	<b>Length Unit</b>
8 = 8 Fibres	F = Feet
16 = 16 Fibres	M = Metre
24 = 24 Fibres	
32 = 32 Fibres	<b>Length*</b>
48 = 48 Fibres	Length must be 3 digits
72 = 72 Fibres	Example: 005 = 5m
96 = 96 Fibres	050 = 50 ft.
144 = 144 Fibres	
<b>Gender</b>	<b>Jacket Type</b>
- = Female	P = OFNP
M = Male	R = OFNR
	L = LSOH
<b>Fibre Type</b>	
5L = OM3 XGLO 300 50/125 Multimode, Aqua	
5V = OM4 XGLO 550 50/125 Multimode, Aqua	
EV = OM4, XGLO 550 50/125 Multimode, Erika Violet	
SM = OS1/OS2 Singlemode, Yellow	



\*\* Order length is measured connector tip to connector tip. Multi-leg versions offered with standard 1 metre legs. Minimum order length is 1 metre for 8 strand and 3 metres for 24 strands or greater (See diagram above)

# Base 12 Plug and Play Cable Assemblies

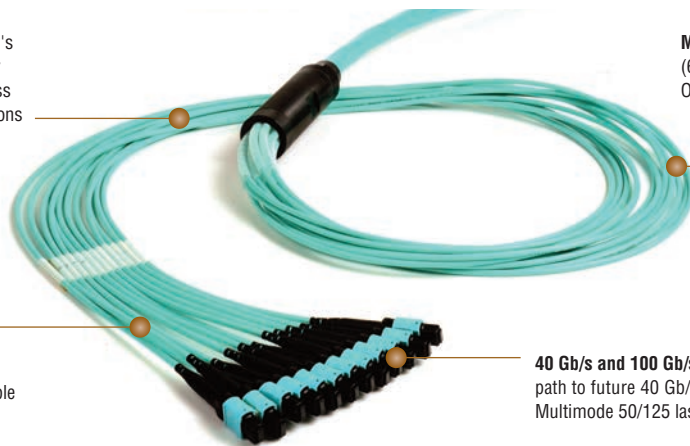
Combining Siemon's reduced-diameter RazorCore™ cable with 12-fibre MTP connectors, Plug and Play Reels are designed to be quickly pulled and connected to Siemon Plug and Play Modules and MTP Adapter Plates. Custom configurable to precise application requirements, these reels efficiently put high-performance, high-density fibre connections exactly where you need them. Extenders offer Male MTP Connectors on one end and female MTP adapters on the other to allow field extension of MTP Reels.

**Reduced Pathway Fill** — Siemon's RazorCore cable has significantly reduced cable O.D. resulting in less cable tray fill and pathway restrictions

**Multiple Fibre Types** — Available in Multimode (62.5/125, and laser optimised 50/125 OM3/OM4) and Singlemode.

**Custom Configurations** — Available from 12 to 144 fibre counts in increments of 12 fibres

**40 Gb/s and 100 Gb/s Ready** — Enables simple upgrade path to future 40 Gb/s and 100 Gb/s applications over Multimode 50/125 laser optimised fibre



## Ordering Information: Non-Armoured

F(X)(XX)-(XX)(X)(XXX)(X)-(X)... . . .		Fibre Plug & Play cable assembly, 12 fibre MTP connectors	
<b>Configuration</b> <b>R</b> = Standard Loss <b>L</b> = Low Loss (OM3/OM4 only) <b>E*</b> = Standard Loss Extender <b>B*</b> = Low Loss Extender (OM3/OM4 only)		<b>Polarity Method</b> (Per TIA-568-C.0) <b>A</b> = Method A <b>B</b> = Method B <b>C</b> = Method C <b>Blank</b> = Fibre Extender (FE and FB)	
<b>Fibre Count</b> <b>12</b> = 12 <b>24</b> = 24 <b>36</b> = 36 <b>48</b> = 48 <b>72</b> = 72 <b>96</b> = 96 <b>144</b> = 144		<b>Length Unit</b> <b>F</b> = Feet <b>M</b> = Metres	
<b>Fibre Type</b> <b>6</b> = OM1, 62.5/125 Multimode Orange <b>5L</b> = OM3, XGLO 300 50/125 Multimode Aqua <b>5V</b> = OM4, XGLO 550 50/125 Multimode Aqua <b>EV</b> = OM4, XGLO 550 50/125 Multimode Erika Violet <b>SM</b> = OS1/OS2, Singlemode Yellow		<b>Length**</b> Length must be 3 digits <b>Example: 003</b> = 3m <b>010</b> = 10 ft.	
		<b>Jacket Rating</b> <b>R</b> = Riser <b>P</b> = Plenum <b>L</b> = LSOH	
		<b>Fibre</b> <b>6</b> = OM1 <b>5L</b> = OM3 <b>5V</b> = OM4 <b>EV</b> = OM4 <b>SM</b> = OS1/OS2	

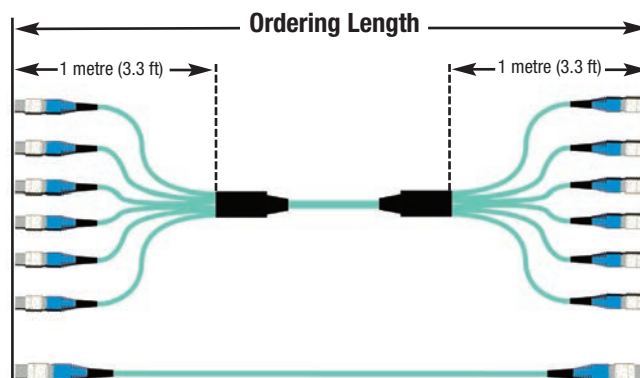
## Ordering Information: Armoured

able MTP	F(X)(XX)-(XX)(XX)(XXX)(X)(X) . . .		Armoured Fibre Plug & Play cable reel assembly, 12 fibre MTP female connectors
68-C.0)	<b>Configuration</b>		<b>Polarity Method</b> (Per TIA-568-C.0)  <b>A</b> = Method A <b>B</b> = Method B <b>C</b> = Method C
	<b>R</b> = Standard Loss <b>L</b> = Low Loss (OM3/OM4 only)		
d FB)	Fibre Count		<b>Length Unit</b> <b>F</b> = Feet <b>M</b> = Metres
	12 = 12 24 = 24 36 = 36 48 = 48 72 = 72 96 = 96 144 = 144		<b>Length**</b>  Length must be 3 digits <b>Example: 003</b> = 3m <b>010</b> = 10 ft.
<b>Fibre Type</b>  6 = OM1, 62.5/125 Multimode Orange 5L = OM3, XGLO 300 50/125 Multimode Aqua 5V = OM4, XGLO 550 50/125 Multimode Aqua EV = OM4, XGLO 550 50/125 Multimode Erika Violet SM = OS1/OS2, Singlemode Yellow		<b>Jacket Rating</b>  AR = Armoured Riser AP = Armoured Plenum  <i>Note: LSOH versions available. Contact Customer Service for details.</i>	

*Note: LSOH versions available. Contact Customer Service for details.*

\* Fibre Extenders ship with MTP Adapter for quick transition.

\*\* Order length is measured connector tip to connector tip. Multi-leg versions offered with standard 1 metre legs. Minimum order length is 1 metre for 12 strand and 3 metres for 24 strands or greater (See diagram at right)



# Base 12 Next Generation MTP to MTP Trunks

Simon's Next Generation MTP to MTP trunks are designed to achieve 45kg (99.2 lbs.) pull strength to handle more aggressive pathway environments. They come with a foamed zipper pulling eye for quick removal saving on installation time and are reusable if relocation of a trunk is required after the initial installation. They are available in 12/24 fibre counts and Low Loss options only.

- OM3/OM4 Bend Insensitive Fibre (BIF)
- SM Non-Bend Insensitive Fibre
- 12 and 24 Fibre strand counts
- Polarity methods A, B and C options
- Low Loss performance (0.20dB for Multimode MTP and 0.60dB for Singlemode MTP)
- Integrated breakout and zipper pulling eye work together to achieve 45kg (99.2 lbs.) tensile pull strength
- Zipper pulling eye allows for quicker installs
  - Allows pulling eyes to be reused when relocating trunks during MAC work



## Ordering Information:

FR2-(X)-(X)(X)(XXX)(X)(X)		Polarity Method (Per TIA-568-C.0)		Length Unit		Length		
Fibre Type	Strand Count	A = Method A B = Method B C = Method C	Length Unit	F = Feet	M = Metres			
L = OM3, XGLO 300 50/125 Multimode Aqua V = OM4, XGLO 550 50/125 Multimode Aqua E = OM4, XGLO 550 50/125 Multimode Erika Violet A = OS1/OS2, Singlemode Yellow	B = 12 C = 24			Length must be 3 digits	Example:			
Cable Type				Length		Length		Length
P = Plenum R = Riser L = LSOH								

# Base 12 MTP to LC BladePatch® Trunks

- LC BladePatch with push pull latch further improves accessibility
- Designed to facilitate an interconnect or cross connect point between active equipment
- OM3/OM4 Bend Insensitive Fibre (BIF)
- SM Non-Bend Insensitive
- 12 Fibre strand count
- Specific staggered lengths to active equipment
  - Nexus, Cisco MDS, Brocade and No stagger
- Low Loss performance 0.15 dB for LC and 0.20 dB for Multimode MTP
- Standard Loss performance 0.25 dB for LC and 0.60 dB for Singlemode MTP
- Integrated cable manager on breakout



## Ordering Information:

ng Information:		T(X)2(X)(X)(X)(X)(X)(XX)(XXX)(X)									
		<b>Performance</b>					<b>Length Unit</b>				
		L = Low Loss (OM3/OM4 Only) F = Standard Loss (SM Only)					F = Feet M = Metre				
		<b>Strand Count</b>					<b>Length*</b>				
		B = 12 Strand					Length must be 3 digits <b>Example:</b> 003 = 3m 010 = 10 ft.				
<b>Pulling Eye Option</b>							<b>LC BP Connector</b>				
A = MTP Side (Only available for length >5M) C = None							LB = RFP (OM3, OM4, SM/UPC) BL = CFP (OM3, OM4, SM/UPC)				
		<b>Fibre Type</b>					<b>Stagger Type</b>				
		L = OM3, XGLO 300 50/125 Multimode Aqua V = OM4, XGLO 550 50/125 Multimode Aqua E = OM4, XGLO 550 50/125 Multimode Erika Violet A = OS1/OS2, Singlemode Yellow					1 = No Stagger 2 = Cisco 9512 & 9412 3 = Cisco NEXUS 4 = Brocade				
		<b>Jacket Rating</b>					<b>MTP Gender</b>				
		P = Plenum R = Riser L = LSOH					M = MTP Male F = MTP Female				

## Base 8 MTP® to LC Equipment Cords

Siemon Base 8 MTP to LC equipment cords offer a connectivity transition from 8-fibre MTP connectors to duplex LC connectors. Ideal to facilitate interconnects or cross connects between active equipment, these Base 8 MTP to LC cords may be implemented using Siemon's MTP to MTP Adapter Plates to provide direct MTP to LC patching options over a wide range of distances and infrastructure configurations.

**Multiple Fibre Type** — Available in multimode (laser optimised 50/125 OM3 and OM4) and singlemode

**Small Diameter** — RazorCore fibre cable improves cable management and pathway fill

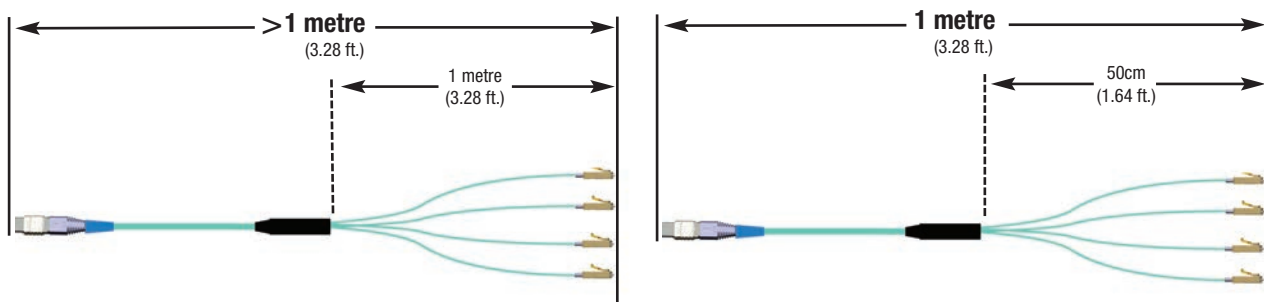
**Easy Identification** — Base 8 MTP solutions feature a blue boot to easily distinguish from Base 12 solutions

**Custom Configuration** — Available from 8 to 144 fibre counts in increments of 8 fibres

### Ordering Information:

G(X)(X)(X)(XX)(X)(XX)(XX)(XX)(X)..... Base 8 MTP to LC Trunk Equipment Cords			
<b>Performance</b>			<b>Length Unit</b>
F = Standard Loss (SM only)			F = Feet
L = Low Loss (OM3/OM4 only)			M = Metre
<b>Fibre Count</b>			<b>Length</b>
B = 8			Length must be 3 digits
C = 16			Example: 003 = 3m
D = 24			010 = 10 ft.
E = 32			
F = 48			
G = 72			
H = 96			
J = 144			
<b>Pulling Eye</b>			<b>Polarity</b>
A = MTP Side (> 5m only)			LC = Reverse Fibre Position (RFP)
C = None			CL = Continuous Fibre Position (CFP)
<b>Fibre Type</b>			<b>MTP Gender</b>
5L = OM3, XGLO 300 50/125 Multimode Aqua			MM = Male
5V = OM4, XGLO 550 50/125 Multimode Aqua			MF = Female
EV = OM4, XGLO 550 50/125 Multimode Erika Violet			
SM = OS1/OS2, Singlemode Yellow			<b>Jacket Rating</b>
			P = Plenum
			R = Riser
			L = LSOH

\* Minimum order length is 1 metre. Order length is measured connector tip to connector tip. Trunks greater than 1 metre (3.28 ft.) have breakout length of 1 metre. 1 metre trunks have a 50cm breakout length (See diagram below)





# Base 12 MTP® to LC Trunks

Utilising high quality Siemon RazorCore™ cable, MTP to LC Trunks offer a connectivity transition from 12-fibre MTP connectors to duplex LC connectors. These may be implemented using Siemon's MTP to MTP Adapter Plates to provide direct MTP to LC patching options over a wide range of distances and infrastructure configurations.

**Custom Configurations** — Available from 12 to 144 fibre counts in increments of 12 fibres

**Multiple Fibre Types** — Available in Multimode (62.5/125 and laser optimised 50/125 OM3/OM4) and Singlemode.



## Ordering Information:

**Configuration**

L = Low Loss (OM3/OM4 only)  
F = Standard Loss

**Fibre Count**

B = 12  
C = 24  
E = 36  
F = 48  
G = 72  
H = 96  
J = 144

**Pulling Eye**

A = Side A  
B = Side B  
C = None

**Fibre Type**

6 = OM1, 62.5/125 Multimode Beige  
5L = OM3, XGLO 300 50/125 Multimode Aqua  
5V = OM4, XGLO 550 50/125 Multimode Aqua  
EV = OM4, XGLO 550 50/125 Multimode Erika Violet  
SM = OS1/OS2, Singlemode Yellow

**Jacket Rating**

P = Plenum  
R = Riser  
L = LSOH

**Length\***

Length must be 3 digits  
Example: 003 = 3m  
010 = 10 ft.

**MTP Connector Gender**

MM = Male  
MF = Female

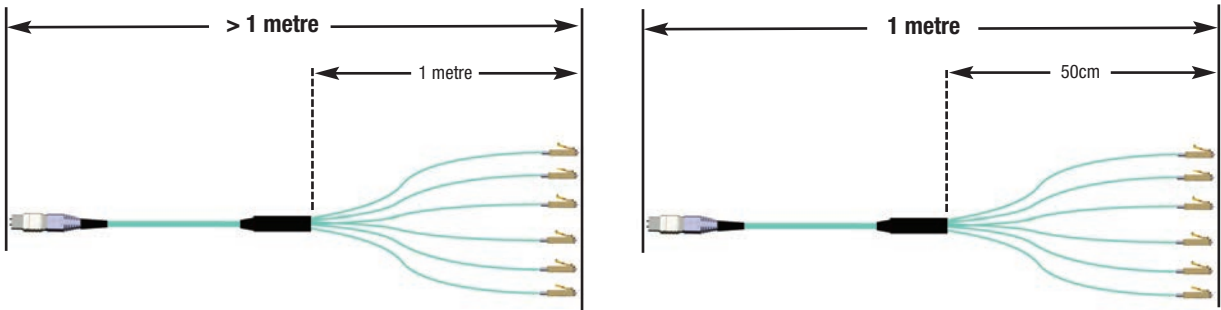
**Length Unit**

F = Feet  
M = Metres

T(X)(X)(X)(XX)(X)(XX)LC(XXX)(X)..... MTP to LC Trunk (distribution to breakout)

See performance details on page 6.27.

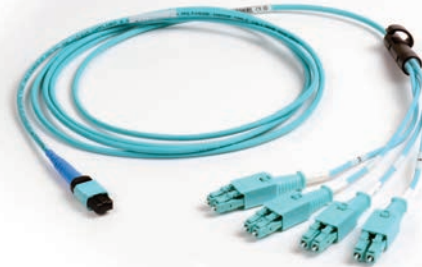
\* Minimum order length is 1 metre. Order length is measured connector tip to connector tip.  
Trunks greater than 1 metre (3.28 ft.) have breakout length of 1 metre. 1 metre trunks have a 50cm breakout length (See diagram below)



# Base 8 MTP to LC BladePatch® 4 X 10G Equipment Cords

## MTP® to LC BladePatch Trunks

Utilising high quality Siemon RazorCore™ cable, Base 8 MTP to LC BladePatch 4X10 equipment cords offer a connectivity transition from one 8-fibre MTP connector to four duplex LC BladePatch connectors that feature an innovative push-pull boot design to control the latch, enabling easy access and removal in tight-fitting areas.



### Ordering Information:

Performance		Length Unit	
F = Standard Loss (SM only)		F = Feet	
L = Low Loss (OM3/OM4 only)		M = Metre	
Fibre Count		Length	
N = 8 Strand		Length must be 3 digits	
		Example: 003 = 3m	
		010 = 10 ft.	
Pulling Eye Option		LC BP Connector	
A = MTP Side (for lengths > 5m only)		LB = Reverse Fibre Position (RFP)	
C = None		BL = Continuous Fibre Position (CFP)	
Fibre Type		Stagger Type	
L = OM3, XGLO 300 50/125 Multimode Aqua		T = No Stagger	
V = OM4, XGLO 550 50/125 Multimode Aqua			
E = OM4, XGLO 550 50/125 Multimode Erika Violet			
A = OS1/OS2, Singlemode Yellow			
Jacket Rating		MTP Gender	
P = Plenum		M = Male	
R = Riser		F = Female	
L = LSOH			

## MTP to LC 4 X 10G Equipment Cords

Siemon's MTP to LC 4 X 10G Hybrid Equipment Cords have (1) MTP connector on one end and (4) duplex LC connectors on the other for connection to active equipment with LC ports used in aggregation of multiple 10G ports to one 40G port.



### Ordering Information:

Performance		Length Unit	
F = Standard Loss		F = Feet	
L = Low Loss (OM3/OM4 only)		M = Metre	
Strand Count		Length	
N = 8 Fibres		Length must be 3 digits	
		Example:	
		003 = 3m	
		010 = 10 ft.	
Pulling Eye Option		Side A MTP (8 Core)	
C = None		MM = Male	
		MF = Female	
Fibre Type		Jacket Rating	
5L = OM3, XGLO 300 50/125 Multimode Aqua		P = Plenum	
5V = OM4, XGLO 550 50/125 Multimode Aqua		R = Riser	
EV = OM4, XGLO 550 50/125 Multimode Erika Violet		L = LSOH	

# 40/100G MTP Equipment Conversion Cords

## Conversion Cord for 40G: (2) 12F MTP TO (3) 8F MTP Conversion Cord

Siemon's Conversion cord ensures 100 percent utilisation of 12 fibre MTP to MTP trunks at 40 and 100G transmission. The cords transition (2) 12-fibre MTP connectivity from the backbone trunk to (3) 8-fibre MTP connector.

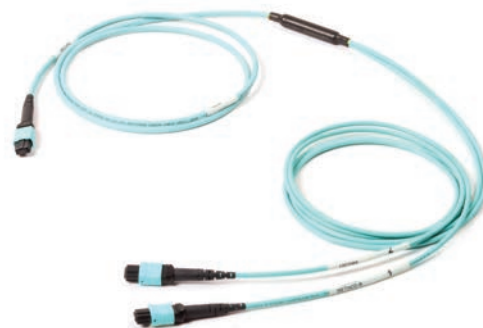


### Ordering Information:

YWMF(XX)(XX)(X)(XXX)(X)(X)(X) ..... 40/100G Equipment Conversion Cords			
<b>Side A MTP (8 Core)</b>		<b>Performance</b>	
<b>MF</b> = Female		<b>L</b> = Low Loss	
		<b>Blank</b> = Standard Loss	
<b>Side B MTP (12 Core)</b>		<b>Polarity Method</b>	
<b>MM</b> = Male		<b>B</b> = Method B	
<b>MF</b> = Female		<b>C</b> = Method C	
<b>Fibre Type</b>		<b>Length Unit</b>	
<b>5L</b> = OM3, XGLO 300 50/125 Multimode Aqua		<b>F</b> = Feet	
<b>5V</b> = OM4, XGLO 550 50/125 Multimode Aqua		<b>M</b> = Metre	
<b>EV</b> = OM4, XGLO 550 50/125 Multimode Erika Violet		<b>Length</b>	
<b>Jacket Rating</b>		Length must be 3 digits	
<b>P</b> = Plenum		<b>Example:</b>	
<b>R</b> = Riser		<b>003</b> = 3m	
<b>L</b> = LSOH		<b>010</b> = 10 ft.	

## (2) 12F MTP TO (1) 24F MTP Equipment Conversion Cord

Siemon's Conversion cords utilises (2) 12 fibre MTP to MTP trunks and transitions them from the backbone trunk to (1) 24-fibre MTP connector to connect to the active equipment.



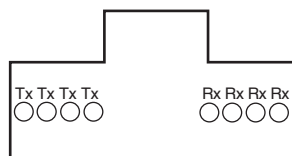
### Ordering Information:

YJMF(XX)(XX)(X)(XXX)(X)(X)(X) ..... 40/100G Equipment Conversion Cords			
<b>Side A MTP (24 Core)</b>		<b>Performance</b>	
<b>MF</b> = Female		<b>L</b> = Low Loss	
		<b>Blank</b> = Standard Loss	
<b>Side B MTP (12 Core)</b>		<b>Polarity Method</b>	
<b>MM</b> = Male		<b>B</b> = Method B	
<b>MF</b> = Female		<b>C</b> = Method C	
<b>Fibre Type</b>		<b>Length Unit</b>	
<b>5L</b> = OM3, XGLO 300 50/125 Multimode Aqua		<b>F</b> = Feet	
<b>5V</b> = OM4, XGLO 550 50/125 Multimode Aqua		<b>M</b> = Metre	
<b>EV</b> = OM4, XGLO 550 50/125 Multimode Erika Violet		<b>Length</b>	
<b>Jacket Rating</b>		Length must be 3 digits	
<b>P</b> = Plenum		<b>Example:</b>	
<b>R</b> = Riser		<b>003</b> = 3m	
<b>L</b> = LSOH		<b>010</b> = 10 ft.	

## Base 8 40/100G Equipment Cords

### Base 8 MTP 2mm Jumpers

Siemon's Base 8 MTP jumpers are used to connect the MTP trunk backbone to the active equipment. The 8-fibre design ensures 100% utilisation of fibre in 8-fibre 40/100G applications, while the compact design of the MTP footprint and Siemon's 2mm (0.079 in.) diameter RazorCore™ cable achieves greater connectivity access, reduction in cable pathway congestion and improved airflow.

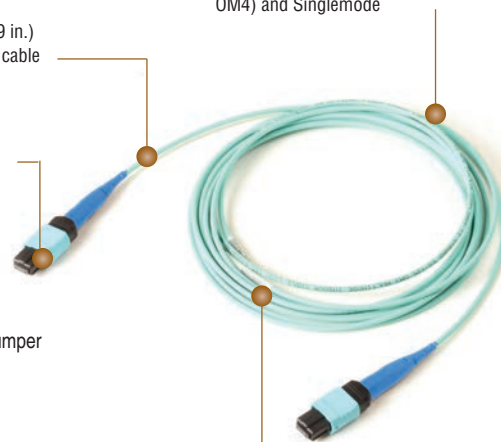


**40GBASE-SR4 8-Fibre and 100GBASE-SR4 8-Fibre MTP**  
(1) 8 strand MTP trunk is used for one link

**Small Diameter** — 2mm (0.079 in.)  
RazorCore fibre cable improves cable management and pathway fill.

**MTP Connector Gender** —  
Options for both male or female

**Multiple Fibre Types** — Available in Multimode (laser optimised OM3 and OM4) and Singlemode



**Easy Identification** — Base 8 assemblies feature a blue boot to easily distinguish from Base 12 assemblies

### Ordering Information:

GJ(X)-(X)(X)(X)(X)-(XXX)(X)-(X) . . . . Base 8 MTP 2mm (0.079 in.) jumper

Performance	Polarity Method
S = Standard Loss	A = Method A
L = Low Loss (OM3/OM4 only)	B = Method B
	C = Method C
Fibre Type	Length Unit
L = OM3, XGLO 300 50/125 Multimode Aqua	F = Feet
V = OM4, XGLO 550 50/125 Multimode Aqua	M = Metre
E = OM4, XGLO 550 50/125 Multimode Erika Violet	
A = OS1/OS2, Singlemode Yellow	
Jacket Rating	Length
P = Plenum	Length must be 3 digits
R = Riser	Example:
L = LSOH	003 = 3m
	010 = 10 ft.
Side A	Side B
M = Male	M = Male
F = Female	F = Female

### Base 12 MTP 2mm Jumpers

Siemon's MTP jumpers are used to connect the MTP trunk backbone to the active equipment. The compact design of the MTP footprint and Siemon's 2mm (0.079 in.) diameter RazorCore™ cable achieves greater connectivity access, reduction in cable pathway congestion and improved airflow around the active equipment.

### Ordering Information:

MJ(X)-(X)(X)(X)(X)-(XXX)(X)-(X) . . . . Base 12 MTP 2mm (0.079 in.) jumper

Performance	Polarity Method
S = Standard Loss	A = Method A
L = Low Loss (OM3/OM4 only)	B = Method B
	C = Method C
Fibre Type	Length Unit
L = OM3, XGLO 300 50/125 Multimode Aqua	F = Feet
V = OM4, XGLO 550 50/125 Multimode Aqua	M = Metre
E = OM4, XGLO 550 50/125 Multimode Erika Violet	
A = OS1/OS2, Singlemode Yellow	
Jacket Rating	Length
P = Plenum	Length must be 3 digits
R = Riser	Example:
L = LSOH	003 = 3m
	010 = 10 ft.
Side A	Side B
M = Male	M = Male
F = Female	F = Female



# Plug and Play Fibre System Optical Performance

## Product Specifications

### STANDARD LOSS ASSEMBLIES

Fibre Type		MAX Insertion (dB)		MAX Return Loss (dB)		Performance Class
		MTP	LC	MTP	LC	
5L-MM	50/125 (OM3)	0.50	0.25	20	30	XGLO® 300
5V-MM	50/125 (OM4)	0.50	0.25	20	30	XGLO 550
SM-LWP	SM (OS1/OS2)	0.60	0.40	65	55	XGLO

### LOW LOSS ASSEMBLIES

Fibre Type		MAX Insertion (dB)		MAX Return Loss (dB)		Performance Class
		MTP	LC	MTP	LC	
5L-MM	50/125 (OM3)	0.20	0.15	20	30	XGLO 300
5V-MM	50/125 (OM4)	0.20	0.15	20	30	XGLO 550

### CABLE - OPTICAL AND PHYSICAL SPECIFICATIONS

Cable Type	Multimode		Singlemode
	XGLO 50/125 OM3 (850/1300nm)	XGLO 50/125 OM4 (850/1300nm)	
Fibre Cable Attenuation, MAX (dB/km)	3.0 / 1.0	3.0 / 1.0	0.4/ 0.4/ 0.3*
LED Bandwidth, MIN (MHz/km)	1500 / 500	3500 / 500	N/A
Effective Modal Bandwidth, MIN (MHz/km)	2000	4700	N/A
Cable Outer Jacket, Colour (Per TIA-598-C)	Aqua	Aqua/ Erika Violet	Yellow

\* XGLO singlemode fibre meets low water peak specifications per ITU-TG.652.C

### CONNECTORS - PHYSICAL SPECIFICATIONS

Connector Type	IEC Intermateability Compliance	TIA Intermateability Compliance	Housing Colour		Boot Colour	
			MM	SM	MM	SM
MTP	IEC 61754-7	TIA/EIA-604-5	Aqua/ Erika Violet	Green	Black (Base 8) Blue (Base12)	Black (Base 8) Blue (Base12)



# Plug and Play Fibre System Optical Performance

## STANDARD MODULES AND ASSEMBLIES

Fibre Type		MAX Insertion (dB)		MAX Return Loss (dB)		Performance Class
		MTP	LC	MTP	LC	
5L-MM	50/125 (OM3)	0.40	0.25	20	30	XGLO® 300
5V-MM	50/125 (OM4)	0.40	0.25	20	30	XGLO 550
SM-LWP	SM (OS1/OS2)	0.60	0.40	55	55	XGLO

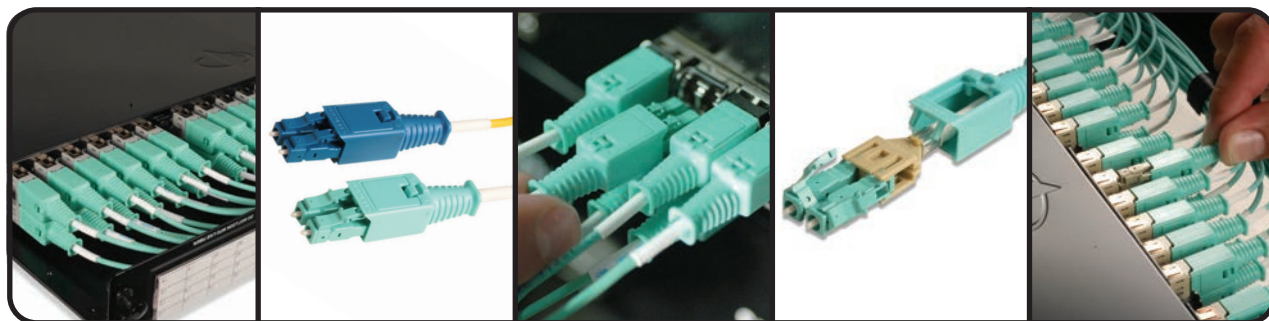
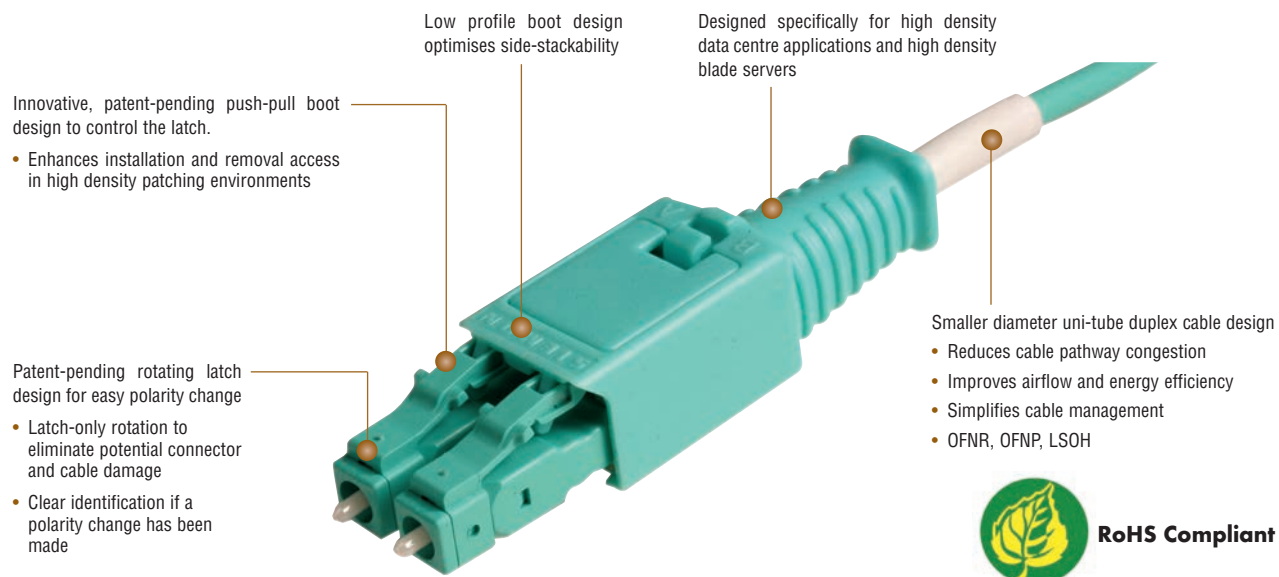
## LOW LOSS MODULES AND ASSEMBLIES

Fibre Type		MAX Insertion (dB)		MAX Return Loss (dB)		Performance Class
		MTP	LC	MTP	LC	
5L-MM	50/125 (OM3)	0.20	0.15	20	30	XGLO 300
5V-MM	50/125 (OM4)	0.20	0.15	20	30	XGLO 550

## LC BladePatch®

Siemon's LC BladePatch duplex jumper offers a unique solution for high-density fibre optic patching environments. It features a revolutionary and innovative push-pull boot design to control the latch, enabling easy access and removal in tight-fitting areas. The LC BladePatch utilises a smaller diameter uni-tube cable design which reduces cable pathway congestion improving air flow and increasing energy efficiency while simplifying overall cable management. The LC BladePatch provides low-loss performance for Multimode and Singlemode supporting the precise optical performance requirements for high speed networks and improving network performance. The LC BladePatch is ideal for patching high density blade servers, patch panels and equipment.

XGLO cable assemblies feature premium fibre that meets IEEE, specifications for OM3 and OM4 fibre. In addition, these assemblies offer a superior connector polish that meets stringent Telcordia and ISO/IEC specifications for end-face geometry and exceeds all ANSI/TIA and ISO/IEC insertion loss and return loss requirements. These precision cable assemblies are warranted for 20 years when installed in a qualified XGLO system. 100% inspection ensures superior performance and quality.



Low profile boot design optimises side-stackability

OM3 and OM4 50/125 Multimode and OS1/OS2 Singlemode (UPC)

Fits within any standard LC adapter opening or LC SFP module (not compatible with internally shuttered LC adapters)

Rotating latch design eliminates potential fibre damage during polarity changes

The push-pull design enables easy access and removal via the boot in tight-fitting areas

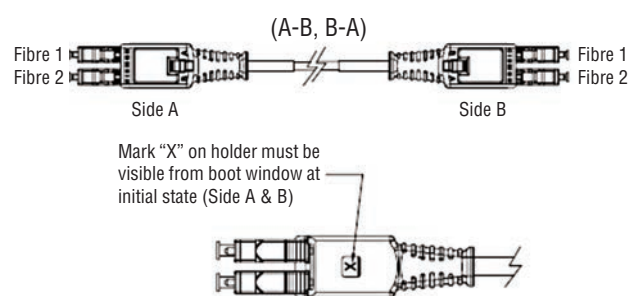
# Product Information

## PERFORMANCE SPECIFICATIONS

	OM3 50/125µm Multimode			OM4 50/125µm Multimode			OS1/OS2 Singlemode
<b>Wavelength (nm)</b>	850	1300	850*	850	1300	850*	1310/1550nm
<b>Min. Cable Bandwidth (MHz*km)</b>	1500 (OFL)	500 (OFL)	2000 (EMB)	3500 (OFL)	500 (OFL)	4700 (EMB)	N/A
<b>Max. Insertion Loss (dB)</b>	0.15 (0.10 Typical)			0.15 (0.10 Typical)			0.25 (0.10 Typical)
<b>Min. Return Loss (dB)</b>	30 (35 Typical)			30 (35 Typical)			55 (60 Typical)

\*Laser Bandwidth

## Polarity Option - RFP (Reverse Fibre Position)



## Ordering Information:

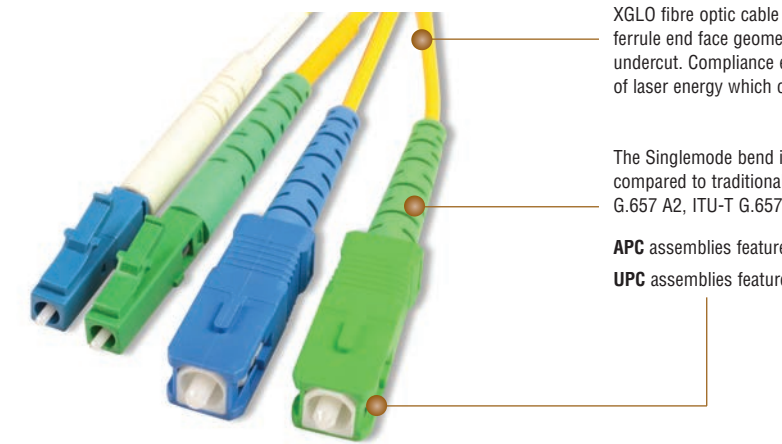
FBP-(X)(X)(X)(X)(X)-(XXX)(XX)(X) . . . . . XGLO LC BladePatch: reverse fibre position, Multimode OM3, OM4 50/125µm Singlemode - OS1/OS2	
<b>Side A - Connector</b> LC = LC	<b>Jacket Rating/Colour</b> <b>Blank</b> = Riser (OFNR) Yellow cable, Blue connectivity <b>B</b> = Bulk Available in lengths 5 meters (16.4 ft.) or less. Remove dashes "-" and add "B" to the end of the part number for bulk pack of 100 jumpers (10 per bag)
<b>Side A - Mode/Performance</b> <b>Blank</b> = Multimode <b>U</b> = UPC Singlemode	<b>Jacket Rating/Colour</b> <b>Blank</b> = Riser (OFNR) Yellow cable, Blue connectivity <b>P</b> = Plenum (OFNP) Yellow cable, Blue connectivity <b>H</b> = LSOH (IEC 60332-3C) Yellow cable, Blue connectivity <b>AQ</b> = Riser (OFNR) Aqua cable & connectivity (OM3, OM4) <b>AH</b> = LSOH (IEC 60332-3C) Aqua cable & connectivity (OM3, OM4) <b>EQ</b> = Riser (OFNR) Erika Violet cable & connectivity (OM4 only) <b>EP</b> = Plenum (OFNP) Erika Violet cable & connectivity (OM4 only) <b>EH</b> = LSOH (IEC 60332-3C) Erika Violet cable & connectivity (OM4 only)
<b>Side B - Connector</b> LC = LC	<b>Length</b> <b>Example:</b> <b>01</b> = 1 metre (3 ft) <b>100</b> = 100 metre (328 ft)
<b>Side B - Mode/Performance</b> <b>Blank</b> = Multimode <b>U</b> = UPC Singlemode	
<b>Fibre Type</b> <b>5L</b> = OM3 XGLO 300 50/125 Multimode <b>5V</b> = OM4 XGLO 550 50/125 Multimode <b>L</b> = OS1/OS2 Singlemode	

Note: Polarity CFP (Continuous fibre position) is available as an option.  
Remove the first dash "-" and add C to the end of the part number.  
Example: FBPLCLC5L-(XX)AQC

# XGLO® Singlemode LC & SC, APC and UPC Simplex Jumpers

XGLO Singlemode LC and SC Simplex angled polish (APC) and ultra polish (UPC) fibre optic cable assemblies are ideal for supporting high speed telecommunication network fibre applications such as FTXX, PON, POL, CATV, LAN, and WAN. The cable assemblies feature Singlemode bend insensitive fibre with a superior connector polish. The assemblies meet stringent TIA/EIA, Telcordia and ISO/IEC specifications for endface geometry, mechanical, insertion loss and return loss requirements.

These precision cable assemblies are warranted for 20 years when installed in a qualified XGLO system. 100% inspection ensures superior performance and quality.



XGLO fibre optic cable assemblies meet all Telcordia and ISO/IEC specifications for ferrule end face geometry – including radius of curvature, apex offset, and spherical undercut. Compliance ensures minimum Return Loss, thereby reducing back reflection of laser energy which could degrade transmission performance or damage transceivers

The Singlemode bend insensitive fibre provides supreme bending performance compared to traditional singlemode fibre. The Singlemode fibre conforms to ITU-T G.657 A2, ITU-T G.657 B2 (edition 2009) and ITU-T G.652.D industry specifications

APC assemblies feature green connectors with a yellow jacket

UPC assemblies feature blue connectors with a yellow jacket

### PERFORMANCE SPECIFICATIONS

Singlemode (OS1/OS2)	APC	UPC
Wavelength (nm)	1310 / 1550	
Max. Insertion Loss (dB)	0.40 (0.15 Typical)	0.40 (0.10 Typical)
Min. Return Loss (dB)	65 (70 Typical)	55 (60 Typical)

### STANDARDS COMPLIANCE

- TIA/EIA-568.3-D
- IEC 60874
- ISO/IEC 11801
- ITU-T G.652 D
- ITU-T G.657 A2 , ITU-T G.657 B2 (2009)
- TELCORDIA GR-326-CORE issue 4

\*Tested in accordance with the Service Life requirements of Telcordia GR-326-CORE issue 4.

### Ordering Information:

#### LSOH (IEC 60332-3C)

##### XGLO Singlemode OS1/OS2

FJ1-LCASCAL-(XX)H.....LC APC to LC APC yellow simplex jumper  
FJ1-SCASCAL-(XX)H.....SC APC to SC APC yellow simplex jumper  
FJ1-LCASCAL-(XX)H.....LC APC to SC APC yellow simplex jumper  
FJ1-LCULCUL-(XX)H.....LC UPC to LC UPC yellow simplex jumper  
FJ1-SCUSCUL-(XX)H.....SC UPC to SC UPC yellow simplex jumper  
FJ1-LCUSCUL-(XX)H.....LC UPC to SC UPC yellow simplex jumper  
FJ1-LCASCAL-(XX)H.....LC APC to LC UPC yellow simplex jumper  
FJ1-LCASCUL-(XX)H.....LC APC to SC UPC yellow simplex jumper  
FJ1-LCUSCUL-(XX)H.....LC UPC to SC APC yellow simplex jumper  
FJ1-SCUSCUL-(XX)H.....SC UPC to SC APC yellow simplex jumper

#### RISER (OFNR)

##### XGLO Singlemode OS1/OS2

FJ1-LCASCAL-(XX).....LC APC to LC APC yellow simplex jumper  
FJ1-SCASCAL-(XX).....SC APC to SC APC yellow simplex jumper  
FJ1-LCASCAL-(XX).....LC APC to SC APC yellow simplex jumper  
FJ1-LCULCUL-(XX).....LC UPC to LC UPC yellow simplex jumper  
FJ1-SCUSCUL-(XX).....SC UPC to SC UPC yellow simplex jumper

FJ1-LCUSCUL-(XX).....LC UPC to SC UPC yellow simplex jumper  
FJ1-LCASCUL-(XX).....LC APC to LC UPC yellow simplex jumper  
FJ1-LCASCUL-(XX).....LC APC to SC UPC yellow simplex jumper  
FJ1-LCUSCUL-(XX).....LC UPC to SC APC yellow simplex jumper  
FJ1-SCUSCUL-(XX).....SC UPC to SC APC yellow simplex jumper

### PLENUM (OFNP)

##### XGLO Singlemode OS1/OS2

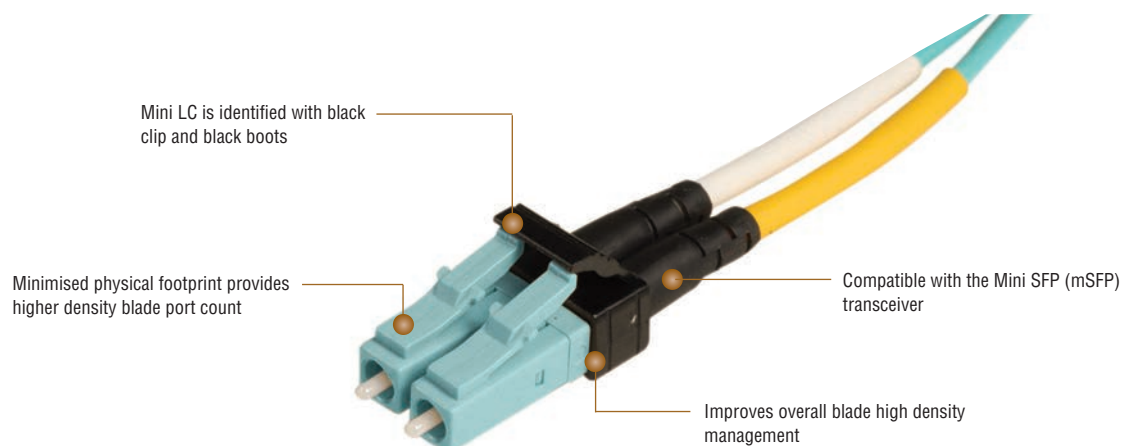
FJ1-LCASCAL-(XX)P.....LC APC to LC APC yellow simplex jumper  
FJ1-SCASCAL-(XX)P.....SC APC to SC APC yellow simplex jumper  
FJ1-LCASCAL-(XX)P.....LC APC to SC APC yellow simplex jumper  
FJ1-LCULCUL-(XX)P.....LC UPC to LC UPC yellow simplex jumper  
FJ1-SCUSCUL-(XX)P.....SC UPC to SC UPC yellow simplex jumper  
FJ1-LCUSCUL-(XX)P.....LC UPC to SC UPC yellow simplex jumper  
FJ1-LCASCUL-(XX)P.....LC APC to LC UPC yellow simplex jumper  
FJ1-LCASCUL-(XX)P.....LC APC to SC UPC yellow simplex jumper  
FJ1-LCUSCUL-(XX)P.....LC UPC to SC APC yellow simplex jumper  
FJ1-SCUSCUL-(XX)P.....SC UPC to SC APC yellow simplex jumper

Use (XX) to specify length: 01 = 1m (3.28 ft.), 02 = 2m (6.56 ft.), 03 = 3m (9.8 ft.), 05 = 5m (16.4 ft.)

Custom lengths and jacket colours are available upon request.  
Contact our Customer Service Department for more information.

## XGLO® Mini-LC Duplex Fibre Cable Assemblies

Mini-LC duplex Multimode cable assemblies are designed to operate with the Mini SFP (mSFP) transceiver and enable a higher density deployment of active devices. The Mini-LC has a reduced centreline pitch of 5.25mm (0.2 in.) compared to a standard LC pitch of 6.25mm (0.24 in.). The smaller pitch minimises the physical footprint and provides higher-density port count for data centre network equipment. Black colour duplex latch clips and boots are used to distinguish the Mini-LC Duplex connectors from the standard LC Duplex.



### PERFORMANCE SPECIFICATIONS

	50/125 µm Multimode (OM3)			50/125 µm Multimode (OM4)		
Wavelength (nm)	850	1300	850*	850	1300	850*
Min. Cable Bandwidth (MHz•km)	1500 (OFL)	500 (OFL)	2000 (EMB)	3500 (OFL)	500 (OFL)	4700 (EMB)
Max. Insertion Loss (dB)	0.25 (0.10 Typical)			0.25 (0.10 Typical)		
Min. Return Loss (dB)	30 (35 Typical)			30 (35 Typical)		

\*Laser Bandwidth

### Ordering Information:

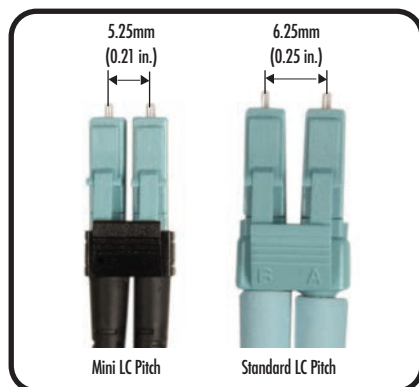
#### XGLO 300 50/125µm Multimode OM3 OFNR

Part #	Description
FJ2-LCMLC5L(XX)A	Mini LC to standard LC aqua duplex jumper
FJ2-LCMLCM5L(XX)A	Mini LC to mini LC aqua duplex jumper

#### XGLO 550 50/125µm Multimode OM4 OFNR

Part #	Description
FJ2-LCMLC5V(XX)A	Mini LC to standard LC aqua duplex jumper
FJ2-LCMLCM5V(XX)A	Mini LC to mini LC aqua duplex jumper

Use (XX) to specify length: 01 = 1m (3.28 ft.), 02 = 2m (6.56 ft.), 03 = 3m (9.8 ft.), 05 = 5m (16.4 ft.)



Reduced centreline pitch minimises the physical footprint

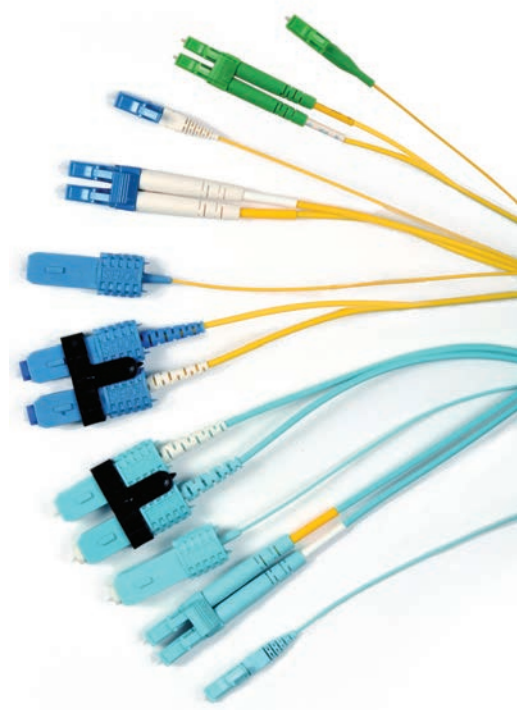


Mini LC to Standard LC jumpers are available to connect Mini LC equipment to a standard channel



# XGLO® and LightSystem® Jumpers & Pigtails

XGLO fibre optic cable assemblies are ideal for supporting duplex and simplex fibre applications over extended distances and next-generation backbones. XGLO cable assemblies feature premium fibre that meets IEC-60793-2-10, TIA-492AAAC (OM3) and TIA-492AAAD (OM4) specifications. In addition, these assemblies offer a superior connector polish that meets stringent Telcordia and ISO/IEC specifications for end-face geometry and exceeds all ANSI/TIA and ISO/IEC insertion loss and return loss requirements. The XGLO singlemode jumpers and pigtails are also available in angled polish (APC) for FTXX, PON, POL, CATV LAN and WAN. These precision cable assemblies are warranted for 20 years when installed in a qualified Siemon XGLO or LightSystem. 100% inspection ensures superior performance and quality.



**Fibre Type** — OM1, OM3, OM4, OS1/OS2

**Polarity Correction** — SC and LC duplex clip allows for polarity correction

**Exceeds Requirements** — Exceeds TIA/EIA and ISO/IEC requirements for aging, exposure to humidity, temperature extremes, impact, vibration, coupling strength, and cable resistance to stress and strain

**APC Connectivity** — Complies with Telcordia GR-326-CORE issue 4

\*Tested in accordance with the Service Life requirements of Telcordia GR-326-CORE issue 4.

\* LC 900µm simplex pigtails are TIA/EIA and ISO/IEC compliant.



**Bulk Pack Pigtails** — Convenient protective plastic bulk packaging reduces waste

- 12 pack SC
- 12/24 pack LC
- TIA colour code pack 1 -12 colours

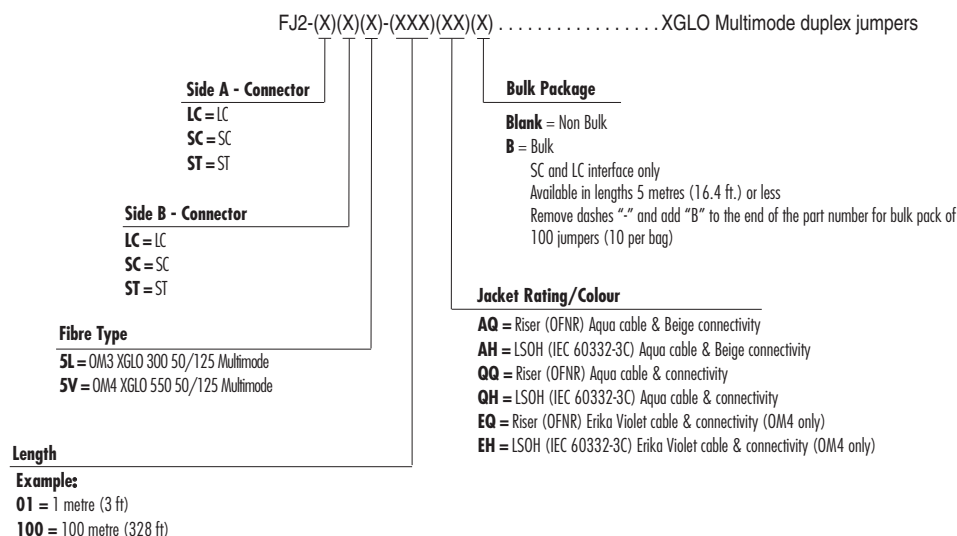
## PERFORMANCE SPECIFICATIONS

	OM1 - 62.5/125µm Multimode			OM3 50/125µm Multimode			OM4 50/125µm Multimode			OS1/OS2 Singlemode (UPC)	OS1/OS2 Singlemode (APC)
<b>Wavelength (nm)</b>	850	1300		850	1300	850*	850	1300	850*	1310/1550nm	1310/1550nm
<b>Min. Cable Bandwidth (MHz·km)</b>	200	500		1500 (OFL)	500 (OFL)	2000 (EMB)	3500 (OFL)	500 (OFL)	4700 (EMB)	N/A	N/A
<b>Max. Insertion Loss (dB)</b>	0.50 (0.15 Typical)			0.25 (0.10 Typical)			0.25 (0.10 Typical)			0.40 (0.10 Typical)	0.40 (0.15 Typical)
<b>Min. Return Loss (dB)</b>	25 (30 Typical)			30 (35 Typical)			30 (35 Typical)			55 (60 Typical)	65 (70 Typical)

\* Laser bandwidth

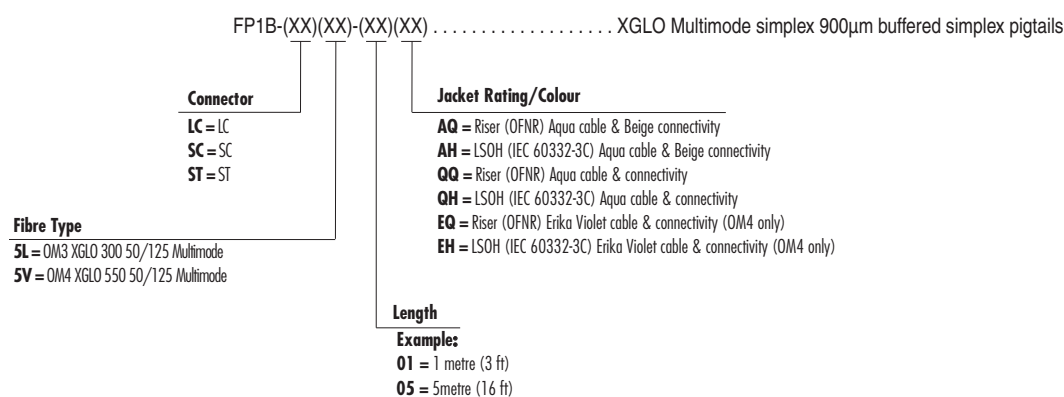
## XGLO® Multimode OM3 and OM4 Duplex Jumpers

### Ordering Information:



## XGLO® Multimode OM3 and OM4 900µm Buffered Simplex Pigtails

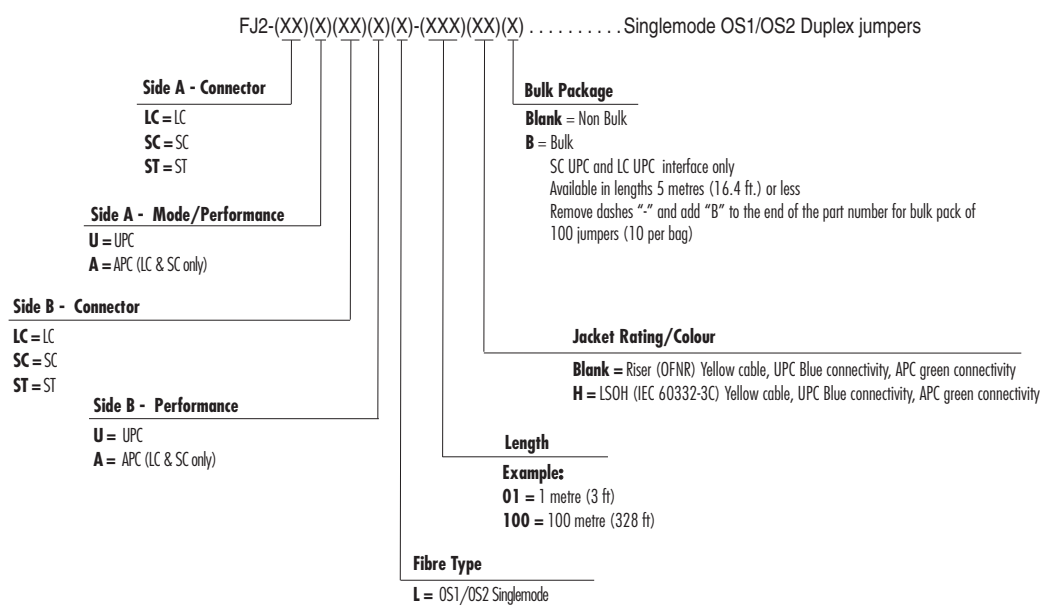
### Ordering Information:



Custom lengths and jacket colours are available upon request. Contact our Customer Service Department for more information.

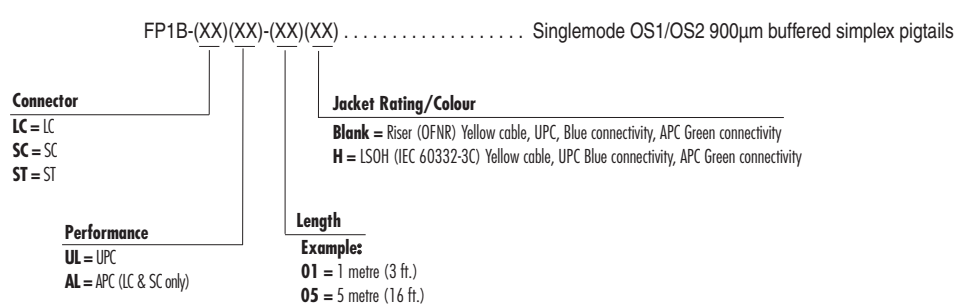
# XGLO® Singlemode OS1/OS2 Duplex Jumpers

Ordering Information:



# XGLO® Singlemode OS1/OS2 900µm Buffered Simplex Pigtails

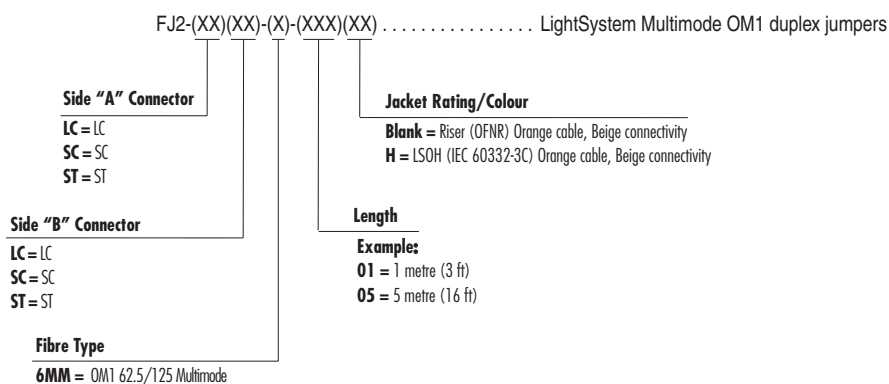
Ordering Information:



Custom lengths and jacket colours are available upon request. Contact our Customer Service Department for more information.

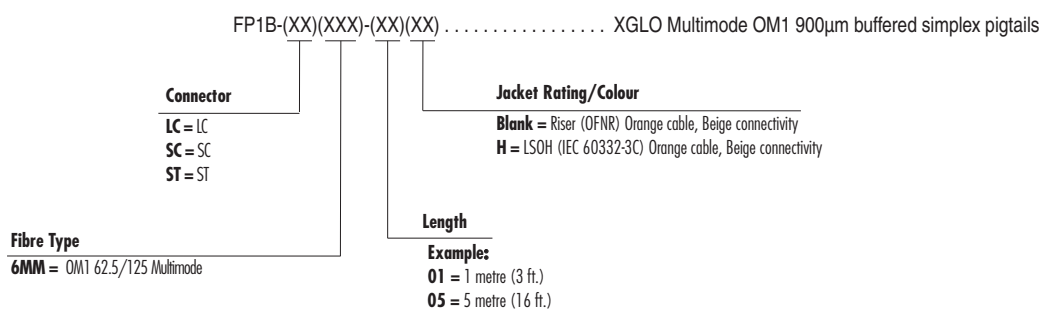
## LightSystem 62.5/125 µm Multimode OM1 Duplex Jumpers

### Ordering Information:



## LightSystem 62.5/125 µm Multimode OM1 900µm Buffered Simplex Pigtails

### Ordering Information:



Custom lengths and jacket colours are available upon request. Contact our Customer Service Department for more information.

Bulk Fibre 900µm Buffered Pigtails, Singlemode OS1/OS2 and Multimode OM3/OM4



Ordering Information:

**Pack Quantity**

12 = 12 Pigtails  
24 = 24 Pigtails  
T12 = 12 Pigtails TIA colour code  
T24 = 24 Pigtails TIA colour code (LC only)

**Connector**

LC = LC  
SC = SC

**Mode/Performance**

5L = OM3 XGLO 300 50/125 Multimode  
5V = OM4 XGLO 550 50/125 Multimode  
UL = UPC OS1/OS2 Singlemode  
AL = APC OS1/OS2 Singlemode

**Jacket Rating/Connectivity Colour**

Blank = Riser (OFNR) UPC Blue, APC Green, OS1/OS2  
H = LSOH (IEC 60332-3C) UPC Blue, APC Green, OS1/OS2  
AQ = Riser (OFNR) Beige connectivity, OM3/OM4  
AH = LSOH (IEC 60332-3C) Beige connectivity, OM3/OM4  
QQ = Riser (OFNR) Aqua connectivity, OM3/OM4  
QH = LSOH (IEC 60332-3C) Aqua connectivity, OM3/OM4  
EQ = Riser (OFNR) Erika Violet connectivity (OM4 only)  
EH = LSOH (IEC 60332-3C) Erika Violet connectivity (OM4 only)

**Length**

Available in lengths 5 meters (16.4 ft.) or less

**Example:**

01 = 1 metre (3.3 ft)  
05 = 5 metre (16.4 ft)

FP1B(XXX)(XX)(XX)(XX)(XX)B . . . . . XGLO fibre 900µm Buffered pigtails

Custom lengths and jacket colours are available upon request. Contact our Customer Service Department for more information.



## XGLO® and LightSystem® LC & SC Fibre Trunks

Siemon's RazorCore™ fibre trunks provide an efficient and cost effective alternative to individual field-terminated components. Combining factory terminated connectors with Siemon RazorCore reduced O.D. cable in a high-performance cable assembly, Siemon RazorCore fibre trunks were designed with Local Area Networks (LAN), Data Centres and Storage Area Networks (SAN) applications in mind. These assemblies allow up to 75% faster field installation times. Standard configurations also help maintain consistent cable layout and facilitate efficient moves, adds and changes. These precision cable assemblies are 100% inspected ensuring superior performance and quality. The RazorCore fibre trunks are available in Single-mode or Multimode performance with LC BladePatch, SC, LC or ST connectivity.



2.4mm Unitube Duplex Breakout - LC BladePatch®



900µm Simplex Breakout



2.0mm Duplex Breakout



### LC BladePatch® —

Enhances installation and removal access in high density environments.  
Low profile push-pull boot design optimises side-stackability and accessibility  
Fits with any standard LC adapter opening or LC SFP module  
(not compatible with internal shuttered LC adapters)

### Reduced Pathway Fill —

Siemon's RazorCore cable has significantly reduced cable O.D. resulting in less cable tray fill and pathway restrictions

### Proper Orientation —

Each leg is designated for proper connector orientation

### Multiple Fibre Types —

Available in OM1, OM3, and OM4 Multimode 50/125 laser optimised and OS1/OS2 Singlemode. Jacket ratings in riser, plenum and LSOH

### Custom Configurations —

Available from 6 to 144 fibre counts in various lengths

### Factory Terminated and Tested —

Every fibre cable assembly is factory terminated and tested for premium performance

# XGLO® and LightSystem® Fibre Trunks

## Ordering Information:

TFU(X)(X)(X)(X)(X)(X)(X)(X)(XXX)(X)

Fibre Count

A = 6  
B = 8  
C = 12  
D = 16  
E = 24  
F = 36  
G = 48  
H = 72  
J = 96  
K = 144

Pulling Eye

A = Side A  
B = Side B  
C = Side A&B  
D = None

Fibre Type

A = OS1/OS2, 62.5/125 Singlemode Yellow  
B = OM1, 62.5 Multimode Orange  
L = OM3, XGLO 300 50/125 Multimode Aqua  
V = OM4, XGLO 550 50/125 Multimode Aqua  
E = OM4, XGLO 550 50/125 Multimode Erika Violet

Cable Type

P = Plenum - Indoor Distribution (OFNP)  
R = Riser - Indoor Distribution (OFNR)  
L = ISOH - Indoor Distribution (IEC 60332-3C)

LEG OD (Side A)

A = Simplex 900µm  
B = Duplex 2.0mm  
C = Uni-Tube Duplex 2.4mm LC BladePatch only

Unit of Measure

F = Feet  
M = Metres

Cable Length

Length must be 3 digits  
Example: 004 = 4m  
012 = 12 ft.

Connector Type (Side B)

A = LC Multimode  
B = LC UPC Singlemode  
C = LC APC Singlemode  
D = LC BladePatch Multimode RFP Polarity only  
E = LC BladePatch UPC Singlemode RFP Polarity only  
F = SC Multimode  
G = SC UPC Singlemode  
H = SC APC Singlemode  
J = ST Multimode  
K = ST UPC Singlemode

Connector Type (Side A)

A = LC Multimode  
B = LC UPC Singlemode  
C = LC APC Singlemode  
D = LC BladePatch Multimode RFP Polarity only  
E = LC BladePatch UPC Singlemode RFP Polarity only  
F = SC Multimode  
G = SC UPC Singlemode  
H = SC APC Singlemode  
J = ST Multimode  
K = ST UPC Singlemode

LEG OD (Side B)

A = Simplex 900µm  
B = Duplex 2.0mm  
C = Uni-Tube Duplex 2.4 LC BladePatch only

Ordering length is measured connector tip to connector tip.  
2.4 unitube duplex, 2.0mm duplex and simplex 900 micron buffered  
Minimum order length is 3 metres (9.8 ft).

Note: These products are made to order. Call for lead time and availability.

www.siemon.com

FIBRE CONNECTIVITY, ENCLOSURES AND CABLE

6.39

# XGLO® and LightSystem® LC & SC Fibre Trunks

## CONNECTORS — Optical Specifications

Fibre Type	Performance Class	Max Insertion Loss (dB)	Min Return Loss (dB)
62.5/125 µm Multimode, OM1	LightSystem	0.50	25
50/125 µm Laser Optimised Multimode, OM3,OM4	XGLO	0.25	30
Singlemode UPC, OS1/OS2	XGLO	0.40	55
Singlemode APC, OS1/OS2	XGLO	0.40	65


## CABLE — Optical and Physical Specifications

Jacket Type	Fibre Strand Count	Cable Diameter mm (in.)	Min Bend Radius Operational mm (in.)	Min Bend Radius Installation mm (in.)	Max Pulling Eye Diameter mm (in.)	*Required Duct Diameter mm (in.)
Riser	6	3.0 (0.12)	30 (1.2)	45 (1.8)	44.5 (1.75)	69.9 (2.75)
Riser	8	3.0 (0.12)	30 (1.2)	45 (1.8)	44.5 (1.75)	69.9 (2.75)
Riser	12	3.0 (0.12)	30 (1.2)	45 (1.8)	44.5 (1.75)	69.9 (2.75)
Riser	16	3.8 (0.15)	38 (1.5)	57 (2.2)	44.5 (1.75)	69.9 (2.75)
Riser	24	3.8 (0.15)	38 (1.5)	57 (2.2)	44.5 (1.75)	69.9 (2.75)
Riser	36	9.4 (0.37)	94 (3.7)	141 (5.6)	63.5 (2.5)	88.9 (3.5)
Riser	48	9.4 (0.37)	94 (3.7)	141 (5.6)	63.5 (2.5)	88.9 (3.5)
Riser	72	9.4 (0.37)	94 (3.7)	141 (5.6)	63.5 (2.5)	88.9 (3.5)
Riser	96	13.2 (0.52)	132 (5.2)	198 (7.8)	88.9 (3.25)	114.3 (4.5)
Riser	144	13.2 (0.52)	132 (5.2)	198 (7.8)	88.9 (3.25)	114.3 (4.5)
Plenum	6	3.0 (0.12)	30 (1.2)	45 (1.8)	44.5 (1.75)	69.9 (2.75)
Plenum	8	3.0 (0.12)	30 (1.2)	45 (1.8)	44.5 (1.75)	69.9 (2.75)
Plenum	12	3.0 (0.12)	30 (1.2)	45 (1.8)	44.5 (1.75)	69.9 (2.75)
Plenum	16	3.8 (0.15)	38 (1.5)	57 (2.2)	44.5 (1.75)	69.9 (2.75)
Plenum	24	3.8 (0.15)	38 (1.5)	57 (2.2)	44.5 (1.75)	69.9 (2.75)
Plenum	36	7.5 (0.30)	75 (3.0)	113 (4.4)	63.5 (2.5)	88.9 (3.5)
Plenum	48	7.5 (0.30)	75 (3.0)	113 (4.4)	63.5 (2.5)	88.9 (3.5)
Plenum	72	8.5 (0.33)	85 (3.3)	128 (5.0)	63.5 (2.5)	88.9 (3.5)
Plenum	96	13.6 (0.54)	136 (5.4)	204 (8.0)	88.9 (3.25)	114.3 (4.5)
Plenum	144	13.6 (0.54)	136 (5.4)	204 (8.0)	88.9 (3.25)	114.3 (4.5)
LSOH	6	3.0 (0.12)	30 (1.2)	45 (1.8)	44.5 (1.75)	69.9 (2.75)
LSOH	8	3.0 (0.12)	30 (1.2)	45 (1.8)	44.5 (1.75)	69.9 (2.75)
LSOH	12	3.0 (0.12)	30 (1.2)	45 (1.8)	44.5 (1.75)	69.9 (2.75)
LSOH	16	3.8 (0.15)	38 (1.5)	57 (2.2)	44.5 (1.75)	69.9 (2.75)
LSOH	24	3.8 (0.15)	38 (1.5)	57 (2.2)	44.5 (1.75)	69.9 (2.75)
LSOH	36	6.5 (0.26)	65 (2.6)	98 (3.3)	63.5 (2.5)	88.9 (3.5)
LSOH	48	6.5 (0.26)	65 (2.6)	98 (3.3)	63.5 (2.5)	88.9 (3.5)
LSOH	72	7.0 (0.28)	70 (2.8)	105 (4.1)	63.5 (2.5)	88.9 (3.5)
LSOH	96	12.5 (0.49)	125 (4.9)	188 (7.4)	88.9 (3.25)	114.3 (4.5)
LSOH	144	14.9 (0.59)	149 (5.9)	224 (8.8)	88.9 (3.25)	114.3 (4.5)

\*Pulling eye assembly shall be capable of passing through these minimum duct diameter requirements during product installation.  
Pulling eye max pull force 18.1kg (40lbs)

# Visual Fault Locator (VFL)

The Siemon Visual Fault Locator (VFL) is an essential tool for testing cable continuity and locating visual faults. By emitting a laser beam of red light, the VFL quickly illuminates fibre breaks, damaged connectors, defective splices and tight fibre bends. Continuous or flashing mode identifies a fault or indicates the other end of the fibre for verifying continuity. The VFL features an integrated 2.5mm (0.1 in.) adapter for easy connection to SC, ST and FC connectors and an optional 1.25mm (0.05 in.) universal adapter for connection to LC and MU connectors.



**Compact** — Hand held pen-style design

**Pen-Style retaining clip**

**Durable Construction** — Metal with rubber protective guard

**Recessed Function Button**

**2.5mm Universal Connector Adapter** — Ceramic alignment for SC, ST, FC sleeve ensures optimum core-to-core alignment

**Dust Cap** — Tethered semi-translucent dust cap enables the user to see if the laser is turned on

**FEATURES**

- Laser Class 1 (IEC 60825 2011), 0.5mW output power, 650nm range wavelength
- Pulsed and CW (continuous steady) operation modes
- Compatible with 2.5mm (0.1 in.) and 1.25mm (0.05 in.) connector ferrules
- Contact Style VFL
- 2 AAA Batteries
- 40 hours of operation

**OPTICAL COMMUNICATION TEST APPLICATIONS**

- Fibre identification
- Fibre continuity testing
- Connection polarity testing
- Precise optical fault location
- Cable route location



**1.25mm Universal Connector Adapter** — VFL with the optional 1.25mm (0.05 in.) universal connector adapter allows use with LC and MU connectors



**Handheld Pen Design** — Small and ergonomically designed for fast and easy testing of connectors

## Ordering Information

Parametres	Value
Wavelength	650 ±5nm
Power output	0.5mW
Operation mode	CW (Continuous steady) & Pulsed (2-3 Hz)
Distance	< 5km (16404 ft)
Connector	2.5mm (1.25mm adapter is available)
Retention force for ferrule	1-2 N (0.22 - 0.45 lbf)
Type	Contact VFL
Laser protection class	Class 1 IEC 60825-2011
Laser products-Performance standards for light-emitting products	CFR 21 Part 1040.10 (USA)
Operating temperature	-10 to +45 °C (14 to +113°F)
Storage temperature	-40 to +70 °C (-40 to +158°F)
Relative humidity	95%
Alignment sleeves	Ceramic
Power	2 AAA alkaline batteries (included)
Battery life, pulsed	≥ 40 hours
Weight	83g including batteries
Size	18mm x 160mm (0.71 x 6.29 in.)

Part #	Description
FT-VFL-P-A .....	VFL Pen, 2.5mm (0.1 in.) universal connector adapter for SC, ST and FC



FT-VFL-P-A

Part #	Description
FT-VFL-ADPT-A .....	2.5mm (0.1 in.) to 1.25mm (0.05 in.) universal connector adapter for LC and MU



FT-VFL-ADPT-A



# LightBow™ Fibre Termination Kit

Siemon's LightBow mechanical splice termination kit includes a patent-pending, easy-to-use termination tool that dramatically reduces termination time while ensuring reliability. With universal LC/SC compatibility, the LightBow tool simplifies fibre insertion and avoids end face damage when terminating LightBow pre-polished mechanical splice connectors.



**Optimal Alignment** — Alignment channels simplify fibre insertion and prevent damage to fibre end face



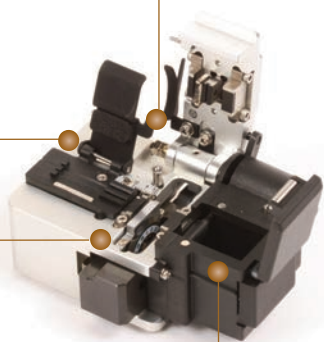
**Integrated Strip Template** — LC and SC strip template on tool ensures proper strip lengths

**Precision Cleaver** — Provides consistent, precise and high quality cleaves

**Oil Dampening System** — Allows the blade to cleave at a uniform speed eliminating user variance

**Long Lasting Blade** — Allows for 48,000 cleaves

**Safety** — Integrated collection bin eliminates handling of cleaved fibre



**Fast, Robust Process** — Combines both splice activation and mechanical crimping to significantly reduce termination time



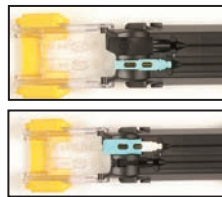
**Reduced Risk of Contamination** — All termination steps completed with dust cap in place



**Maximum Reliability** — Bow feature maintains proper pressure of fibre ends to eliminate air gaps during termination



**Ergonomic** — Tool can be used in handheld or table-top position with non-slip rubber feet



**Universal LC/SC Compatibility** — Tool terminates both LC and SC connectors with no time-consuming changeover

## Ordering Information:

Part #	Description
FT-LB-KIT	LightBow™ fibre termination kit

### Kit Includes:

- Termination tool (patent pending)
- Precision cleaver
- Visual fault locator (VFL)
- Visual fault locator 1.25mm adapter
- Jacket stripper
- Buffer stripper
- Scissors
- Tweezers
- Strip template
- Marker
- Alcohol pads
- Electrical tape
- Convenient carrying case

## Replacement Parts

Part #	Description
FT-LB-TOOL	LightBow termination tool (patent pending)
FT-LB-CLV	LightBow cleaver
FT-LB-TMP	LightBow SC and LC strip template
FT-VFL-P-A	Visual fault locator pen
FT-VFL-ADPT-A	Visual fault locator 1.25mm (0.05 in.) adapter

## LightBow™ Pre-Polished Connectors

Combined with Siemon's exclusive patent-pending LightBow termination tool, Siemon LightBow pre-polished mechanical splice connectors can be deployed with unsurpassed termination speed and quality via a built-in VFL verification window and the ability to adjust or reterminate. Available in both LC and SC configurations, these connectors support both multimode and singlemode versions of Siemon's XGLO® and LightSystem® solutions.



### OPTICAL PERFORMANCE

#### Insertion Loss (Typical)

- MM: 0.20dB
- SM: UPC 0.20dB
- SM: APC 0.30dB

#### Return Loss (Typical)

- MM: -37 dB
- SM: UPC -55dB
- SM: APC
  - 60dB for 1310nm
  - 65dB for 1550nm

### Ordering Information:

#### LC Multimode

Part #	Description
FC1-LB-LC6-9BG. . . . .	LC simplex connector, beige, 62.5/125µm multimode, OM1, 900µm buffered fibre, white boot
FC1-LB-LC5-9AQ. . . . .	LC simplex connector, aqua, 50/125µm multimode, OM3/OM4, 900µm buffered fibre, white boot

#### LC Singlemode

Part #	Description
FC1-LB-LCU-9BL. . . . .	LC simplex connector (UPC), blue, singlemode, OS1/OS2, 900µm buffered fibre, white boot
FC1-LB-LCA-9GR. . . . .	LC simplex connector (APC), green, singlemode, OS1/OS2, 900µm buffered fibre, white boot

#### SC Multimode

Part #	Description
FC1-LB-SC6-9BG. . . . .	SC simplex connector, beige, 62.5/125µm multimode, OM1, 900µm buffered fibre, white boot
FC1-LB-SC5-9AQ. . . . .	SC simplex connector, aqua, 50/125µm multimode, OM3/OM4, 900µm buffered fibre, white boot

#### SC Singlemode

Part #	Description
FC1-LB-SCU-9BL. . . . .	SC simplex connector (UPC), blue, singlemode, OS1/OS2, 900µm buffered fibre, white boot
FC1-LB-SCA-9GR. . . . .	SC simplex connector (APC), green, singlemode, OS1/OS2, 900µm buffered fibre, white boot

\* For use with 900µm tight buffer terminations only - Fan-out kits to transition from 250µm to 900µm cannot be used with XLR8 connectivity.



# XGLO® & LightSystem® SC, LC, ST Epoxy Polish Connectors

## SC Epoxy Polish Connectors

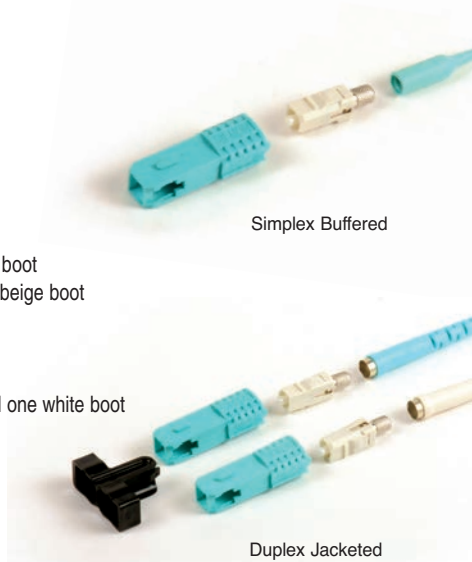
SC duplex connectors have a duplexing clip, which allows each connector to be removed individually. In the event fibre polarity is reversed during termination, there is no need to discard the connector. Simply remove connectors from the clip and switch to correct the mistake, saving valuable installation time and money. The duplexing clip also speeds troubleshooting. In the event there's a fault with a single connection, an individual connector can be removed from the clip and re-terminated without disturbing the adjacent connector.

SC connectors employ an outer housing that is colour-coded in accordance with ISO/IEC 11801 Ed. 2.0 and ISO/IEC TIA/EIA-568-B.3 requirements (beige for Multimode and blue for Singlemode).

### Multimode (XGLO® and LightSystem®)

Part #	Description
FC1-SC-MM-B12. ....	SC simplex connector, aqua, buffered fibre, aqua boot
FC1-SC-MM-B80. ....	SC simplex connector, beige, buffered fibre, beige boot
FC1-SC-MM-J12. ....	SC simplex connector, aqua, jacketed fibre, aqua boot
FC1-SC-MM-J80. ....	SC simplex connector, beige, jacketed fibre, beige boot
FC2-SC-MM-B12. ....	SC duplex connector, aqua, buffered fibre, two aqua boots
FC2-SC-MM-B80. ....	SC duplex connector, beige, buffered fibre, two beige boots
FC2-SC-MM-J12. ....	SC duplex connector, aqua, jacketed fibre, one aqua and one white boot
FC2-SC-MM-J. ....	SC duplex connector, beige, jacketed fibre, one black boot and one beige boot
FC1-SC-EM-J16. ....	SC simplex connector, erika violet, jacketed fibre,erika violet boot
FC1-SC-EM-J02. ....	SC simplex connector, erika violet, jacketed fibre,white boot
FC1-SC-EM-B16. ....	SC simplex connector, erika violet, buffer fibre,erika violet boot
FC2-SC-EM-J16. ....	SC duplex connector, erika violet, jacketed fibre,one erika violet and one white boot
FC2-SC-EM-B16. ....	SC duplex connector, erika violet,buffer fibre,two erika violet boots

Ⓢ Add “-B” to the end of part number for bulk pack (Simplex: 100/box, Duplex: 50/box).



### Singlemode (XGLO)

Part #	Description
FC1-SC-SM-B06. ....	SC simplex connector, blue, buffered fibre, blue boot
FC1-SC-SM-J06. ....	SC simplex connector, blue, jacketed fibre, blue boot
FC2-SC-SM-B06. ....	SC duplex connector, blue, buffered fibre, two blue boots
FC2-SC-SM-J06. ....	SC duplex connector, blue, jacketed fibre, two blue boots

## LC Epoxy Polish Connectors

Siemon LC products offer all the benefits of SC and ST connections in a Small Form Factor (SFF), high-density design. LC adapter products are compatible with MAX®, CT®, FOB, and MX-SM™ work area and telecommunications room products, providing a wide variety of installation options. LC connectors take just two minutes to terminate, using the Siemon *LightSpeed®* Termination Kit.

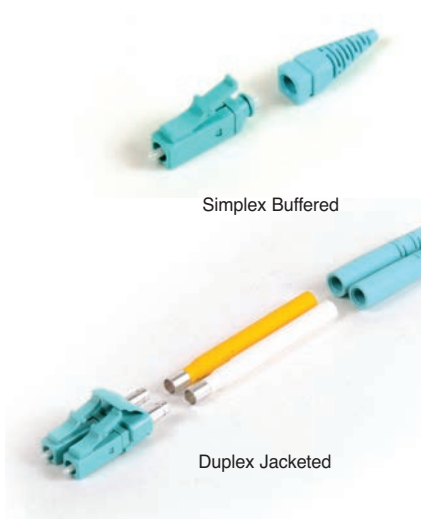
### Multimode (XGLO and LightSystem)

Part #	Description
FC1-LC-MM-B12. ....	LC simplex connector, aqua, buffered fibre, aqua boot
FC1-LC-MM-B80. ....	LC simplex connector, beige, buffered fibre, white boot
FC2-LC-MM-J12. ....	LC duplex connector, aqua, jacketed fibre, two aqua boots
FC2-LC-MM-J80. ....	LC duplex connector, beige, jacketed fibre, two beige boots
FC1-LC-EM-B16. ....	LC simplex connector, erika violet, buffer fibre,erika violet boot
FC2-LC-EM-J16. ....	LC duplex connector, erika violet, jacketed fibre,two erika violet boots

### Singlemode (XGLO)

Part #	Description
FC1-LC-SM-B02. ....	LC simplex connector, blue, buffered fibre, white boot
FC1-LC-SM-J02. ....	LC simplex connector, blue, jacketed fibre, white boot
FC2-LC-SM-J02. ....	LC duplex connector, blue, jacketed fibre, two white boots

Ⓢ Add “-B” to the end of part number for bulk pack (Simplex: 100/box, Duplex: 50/box).



## ST Epoxy Polish Connectors

The ST connector employs a rugged metal bayonet coupling ring with radial ramps which facilitate engagement to the studs of the mating adapter.

### Multimode (XGLO and LightSystem)

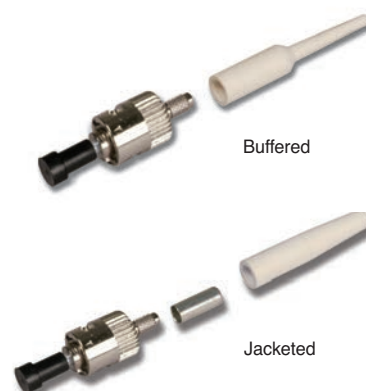
Part #	Description
FC1-SA-MM-J80. ....	ST simplex connector, jacketed fibre, beige boot
FC1-SA-MM-B80. ....	ST simplex connector, buffered fibre, beige boot

ⓑ Add "-B" to the end of part number for bulk pack (100/box).

### Singlemode (XGLO)

Part #	Description
FC1-SA-SM-J06. ....	ST simplex connector, jacketed fibre, blue boot
FC1-SA-SM-B06. ....	ST simplex connector, buffered fibre, blue boot

ⓑ Add "-B" to the end of part number for bulk pack (100/box).



## LightSpeed® ST, SC Fibre Termination Kit

Achieve faster fibre terminations and higher performance with Siemon's *LightSpeed* Termination Kit. The Siemon fibre termination kit contains all the tools required for termination of Multimode or Singlemode ST or SC connectors — packaged in a rugged canvas carrying case. Kit includes LC microscope head. Use the optional LC Upgrade Kit (see below) for LC connector terminations. All consumables must be ordered separately as noted below.\*

Part #	Description
FTERM-L2. ....	<i>LightSpeed</i> fibre termination kit for ST and SC Multimode connectors*

*Note: Select tools and other termination products supplied with the kit can be ordered separately.*

*\*All consumables including primer, adhesive and polishing films are contained in the consumables kit and must be ordered separately.*



## LC Fibre Termination *LightSpeed*® Upgrade Kit

The Siemon LC upgrade kit is used in conjunction with the *LightSpeed* Termination Kit (FTERM-L2) and has all the accessories to terminate LC connectors using Siemon's exclusive *LightSpeed* adhesive. The kit includes an LC polishing puck and a micro-torch\* (to shrink the colour-coded LC crimp sleeve tubing). The LC microscope head is included with the FTERM-L2 kit.

Part #	Description
FTERM-LC. ....	LC fibre termination upgrade kit (used in conjunction with FTERM-L2)

*Note: Contents of FTERM-LC are also available individually.*

*Contact our Customer Service Department for more information.*

*\*Butane fuel not included.*





## LightSpeed® Fibre Consumables Kit

Siemon's *LightSpeed* fibre terminations consumables kit features a premium abrasive film to polish ceramic ferrules and glass at the same level. The films have been qualified to assure exceptional insertion and return loss results when used in accordance with Siemon instructions.

Part #	Description
FT-CKIT-L2*	Consumables kit for use with fibre termination kit (FTERM-L2). Includes enough consumables to perform a minimum of 200 Multimode or Singlemode terminations

Individual components may be ordered separately as replacements. Part numbers listed below.

FT-PRBOT-L	Primer bottle (3.5mL)
FT-ADH-L*	Adhesive syringe (5cc)
FT-ALPAD	Alcohol pads
FT-WIPES	Dry lint-free wipes
FT-SYRMTIP	Syringe tip needles w/covers
FT-PF12	12µm air polish film, grey
FT-PF3	3µm polish film, pink
FT-PF1	1µm polish film, purple
FT-FF	Finishing film, white
FT-PF6**	6µm recovery film, bronze



\*This product contains material with a time and temperature sensitive shelf life. Store between 4.4 – 38.5°C and verify expiration date marked on product prior to use.  
\*\*This recovery film is optional and not included with the consumables kit.

## Replacement Tools for Fibre Termination Kits

Siemon offers a full line of replacement tools in the event that a tool is lost or has used up its life expectancy. The replacement tools are the exact tools provided in the fibre termination kits.

Part #	Description
FT-MS400	400X power microscope
FT-SCRIBE	Double bladed fibre cleaver
CI-SCISSORS	Electrician scissors
FT-CRIMP	Crimp tool w/3-position die for ST/SC/LC
FT-PAD	152.4 x 152.4mm(6 x 6 in.) polishing pad
FT-PUCK	SC/ST compatible polishing puck
FT-TMPL	Template for SC/ST and LC connectors
FT-JSTRP	Jacket stripper
FT-BSTRP	Buffer stripper
FT-LCPOCK	Duplex LC polishing puck
FT-MSLC2HEAD	Duplex LC scope adapter
FT-VFL-P-A	VFL PEN, 2.5mm (0.1 in.) universal connector adapter for SC, ST and FC
FT-VFL-ADPT-A	2.5mm (0.1 in.) to 1.25mm (0.05 in.) universal connector adapter for LC and MU



## Fibre Cleaning Tools

Simple to use and highly effective at removing contaminants that can degrade the optical performance of critical fibre connections, these dry cloth cleaning tools are specially designed to clean multi-fibre MTP® connectors as well as LC and SC fibre connectors. The MTP version cleans both male MTP connectors in Plug and Play modules and female connectors in adapter plates. LC and SC versions clean installed connectors as well as unmated connectors via an innovative dustcap/adaptor.

Part #	Description
PP-CT-MP	MTP multi-fibre connector cleaning tool
PP-CT-LC	LC simplex fibre connector cleaning tool
PP-CT-SC	SC simplex fibre connector cleaning tool





## Fibre Splitter Panel

The Fibre Splitter Panel uses advanced PLC (Planar Lightwave Circuit) technology to enable multiple fibre connections with superior optical performance. This method uses splitter devices fabricated with silica optical waveguide elements which results in low insertion loss, high uniformity, and low polarisation dependent loss (PDL). The Fibre Splitter Panel is a 19 inch rack mount unit with SC or LC ports in either UPC or APC versions. It is available in various port configurations ranging from 1 or 2 inputs and 8 to 32 output ports.

The Fibre Splitter Panel is ideal for Passive Optical LAN 's and other singlemode applications requiring high performance splitting of optical signals. Siemon offers a complete range of fibre cables and connectivity, including preterminated MTP solutions, to complete an entire passive optical channel.



- 1X Splitters:**  
Traditional splitters with a single input and multiple outputs
- Dual Splitters:**  
Packages two 1X splitters in a single cassette. There are two inputs for these splitters and each input connects to different output ports. There is no connection between the two splitters.
- 2X Splitters:**  
These splitters provide two inputs and multiple outputs but, unlike a dual splitter, both inputs connect to all outputs provided that both inputs are not transmitting at the same time. These splitters allow redundancy by having two inputs feed all available outputs.

### Ordering Information:

FSR-(XXX)(XXX)(XXX)(XX)..... Fibre Splitter Panel, 1U, black	
<b>I/O Ratio</b>	<b>Colour</b>
108 = 1 X 8	01 = Black
116 = 1 X 16	
132 = 1 X 32	
208 = 2 X 8	<b>Input Connector</b>
216 = 2 X 16	SCU = SC/UPC
D16 = (2) 1 X 16	SCA = SC/APC
232 = 2 X 32	LCU = LC/UPC
	LCA = LC/APC
	<b>Output Connector</b>
	SCU = SC/UPC
	SCA = SC/APC
	LCU = LC/UPC
	LCA = LC/APC

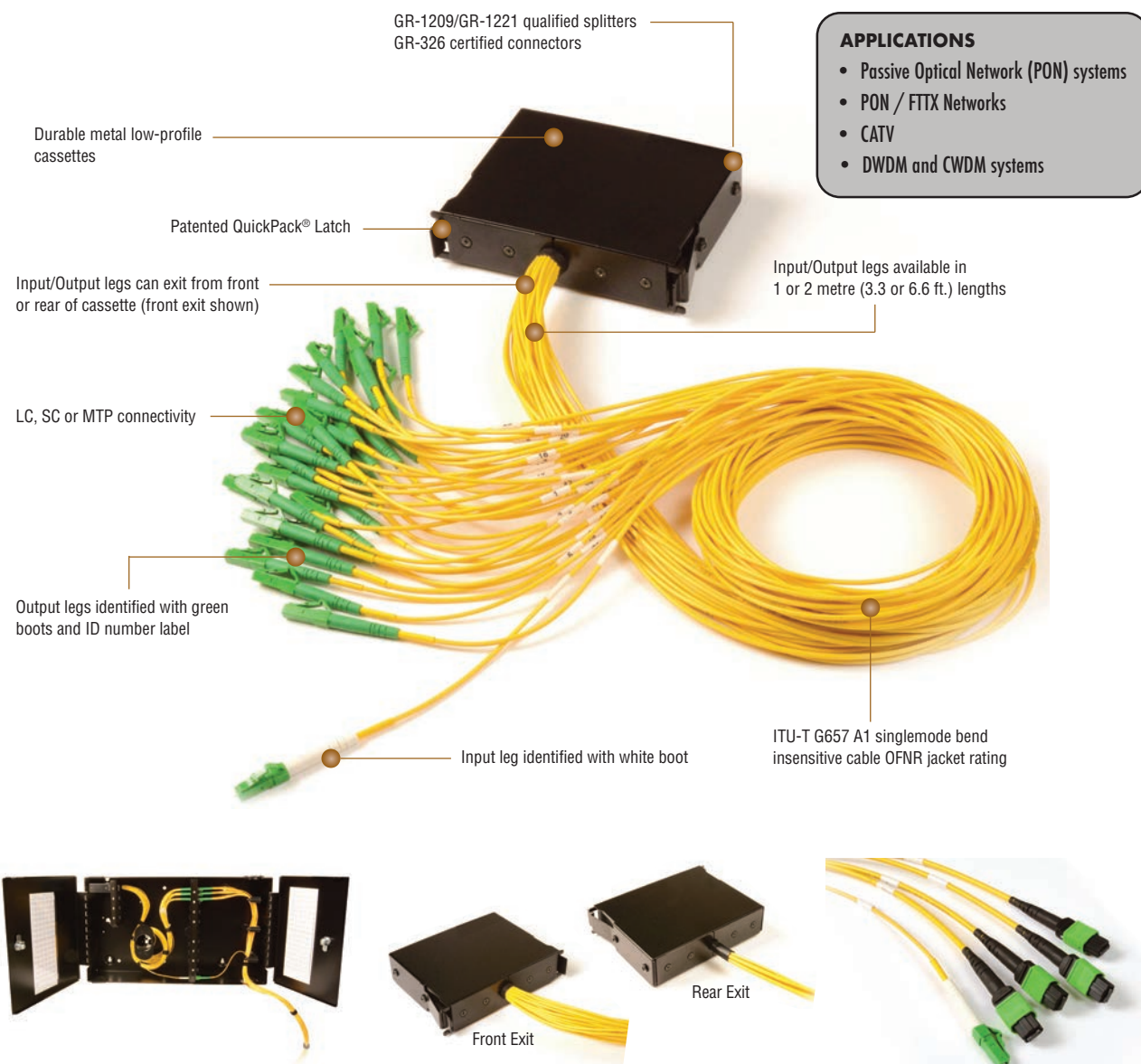
### SPECIFICATIONS

Parametre	1x8	2x8	1x16	2x16	1x32	2x32
Splitter Technology	Planar Lightwave Circuit (PLC)					
Fibre Type	Singlemode					
Operating Wavelength (nm)	1260-1650					
Insertion loss (dB) max	11.2	12.0	14.2	15.0	17.5	17.8
Polarization Dependent Loss (dB)	0.3	0.4	0.3	0.4	0.3	0.4
Splitter Uniformity (dB) max	1.0	1.7	1.2	2.0	1.5	2.1
Wavelength dependent Loss (dB)	0.4	1.0	0.5	1.0	1.0	1.0
Directivity (dB) min	>55					
Splitter Return Loss (dB) APC Min	>55					
Splitter Return Loss (dB) UPC Min	>50					
Fibre Cable	2mm LSOH ITU G652D					
Connector Types	SC/APC, SC/UPC, LC/APC or LC/UPC					
Storage Temp. (°C)	-40 to +85 (-40 to 185° F)					
Operation Temp. (°C)	-40 to +85 (-40 to 185° F)					
Operation/Storage Humidity (%RH)	5 to 95					
Mounting	19 inch (482.6mm) rack CEA-310-E					
Material	Stainless steel and aluminium					
Colour	Black with E-Coat finish					
Compliance	GR-1209/GR-1221 qualified splitter. GR-326 certified connectors					

# Fibre Splitter Cassettes

The Siemon Fibre Splitter Cassettes use advanced PLC (Planar Lightwave Circuit) technology to enable multiple fibre connections with superior optical performance. This method uses splitter devices fabricated with silica optical wave-guide elements which results in low insertion loss, high uniformity, and low polarisation dependent loss (PDL). The Splitters are compatible with Siemon fibre enclosures and panels including the Fibre Connect Panel (FCP3), Wall Mount Interconnect centre(SWIC3), Rack Mount Interconnect centre(RIC3), Rack Mount Panel (RIC-PNL) and VersaPOD® Zero-U patch panels. The Splitters are available in SC, LC and MTP interfaces with various port configurations ranging from 1 or 2 input ports and 8 to 32 output ports.

The Fibre Splitter Cassettes are ideal for Passive Optical Network (PON) and other singlemode applications requiring high performance splitting of optical signals. Siemon offers a complete range of fibre cables and connectivity, including preterminated SC, LC and MTP solutions, to complete an entire passive optical channel.



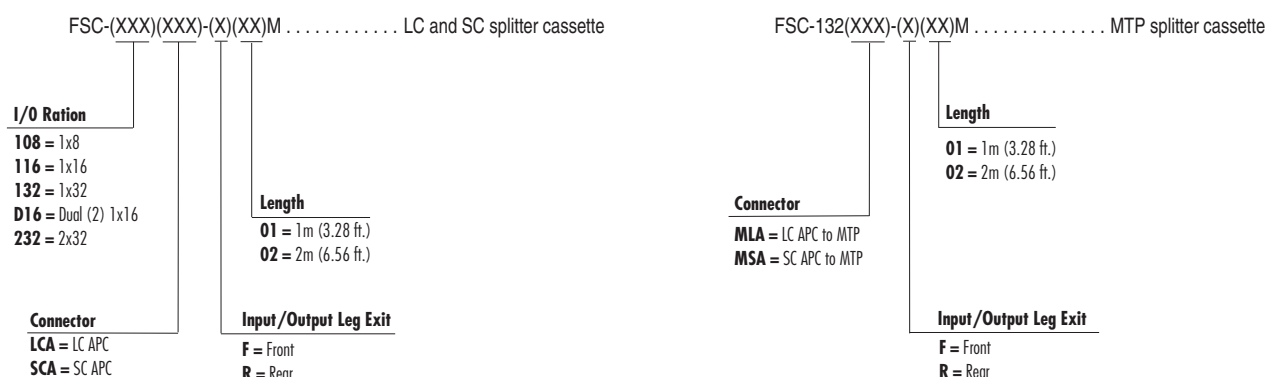
**Wall Mounted Application** — Siemon front exit cassette (FSC-132LCA-F01M) and adapter bracket (SWIC3G-E-BRKT) installed into an expanded SWIC enclosure (SWIC3G-E-AA-01)

**Front and Rear Exit Versions are Available** — The optional exits enable versatile mounting and leg routing to support a variety of environments and applications. When using the SWIC3G-E-BRKT with the expanded SWIC3G-E enclosure, only the front exit version is installed.

**MTP Version is Available** — Utilising MTP cassettes with MTP trunks in the channel provides greater density, reduces the amount of cable and lessens the installed connections when compared to an LC or SC solution.

# Fibre Splitter Cassettes

## Ordering Information:



### • 1X Splitters:

Traditional splitters with a single input and multiple outputs

### • Dual Splitters:

Packages two 1X splitters in a single cassette. There are two inputs for these splitters and each input connects to different output ports. There is no connection between the two splitters.

### • 2X Splitters:

These splitters provide two inputs and multiple outputs but, unlike a dual splitter, both inputs connect to all outputs provided that both inputs are not transmitting at the same time. These splitters allow redundancy by having two inputs feed all available outputs.

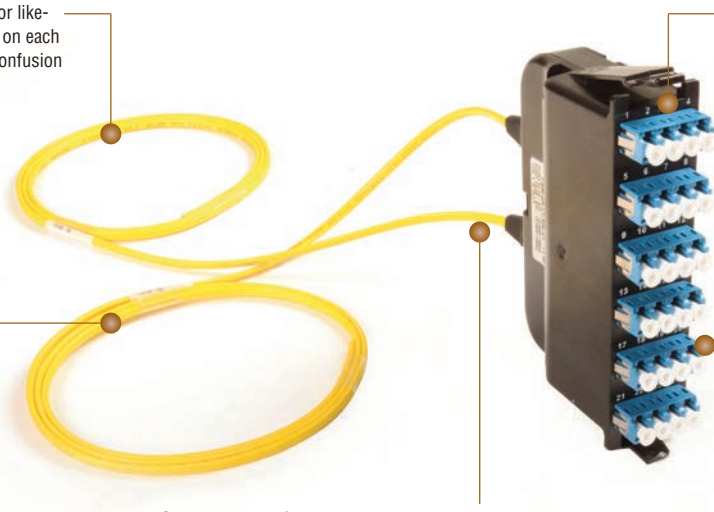
Parametre	1x8	1x16	1x32	2x32	1x32 (MTP)
Splitter Technology	Planer Lightwave Circuit (PLC)				
Fibre Type	Singlemode, OFNR				
Operating Wavelength (nm)	1260-1650				
Splitter Insertion loss (dB) Max	10.2	13.5	16.5	17.4	16.5
Polarization Dependent Loss (dB)	0.3	0.3	0.3	0.4	0.4
Splitter Uniformity (dB) Max	1	1.2	1.5	2.1	2.1
Wavelength dependent Loss (dB)	0.4	0.5	1	1	1
Directivity (dB) Min	>55				
Splitter Return Loss (dB) APC Min	>55				
Connectorized Splitter Insertion loss (dB) Max	11	14.3	17.3	18.2	17.5
Connectorized Splitter Return loss (dB) Max	55	55	55	55	55
Fibre Cable	2mm, ITU G657.A1 SM BIF (MTP is 3mm)				
Connector Types	SC/APC, LC/APC, MTP/APC				
Storage Temp. (°C) & Operation Temp. (°C)	-40 to +85 (-40 to 185 F)				
Operation/Storage Humidity (% RH)*	5 to 95				
Nominal Dimensions: L x W x H	95mm (3.75 in.) x 118mm (4.65 in.) x 32mm (1.25 in.)				
Material	Stainless steel and aluminium				
Colour	Black with powder coat finish				
Mounting	Fits within Siemon RIC, FCP, all SWIC enclosures, RIC panels and VersaPOD Zero-U panels				
Standards Compliance	GR-1209/GR-1221 qualified splitter, GR-326 certified connectors				

# Fusion Splice Solutions - Fibre Splice Modules

Siemon Splice Modules provide an interface between bulk cable and LC duplex jumpers that connect directly to active equipment. The splice modules are offered in ribbon or 900um tight buffer pigtail options. These modules allow mass-fusion splicing of ribbon pigtails directly to ribbon cable or 900um tight buffer pigtails to loose fibre cable. The splice modules are designed using Siemon's Quick-Pack® footprint and work in conjunction with Siemon's Expanded RIC or FCP3 fibre enclosures.

**Colour Coded Fibres** — Allows for like-colour fibres to be fusion spliced on each side of the channel to eliminate confusion

**Jacketed Pigtail** — Available in ribbon or 900um tight buffer fibre



**Strain Relief** — Cable passes through strain relief boot at the rear of the module and is preterminated to an LC connector plugged into the back of the LC adapter. Custom designed boot maintains bend radius for the fibre exiting the modules

**Quick-Pack® Splice Modules** — Can be inserted or removed with a single finger for quick and easy access

**LC Interface** — Available in 12 or 24 fibres

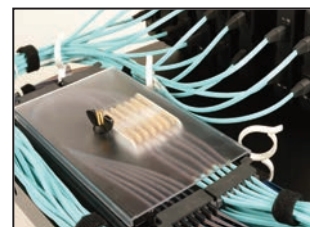
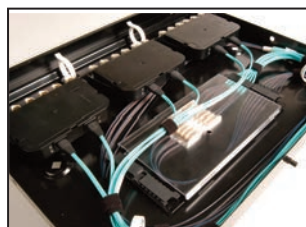
LC Fibre Port Position		
Pigtail Colour	A Side Polarity*	B Side Polarity*
Blue	1/13	2/14
Orange	2/14	1/13
Green	3/15	4/16
Brown	4/16	3/15
Slate	5/17	6/18
White	6/18	5/17
Red	7/19	8/20
Black	8/20	7/19
Yellow	9/21	10/22
Violet	10/22	9/21
Rose	11/23	12/24
Aqua	12/24	11/23

Fibre Splice Module Performance			
Fibre Type		MAX. Insertion Loss (dB)	MIN. Return Loss (dB)
6MM	62.5/125 (OM1)	0.50	25
5MM	50/125 (OM2)	0.50	25
5L-MM	50/125 (OM3)	0.25	30
5V-MM	50/125 (OM4)	0.25	30
SM-LWP	SM (OS1/OS2)	0.25	55

\* Opposing splice module types must be used on opposite ends (example: "A" side & "B" side) of the same fibre link to maintain proper polarity from transmitter to receiver

## Ordering Information:

FSM-(X)-(XX)-LC(X)(XX)-01(X)	
<b>Fibre Construction</b>	<b>Module Type</b>
Blank = Ribbon	A = A Side Polarity
2 = 900um Tight Buffer	B = B Side Polarity
<b>Port</b>	<b>Fibre Type</b>
12 = 12 port	6 = OM1, 62.5/125 Multimode Beige adapters
24 = 24 port	5L = OM3, XGLO 300 50/125 Multimode Aqua adapters
<b>Polish</b>	5V = OM4, XGLO 550 50/125 Multimode Aqua adapters
Blank = UPC	SM = OS1/OS2, Singlemode Blue adapters
A = APC (Singlemode Only)	

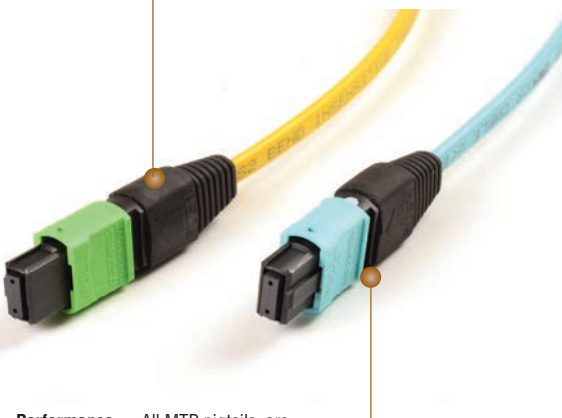


**Expanded RIC Fibre Enclosures** — The fibre splice modules can be used in Siemon's Expanded RIC or FCP3 fibre enclosures.

## Fusion Splice Solutions - MTP Pigtails

Siemon's fusion splice solutions include an MTP pigtail option which can be connected to a RIC MTP adapter plate or plug and play module and then mass fusion spliced within the fibre enclosures. MTP pigtails are the ideal solution when field-installing an MTP interface for a 40/100G application.

**MTP Connector Gender** —  
Options for both male or female



**Performance** — All MTP pigtails are manufactured to Low Loss specifications

**Identification** — Pigtails are serialised for easy identification and reference to test data that ships with every pigtail



**Jacketed Pigtail** — Available in ribbon fibre, OM3, OM4 and Singlemode

### MTP PIGTAIL OPTICAL SPECIFICATIONS

Fibre Type	Performance Class	Max. Insertion Loss (dB)	Min. Return Loss (dB)
5L	OM3 XGLO 300 Low Loss	0.20	20
5V	OM4 XGLO 500 Low Loss	0.20	20
SM-LWP	OS1/OS2 XGLO Singlemode	0.75	55

### Ordering Information

FP12-(X)-(XX)(XX)(X)-(XX)(X)			
<b>Cable Jacket</b> A = Ribbon Jacket		<b>Length Unit</b> F = Feet M = Metre	
<b>MTP Gender</b> MM = MTP Male MF = MTP Female		<b>Length*</b> Length must be 3 digits Example: 003 = 3m 010 = 10 ft.	
<b>Fibre Type</b> 5L = OM3, XGLO 300 50/125 Multimode 5V = OM4, XGLO 550 50/125 Multimode SM = OS1/OS2, Singlemode		<b>Cable Jacket Rating</b> P = Plenum L = LSOH	



**MTP Pigtail** — The MTP pigtail allows for field installable MTP connectivity using ribbon cable and mass fusion splice installation practices



# Fusion Splice Solutions - Expanded RIC Enclosure

Siemon's Rack Mount Interconnect Centre provides superior fibre density without sacrificing protection and accessibility. Key features include extending the depth of the enclosure to allow added space for fusion splicing and cable slack storage. With superior cable management, port identification, fibre accessibility and security, the Expanded RIC is the best way to protect mission critical fibre connections.

**Security** — Single finger latch on both front and rear doors. Included key locks prevent unauthorised access for enhanced security

**Splicing Capability** — Extra space provided to mount and secure multiple splice trays in position

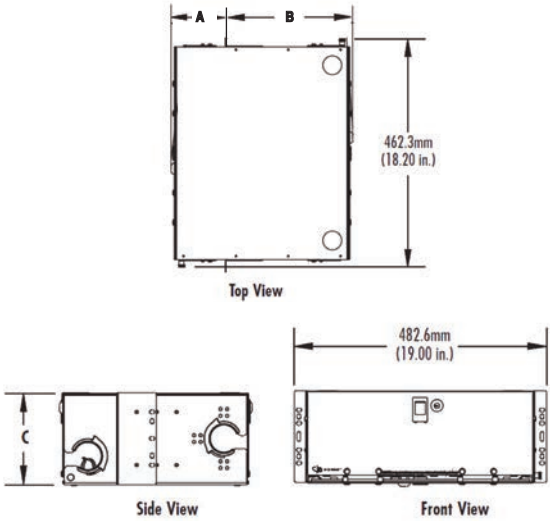
**Quick Release Hinges** — Spring loaded hinges enable easy removal of front and rear doors for complete access to fibre connections

**Port Identification** — Hinged labels are mounted to the front door for full visibility. When the door is opened, the labels flip down for easy viewing

**Rotating Grommets** — Facilitate loading and retention of fibre jumpers while minimising micro bending stress when using the sliding tray

## EXPANDED RIC ENCLOSURE DIMENSIONS

Expanded RIC3 Part #	Mounting Bracket Position	A	B	C
		mm (in.)	mm (in.)	mm (in.)
RIC3-E-24-01	1	109.7 (4.3)	360.4 (14.2)	85.7 (3.4)
	2	147.8 (5.8)	322.3 (12.7)	85.7 (3.4)
	3	185.9 (7.3)	284.2 (11.2)	85.7 (3.4)
RIC3-E-36-01	1	109.7 (4.3)	360.4 (14.2)	85.7 (3.4)
	2	147.8 (5.8)	322.3 (12.7)	85.7 (3.4)
	3	185.9 (7.3)	284.2 (11.2)	85.7 (3.4)
RIC3-E-48-01	1	109.7 (4.3)	360.4 (14.2)	130.2 (5.1)
	2	147.8 (5.8)	322.3 (12.7)	130.2 (5.1)
	3	185.9 (7.3)	284.2 (11.2)	130.2 (5.1)
RIC3-E-72-01	1	109.7 (4.3)	360.4 (14.2)	174.6 (6.9)
	2	147.8 (5.8)	322.3 (12.7)	174.6 (6.9)
	3	185.9 (7.3)	284.2 (11.2)	174.6 (6.9)



## FUSION SPLICE MAX CAPACITY

Solution	Splice Type	FCP3	RIC3-24	RIC3-36	RIC3-48	RIC3-72
MTP Pigtail	Fusion Ribbon	216	288	288	288	432
	Fusion 900m	72	96	96	96	144

RIC3-E-(XX)-01 . . . . . Expanded RIC Enclosures

**Enclosure Size**  
**24** = Enclosure with 4 adapter/module mounting spaces, 2U, Black  
**36** = Enclosure with 6 adapter/module mounting spaces, 2U, Black  
**48** = Enclosure with 8 adapter/module mounting spaces, 3U, Black  
**72** = Enclosure with 12 adapter/module mounting spaces, 4U, Black

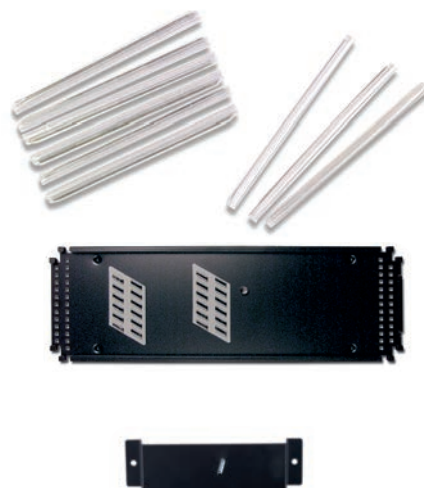
## Mass Fusion Splice Accessories

Part #	Description
HT-MFS .....	40mm (1.6 in.) Mass fusion heat shrink sleeve for ribbon fibre
TRAY-4-R-MFS .....	Mass fusion splice tray for up to (6) 12 fibre splices with sleeve protection holder



## Single Fibre Fusion Splice Accessories

Part #	Description
HT-40. ....	40mm (1.6 in.) Single fibre heat shrink sleeve
HT-60. ....	60mm (2.4 in.) Single fibre heat shrink sleeve
<i>*Heating times may vary depending on heat source.</i>	
TRAY-3. ....	Standard splice tray for up to 24 fusion splices with sleeve protection. For use with Expanded RIC and FCP3 fibre enclosures
TRAY-M-3. ....	Mini splice tray for up to 12 fusion splices with sleeve protection



# XGLO® Indoor Ribbon Fibre Cable (Global)

Siemon indoor ribbon fibre cables are ideal for data centres, campus and building backbones. Ribbon cables enable the migration to high fibre count systems required to support high bandwidth applications including 10, 40 and 100Gb/s. These cables contain 12-fibre ribbon units inside a central tube with dielectric strength members for tensile strength and colour coded fibres with individual ribbon unit ID numbers for clear identification. Siemon fibre optic cables are offered in XGLO configurations supporting high-speed, applications such as Gigabit Ethernet, 10 Gigabit Ethernet and Fibre Channel.

## Ordering Information:

9BR(X)(X)(XXX)G-(XXXX)(X) . . . . . XGLO Multimode Laser Optimised 50/125 OM3 and OM4 Singlemode OS1/OS2

<b>Fibre Type</b> <b>5</b> = 50/125µm <b>8</b> = OS1/OS2 Singlemode	<b>Unit of Measure</b> <b>A</b> = Feet for North America <b>M</b> = Metre for International
<b>Fibre Jacket Type</b> <b>R</b> = Riser OFNR <b>P</b> = Plenum OFNP <b>H</b> = LSOH-3C	<b>Class Performance</b> <b>T312</b> = OM3 50/125 Laser Optimised (Aqua Jacket) <b>T512</b> = OM4 50/125 Laser Optimised (Aqua Jacket) <b>E205</b> = OS1/OS2 Singlemode (Yellow Jacket)
<b>Fibre Count (Subunit)</b> <b>012</b> = 12 (1 Ribbon with 12 Fibres) <b>024</b> = 24 (2 Ribbon with 12 Fibres) <b>036</b> = 36 (3 Ribbon with 12 Fibres) <b>048</b> = 48 (4 Ribbon with 12 Fibres) <b>072</b> = 72 (6 Ribbon with 12 Fibres) <b>096</b> = 96 (8 Ribbon with 12 Fibres) <b>144</b> = 144 (12 Ribbon with 12 Fibres) <b>216</b> = 216 (18 Ribbon with 12 Fibres) <b>288</b> = 288 (24 Ribbon with 12 Fibres - Riser only)	

**HIGHLIGHTS**

- 12 fibre ribbon design
- Central tube design
- Precision fibre and ribbon geometries
- Colour coded per TIA-598-C

### XGLO 300 Multimode 50/125, OM3

#### STANDARDS COMPLIANCE

- ISO/IEC 11801:2002 OM3
- ANSI/TIA-568.3-D
- ANSI/TIA-598-D
- ANSI/TIA-492 AAAC
- Telcordia GR-409-CORE
- OFNR: Communications Type OFNR (ETL) and CSA FT4 (ETL)
- OFNP: Communications Type OFNP (ETL) and CSA FT6 (ETL)
- IEC 60332-3
- IEC 60332-1-2 (Single strand)
- IEC 60754-2 (Acid gas)
- IEC 61034-2 (Smoke density)

#### APPLICATIONS SUPPORT

APPLICATION	DISTANCE (m)
10GBASE-SX (850 nm)	300
10GBASE-LX4 (1300 nm)	300
1000BASE-SX (850 nm)	1000
1000BASE-LX (1300 nm)	600
Fibre Channel 266 (1300 nm)	1,500
ATM 622 (1300 nm)	500
ATM 155 (1300 nm)	2,000
ATM 52 (1300 nm)	3,000
FDD1 (Original-1300 nm)	2,000
100BASE-FX (1300 nm)	2,000

### XGLO 550 Multimode 50/125, OM4

#### STANDARDS COMPLIANCE

- ISO/IEC 11801:2002 OM3
- ISO/IEC 11801:2002 Amendment 2 OM4
- ANSI/TIA-568.3-D
- ANSI/TIA-598-D
- ANSI/TIA-492 AAAD
- IEC 60793-2-10 Fibre Type A1a.3
- Telcordia GR-409-CORE
- OFNR: Communications Type OFNR (ETL) and CSA FT4 (ETL)
- OFNP: Communications Type OFNP (ETL) and CSA FT6 (ETL)
- IEC 60332-3
- IEC 60332-1-2 (Single strand)
- IEC 60754-2 (Acid gas)
- IEC 61034-2 (Smoke density)

#### APPLICATIONS SUPPORT

APPLICATION	DISTANCE (m)
10GBASE-SX (850 nm)	550
10GBASE-LX4 (1300 nm)	300
1000BASE-SX (850 nm)	1100
1000BASE-LX (1300 nm)	600
Fibre Channel 266 (1300 nm)	1,500
ATM 622 (1300 nm)	500
ATM 155 (1300 nm)	2,000
ATM 52 (1300 nm)	3,000
FDD1 (Original-1300 nm)	2,000
100BASE-FX (1300 nm)	2,000

### XGLO Singlemode, OS1/OS2

#### STANDARDS COMPLIANCE

- ISO/IEC 11801:Ed 2.0 Amendment 1:2008
- ANSI/TIA-568.3-D
- ANSI/TIA-598-D
- Telcordia GR-409-CORE
- ITU-T G.652 C/D
- OFNR: Communications Type OFNR (ETL) and CSA FT4 (ETL)
- OFNP: Communications Type OFNP (ETL) and CSA FT6 (ETL)
- IEC 60332-3
- IEC 60332-1-2 (Single strand)
- IEC 60754-2 (Acid gas)
- IEC 61034-2 (Smoke density)

#### APPLICATIONS SUPPORT

APPLICATION	DISTANCE (m)
10GBASE-L (1310 nm)	8,000
10GBASE-E (1550 nm)	30,000
10G Fibre Channel (Serial-1310 nm)	10,000
10G Fibre Channel (WDM-1310 nm)	10,000
1000BASE-LX (1300 nm)	5,000
Fibre Channel 266/1062 (1300 nm)	10,000
ATM 52/155/622 (1300 nm)	15,000

## XGLO® Indoor Ribbon Fibre Cable (Global)

### Minimum Performance Parametres for XGLO 50/125µm Multimode Fibre

Fibre Type	Guaranteed Gigabit Transmission Distance (m)		Guaranteed 10 Gigabit Transmission Distance (m)		Minimum Bandwidth (MHz·km)		Maximum Attenuation (dB/km)		Group Index of Refraction	
	850 nm	1300 nm	850 nm <sup>†</sup>	1300 nm <sup>††</sup>	850 nm	1300 nm	850 nm	1300 nm	850 nm	1300 nm
50/125 (OM3)	1000	600	300	300	RML - 2000 OFL - 1500	OFL - 500	3.0	1.0	1.483	1.479
50/125 (OM4)	1100	600	550	300	RML - 4700 OFL - 3500	OFL - 500	3.0	1.0	1.483	1.479

<sup>†</sup> 10GBASE-S <sup>††</sup> 10GBASE-LX4

### Minimum Performance Parametres for XGLO Singlemode Fibre

Fibre Type	Wavelength (nm)	Maximum Attenuation (dB/km)	Zero Dispersion Wavelength (nm)	Zero Dispersion Slope (nm <sup>2</sup> -km)	Index of Refraction
Singlemode (OS1/OS2)	1310	0.40	1317	≤0.092	1.468
	1300 - 1324	0.40	1317	≤0.092	1.468
	1383	0.40	1317	≤0.092	1.468
	1550	0.30	1317	≤0.092	1.468

### PHYSICAL SPECIFICATIONS (All Values Are Nominal)

Fibre Count	Nominal Cable Diameter mm	Maximum Pulling Tension Newtons		Maximum Net Weight kg/km		
		Installation	Long Term			
	OFNR/ OFNP/ LSOH	OFNR/ OFNP/ LSOH	OFNR/ OFNP/ LSOH	OFNR	OFNP	LSOH
12, 24, 36, 48	9.7	1320	400	88	99	93
72, 96	12.4			140	156	147
144, 216	15.2			184	220	193
288	20.1 (OFNR only)			309	n/a	n/a

Fibre Count	Maximum Crush Resistance (N/mm)	Maximum Flex Resistance (N/mm)	Operating Temperature °C (°F)			Installation Temperature °C (°F)			Storage Temperature °C (°F)			Minimum Bend Radius cm (in.)	
			OFNR	OFNP	LSOH	OFNR	OFNP	LSOH	OFNR	OFNP	LSOH	Installation	Long Term
12, 24, 36, 48	100	25	-20 to 70° (-4 to 158°)	0 to 70° (32 to 158°)	-40 to 70° (-40 to 158°)	-10 to 60° (14 to 140°)	0 to 60° (32 to 140°)	-30 to 60° (-22 to 140°)	-40 to 70° (-40 to 158°)	-40 to 70° (-40 to 158°)	-40 to 70° (-40 to 158°)	9.6 (3.8)	14.4 (5.7)
72, 96												12.4 (4.8)	18.6 (7.3)
144, 216												15.5 (6.1)	22.8 (9.0)
288			n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	21.0 (8.3)	31.7 (12.5)

Custom lengths are available upon request. Contact our Customer Service Department for more information.

# XGLO® & LightSystem® Indoor Tight Buffer - International

Siemon indoor tight buffer fibre cables are ideal for data centres, campus and building backbones. Siemon fibre optic cables are offered in XGLO and LightSystem configurations supporting high-speed applications such as Gigabit Ethernet, 10 Gigabit Ethernet and Fibre Channel.

## Ordering Information:

### Fibre Type

**5L** = OM3 50/125µm Laser Optimised, Aqua  
**5V** = OM4 50/125µm Laser Optimised, Aqua  
**5VE** = OM4 50/125µm Laser Optimised, Erika Violet  
**6** = 62.5 orange  
**8L** = OS1/OS2 Singlemode, Yellow

### Cable Rating

**1** = Riser OFNR  
**2** = Plenum OFNP  
**3** = LSOH-3C

9F(XXX)B(X)-(XXX)(XXXX) ..... LightSystem Multimode 62.5/125 OM1 and XGLO Multimode 50/125 OM3 and OM4, Singlemode OS1/OS2

### Length

Length must be 4 digits including decimal point

### Examples:

**1.00** = 1km

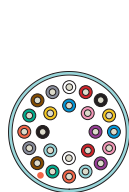
**0.50** = 500m

### Fibre Count (Subunit)

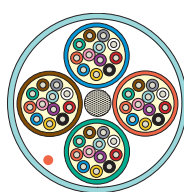
**02F** = 2 (1 Tube with 2 Fibres)  
**04A** = 4 (1 Tube with 4 Fibres)  
**06B** = 6 (1 Tube with 6 Fibres)  
**08C** = 8 (1 Tube with 8 Fibres)  
**12D** = 12 (1 Tube with 12 Fibres)  
**16K** = 16 (1 Tube with 16 Fibres)  
**24L** = 24 (1 Tube with 24 Fibres)  
**48D** = 48 (4 Tubes with 12 Fibres)  
**72D** = 72 (6 Tubes with 12 Fibres)

## HIGHLIGHTS

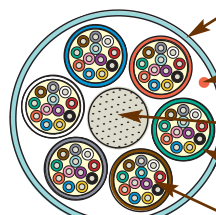
- 900µm tight buffer
- 250µm coated optical fibre
- Length markings in 0.61m (2 ft.) increments
- Colourcode per TIA-598-C



2-24 Fibre



48 Fibre



72 Fibre

### Jacket (Aqua)

- Material:  
OFNR - PVC  
OFNP - FRPVC  
LSOH - LSOH Compound

### Rip Cord

- Applied longitudinally under cable jacket

### Central Strength Member

- Light-weight solid dielectric
- 48, 72 Strand

### Aramid Yarn

- Water blocking swellable yarn

### Identification

- Colour-coded fibres
- Colour-coded buffer tubes

### LIGHTSYSTEM Multimode 62.5/125, Multimode, OM1

#### STANDARDS COMPLIANCE

- ISO/IEC 11801:2002 OM1 (62.5/125)
- ANSI/TIA/EIA-568-C.3
- ANSI/TIA-598-D
- ANSI/TIA-492 AAAA
- Telcordia GR-409-CORE
- ISO/IEC 60332-3

#### APPLICATIONS SUPPORT

APPLICATION	DISTANCE (m)
10GBASE-S (850 nm)	N/A
62.5/125µm	26
1000BASE-S (850 nm)	N/A
62.5/125µm	275
1000BASE-LX (1300 nm)	550
Fibre Channel 266 (1300 nm)	1,500
ATM 622 (1300 nm)	500
ATM 155 (1300 nm)	2,000
ATM 52 (1300 nm)	3,000
FDDI (Original-1300 nm)	2,000
100BASE-FX (1300 nm)	2,000

### XGLO 300 Multimode 50/125, OM3

#### STANDARDS COMPLIANCE

- ISO/IEC 11801:2002 OM3
- ANSI/TIA/EIA-568-C.3
- ANSI/TIA-598-D
- ANSI/TIA-492 AAAC
- Telcordia GR-409-CORE
- IEC 60793-2-10 Fibre Type A1a.2
- ISO/IEC 60332-3

#### APPLICATIONS SUPPORT

APPLICATION	DISTANCE (m)
10GBASE-S (850 nm)	550
10GBASE-LX4 (1300 nm)	300
1000BASE-S (850 nm)	1100
1000BASE-LX (1300 nm)	600
Fibre Channel 266 (1300 nm)	1,500
ATM 622 (1300 nm)	500
ATM 155 (1300 nm)	2,000
ATM 52 (1300 nm)	3,000
FDDI (Original-1300 nm)	2,000
100BASE-FX (1300 nm)	2,000

### XGLO 550 Multimode 50/125, OM4

#### STANDARDS COMPLIANCE

- ISO/IEC 11801:2002 OM3
- ISO/IEC 11801:2002 Amendment 2 OM4
- ANSI/TIA/EIA-568-C.3
- ANSI/TIA-598-D
- ANSI/TIA-492 AAAD
- IEC 60793-2-10 Fibre Type A1a.3
- Telcordia GR-409-CORE
- ISO/IEC 60332-3

#### APPLICATIONS SUPPORT

APPLICATION	DISTANCE (m)
10GBASE-S (850 nm)	300
10GBASE-LX4 (1300 nm)	300
1000BASE-S (850 nm)	1000
1000BASE-LX (1300 nm)	600
Fibre Channel 266 (1300 nm)	1,500
ATM 622 (1300 nm)	500
ATM 155 (1300 nm)	2,000
ATM 52 (1300 nm)	3,000
FDDI (Original-1300 nm)	2,000
100BASE-FX (1300 nm)	2,000

### XGLO Singlemode, OS1/OS2

#### STANDARDS COMPLIANCE

- ISO/IEC 11801:Ed 2.0 Amendment 1:2008
- ANSI/TIA/EIA-568-C.3
- ANSI/TIA-598-D
- ANSI/TIA-492 CAAB
- Telcordia GR-409-CORE
- ITU-T G.652 C/D
- ISO/IEC 60332-3

#### APPLICATIONS SUPPORT

APPLICATION	DISTANCE (m)
10GBASE-L (1310 nm)	8,000
10GBASE-E (1550 nm)	30,000
10G Fibre Channel (Serial-1310 nm)	10,000
10G Fibre Channel (WDM-1310 nm)	10,000
1000BASE-LX (1300 nm)	5,000
Fibre Channel 266/1062 (1300 nm)	10,000
ATM 52/155/622 (1300 nm)	15,000



# XGLO® & LightSystem® Indoor Tight Buffer - International

## LightSystem® Gigabit Ethernet Fibre Optic Cable

### Minimum Performance Parametres for LightSystem 62.5/125µm Multimode Fibre

Fibre Type	Wavelength nm	Maximum Attenuation (dB/km)	Minimum Modal Bandwidth (MHz•km)	Guaranteed Gigabit Transmission Distance (Metres)
62.5/125 (OM1)	850	3.5	200	275
	1300	1.0	500	550

\*The protocol pertinent to the transmission distance as noted is Gigabit Ethernet per IEEE 802.3:2005.

### Minimum Performance Parametres for XGLO 50/125µm Multimode Fibre

Fibre Type	Guaranteed Gigabit Transmission Distance (m)		Guaranteed 10 Gigabit Transmission Distance (m)		Minimum Bandwidth (MHz•km)		Maximum Attenuation (dB/km)	
	850 nm	1300 nm	850 nm†	1300 nm††	850 nm	1300 nm	850 nm	1300 nm
50/125 (OM3)	1000	600	300	300	RML - 2000 OFL - 1500	OFL - 500	3.0	1.0
50/125 (OM4)	1100	600	550	300	RML - 4700 OFL - 3500	OFL - 500	3.0	1.0

† 10GBASE-S †† 10GBASE-LX4

### Minimum Performance Parametres for XGLO Singlemode Fibre

Fibre Type	Wavelength (nm)	Maximum Attenuation (dB/km)
Singlemode (OS1/OS2)	1310	0.40
	1550	0.30

## XGLO and LightSystem Indoor Tight Buffer (International) Physical Specifications

### PHYSICAL SPECIFICATIONS (All Values Are Nominal)

Fibre Count	Nominal Cable Diameter mm	Maximum Pulling Tension Newtons				Net Weight kg/km		
		Installation		Long Term				
	OFNR/ LSOH/ OFNP	OFNR/ LSOH	OFNP	OFNR/ LSOH	OFNP	OFNR	OFNP	LSOH
2	4.8	660	440	198	132	18	19	19
4	4.8	660	440	198	132	20	21	20
6	4.8	660	440	198	132	22	23	22
8	5.4	660	440	198	132	26	28	27
12	6.2	660	440	198	132	33	35	33
16	7.8	1320	660	396	198	48	52	49
24	8.8	1320	660	396	198	61	65	62
48	17.4	1320	660	396	198	239	262	248
72	21.0	1320	660	396	198	361	396	375

Fibre Count	Maximum Crush Resistance (N/mm)	Operating Temperature °C (°F)	Installation Temperature °C (°F)	Storage Temperature °C (°F)	Minimum Bend Radius	
					Installation	Long Term
2-72	10	-20 to 70 (-4 to 158)	0 to 60 (-32 to 140)	-40 to 70 (-40 to 158)	10 x DIA.	20 x DIA.

Custom lengths and jacket colours are available upon request. Contact our Customer Service Department for more information.

# XGLO® & LightSystem® Interlocking Aluminium Armour Indoor Tight Buffer Fibre Cable - Global

Siemon interlocking aluminium armour indoor tight buffer fibre cables are ideal for data centres, campus and building backbones as well as industrial applications. The interlocking armour cable is a robust aluminium armour design that provides higher compression crush strength, rodent resistance and increased security. Siemon interlocking armour fibre cables may be installed as an alternative to traditional fibre cables in plenum inner duct or conduit, providing a less expensive single-pull solution with estimated savings of 25-50% in materials and estimated labor savings up to 60%. Siemon fibre optic cables are offered in LightSystem and XGLO configurations supporting high-speed applications such as Gigabit Ethernet, 10 Gigabit Ethernet and Fibre Channel.

### Ordering Information:

**Cable Rating**

R = OFCR  
P = OFCP

**Fibre Type**

6 = 62.5/125µm  
5 = 50/125µm  
8 = OS1/OS2 Singlemode

**Fibre Count (Subunit)**

006D = 6 (1 Tube with 6 Fibres)  
012G = 12 (1 Tube with 12 Fibres)  
024L = 24 (1 Tube with 24 Fibres)  
036G = 36 (3 Tubes with 12 Fibres)  
048G = 48 (4 Tubes with 12 Fibres)  
072G = 72 (6 Tubes with 12 Fibres)  
096G = 96 (8 Tubes with 12 Fibres)  
144G = 144 (12 Tubes with 12 Fibres)

**Class Performance**

G109 = OM1 62.5/125µm, Orange  
T312 = OM3 50/125µm Laser Optimised, Aqua  
T512 = OM4 50/125µm Laser Optimised, Aqua  
T516 = OM4 50/125µm Laser Optimised, Erika Violet  
E205 = OS1/OS2 Singlemode, Yellow

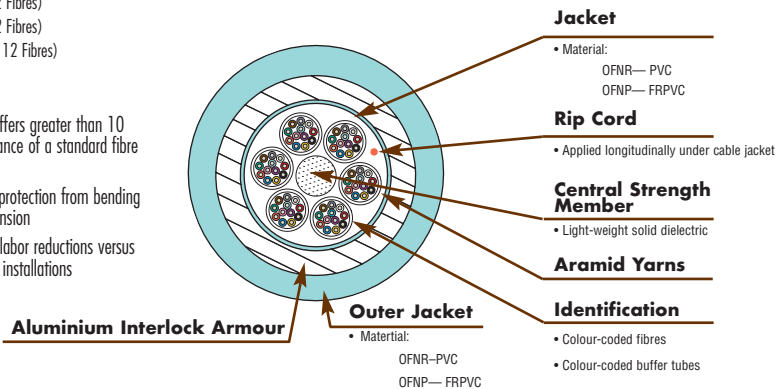
**Length**

A = Feet

9BC(X)(X)(XXXX)-(XXX)A . . . . . LightSystem Multimode 62.5/125 OM1, XGLO Multimode Laser Optimised 50/125 OM3, OM4 Singlemode OS1/OS2

### HIGHLIGHTS

- 900 µm tight buffer
- OFCR: Communications Type OFCR Engineering Testing Laboratories (ETL) or Underwriters Laboratories (UL) Type OFCR (Conductive Optical Fibre Riser Cable) and c(ETL or UL) OFC-FT6 75C.
- OFCP: Communications Type OFCP Engineering Testing Laboratories (ETL) or Underwriters Laboratories (UL) Type OFCP (Conductive Optical Fibre Plenum Cable) and c(ETL or UL) OFC-FT6 75C.
- Aluminium interlock offers greater than 10 times the crush resistance of a standard fibre cable
- Provides installation protection from bending and excessive pull tension
- Significant time and labor reductions versus conduit or inner duct installations



LIGHTSYSTEM Multimode 62.5/125, OM1		XGLO 300 Multimode 50/125, OM3		XGLO 550 Multimode, 50/125, OM4		XGLO Singlemode, OS1/OS2	
STANDARDS COMPLIANCE		STANDARDS COMPLIANCE		STANDARDS COMPLIANCE		STANDARDS COMPLIANCE	
• ISO/IEC 11801:2002 OM1 (62.5/125)		• ISO/IEC 11801:2002 OM3		• ISO/IEC 11801:2002 OM3		• ISO/IEC 11801:Ed 2.0 Amendment:1:2008	
• ANSI/TIA-568.3-D		• ANSI/TIA-568.3-D		• ISO/IEC 11801:2002 Amendment 2 OM4		• ANSI/TIA-568.3-D	
• ANSI/TIA-598-D		• ANSI/TIA-598-D		• ANSI/TIA-568.3-D		• ANSI/TIA-598-D	
• ANSI/TIA-492AAAB		• ANSI/TIA-492AAAC		• ANSI/TIA-598-D		• ANSI/TIA-492 CAAB	
• Telcordia GR-409-CORE		• Telcordia GR-409-CORE		• ANSI/TIA-492 AAAD		• Telcordia GR-409-CORE	
• OFNR: Communications Type OFNR (UL) and CSA FT4 c(UL)		• OFNR: Communications Type OFNR (UL) and CSA FT4 c(UL)		• IEC 60793-2-10 Fibre Type A1a.3		• ITUT G.652.C/D	
• OFNP: Communications Type OFNP (UL) and CSA FT6 c(UL)		• OFNP: Communications Type OFNP (UL) and CSA FT6 c(UL)		• Telcordia GR-409-CORE		• OFNR: Communications Type OFNR (UL) and CSA FT4 c(UL)	
				• OFNR: Communications Type OFNR (UL) and CSA FT4 c(UL)		• OFNP: Communications Type OFNP (UL) and CSA FT6 c(UL)	
				• OFNP: Communications Type OFNP (UL) and CSA FT6 c(UL)			
APPLICATIONS SUPPORT		APPLICATIONS SUPPORT		APPLICATIONS SUPPORT		APPLICATIONS SUPPORT	
APPLICATION	DISTANCE (m)	APPLICATION	DISTANCE (m)	APPLICATION	DISTANCE (m)	APPLICATION	DISTANCE (m)
10GBASE-SX (850 nm)	N/A	10GBASE-SX (850 nm)	300	10GBASE-SX (850 nm)	550	10GBASE-L (1310 nm)	8,000
62.5/125µm	26	10GBASE-LX4 (1300 nm)	300	10GBASE-LX4 (1300 nm)	300	10GBASE-E (1550 nm)	30,000
1000BASE-SX (850 nm)	N/A	1000BASE-SX (850 nm)	1000	1000BASE-SX (850 nm)	1100	10G Fibre Channel (Serial-1310 nm)	10,000
62.5/125µm	275	1000BASE-LX (1300 nm)	600	1000BASE-LX (1300 nm)	600	10G Fibre Channel (WDM-1310 nm)	10,000
1000BASE-LX (1300 nm)	550	Fibre Channel 266 (1300 nm)	1,500	Fibre Channel 266 (1300 nm)	1,500	1000BASE-LX (1300 nm)	5,000
Fibre Channel 266 (1300 nm)	1,500	ATM 622 (1300 nm)	500	ATM 622 (1300 nm)	500	Fibre Channel 266/1062 (1300 nm)	10,000
ATM 622 (1300 nm)	500	ATM 155 (1300 nm)	2,000	ATM 155 (1300 nm)	2,000	ATM 52/155/622 (1300 nm)	15,000
ATM 155 (1300 nm)	2,000	ATM 52 (1300 nm)	3,000	ATM 52 (1300 nm)	3,000		
ATM 52 (1300 nm)	3,000	FDD1 (Original-1300 nm)	2,000	FDD1 (Original-1300 nm)	2,000		
FDD1 (Original-1300 nm)	2,000	100BASE-FX (1300 nm)	2,000	100BASE-FX (1300 nm)	2,000		
100BASE-FX (1300 nm)	2,000						

# XGLO® & LightSystem® Interlocking Aluminium Armour Indoor Tight Buffer Fibre Cable - Global

## LightSystem Gigabit Ethernet Fibre Optic Distribution Cable (Global)

### Minimum Performance Parametres for LightSystem 62.5/125µm Multimode Fibre

Fibre Type	Wavelength nm	Maximum Attenuation (dB/km)	Minimum Modal Bandwidth (MHz • km)	Guaranteed Gigabit Transmission Distance Metres (Feet)
62.5/125 (OM1)	850	3.5	200	275 (902)
	1300	1.0	500	550 (1804)

\*The protocol pertinent to the transmission distance as noted is Gigabit Ethernet per IEEE 802.3:2005.

## XGLO® 10 Gigabit Ethernet Fibre Optic Cable (Global)

### Minimum Performance Parametres for XGLO 50/125µm Multimode Fibre

Fibre Type	Guaranteed Gigabit Transmission Distance (m)		Guaranteed 10 Gigabit Transmission Distance (m)		Minimum Bandwidth (MHz • km)		Maximum Attenuation (dB/km)	
	850 nm	1300 nm	850 nm <sup>†</sup>	1300 nm <sup>††</sup>	850 nm	1300 nm	850 nm	1300 nm
50/125 (OM3)	1000	600	300	300	RML - 2000 OFL - 1500	OFL - 500	3.0	1.0
50/125 (OM4)	1100	600	550	300	RML - 4700 OFL - 3500	OFL - 500	3.0	1.0

† 10GBASE-S †† 10GBASE-LX4

### Minimum Performance Parametres for XGLO Singlemode Fibre

Fibre Type	Wavelength nm	Maximum Attenuation (dB/km)
Singlemode (OS1/OS2)	1310	0.50
	1550	0.40

\*Attenuation specifications are in compliance with TIA-492 CAAB

## XGLO and LightSystem Physical Specifications (Global)

### PHYSICAL SPECIFICATIONS (All Values Are Nominal)

Fibre Count	Nominal Cable Diameter mm (in.)		Maximum Pulling Tension Newtons (lbf.)		Maximum = Net Weight kg/km (lb/1000 ft.)	
	OFCR	OFCP	Installation	Long Term	OFCR	OFCP
6	15.8 (0.624)	13.1 (0.517)	1335 (300)	400 (90)	179 (120)	117 (79)
8	15.8 (0.624)	13.3 (0.523)	1335 (300)	400 (90)	188 (126)	129 (87)
12	18.8 (0.740)	14.8 (0.584)	1780 (400)	534 (120)	248 (166)	176 (119)
24	24.4 (0.961)	20.9 (0.821)	2640 (600)	800 (180)	412 (277)	347 (233)
48	24.4 (0.961)	23.4 (0.921)	2640 (600)	800 (180)	448 (301)	408 (274)
72	32.1 (1.265)	24.7 (0.974)	2640 (600)	800 (180)	643 (432)	537 (361)
96	32.1 (1.265)	31.1 (1.230)	2640 (600)	800 (180)	775 (521)	749 (503)
144	32.1 (1.265)	31.1 (1.230)	4445 (1000)	1335 (300)	802 (539)	756 (508)

Fibre Type	Maximum Crush Resistance (N/mm)	Operating Temperature °C (°F)		Installation Temperature °C (°F)		Storage Temperature °C (°F)		Minimum Bend Radius	
		OFCR	OFCP	OFCR	OFCP	OFCR	OFCP	Installation	Long Term
6 - 144	44	-40 to 75 (-40 to 167)	-20 to 75 (-4 to 167)	-20 to 75 (-4 to 167)	-0 to 75 (-32 to 167)	-40 to 85 (-40 to 185)	-20 to 75 (-4 to 167)	20 x DIA.	10 x DIA.

Custom lengths and jacket colours are available upon request. Contact our Customer Service Department for more information.

# XGLO® & LightSystem® Indoor/Outdoor Tight Buffer Fibre Cable - EMEA

Siemon LSOH (IEC 60332-1) indoor/outdoor tight buffer cables are ideal for data centres, campus and building backbones. Siemon fibre optic cables are offered in XGLO and LightSystem configurations supporting high-speed applications such as Gigabit Ethernet, 10 Gigabit Ethernet and Fibre Channel. Siemon indoor/outdoor water blocking is primarily for dry duct applications for moisture and temporary water migration protection.

## Ordering Information:

9GD(X)L(XXXX)-(XXXX)M ..... LightSystem Multimode 62.5/125 OM1, XGLO Multimode 50/125 OM3, 50/125 OM4, Singlemode

<b>Fibre Type</b> <b>6</b> = 62.5/125µm <b>5</b> = 50/125µm <b>8</b> = OS1/OS2 Singlemode	<b>Length</b> <b>M</b> = Metres
<b>Cable Rating</b> <b>L</b> = LSOH - 1	<b>Class Performance</b> <b>G106</b> = OM1 62.5/125µm, Blue <b>T306</b> = OM3 50/125µm Laser Optimised, Blue <b>T506</b> = OM4 50/125µm Laser Optimised, Blue <b>T516</b> = OM4 50/125µm Laser Optimised, Erika Violet <b>E206</b> = OS1/OS2 Singlemode, Blue
<b>Fibre Count (Subunit)</b> <b>002B</b> = 2 (1 Tube with 2 Fibres) <b>004C</b> = 4 (1 Tube with 4 Fibres) <b>006D</b> = 6 (1 Tube with 6 Fibres) <b>008E</b> = 8 (1 Tube with 8 Fibres) <b>012G</b> = 12 (1 Tube with 12 Fibres) <b>016K</b> = 16 (1 Tube with 16 Fibres) <b>024L</b> = 24 (1 Tube with 24 Fibres) <b>048D</b> = 48 (8 Tubes with 6 Fibres) <b>072G</b> = 72 (6 Tubes with 12 Fibres)	

**2 - 24 Strands**

**48 - 72 Strands**

**Jacket (Blue)**

- Material: LSOH - LSOH Compound

**Identification**

- Colour-coded fibres

**Aramid Yarn**

- Water blocking swellable yarn

**Rip Cord**

- Applied longitudinally under cable jacket

**Jacket (Blue)**

- Material: LSOH - LSOH Compound

**Aramid Yarn**

- Water blocking swellable yarn

**Water Blocking Swellable Tape**

**Central Strength Member**

- Light-weight solid dielectric

**Rip Cord**

- Applied longitudinally under cable jacket

**Identification**

- Colour-coded fibres and tubes

### LIGHTSYSTEM Multimode 62.5/125, OM1

#### STANDARDS COMPLIANCE

- ISO/IEC 11801:2002 OM1 (62.5/125)
- ANSI/TIA-568.3-D
- ANSI/TIA-598-D
- ANSI/TIA-492 AAAA
- Telcordia GR-409-CORE
- IEC 60332-1-2 (Single strand)
- IEC 60754-1-2 (Non Halogens)
- IEC 60754-2 (Acid gas)
- IEC 61034-2 (Smoke density)
- EN 60332-1-2 Class Eca

#### APPLICATIONS SUPPORT

APPLICATION	DISTANCE (m)
10GBASE-S (850 nm)	N/A
62.5/125µm	26
1000BASE-S (850 nm)	N/A
62.5/125µm	275
1000BASE-LX (1300 nm)	550
Fibre Channel 266 (1300 nm)	1,500
ATM 622 (1300 nm)	500
ATM 155 (1300 nm)	2,000
ATM 52 (1300 nm)	3,000
FDDI (Original-1300 nm)	2,000
100BASE-FX (1300 nm)	2,000

### XGLO 300 Multimode 50/125, OM3

#### STANDARDS COMPLIANCE

- ISO/IEC 11801:2002 OM3
- ANSI/TIA-568.3-D
- ANSI/TIA-598-D
- ANSI/TIA-492 AAAC
- IEC 60793-2-10 Fibre Type A1a.2
- Telcordia GR-409-CORE
- IEC 60332-1-2 (Single strand)
- IEC 60754-1-2 (Non Halogens)
- IEC 60754-2 (Acid gas)
- IEC 61034-2 (Smoke density)
- EN 60332-1-2 Class Eca

#### APPLICATIONS SUPPORT

APPLICATION	DISTANCE (m)
10GBASE-S (850 nm)	300
10GBASE-LX4 (1300 nm)	300
1000BASE-S (850 nm)	1000
1000BASE-LX (1300 nm)	600
Fibre Channel 266 (1300 nm)	1,500
ATM 622 (1300 nm)	500
ATM 155 (1300 nm)	2,000
ATM 52 (1300 nm)	3,000
FDDI (Original-1300 nm)	2,000
100BASE-FX (1300 nm)	2,000

### XGLO 550 Multimode 50/125, OM4

#### STANDARDS COMPLIANCE

- ISO/IEC 11801:2002 OM3
- ISO/IEC 11801:2002 Amendment 2 OM4
- ANSI/TIA-568.3-D
- ANSI/TIA-598-D
- ANSI/TIA-492 AAAD
- IEC 60793-2-10 Fibre Type A1a.3
- Telcordia GR-409-CORE
- IEC 60332-1-2 (Single strand)
- IEC 60754-1-2 (Non Halogens)
- IEC 60754-2 (Acid gas)
- IEC 61034-2 (Smoke density)
- EN 60332-1-2 Class Eca

#### APPLICATIONS SUPPORT

APPLICATION	DISTANCE (m)
10GBASE-S (850 nm)	550
10GBASE-LX4 (1300 nm)	300
1000BASE-S (850 nm)	1100
1000BASE-LX (1300 nm)	600
Fibre Channel 266 (1300 nm)	1,500
ATM 622 (1300 nm)	500
ATM 155 (1300 nm)	2,000
ATM 52 (1300 nm)	3,000
FDDI (Original-1300 nm)	2,000
100BASE-FX (1300 nm)	2,000

### XGLO Singlemode, OS1/OS2

#### STANDARDS COMPLIANCE

- ISO/IEC 11801:Ed 2.0 Amendment:1:2008
- ANSI/TIA-568.3-D
- ANSI/TIA-598-D
- ANSI/TIA-492 CAAB
- Telcordia GR-409-CORE
- ITU-T G.652 C/D
- IEC 60332-1-2 (Single strand)
- IEC 60754-1-2 (Non Halogens)
- IEC 60754-2 (Acid gas)
- IEC 61034-2 (Smoke density)
- EN 60332-1-2 Class Eca

#### APPLICATIONS SUPPORT

APPLICATION	DISTANCE (m)
10GBASE-L (1310 nm)	8,000
10GBASE-E (1550 nm)	30,000
10G Fibre Channel (Serial-1310 nm)	10,000
10G Fibre Channel (WDM-1310 nm)	10,000
1000BASE-LX (1300 nm)	5,000
Fibre Channel 266/1062 (1300 nm)	10,000
ATM 52/155/622 (1300 nm)	15,000

# XGLO® & LightSystem® Indoor/Outdoor Tight Buffer - EMEA

## LightSystem Gigabit Ethernet Fibre Optic Cable

### Minimum Performance Parametres for LightSystem 62.5/125µm Multimode Fibre

Fibre Type	Wavelength nm	Maximum Attenuation (dB/km)	Minimum Modal Bandwidth (MHz•km)	Guaranteed Gigabit Transmission Distance Metres (Feet)
62.5/125 (OM1)	850	3.5	200	275 (902)
	1300	1.0	500	550 (1804)

\*The protocol pertinent to the transmission distance as noted is Gigabit Ethernet per IEEE 802.3.2005.

### Minimum Performance Parametres for XGLO 50/125µm Multimode Fibre

Fibre Type	Guaranteed Gigabit Transmission Distance (m)		Guaranteed 10 Gigabit Transmission Distance (m)		Minimum Bandwidth (MHz•km)		Maximum Attenuation (dB/km)	
	850 nm	1300 nm	850 nm†	1300 nm††	850 nm	1300 nm	850 nm	1300 nm
50/125 (OM3)	1000	600	300	300	RML - 2000 OFL - 1500	OFL - 500	3.0	1.0
50/125 (OM4)	1100	600	550	300	RML - 4700 OFL - 3500	OFL - 500	3.0	1.0

† 10GBASE-S †† 10GBASE-LX4

### Minimum Performance Parametres for XGLO Singlemode Fibre

Fibre Type	Wavelength (nm)	Maximum Attenuation (dB/km)
Singlemode (OS1/OS2)	1310	0.40
	1550	0.30

## XGLO and LightSystem Indoor/Outdoor Tight Buffer (EMEA) Physical Specifications

### PHYSICAL SPECIFICATIONS

Fibre Count	Nominal Cable Diameter mm	Maximum Pulling Tension Newtons		Nominal Net Weight kg/km
		Installation	Long Term	
2	5.9	1500	750	26
4	6.1	1500	750	28
6	6.3	1500	750	31
8	6.7	1500	750	34
12	7.3	1500	750	40
16	7.6	1500	750	45
24	8.4	1500	750	55
48	15	4200	1400	260
72	20	5400	1800	420

Fibre Count	Maximum Crush Resistance (N/mm)	Operation Temperature °C (°F)	Installation Temperature °C (°F)	Storage Temperature °C	Minimum Bend Radius	
					Installation	Long Term
2-24	5	-20 to 70 (-4 to 158)	-20 to 70 (-4 to 158)	-40 to 70 (-40 to 70)	20 x DIA.	10 x DIA.
48-72	30	-40 to 70 (-40 to 158)	-40 to 70 (-40 to 158)	-40 to 70 (-40 to 70)	20 x DIA.	10 x DIA.

Custom lengths and jacket colours are available upon request. Contact our Customer Service Department for more information.

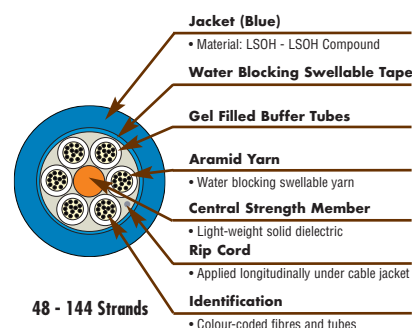
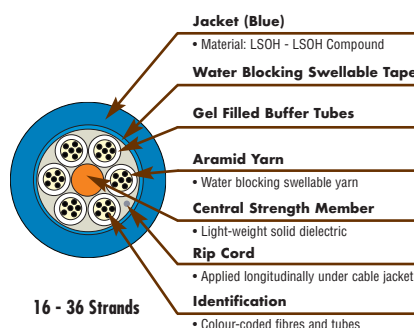
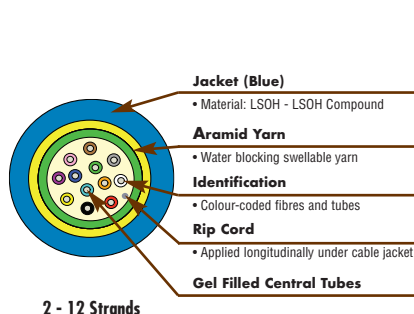


# XGLO® & LightSystem® Indoor/Outdoor LooseTube - EMEA

Siemon LSOH (IEC 60332-1) indoor/outdoor loose tube cables are ideal for campus and building backbones. Siemon fibre optic cables are offered in XGLO and LightSystem configurations supporting high-speed, applications such as Gigabit Ethernet, 10 Gigabit Ethernet and Fibre Channel. Siemon indoor/outdoor water blocking is primarily for dry duct applications for moisture and temporary water migration protection.

## Ordering Information:

9GG(X)L(XXX)-(XXX)M . . . . . LightSystem Multimode 62.5/125 OM1, XGLO Multimode 50/125 OM3, 50/125 OM4, Singlemode	
<b>Fibre Type</b>	<b>Length</b>
6 = 62.5/125µm	M = Metres
5 = 50/125µm	
8 = OS1/OS2 Singlemode	
<b>Cable Rating</b>	<b>Class Performance</b>
L = LSOH - 1	G106 = OM1 62.5/125µm, Blue
	T306 = OM3 50/125µm Laser Optimised, Blue
	T506 = OM4 50/125µm Laser Optimised, Blue
	T516 = OM4 50/125µm Laser Optimised, Erika Violet
	E206 = OS1/OS2 Singlemode, Blue
<b>Fibre Count (Subunit)</b>	
002B = 2 (1 Tube with 2 Fibres)	024D = 24 (4 Tubes with 6 Fibres)
004C = 4 (1 Tube with 4 Fibres)	036G = 36 (6 Tubes with 6 Fibres)
006D = 6 (1 Tube with 6 Fibres)	048G = 48 (4 Tubes with 12 Fibres)
008E = 8 (1 Tube with 8 Fibres)	072G = 72 (6 Tubes with 12 Fibres)
012G = 12 (1 Tube with 12 Fibres)	096G = 96 (8 Tubes with 12 Fibres)
016D = 16 (2 Tubes with 6 Fibres, 1 Tube with 4 Fibres)	144G = 144 (12 Tubes with 12 Fibres)



Note: The 2-12 strand rodent resistant cables feature a glass yarn design with a high tensile strength and degree of rodent protection which is effective in many cases. The function of glass yarns differs from the other rodent protection materials such as a 100% metallic armour protection. The glass yarns provide a degree of protection because it is disassemblable and unpleasant for most rodents to gnaw the glass yarns.

### LIGHTSYSTEM Multimode, 62.5/125, OM1

#### STANDARDS COMPLIANCE

- ISO/IEC 11801:2002 OM1 (62.5/125)
- ANSI/TIA-568.3-D
- ANSI/TIA-598-D
- ANSI/TIA-492 AAAA
- Telcordia GR-409-CORE
- IEC 60332-1-2 (Single strand)
- IEC 60754-1-2 (Non Halogens)
- IEC 60754-2 (Acid gas)
- IEC 61034-2 (Smoke density)
- EN 60332-1-2 Class Eca

#### APPLICATIONS SUPPORT

APPLICATION	DISTANCE (m)
10 GBASE-S (850 nm)	N/A
62.5/125µm	26
1000 BASE-S (850 nm)	N/A
62.5/125µm	275
1000BASE-LX (1300 nm)	550
Fibre Channel 266 (1300 nm)	1,500
ATM 622 (1300 nm)	500
ATM 155 (1300 nm)	2,000
ATM 52 (1300 nm)	3,000
FDD1 (Original-1300 nm)	2,000
100BASE-FX (1300 nm)	2,000

### XGLO 300 Multimode, 50/125, OM3

#### STANDARDS COMPLIANCE

- ISO/IEC 11801:2002 OM3
- ANSI/TIA-568.3-D
- ANSI/TIA-598-D
- ANSI/TIA-492 AAAC
- IEC 60793-2-10 Fibre Type Ala.2
- Telcordia GR-409-CORE
- IEC 60332-1-2 (Single strand)
- IEC 60754-1-2 (Non Halogens)
- IEC 60754-2 (Acid gas)
- IEC 61034-2 (Smoke density)
- EN 60332-1-2 Class Eca

#### APPLICATIONS SUPPORT

APPLICATION	DISTANCE (m)
10 GBASE-S (850 nm)	300
10 GBASE-LX4 (1300 nm)	300
1000BASE-S (850 nm)	1000
1000 BASE-LX (1300 nm)	600
Fibre Channel 266 (1300 nm)	1,500
ATM 622 (1300 nm)	500
ATM 155 (1300 nm)	2,000
ATM 52 (1300 nm)	3,000
FDD1 (Original-1300 nm)	2,000
100BASE-FX (1300 nm)	2,000

### XGLO 550 Multimode, 50/125, OM4

#### STANDARDS COMPLIANCE

- ISO/IEC 11801:2002 OM3
- ISO/IEC 11801:2002 Amendment 2 OM4
- ANSI/TIA-568.3-D
- ANSI/TIA-598-D
- ANSI/TIA-492 AAAD
- IEC 60793-2-10 Fibre Type A1a.3
- Telcordia GR-409-CORE
- IEC 60332-1-2 (Single strand)
- IEC 60754-1-2 (Non Halogens)
- IEC 60754-2 (Acid gas)
- IEC 61034-2 (Smoke density)
- EN 60332-1-2 Class Eca

#### APPLICATIONS SUPPORT

APPLICATION	DISTANCE (m)
10GBASE-S (850 nm)	550
10GBASE-LX4 (1300 nm)	300
1000BASE-S (850 nm)	1100
1000BASE-LX (1300 nm)	600
Fibre Channel 266 (1300 nm)	1,500
ATM 622 (1300 nm)	500
ATM 155 (1300 nm)	2,000
ATM 52 (1300 nm)	3,000
FDD1 (Original-1300 nm)	2,000
100BASE-FX (1300 nm)	2,000

### XGLO Singlemode, OS1/OS2

#### STANDARDS COMPLIANCE

- ISO/IEC 11801:Ed 2.0 Amendment:1:2008
- ANSI/TIA-568.3-D
- ANSI/TIA-598-D
- ANSI/TIA-492 CAAB
- Telcordia GR-409-CORE
- ITU-T G.652 C/D
- IEC 60332-1-2 (Single strand)
- IEC 60754-1-2 (Non Halogens)
- IEC 60754-2 (Acid gas)
- IEC 61034-2 (Smoke density)
- EN 60332-1-2 Class Eca

#### APPLICATIONS SUPPORT

APPLICATION	DISTANCE (m)
10GBASE-L (1310 nm)	8,000
10GBASE-E (1550 nm)	30,000
10G Fibre Channel (Serial-1310 nm)	10,000
10G Fibre Channel (WDM-1310 nm)	10,000
1000BASE-LX (1300 nm)	5,000
Fibre Channel 266/1062 (1300 nm)	10,000
ATM 52/155/622 (1300 nm)	15,000

# XGLO® & LightSystem® Indoor/Outdoor LooseTube - EMEA

## LightSystem Gigabit Ethernet Fibre Optic Cable

### Minimum Performance Parametres for LightSystem 62.5/125µm Multimode Fibre

Fibre Type	Wavelength nm	Maximum Attenuation (dB/km)	Minimum Modal Bandwidth (MHz•km)	Guaranteed Gigabit Transmission Distance Metres (Feet)
62.5/125 (OM1)	850	3.5	200	275 (902)
	1300	1.0	500	550 (1804)

\*The protocol pertinent to the transmission distance as noted is Gigabit Ethernet per IEEE 802.3:2005.

### Minimum Performance Parametres for XGLO 50/125µm Multimode Fibre

Fibre Type	Guaranteed Gigabit Transmission Distance (m)		Guaranteed 10 Gigabit Transmission Distance (m)		Minimum Bandwidth (MHz•km)		Maximum Attenuation (dB/km)	
	850 nm	1300 nm	850 nm†	1300 nm††	850 nm	1300 nm	850 nm	1300 nm
50/125 (OM3)	1000	600	300	300	RML - 2000 OFL - 1500	OFL - 500	3.0	1.0
50/125 (OM4)	1100	600	550	300	RML - 4700 OFL - 3500	OFL - 500	3.0	1.0

† 10GBASE-S †† 10GBASE-LX4

### Minimum Performance Parametres for XGLO Singlemode Fibre

Fibre Type	Wavelength (nm)	Maximum Attenuation (dB/km)
Singlemode (OS1/OS2)	1310	0.40
	1550	0.30

## XGLO and LightSystem Indoor/Outdoor LooseTube (EMEA) Physical Specifications

### PHYSICAL SPECIFICATIONS (All Values Are Nominal)

Fibre Count	Nominal Cable Diameter mm	Maximum Pulling Tension Newtons		Nominal Net Weight kg/km
		Installation	Long Term	
2	7.5	1500	700	55
4	7.5	1500	700	55
6	7.5	1500	700	55
8	7.5	1500	700	55
12	7.5	1500	700	55
16	10.5	1800	1200	90
24	10.5	1800	1200	90
36	10.5	1800	1200	90
48	10.5	1800	1200	90
72	10.5	1800	1200	90
96	12.0	1800	1200	125
144	15.0	1800	1200	190

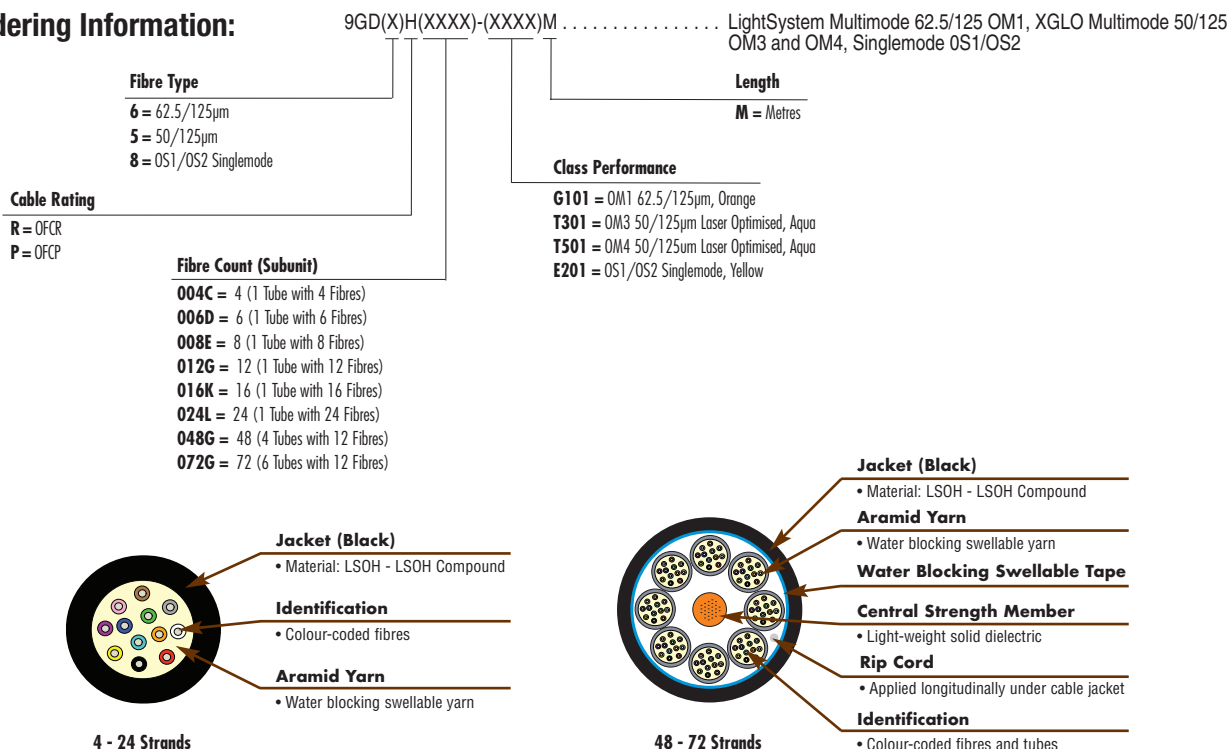
Fibre Count	Maximum Crush Resistance (N/mm)	Operation Temperature °C (°F)	Installation Temperature °C (°F)	Storage Temperature °C (°F)	Minimum Bend Radius	
					Installation	Long Term
2-12	20	-20 to 70 (-4 to 158)	-20 to 70 (-14 to 158)	-40 to 70 (-40 to 158)	20 x DIA.	10 x DIA.
16-144	30	-20 to 70 (-4 to 158)	-20 to 70 (-4 to 158)	-40 to 70 (-40 to 158)	20 x DIA.	10 x DIA.

Custom lengths and jacket colours are available upon request. Contact our Customer Service Department for more information.

# XGLO® & LightSystem® Indoor/Outdoor Tight Buffer - International

Siemon LSOH (IEC 60332-3) indoor/outdoor tight buffer fibre cables are ideal for data centres, campus and building backbones. Siemon fibre optic cables are offered in XGLO and LightSystem configurations supporting high-speed applications such as Gigabit Ethernet, 10 Gigabit Ethernet and Fibre Channel. Siemon indoor/outdoor water blocking is primarily for dry duct applications for moisture and temporary water migration protection.

## Ordering Information:



### LIGHTSYSTEM Multimode 62.5/125, OM1

#### STANDARDS COMPLIANCE

- ISO/IEC 11801:2002 OM1 (62.5/125)
- ANSI/TIA-568.3-D
- ANSI/TIA-598-D
- ANSI/TIA-492 AAAA
- Telcordia GR-409-CORE
- IEC 60332-3
- IEC 60332-1-2 (Single strand)
- IEC 60754-2 (Acid gas)
- IEC 61034-2 (Smoke density)

#### APPLICATIONS SUPPORT

APPLICATION	DISTANCE (m)
10GBASE-S (850 nm)	N/A
62.5/125µm	26
1000BASE-S (850 nm)	N/A
62.5/125µm	275
1000BASE-LX (1300 nm)	550
Fibre Channel 266 (1300 nm)	1,500
ATM 622 (1300 nm)	500
ATM 155 (1300 nm)	2,000
ATM 52 (1300 nm)	3,000
FDDI (Original-1300 nm)	2,000
100BASE-FX (1300 nm)	2,000

### XGLO 300 Multimode 50/125, OM3

#### STANDARDS COMPLIANCE

- ISO/IEC 11801:2002 OM3
- ANSI/TIA-568.3-D
- ANSI/TIA-598-D
- ANSI/TIA-492 AAAC
- IEC 60793-2-10 Fibre Type A1a.2
- Telcordia GR-409-CORE
- IEC 60332-3
- IEC 60332-1-2 (Single strand)
- IEC 60754-2 (Acid gas)
- IEC 61034-2 (Smoke density)

#### APPLICATIONS SUPPORT

APPLICATION	DISTANCE (m)
10GBASE-S (850 nm)	300
10GBASE-LX4 (1300 nm)	300
1000BASE-S (850 nm)	1000
1000BASE-LX (1300 nm)	600
Fibre Channel 266 (1300 nm)	1,500
ATM 622 (1300 nm)	500
ATM 155 (1300 nm)	2,000
ATM 52 (1300 nm)	3,000
FDDI (Original-1300 nm)	2,000
100BASE-FX (1300 nm)	2,000

### XGLO 550 Multimode 50/125, OM4

#### STANDARDS COMPLIANCE

- ISO/IEC 11801:2002 OM3
- ISO/IEC 11801:2002 Amendment 2 OM4
- ANSI/TIA-568.3-D
- ANSI/TIA-598-D
- ANSI/TIA-492 AAAD
- IEC 60793-2-10 Fibre Type A1a.3
- Telcordia GR-409-CORE
- IEC 60332-3
- IEC 60332-1-2 (Single strand)
- IEC 60754-2 (Acid gas)
- IEC 61034-2 (Smoke density)

#### APPLICATIONS SUPPORT

APPLICATION	DISTANCE (m)
10GBASE-S (850 nm)	550
10GBASE-LX4 (1300 nm)	300
1000BASE-S (850 nm)	1100
1000BASE-LX (1300 nm)	600
Fibre Channel 266 (1300 nm)	1,500
ATM 622 (1300 nm)	500
ATM 155 (1300 nm)	2,000
ATM 52 (1300 nm)	3,000
FDDI (Original-1300 nm)	2,000
100BASE-FX (1300 nm)	2,000

### XGLO Singlemode, OS1/OS2

#### STANDARDS COMPLIANCE

- ISO/IEC 11801:Ed 2.0 Amendment 1:2008
- ANSI/TIA-568.3-D
- ANSI/TIA-598-D
- ANSI/TIA-492 CAAB
- Telcordia GR-409-CORE
- ITU-T G.652 C/D
- LSOH IEC 60332-3
- IEC 60332-1-2 (Single strand)
- IEC 60754-2 (Acid gas)
- IEC 61034-2 (Smoke density)

#### APPLICATIONS SUPPORT

APPLICATION	DISTANCE (m)
10GBASE-L (1310 nm)	8,000
10GBASE-E (1550 nm)	30,000
10G Fibre Channel (Serial-1310 nm)	10,000
10G Fibre Channel (WDM-1310 nm)	10,000
1000BASE-LX (1300 nm)	5,000
Fibre Channel 266/1062 (1300 nm)	10,000
ATM 52/155/622 (1300 nm)	15,000

# XGLO® & LightSystem® Indoor/Outdoor Tight Buffer - International

## LightSystem Gigabit Ethernet Fibre Optic Cable

### Minimum Performance Parametres for LightSystem 62.5/125µm Multimode Fibre

Fibre Type	Wavelength nm	Maximum Attenuation (dB/km)	Minimum Modal Bandwidth (MHz•km)	Guaranteed Gigabit Transmission Distance Metres (Feet)
62.5/125 (OM1)	850	3.5	200	275 (902)
	1300	1.0	500	550 (1804)

\*The protocol pertinent to the transmission distance as noted is Gigabit Ethernet per IEEE 802.3:2005.

### Minimum Performance Parametres for XGLO 50/125µm Multimode Fibre

Fibre Type	Guaranteed Gigabit Transmission Distance (m)		Guaranteed 10 Gigabit Transmission Distance (m)		Minimum Bandwidth (MHz•km)		Maximum Attenuation (dB/km)	
	850 nm	1300 nm	850 nm†	1300 nm††	850 nm	1300 nm	850 nm	1300 nm
50/125 (OM3)	1000	600	300	300	RML - 2000 OFL - 1500	OFL - 500	3.0	1.0
50/125 (OM4)	1100	600	550	300	RML - 4700 OFL - 3500	OFL - 500	3.0	1.0

† 10GBASE-S †† 10GBASE-LX4

### Minimum Performance Parametres for XGLO Singlemode Fibre

Fibre Type	Wavelength (nm)	Maximum Attenuation (dB/km)
Singlemode (OS1/OS2)	1310	0.40
	1550	0.30

## XGLO and LightSystem Indoor/Outdoor Tight Buffer (International) Physical Specifications

### PHYSICAL SPECIFICATIONS (All Values Are Nominal)

Fibre Count	Nominal Cable Diameter mm	Maximum Pulling Tension Newtons		Nominal Net Weight kg/km
		Installation	Long Term	
4	5.3	1500	495	24
6	5.3	1500	495	26
8	5.8	1500	495	31
12	6.6	1500	495	37
16	7.8	1500	396	52
24	8.8	1500	495	62
48	18.3	4200	1400	255
72	21.9	5400	1800	384

Fibre Count	Maximum Crush Resistance (N/mm)	Operation Temperature °C (°F)	Installation Temperature °C (°F)	Storage Temperature °C	Minimum Bend Radius	
					Installation	Long Term
4-12	5	-40 to 70 (-40 to 158)	-10 to 60 (-14 to 140)	-40 to 70 (-40 to 158)	20 x DIA.	10 x DIA.
16-72	10	-20 to 70 (-4 to 158)	-10 to 60 (-14 to 140)	-20 to 70 (-4 to 158)	20 x DIA.	10 x DIA.

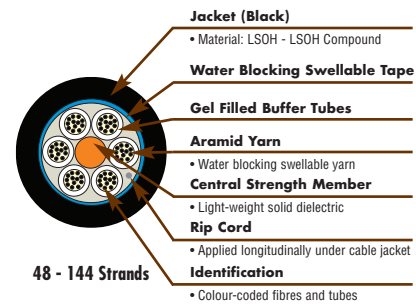
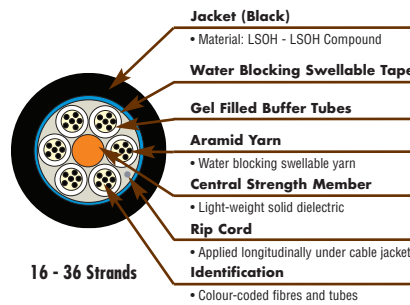
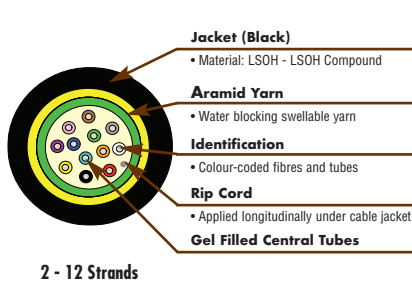
Custom lengths and jacket colours are available upon request. Contact our Customer Service Department for more information.

# XGLO® & LightSystem® Indoor/Outdoor LooseTube - International

Siemon LSOH (IEC 60332-3) indoor/outdoor loose tube fibre cables are ideal for campus and building backbones. Siemon fibre optic cables are offered in XGLO and LightSystem configurations supporting high-speed, applications such as Gigabit Ethernet, 10 Gigabit Ethernet and Fibre Channel.

## Ordering Information:

<b>Fibre Type</b> <b>6</b> = 62.5/125µm <b>5</b> = 50/125µm <b>8</b> = OS1/OS2 Singlemode		<b>Length</b> <b>M</b> = Metres	
<b>Cable Rating</b> <b>H</b> = LSOH - 3C		<b>Class Performance</b> <b>G101</b> = OM1 62.5/125µm <b>T301</b> = OM3 50/125µm Laser Optimised <b>T501</b> = OM4 50/125µm Laser Optimised <b>E201</b> = OS1/OS2 Singlemode	
<b>Fibre Count (Subunit)</b> <b>002B</b> = 2 (1 Tube with 2 Fibres) <b>004C</b> = 4 (1 Tube with 4 Fibres) <b>006D</b> = 6 (1 Tube with 6 Fibres) <b>008E</b> = 8 (1 Tube with 8 Fibres) <b>012G</b> = 12 (1 Tube with 12 Fibres) <b>016D</b> = 16 (2 Tubes with 6 Fibres and 1 Tube of 4 Fibres)		<b>9GG(X)H(XXXX)-(XXXX)M</b> ..... LightSystem Multimode 62.5/125 OM1, XGLO Multimode 50/125 OM3 and OM4, Singlemode OS1/OS2	
<b>024D</b> = 24 (4 Tubes with 6 Fibres) <b>036G</b> = 36 (6 Tubes with 6 Fibres) <b>048G</b> = 48 (4 Tubes with 12 Fibres) <b>072G</b> = 72 (6 Tubes with 12 Fibres) <b>096G</b> = 96 (8 Tubes with 12 Fibres) <b>144G</b> = 144 (12 Tubes with 12 Fibres)			



Note: The 2-12 strand rodent resistant cables feature a glass yarn design with a high tensile strength and degree of rodent protection which is effective in many cases. The function of glass yarns differs from the other rodent protection materials such as a 100% metallic armour protection. The glass yarns provide a degree of protection because it is disagreeable and unpleasant for most rodents to gnaw the glass yarns.

<div>LIGHTSYSTEM Multimode 62.5/125, OM1</div> <div>STANDARDS COMPLIANCE</div> <div><ul style="list-style-type: none"><li>• ISO/IEC 11801:2002 OM1 (62.5/125)</li><li>• ANSI/TIA-568.3-D</li><li>• ANSI/TIA-598-D</li><li>• ANSI/TIA-492 AAAB</li><li>• Telcordia GR-409-CORE</li><li>• IEC 60332-3</li></ul><div>IEC 60332-1-2 (Single strand)</div><div>IEC 60754-2 (Acid gas)</div><div>IEC 61034-2 (Smoke density)</div></div> <div>APPLICATIONS SUPPORT</div> <table><tr><th>APPLICATION</th><th>DISTANCE (m)</th></tr><tr><td>10GBASE-S (850 nm)</td><td>N/A</td></tr><tr><td>62.5/125µm</td><td>26</td></tr><tr><td>1000BASE-S (850 nm)</td><td>N/A</td></tr><tr><td>62.5/125µm</td><td>275</td></tr><tr><td>Fibre Channel 266 (1300 nm)</td><td>1,500</td></tr><tr><td>ATM 622 (1300 nm)</td><td>500</td></tr><tr><td>ATM 155 (1300 nm)</td><td>2,000</td></tr><tr><td>ATM 52 (1300 nm)</td><td>3,000</td></tr><tr><td>FDDI (Original-1300 nm)</td><td>2,000</td></tr><tr><td>100BASE-FX (1300 nm)</td><td>2,000</td></tr></table>	APPLICATION	DISTANCE (m)	10GBASE-S (850 nm)	N/A	62.5/125µm	26	1000BASE-S (850 nm)	N/A	62.5/125µm	275	Fibre Channel 266 (1300 nm)	1,500	ATM 622 (1300 nm)	500	ATM 155 (1300 nm)	2,000	ATM 52 (1300 nm)	3,000	FDDI (Original-1300 nm)	2,000	100BASE-FX (1300 nm)	2,000	<div>XGLO 300 Multimode 50/125, OM3</div> <div>STANDARDS COMPLIANCE</div> <div><ul style="list-style-type: none"><li>• ISO/IEC 11801:2002 OM3</li><li>• ANSI/TIA-568.3-D</li><li>• ANSI/TIA-598-D</li><li>• ANSI/TIA-492 AAAC</li><li>• Telcordia GR-409-CORE</li><li>• IEC 60332-3</li></ul><div>IEC 60332-1-2 (Single strand)</div><div>IEC 60754-2 (Acid gas)</div><div>IEC 61034-2 (Smoke density)</div></div> <div>APPLICATIONS SUPPORT</div> <table><tr><th>APPLICATION</th><th>DISTANCE (m)</th></tr><tr><td>10GBASE-S (850 nm)</td><td>300</td></tr><tr><td>10GBASE-LX4 (1300 nm)</td><td>300</td></tr><tr><td>1000BASE-S (850 nm)</td><td>1000</td></tr><tr><td>1000BASE-LX (1300 nm)</td><td>600</td></tr><tr><td>Fibre Channel 266 (1300 nm)</td><td>1,500</td></tr><tr><td>ATM 622 (1300 nm)</td><td>500</td></tr><tr><td>ATM 155 (1300 nm)</td><td>2,000</td></tr><tr><td>ATM 52 (1300 nm)</td><td>3,000</td></tr><tr><td>FDDI (Original-1300 nm)</td><td>2,000</td></tr><tr><td>100BASE-FX (1300 nm)</td><td>2,000</td></tr></table>	APPLICATION	DISTANCE (m)	10GBASE-S (850 nm)	300	10GBASE-LX4 (1300 nm)	300	1000BASE-S (850 nm)	1000	1000BASE-LX (1300 nm)	600	Fibre Channel 266 (1300 nm)	1,500	ATM 622 (1300 nm)	500	ATM 155 (1300 nm)	2,000	ATM 52 (1300 nm)	3,000	FDDI (Original-1300 nm)	2,000	100BASE-FX (1300 nm)	2,000	<div>XGLO 550 Multimode 50/125, OM4</div> <div>STANDARDS COMPLIANCE</div> <div><ul style="list-style-type: none"><li>• ISO/IEC 11801:2002 OM3</li><li>• ISO/IEC 11801:2002 Amendment 2 OM4</li><li>• ANSI/TIA-568.3-D</li><li>• ANSI/TIA-598-D</li><li>• ANSI/TIA-492 AAAD</li><li>• IEC 60793-2-10 Fibre Type A1a.3</li><li>• Telcordia GR-409-CORE</li><li>• IEC 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nm)	2,000	100BASE-FX (1300 nm)	2,000	<div>XGLO Singlemode, OS1/OS2</div> <div>STANDARDS COMPLIANCE</div> <div><ul style="list-style-type: none"><li>• ISO/IEC 11801:Ed 2.0 Amendment:1:2008</li><li>• ANSI/TIA-568.3-D</li><li>• ANSI/TIA-598-D</li><li>• Telcordia GR-409-CORE</li><li>• ITU-T G.652 C/D</li><li>• IEC 60332-3</li></ul><div>IEC 60332-1-2 (Single strand)</div><div>IEC 60754-2 (Acid gas)</div><div>IEC 61034-2 (Smoke density)</div></div> <div>APPLICATIONS SUPPORT</div> <table><tr><th>APPLICATION</th><th>DISTANCE (m)</th></tr><tr><td>10GBASE-L (1310 nm)</td><td>8,000</td></tr><tr><td>10GBASE-E (1550 nm)</td><td>30,000</td></tr><tr><td>10G Fibre Channel (Serial-1310 nm)</td><td>10,000</td></tr><tr><td>10G Fibre Channel (WDM-1310 nm)</td><td>10,000</td></tr><tr><td>1000BASE-LX (1300 nm)</td><td>5,000</td></tr><tr><td>Fibre Channel 266/1062 (1300 nm)</td><td>10,000</td></tr><tr><td>ATM 52/155/622 (1300 nm)</td><td>15,000</td></tr></table>	APPLICATION	DISTANCE (m)	10GBASE-L (1310 nm)	8,000	10GBASE-E (1550 nm)	30,000	10G Fibre Channel (Serial-1310 nm)	10,000	10G Fibre Channel (WDM-1310 nm)	10,000	1000BASE-LX (1300 nm)	5,000	Fibre Channel 266/1062 (1300 nm)	10,000	ATM 52/155/622 (1300 nm)	15,000
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# XGLO® & LightSystem® Indoor/Outdoor LooseTube - International

## LightSystem Gigabit Ethernet Fibre Optic Cable

### Minimum Performance Parametres for LightSystem 62.5/125µm Multimode Fibre

Fibre Type	Wavelength nm	Maximum Attenuation (dB/km)	Minimum Modal Bandwidth (MHz•km)	Guaranteed Gigabit Transmission Distance Metres (Feet)	Index of Refraction
62.5/125 (OM1)	850	3.5	200	275 (902)	1.495
	1300	1.0	500	550 (1804)	1.490

\*The protocol pertinent to the transmission distance as noted is Gigabit Ethernet per IEEE 802.3:2005.

### Minimum Performance Parametres for XGLO 50/125µm Multimode Fibre

Fibre Type	Guaranteed Gigabit Transmission Distance (m)		Guaranteed 10 Gigabit Transmission Distance (m)		Minimum Bandwidth (MHz•km)		Maximum Attenuation (dB/km)		Group Index of Refraction	
	850 nm	1300 nm	850 nm†	1300 nm††	850 nm	1300 nm	850 nm	1300 nm	850 nm	1300 nm
50/125 (OM3)	1000	600	300	300	RML - 2000 OFL - 1500	OFL - 500	3.0	1.0	1.483	1.479
50/125 (OM4)	1100	600	550	300	RML - 4700 OFL - 3500	OFL - 500	3.0	1.0	1.483	1.479

† 10GBASE-S †† 10GBASE-LX4

### Minimum Performance Parametres for XGLO Singlemode Fibre

Fibre Type	Wavelength (nm)	Maximum Attenuation (dB/km)	Zero Dispersion Wavelength (nm)	Zero Dispersion Slope (nm <sub>2</sub> -km)	Index of Refraction
Singlemode (OS1/OS2)	1310	0.40	1312 ± 10	≤0.089	1.468
	1550	0.30	1312 ± 10	≤0.089	1.468
	1310 - 1625	<0.40	1312 ± 10	≤0.089	1.468

## XGLO and LightSystem Indoor/Outdoor LooseTube Physical Specifications

### PHYSICAL SPECIFICATIONS (All Values Are Nominal)

Fibre Count	Nominal Cable Diameter mm	Maximum Pulling Tension Newtons		Nominal Net Weight kg/k
		Installation	Long Term	
2	7.7	1000	500	67
4	7.7	1000	500	67
6	7.7	1000	500	67
8	7.7	1000	500	67
12	7.7	1000	500	67
16	10.1	1800	1200	103
24	10.1	1800	1200	103
36	10.1	1800	1200	103
48	10.8	1800	1200	115
72	10.8	1800	1200	115
96	12.0	1800	1200	139
144	12.0	1800	1200	139

Fibre Count	Maximum Crush Resistance (N/mm)	Operating Temperature °C	Storage Temperature °C	Minimum Bend Radius	
				Installation	Long Term
2-12	10	-40 to 60 (-40 to 140)	-40 to 60 (-40 to 140)	20 x DIA.	10 x DIA.
16-144	22	-40 to 60 (-40 to 140)	-40 to 60 (-40 to 140)	20 x DIA.	10 x DIA.

Custom lengths and jacket colours are available upon request. Contact our Customer Service Department for more information.

# XGLO® & LightSystem® Outside Plant Loose Tube - International

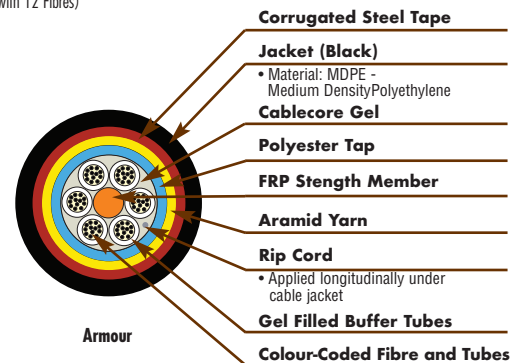
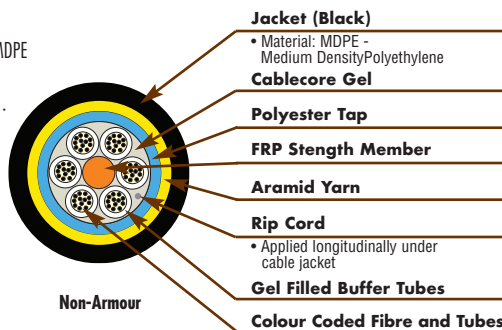
Siemon outside plant (OSP) cables are ideal for campus, building-to-building interconnections, lashed aerial, duct or underground conduits and direct burial with proper sand back filling. These cables are designed to tolerate the installation and stresses in cables exposed to the external environment. Siemon fibre optic cables are offered in XGLO and LightSystem configurations supporting high-speed, applications such as Gigabit Ethernet, 10 Gigabit Ethernet and Fibre Channel.

## Ordering Information:

9F(XX)(X)4-(XXXX)(XXXX) . . . . . LightSystem: Multimode 62.5/125 OM1, XGLO Multimode 50/125 OM3 and OM4, Singlemode OS1/OS2	
<b>Fibre Type</b>	<b>Length</b>
6 = OM1 62.5/125µm	Length must be 4 digits including decimal point
5L = OM3 50/125µm Laser Optimised	<b>Example:</b>
5V = OM4 50/125µm Laser Optimised	1.00 = 1km
8L = OS1/OS2 Singlemode	0.50 = 500m
<b>Armour</b>	<b>Fibre Count (Subunit)</b>
D = Non Armour	002F = 2 (1 Tube with 2 Fibres)
E = Armour	004A = 4 (1 Tube with 4 Fibres)
<b>Cable Rating</b>	006B = 6 (1 Tube with 6 Fibres)
4 = MDPE	008C = 8 (1 Tube with 8 Fibres)
	012D = 12 (1 Tube with 12 Fibres)
	016A = 16 (2 Tubes with 6 Fibres and 1 Tube of 4 Fibres)
	024B = 24 (4 Tubes with 6 Fibres)
	036D = 36 (6 Tubes with 6 Fibres)
	048D = 48 (4 Tubes with 12 Fibres)
	072D = 72 (6 Tubes with 12 Fibres)
	096D = 96 (8 Tubes with 12 Fibres)
	144D = 144 (12 Tubes with 12 Fibres)

## CONSTRUCTION/FEATURES

- Outer jacket is a UV resistant black MDPE (Medium Density Polyethylene)
- Water blocking, gel-filled loose tubes
- Non-Armour and Armour versions
- Armour version utilises a robust corrugated steel armour
- No central strength member for 2-12 strands
- Central strength member for 16-144 strands



These cables provide a degree of rodent protection effective in many cases. The non-armour cable has a PE sheath which has a hard surface and provides a degree of rodent protection because it is disagreeable and unpleasant for most rodents to gnaw on. The armour cable has a PE sheath and corrugated steel tape which provides 100% rodent protection.

LIGHTSYSTEM Multimode 62.5/125, OM1		XGLO 300 Multimode 50/125, OM3		XGLO 550 Multimode 50/125, OM4		XGLO Singlemode, OS1/OS2	
STANDARDS COMPLIANCE		STANDARDS COMPLIANCE		STANDARDS COMPLIANCE		STANDARDS COMPLIANCE	
<ul style="list-style-type: none"> <li>ISO/IEC 11801:2002 OM1 (62.5/125)</li> <li>IEC 60794-3-10</li> <li>ANSI/TIA-568.3-D</li> <li>ANSI/TIA-598-D</li> <li>ANSI/TIA-492 AAAA</li> <li>Telcordia GR-20-CORE</li> </ul>		<ul style="list-style-type: none"> <li>ISO/IEC 11801:2002 OM3</li> <li>IEC 60794-3-10</li> <li>ANSI/TIA-568.3-D</li> <li>ANSI/TIA-598-D</li> <li>ANSI/TIA-492 AAAC</li> <li>IEC 60793-2-10 Fibre Type A1a.2</li> <li>Telcordia GR-20-CORE</li> </ul>		<ul style="list-style-type: none"> <li>ISO/IEC 11801:2002 Amendment 2 OM4</li> <li>IEC 60794-3-10</li> <li>ANSI/TIA-568.3-D</li> <li>ANSI/TIA-598-D</li> <li>ANSI/TIA-492 AAAD</li> <li>IEC 60793-2-10 Fibre Type A1a.3</li> <li>Telcordia GR-20-CORE</li> </ul>		<ul style="list-style-type: none"> <li>ISO/IEC 11801:Ed 2.0 Amendment 1:2008</li> <li>IEC 60794-3-10</li> <li>ANSI/TIA-568.3-D</li> <li>ANSI/TIA-598-D</li> <li>ANSI/TIA-492 CAAB</li> <li>Telcordia GR-20-CORE</li> <li>ITU-T G.652 C/D</li> </ul>	
APPLICATIONS SUPPORT		APPLICATIONS SUPPORT		APPLICATIONS SUPPORT		APPLICATIONS SUPPORT	
APPLICATION	DISTANCE (m)	APPLICATION	DISTANCE (m)	APPLICATION	DISTANCE (m)	APPLICATION	DISTANCE (m)
10GBASE-S (850 nm)	N/A	10GBASE-S (850 nm)	300	10GBASE-S (850 nm)	550	10GBASE-L (1310 nm)	8,000
62.5/125µm	26	10GBASE-LX4 (1300 nm)	300	10GBASE-LX4 (1300 nm)	300	10GBASE-E (1550 nm)	30,000
1000BASE-S (850 nm)	N/A	1000BASE-S (850 nm)	1000	1000BASE-S (850 nm)	1100	10G Fibre Channel (Serial-1310 nm)	10,000
62.5/125µm	275	1000BASE-LX (1300 nm)	600	1000BASE-LX (1300 nm)	600	10G Fibre Channel (WDM-1310 nm)	10,000
1000BASE-LX (1300 nm)	550	Fibre Channel 266 (1300 nm)	1,500	Fibre Channel 266 (1300 nm)	1,500	1000BASE-LX (1300 nm)	5,000
Fibre Channel 266 (1300 nm)	1,500	ATM 622 (1300 nm)	500	ATM 622 (1300 nm)	500	Fibre Channel 266/1062 (1300 nm)	10,000
ATM 622 (1300 nm)	500	ATM 155 (1300 nm)	2,000	ATM 155 (1300 nm)	2,000	ATM 52/155/622 (1300 nm)	15,000
ATM 155 (1300 nm)	2,000	ATM 52 (1300 nm)	3,000	ATM 52 (1300 nm)	3,000		
ATM 52 (1300 nm)	3,000	FDD1 (Original-1300 nm)	2,000	FDD1 (Original-1300 nm)	2,000		
FDD1 (Original-1300 nm)	2,000	100BASE-FX (1300 nm)	2,000	100BASE-FX (1300 nm)	2,000		
100BASE-FX (1300 nm)	2,000						

# XGLO® & LightSystem® Outside Plant Loose Tube - International

## LightSystem Gigabit Ethernet Fibre Optic Cable

### Minimum Performance Parametres for LightSystem 62.5/125µm Multimode Fibre

Fibre Type	Wavelength nm	Maximum Attenuation (dB/km)	Minimum Modal Bandwidth (MHz • km)	Guaranteed Gigabit Transmission Distance Metres (Feet)
62.5/125 (OM1)	850	3.5	200	275 (902)
	1300	1.0	500	550 (1804)

\*The protocol pertinent to the transmission distance as noted is Gigabit Ethernet per IEEE 802.3:2005.

### Minimum Performance Parametres for XGLO 50/125µm Multimode Fibre

Fibre Type	Guaranteed Gigabit Transmission Distance (m)		Guaranteed 10 Gigabit Transmission Distance (m)		Minimum Bandwidth (MHz • km)		Maximum Attenuation (dB/km)	
	850 nm	1300 nm	850 nm†	1300 nm††	850 nm	1300 nm	850 nm	1300 nm
50/125 (OM3)	1000	600	300	300	RML - 2000 OFL - 1500	OFL - 500	3.0	1.0
50/125 (OM4)	1100	600	550	300	RML - 4700 OFL - 3500	OFL - 500	3.0	1.0

† 10GBASE-S †† 10GBASE-LX4

### Minimum Performance Parametres for XGLO Singlemode Fibre

Fibre Type	Wavelength nm	Maximum Attenuation (dB/km)
Singlemode (OS1/OS2)	1310	0.40
	1550	0.30

## XGLO and LightSystem Outside Plant-Loose Tube Physical Specifications

### PHYSICAL SPECIFICATIONS (All Values Are Nominal)

Fibre Count	Nominal Cable Diameter mm		Maximum Pulling Tension Newtons				Net Weight kg/km	
			Installation		Long Term			
	Non Armour	Armour	Non Armour	Armour	Non Armour	Armour	Non Armour	Armour
2	8.5	10.7	1500	2700	450	810	55	109
4	8.5	10.7	1500	2700	450	810	55	109
6	8.5	10.7	1500	2700	450	810	55	109
8	8.5	10.7	1500	2700	450	810	55	109
12	8.5	10.7	1500	2700	450	810	55	109
16	11.0	10.8	1500	2700	450	810	99	118
24	11.0	11.4	1500	2700	450	810	97	131
36	11.2	11.4	1500	2700	450	810	100	152
48	11.2	12.3	1500	2700	450	810	100	151
72	11.2	12.3	1500	2700	450	810	100	151
96	12.7	13.8	1500	2700	450	810	126	186
144	15.7	16.8	1500	2700	450	810	189	263

Fibre Type	Maximum Crush Resistance (KN)		Operation Temperature °C (°F)	Installation Temperature °C (°F)	Storage Temperature °C (°F)	Minimum Bend Radius	
	Non Armour	Armour				Installation	Long Term
2 - 144	short term: 1.5 long term: 0.75	short term: 2.2 long term: 1.1	-30 to 60 (-22 to 140)	-10 to 60 (-14 to 140)	-40 to 60 (-40 to 140)	10 x DIA.	20 x DIA.

Custom lengths are available upon request. Contact our Customer Service Department for more information.



# MapIT® G2 Infrastructure Management

Take your network management to the next level. The MapIT G2 system integrates a powerful combination of innovative Smart Patch Panels, user-friendly Master Control Panels and Siemon's EagleEye® Connect software to provide real-time tracking and reporting of network-wide physical layer activity. The system continuously monitors your network — 24/7, increasing physical layer security by tracking changes in device connectivity, detecting unauthorised connections and devices, providing instant alerts and reducing downtime. All activity is automatically updated in the system database, ensuring 100% accuracy of your infrastructure documentation. With these advantages in documentation, security, uptime and asset management, most customers see ROI in less than 2 years.

Available in:

- Flat and Angled Copper Smart Patch Panels (SPP) Options — Angled panels eliminate the need for horizontal cable managers, greatly improving patching density
- Standard Fibre and MTP Plug and Play Smart Enclosures
- Siemon's Innovative MapIT G2 Interconnect Module — Enables direct monitoring of patching to network switches

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# MapIT® G2 Master and Distribution Control Panels

The MapIT G2 Master Control Panel (MCP) collects all network infrastructure data provided by the Smart Patch Panels and Fibre Enclosures, monitoring up to 2880 ports in just 1 rack mount space (1U). The MCP and DCP features an integrated LCD display and keypad, which provide technicians access to critical network architecture work order and diagnostic information. By providing this interactive interface locally within the patching zone, the MapIT G2 system virtually eliminates the need for technicians to carry PDAs or directly access the software server. This user interface allows full end-to-end graphic circuit traces for any channel in the system and can perform diagnostic tasks on any component or port.



## Superior Density —

Low profile 1U design increases density and reduces usage of costly rack and cabinet space in data centres and telecommunication rooms

## Reduced Power Consumption —

75% lower power consumption compared to traditional intelligent patching systems for monitoring equipment. This power savings decreases operating expenses and provides a more environmentally friendly solution

## Simple, Multi-Functional User Interface —

Large graphic LCD and keypad enables technicians to view circuit traces, patch cord traces, perform work orders, diagnostics and more, improving efficiency in maintenance and MAC work

## Ease of Implementation —

Simple design and straightforward implementation and setup reduces the time and technician skill required to design and install the system



MCP Graphic LCD



Redundant power and Ethernet



Field-terminated control connections  
(RJ45 Front or S310 Rear)

# MapIT® G2 Master and Distribution Control Panels

## Ordering Information:

M-MCP..... MapIT Master Control Panel, 1U, black\*  
M-DCP..... MapIT Distribution Control Panel, 1U, black\*

*\*Includes mounting hardware (1) probe pen, (1) power supply with adapters for various regions, rear cable manager, cable ties, S310 stuffer caps and ground lug*

*Note: 1U = 44.5mm (1.75 in.)*



## Optional Accessories

### Second Power Supply

M-PS..... 6.0V, 3.0A Power supply for MCP or DCP

### Replacement Probe Pen

M-PEN..... MapIT pen probe, 7.62m (25 ft.) cord

### Category 5e Shielded Cable for Control Connections

9A5M4-E2..... PVC (CM, IEC 60332-1), grey jacket, 305 (1000 ft.) Reel-in-Box

9A5L4-E2..... LS0H (IEC 60332-1), violet jacket, 305m (1000 ft.) Reel-in-Box

### PS-8-8 Shielded RJ45 Plugs

PS-8-8..... 8-Position shielded modular plug with 8 contacts (compatible with Siemon and Tyco crimp tools)

### S110® Patch Plugs

S110P4..... 4-Pair, field-terminated S110 patch plug (coloured icons not included)



## EagleEye® Connect Software



Siemon's EagleEye Connect software manages, monitors and documents your network infrastructure through Siemon's MapIT G2 connectivity. For more information on EagleEye Connect software, including features, capabilities and system requirements, please visit [www.siemon.com/eagleeye](http://www.siemon.com/eagleeye).

# MapIT® G2 Interconnect Solution

The MapIT G2 interconnect solution enables tracking of direct MapIT G2 connectivity between a switch and a Smart Patch Panels (SPP) — without the need for an additional SPP required in a cross-connect configuration. The interconnect topology (see diagram below) can increase rack density, cut installation costs and reduce installation time. Compatible with existing Siemon MapIT G2 copper connectivity, simply use the Interconnect Module (M-ICM) to unlock the design flexibility of an interconnect topology.

Simple to use — just plug a MapIT G2 patch cord into the switch and plug the other end into the Interconnect Module, which discovers the switch port and relays the information to the MapIT G2 system. Then, remove the cord from the module, plug it into the SPP and the link is detected.



## Reduced Costs —

The interconnect solution requires half the number of patch panels versus an intelligent cross-connect installation, cutting both material and installation labour costs

## Faster Deployment —

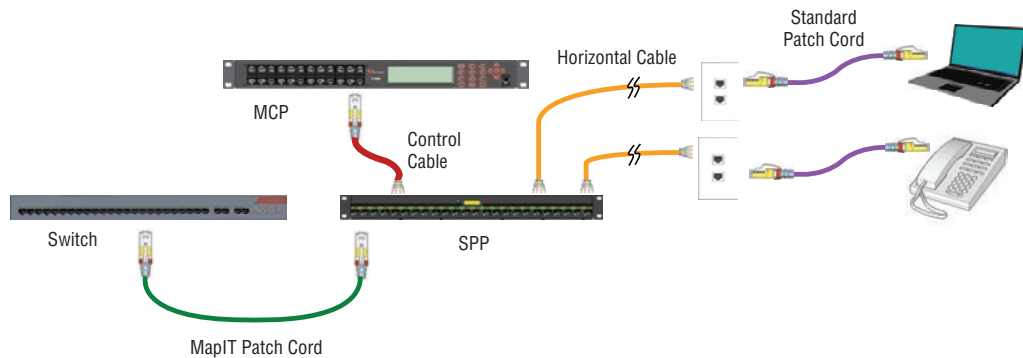
By reducing the number of patch panels and associated connectivity, installation and testing time is dramatically reduced

## Increased Density —

As the interconnect topology uses half the number of patch panels versus cross-connect, cabinet/rack density is greatly improved. For even greater density, use the angled version of Siemon's SPP or S/FTP TERA

## User-Friendly Module —

Simple, single-button functionality combined with on-board LCD display that provides technicians with clear instructions and status information allows intelligent links to be deployed in seconds



## MapIT G2 Interconnect Module

The MapIT G2 Interconnect Module is used to create a link between the switch and Smart Patch Panel port connections during initial installation or during moves, adds and changes. One per MCP required.

M-ICM..... MapIT G2 Interconnect Module



# MapIT® G2 Category 7A TERA® System

The MapIT G2 TERA system combines two best-in-class systems in one. The MapIT G2 Automated Infrastructure Management (AIM) system is available in a fully shielded TERA solution. TERA, already the highest performing and most secure twisted pair cabling system, now features MapIT G2 technology built into the Category 7A/ClassF<sub>A</sub> patch panels and cords. This combination of intelligent TERA hardware and Siemon EagleEye® Connect software delivers real-time tracking and management of network-wide physical layer activity and IT assets. This benchmark AIM solution offers users a truly unparalleled level of performance, security and control.

**Robust** — Lightweight, high strength steel with black finish integrates outlet retention and cable management. Panel includes Quick-Ground technology for shielded systems

**Green** — MapIT G2 uses 78% less power than competing systems

**Installation Friendly** — Individual outlets snap into panel from the front or rear. Angled panel design allows patch cords to be routed directly to vertical cable managers

**Smart** — Panel intelligence tracks patch cord connections and drives LCD/LEDs for technician guidance

**Fully Shielded** — S/FTP construction provides 1000 MHz bandwidth per pair

**Compact** — Off-set pogo pin position optimised for high density stacked applications

**Mapping** — Sensor pin is accessible at the rear of the boot for test and mapping purposes

**Quality** — Plug contacts and sensor pins feature 50 microns of gold plating for long-term reliability and resistance to corrosion

**Flexible** — A variety of TERA 4-pair and 2-pair to RJ45 patch cords allow easy connection to any RJ45 equipped active electronics



Trace and display patch cord connections on the patch panel LCD

A complete circuit trace can be viewed on-screen at the MCP or DCP

TERA supports cable sharing allowing multiple 2-pair applications to run over one 4-pair cable and outlet, saving significant material and pathway space

## Ordering Information:

### MapIT® G2 TERA® Patch Panel

M-SPPA-T24K. . . . . MapIT G2 TERA panel, 24 ports, angled, black, 1U, includes TERA outlets

M-SPPA-T24-01K. . . . . MapIT G2 Ready TERA panel, 24 ports, angled, black, 1U, includes TERA outlets

### Ready Panel Upgrade to MapIT G2

M-SPPAT-PCBA-24. . . . . MapIT G2 TERA panel upgrade kit, PCB



### MapIT G2 TERA Patch Cords - 4 Pair

M-T4-(XX)M-B(XX)L . . . . . TERA-TERA cable assembly, ivory jacket, coloured boot, LSOH

Cord Length		Boot Colour	
01	1m (3.3 ft.)	01	Black
02	2m (6.6 ft.)	02	White
03	3m (9.8 ft.)	03	Red
04		04	Grey
05	5m (16.4 ft.)	06	Blue



### MapIT G2 TERA Patch Cords - 2 Pair

M-T2E2-(XX)M-B(XX)L . . . . . TERA to Category 5e screened RJ45 cable assembly, ivory jacket, coloured boot, LSOH

Cord Length		Boot Colour	
01	1m (3.3 ft.)	01	Black
02	2m (6.6 ft.)	02	White
03	3m (9.8 ft.)	03	Red
04		04	Grey
05	5m (16.4 ft.)	06	Blue

### MapIT G2 TERA - to - Modular Patch Cords - 4 Pair

M-T4(X)-S(XX)M-B(XX)L . . . . . TERA - RJ45 cable assembly Category 6A, ivory jacket, coloured boot, LSOH

Cord Length		Boot Colour	
01	1m (3.3 ft.)	01	Black
02	2m (6.6 ft.)	02	White
03	3m (9.8 ft.)	03	Red
04		04	Grey
05	5m (16.4 ft.)	06	Blue

**Wiring**  
A = T568B  
T = T568A

## Optional Accessories

### Category 5e Shielded Cable for Bus (Control Cable) Connections

9A5R4-E1-(XX)-R1A. . . . . Riser, 305m (1000 ft.) reel (North America)

9A5R4-E2. . . . . Riser, blue, 305m (1000 ft.) Reel-in-box

### Modular Plug for Bus Connections

PS-8-8. . . . . 8-Position shielded modular plug with 8 contacts



# MapIT® G2 Smart Patch Panel

The MapIT G2 Smart Patch Panel (SPP) is an industry first in intelligent infrastructure management. The panel features on-board intelligence and a combination of LEDs and a backlit LCD to guide technicians. The LCD can be used to display patch cord trace and connectivity diagnostic information. It can also be used to troubleshoot network issues, which can drastically reduce downtime and increase productivity. Also, since it is actively connected to your database, the LCD could be used as a virtual label, dynamically displaying panel and port information directly from Siemon EagleEye™ Connect software.



**Smart** — on panel intelligence tracks patch cord connections and drives LCD/LEDs for technician guidance

**High Density** — 24 ports in a compact design, angled version also available

**Green** — MapIT G2 uses up to 78% less power than competing systems



**Robust** — Single piece construction integrates outlet retention and cable management. Panel includes Quick-Ground technology for shielded systems

**Reliable** — Panels have been tested to 20-years MTBF. All active components are field serviceable

**Simple** — Control connections to the MCP or DCP are made on the back of the patch panel with Category 5e solid shielded cable



Trace patch cord connections

With a touch of the probe pen a complete end-to-end circuit trace is shown on-screen at the MCP or DCP

Custom system cables are a thing of the past. Now, Category 5e solid shielded cable can be terminated in the field for all control connections

## Ordering Information:

### MapIT® G2 Smart Patch Panel

M-SPP(X)-K24NS..... MapIT G2 24-port modular Smart Patch Panel, accepts Siemon shielded and unshielded Z-MAX® keystone outlets or unshielded MAX® keystone outlets (sold separately)  
Includes mounting hardware, labels, (24) cable ties and panel ground lug



### MapIT G2-Ready Patch Panel

M-SPP(X)-K24E-001..... MapIT G2-Ready 24-port modular Patch Panel, accepts Siemon shielded and unshielded Z-MAX keystone outlets or unshielded MAX keystone outlets (sold separately)  
Includes mounting hardware, labels, (24) cable ties and panel ground lug

M-SPP(X)-PCBA-24..... MapIT G2 Upgrade Kit for MapIT G2 Ready Patch Panels. (Upgrade kit includes PCB with built-in sensor pads, LED's and LCD display, new front panel cover, additional mounting hardware & components with instructions), Siemon EagleEye® Connect software sold separately

Use (X) to specify panel type: Blank = Flat, A = Angled

## Optional Accessories

### Siemon Keystone Outlets

Z6A-SK(XX)..... Keystone shielded Z-MAX 6A outlet  
Z6A-K(XX)..... Keystone unshielded Z-MAX 6A outlet  
Z6-K(XX)..... Keystone unshielded Z-MAX 6 outlet  
MX6-K01..... Keystone unshielded MAX 6 outlet, black

Use (XX) to specify colour:

01 = Black, 02 = White, 03 = Red, 04 = Grey, 05 = Yellow, 06 = Blue, 07 = Green,  
09 = Orange, 20 = Ivory, 25 = Bright White, 80 = Light Ivory



Shielded Keystone  
Z-MAX



Unshielded Keystone  
Z-MAX



Unshielded Keystone  
MAX 6

# MapIT® G2 Copper Systems

## MapIT G2 Patch Cords

These advanced cords also feature a 9th wire and sensor pin contained in a robust over-moulded boot.

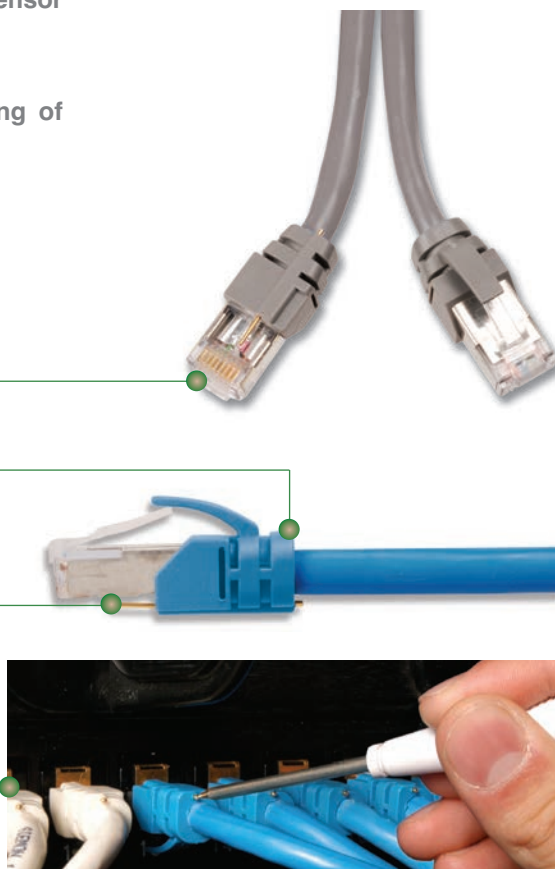
This embedded sensor technology enables tracking of connections between Smart Patch Panel ports.

**Supports Siemon's High-Performance Systems —**  
Category 6A shielded, Category 6A UTP and Category 6 UTP

**Robust Strain Relief —** Over-moulded boots provide plug to cable strain relief and retention of sensor pin. 100% transmission testing ensures component and channel performance

**Reliable Integrated Sensor Connections —** Sensor pins feature 50 microinches gold plating for long-term contact reliability and resistance to corrosion

**Simple Testing Features —** Sensor pin is accessible at the rear of the boot for test and mapping purposes



### Ordering Information:

M-10GMCS-(XX)M(XX)L. . . . . MapIT G2 Category 6A shielded, double-ended, stranded modular cord, colour-matching boot, T568A/B, LS0H

Jacket Colour	
02 = White	
04 = Grey	
06 = Blue	

Length	
01 = 1m (3.3 ft.)	
02 = 2m (6.6 ft.)	
03 = 3m (9.8 ft.)	
05 = 5m (16.4 ft.)	

M-10GMC-(XX)-(XX). . . . . MapIT G2 Category 6A UTP, double-ended, stranded modular cord, colour-matching boot, T568A/B, CMG

Jacket Colour	
02 = White	
04 = Grey	
06 = Blue	

Length	
03 = 0.91m (3 ft.)	
05 = 1.52m (5 ft.)	
07 = 2.13m (7 ft.)	
10 = 3.05m (10 ft.)	
15 = 4.57m (15 ft.)	
20 = 6.10m (20 ft.)	

M-MC6-(XX)-(XX). . . . . MapIT G2 Category 6 UTP, double-ended, stranded modular cord, colour-matching boot, T568A/B, CMG

Jacket Colour	
02 = White	
04 = Grey	
06 = Blue	

Length	
03 = 0.91m (3 ft.)	
05 = 1.52m (5 ft.)	
07 = 2.13m (7 ft.)	
10 = 3.05m (10 ft.)	
15 = 4.57m (15 ft.)	
20 = 6.10m (20 ft.)	

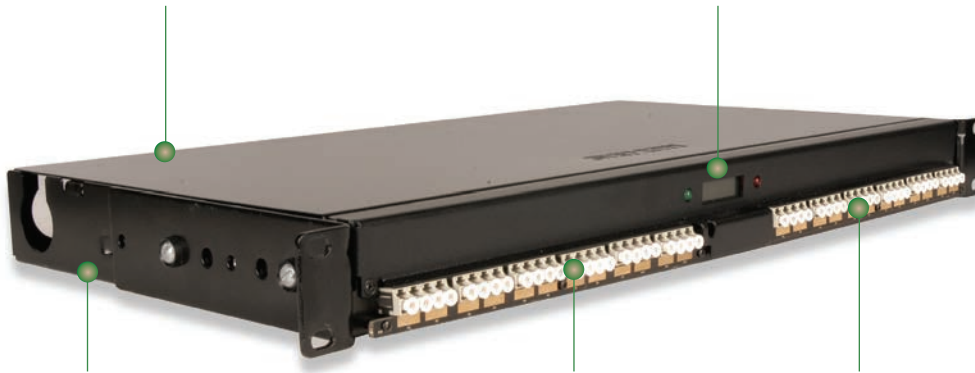


# MapIT® G2 Smart Fibre Enclosures

The MapIT G2 Smart Fibre Enclosures are an industry first in automated infrastructure management. Available in both MTP-to-LC Plug and Play and LC-to-LC field terminated versions, the enclosures feature on panel intelligence and a combination of LEDs and a backlit LCD to guide technicians. The LCD can be used to display patch cord trace, work orders and connectivity diagnostic information. It can also be used to troubleshoot network issues, which can drastically reduce downtime and increase productivity. Also, since it is actively connected to your database, you could even use it as a virtual label, dynamically displaying panel and port information directly from the Siemon's EagleEye® Connect software.

**High Performance** — Available in OM4 and OS1/OS2 MTP Plug and Play versions as well as Multimode and Singlemode LC field-terminated connectivity

**Smart** — on panel intelligence tracks fibre jumper connections and drives LCD/LEDs for tech guidance

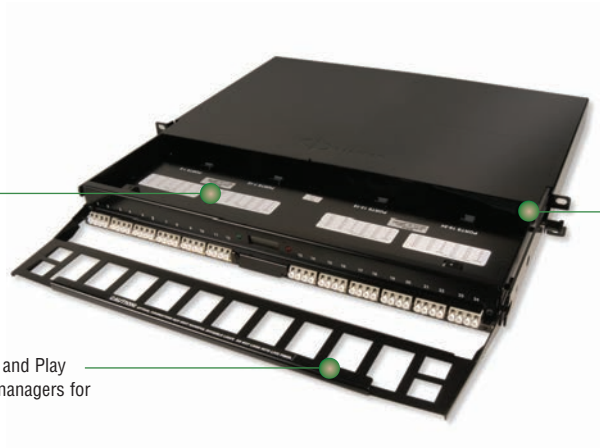


**Green** — MapIT G2 uses up to 78% less power than competing systems and run cool for reduced heat generation

**High Density** — Up to 48 fibres in a single 1U space

**Scalable** — MapIT G2 Smart Enclosures can support systems ranging from small, two enclosure remote sites to large 1000 + panel data centres

**Plug and Play** — Multi-fibre MTP connectivity provides ultra-fast deployment in mission-critical data centres



**High Accessibility** — MTP Plug and Play versions feature sliding drawer for easy access to connectivity

**Fibre Management** — MTP Plug and Play versions feature integrated fibre managers for secure jumper routing

# MapIT® G2 Smart Fibre Enclosures

## MTP-to-LC Plug and Play Fibre Enclosure - SMTP

- M-SMTP-LC5V48NS.....MapIT G2 LC 48-fibre MTP-to-LC smart fibre enclosure, black, Multimode, OM4  
Includes 2 MTP adapters, 24 duplex MM/LC aqua adapters, cable ties, panel ground lug, fibre management clips, front management bar, label holder and labels
- M-SMTP-LCSM48NS.....MapIT G2 LC 48-fibre MTP-to-LC smart fibre enclosure, black, Singlemode, OS1/OS2  
Includes 2 MTP adapters, 24 duplex SM/ LC blue adapters, cable ties, panel ground lug, fibre management clips, front management bar, label holder and labels

## LC-to-LC Fibre Enclosure - SFE

- M-SFE-LC48-NS.....MapIT G2 LC 48-fibre smart fibre enclosure, black, Multimode OM3/OM4  
Includes 24 duplex MM/LC aqua adapters, cable ties, panel ground lug, fibre management clips, label holder and labels
- M-SFE-LC48-NSC.....MapIT G2 LC 48-fibre smart fibre enclosure, black, Singlemode  
Includes 24 duplex SM/LC blue adapters, cable ties, panel ground lug, fibre management clips, label holder and labels



# MapIT G2 Ready Fibre Enclosures

## MTP-to-LC Plug and Play Fibre Enclosure

- M-MTP-LC5V48-01.....MapIT G2-Ready MTP-to-LC enclosure, black, Multimode\*, OM4  
Includes 2 MTP adapters, 24 duplex MM/LC aqua adapters, cable ties, panel ground lug, fibre management clips, front management bar, label holder and labels

## LC-to-LC Fibre Enclosure

- M-FE-LC48-01\*.....MapIT G2-Ready enclosure, black, Multimode\* OM3/OM4  
Includes 24 duplex MM/LC aqua adapters, cable ties, panel ground lug, fibre management clips, label holder and labels

## Upgrade Kit for MapIT G2-Ready Fibre Enclosures

- M-SFE-PCBA-24.....MapIT G2 upgrade kit for MapIT G2-Ready fibre enclosure  
(Upgrade kit includes PCB with built-in sensor pads, LED's and LCD display, new front panel cover, additional mounting hardware and components with instructions), Siemon EagleEye® Connect software sold separately

*\*Singlemode available, contact Customer Service for more information*

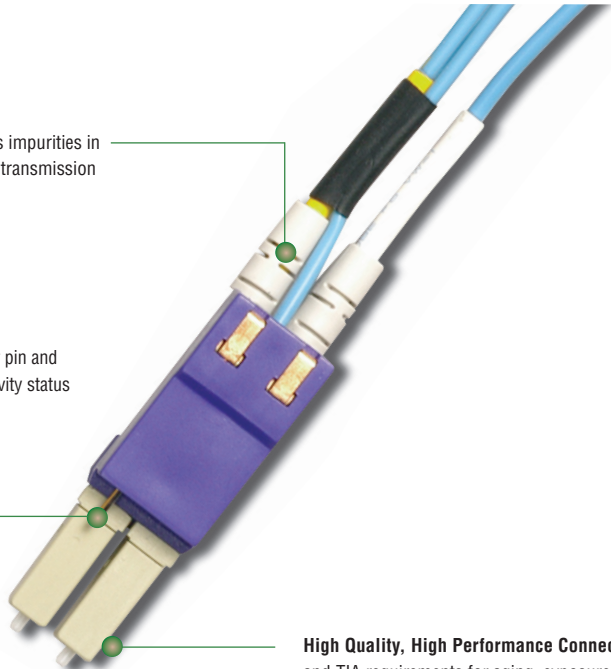


# MapIT® G2 XGLO® Jumpers

XGLO MapIT G2 jumpers are built to be the best. These assemblies are constructed with premium fibre that meets IEEE, IEC and TIA specifications for 10 Gigabit Ethernet serial transmission. These advanced cords feature patented MapIT sensor technology — gold-plated sensor pins retained in robust moulded connector clips. These jumpers enable tracking of port connections between MapIT G2 fibre enclosures and LAN equipment.

**XGLO Laser Bandwidth Optimised Cable** — Reduces impurities in the core of fibre, ensuring robust 10 Gigabit Ethernet transmission

**Reliable Integrated Sensor Connections** — 1 sensor pin and copper wire per each duplex connector tracks connectivity status



**High Quality, High Performance Connectors** — Jumpers exceed ISO/IEC and TIA requirements for aging, exposure to humidity, temperature extremes, impact, vibration, coupling strength, and cable resistance to stress and strain

## Ordering Information

### MapIT G2 XGLO Multimode Duplex Jumpers:

M-J2-LCLC(XX)-(XX). . . . . LC-LC duplex jumper, MapIT G2 XGLO 50/125 laser optimised Multimode fibre, aqua jacket

Fibre Type	Length
5L = OM3	01 = 1m (3.3 ft.)
5V = OM4	03 = 3m (9.8 ft.)
	05 = 5m (16.4 ft.)

### MapIT G2 XGLO Singlemode Duplex Jumpers:

M-J2-LCULCUL(XX). . . . . LC-LC duplex jumper, MapIT G2 XGLO OS1/OS2 Singlemode fibre, yellow jacket

Length
01 = 1m (3.3 ft.)
03 = 3m (9.8 ft.)
05 = 5m (16.4 ft.)

# Work Area, Zone Cabling and Accessories

Siemon's line of faceplates and mounting accessories provide cabling professionals with an extensive list of unique, problem solving options for deploying network connectivity exactly where it is needed.

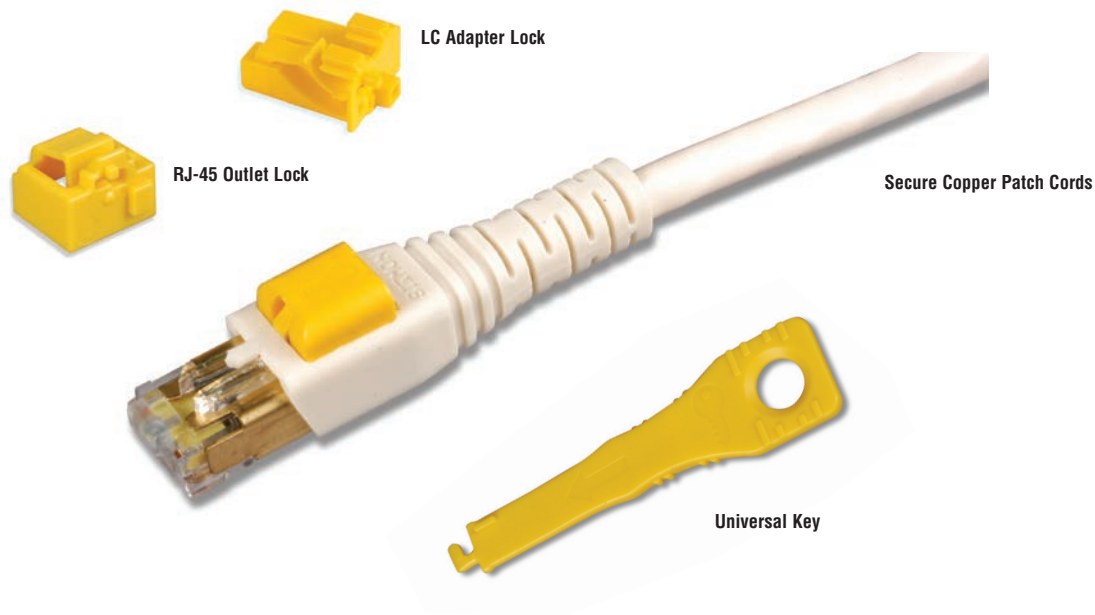
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# LockIT™ Secure Connectivity System

The LockIT solution is comprised of two primary elements: the RJ-45 outlet/LC adapter lock and the secure patch cord. The lock protects a RJ-45 copper outlet or LC fibre adapter from the insertion of cords or foreign objects. The Secure RJ-45 patch cord deters unintended or unauthorised disconnection of the cord. Each of these components requires the LockIT universal key for removal, but may be freely inserted into an outlet to secure the connection. All LockIT components are brightly coloured in yellow to easily identify secured connectivity.

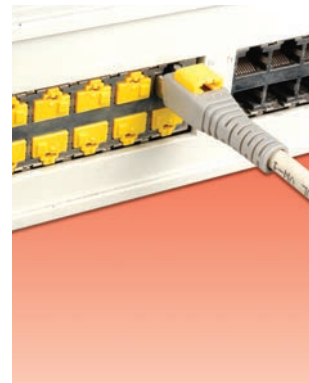
The LockIT products are compatible with any standards compliant RJ-45 outlet, or LC fibre port. This versatile system can be used in a variety of applications. This flexibility makes LockIT a perfect choice for use in public areas such as schools, retail stores, banks, airports and waiting areas. LockIT is also an ideal solution to protect mission-critical networks such as data centres, health care environments and government systems.



LockIT can protect copper and fibre work area outlets in public areas from tampering or unwanted access



Patch panel and fibre ports may be protected in the work area, wiring closets and data centres



LockIT is ideal to secure active equipment ports against unintended or unauthorised connections or disconnections

## Outlet Locks

LockIT RJ-45 Outlet Lock:

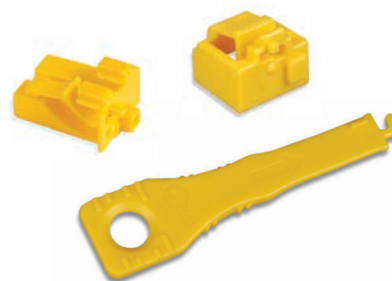
LL-05.....LockIT RJ-45 outlet lock, bag of 10, includes 1 LockIT universal key

LockIT LC Module Lock:

LL-LC-05.....LockIT LC adapter lock, bag of 10, includes 1 LockIT universal key

LockIT Universal Key:

LKEY-05.....LockIT universal key, bag of 10



## Secure Category 6A Shielded Patchcords

Shielded Category 6A, double ended, 4-pair, stranded LockIT secure patch cord, T568A/B, colour matching jacket/boot, LSOH/CM

LP6A-S(XX)M-(XX)L

Cord Length	Cord Colour
01 = 1m (3.3 ft.)	01 = Black
1.5 = 1.5m (5 ft.)	02 = White
02 = 2m (6.6 ft.)	03 = Red
03 = 3m (9.8 ft.)	04 = Grey
04 = 4m (13.1 ft.)	05 = Yellow
05 = 5m (16.4 ft.)	06 = Blue
	07 = Green

## Secure Category 6A UTP Patchcords

UTP Category 6A, double ended, 4-pair, stranded LockIT secure patch cord, T568A/B, colour matching jacket/boot, CMG

LP6A-(XX)M-(XX)

Cord Length	Cord Colour
01 = 1m (3.3 ft.)	01 = Black
1.5 = 1.5m (5 ft.)	02 = White
02 = 2m (6.6 ft.)	03 = Red
03 = 3m (9.8 ft.)	04 = Grey
04 = 4m (13.1 ft.)	05 = Yellow
05 = 5m (16.4 ft.)	06 = Blue
	07 = Green

## Secure Category 6 Patchcords

UTP Category 6, double ended, 4-pair, stranded LockIT secure patch cord, T568A/B, colour matching jacket/boot, CMG

L(X)6-(XX)M-(XX)

### Plug Configuration

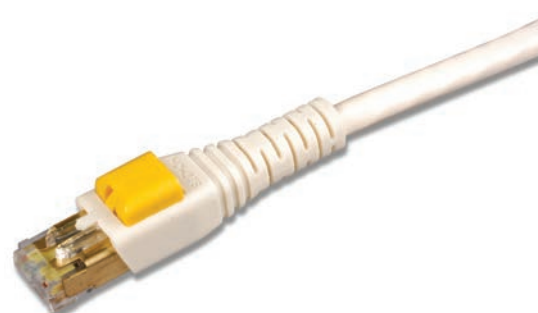
P = LockIT to LockIT  
M = LockIT to MC6  
B = LockIT to BladePatch 6

### Cord Length

01 = 1m (3.3 ft.)  
1.5 = 1.5m (5 ft.)  
02 = 2m (6.6 ft.)  
03 = 3m (9.8 ft.)  
04 = 4m (13.1 ft.)  
05 = 5m (16.4 ft.)

### Cord Colour

01 = Black  
02 = White  
03 = Red  
04 = Grey  
05 = Yellow  
06 = Blue  
07 = Green



# MAX® International Faceplates

The MAX series modular faceplates combine high capacity with aesthetic enhancements that provide a fresh new look to match today's technologies. The faceplate offers pressure-release designation label covers which eliminate the need for a probe-pic or screwdriver when installing faceplate labels. The faceplates are designed to be used with Z-MAX®, TERA®, and both angled and flat MAX outlets. Its durable finish masks minor scuffs that may occur during daily usage.

**Labels** — Sheets of designation labels can be ordered for use with printers

**Variety** — A variety of faceplates and adapters are available



**Application Flexibility** — Complete multimedia support

**Multiple Colour Options** — Faceplates available in black, white, bright white, alpine white, ivory, light ivory



## Installation Flexibility

Flexible mounting tab on MAX outlets allows installation from front or rear of faceplate.



## Reduced Mounting Depth

Siemon's angled faceplate adapters provides a secure mounting solution for use in trunking systems, faceplates and floor boxes while reducing depth needs.



## Labelling

Most faceplates include pressure-release designation label covers for quick, tool-less removal.

## 10G MAX British Faceplates

Siemon's 10G MAX British faceplates are designed to provide the optimal outlet separation necessary to reduce alien crosstalk (ANEXT) between Z-MAX 6A UTP modules. They are also ideal for use with Siemon's shielded Z-MAX 6A modules. MAX British faceplates are compatible with British standards (85mm x 85mm).

10GMX-BFP-02-02. . . . .  
2-Port single gang 10G faceplate for Z-MAX, MAX or TERA outlets, white



10GMX-BFP-04-02. . . . .  
4-Port single gang 10G faceplate for Z-MAX, MAX or TERA outlets, white



Faceplates include designation labels, clear label covers, and M3.5x0.6x25 mounting screws.

Ⓢ Add "B" to end of part number for bulk project pack of 100 faceplates.



## 10G MAX® Horizontal Faceplates (International)

Siemon's 10G single gang horizontal faceplate for Z-MAX®, TERA® or MAX outlets, (Australian/ Italian)

10GMX-HFPZ-(XX)-(XX)

### Ports

02 = 2 Port

03 = 3 Port

04 = 4 Port

### Colour

02 = White

20 = Ivory

80 = Light Ivory



Ⓢ Add "B" to end of part number for bulk project pack of 100 faceplates.

## MAX British Faceplates

MAX British faceplates are compatible with British standards (85mm x 85mm). The faceplate is designed to accept up to six Z-MAX, MAX or TERA outlets.



MX-BFP-S-01-02. ....

1-Port single gang faceplate for a Z-MAX, MAX or TERA outlet, white



MX-BFP-S-02-02\*. ....

2-Port single gang faceplate for Z-MAX, MAX or TERA outlets, white



MX-BFP-S-03-02\*. ....

3-Port single gang faceplate for Z-MAX, MAX or TERA outlets, white



MX-BFP-S-04-02\*. ....

4-Port single gang faceplate for Z-MAX, MAX or TERA outlets, white



MX-BFP-S-06-02\*. ....

6-Port single gang faceplate for Z-MAX, MAX or TERA outlets, white

Faceplates include designation labels, clear label cover(s), and M3.5 x 0.6x25 mounting screws

\*Not compatible with shielded MAX outlets

## MAX British Double Layer Faceplates

Designed for markets that use British mounting standards (85mm x 85mm), these faceplates offer improved aesthetics via snap-on mounting screw covers. Faceplates include designation labels, clear label covers, and M3.5 x 0.6x25 mounting screws.



MX-BFPL-01-02. ....

1-Port single gang faceplate for a Z-MAX, MAX or TERA outlet, white



10GMX-BFPL-02-02. ....

2-Port single gang 10G faceplate for Z-MAX, MAX or TERA outlets, white



MX-BFPL-02-02\*. ....

2-Port single gang faceplate for Z-MAX, MAX or TERA outlets, white



MX-BFPL-03-02\*. ....

3-Port single gang faceplate for Z-MAX, MAX or TERA outlets, white



MX-BFPL-04-02\*. ....

4-Port single gang faceplate for Z-MAX, MAX or TERA outlets, white

Add "M" to end of part number for M4 x 0.7x25 mounting screws. Faceplates include designation label, clear label covers, and M3.5 x 0.6x25 mounting screws.

\*Not compatible with shielded MAX outlets

Note: Alpine white colour option available (replace -02 with -82)

## MAX® Horizontal Faceplates (International)

Siemon's single gang horizontal faceplate for Z-MAX®, TERA® or MAX outlets (Australian/ Italian)

MX-HFPZ-(XX)-(XX)

Ports	Colour
01 = 1 Port	02 = White
02 = 2 Port	20 = Ivory
03 = 3 Port	80 = Light Ivory
04 = 4 Port	

Note: Screws, designation label and clear label cover included.



## British 6C Flexyoke and Danish Faceplate



FY-MXZ-(XX).....  
1-Port 37mm x 22mm (1.5 x 0.87 in.)  
MAX British Flexyoke housing for a  
MAX, Z-MAX or TERA outlet



MX-DFP-02-02\*.....  
2-Port 71mm x 47mm (2.8 x 1.85 in.)  
Danish faceplate for MAX outlets or  
TERA outlets, white

Use (XX) to specify colour: 02 = White, 25 = Bright White

\*Not compatible with shielded MAX outlets

## TERA-MAX Faceplate



T50-(XX).....  
2-Port 50mm x 50mm (2.3 x 2.3 in.)  
faceplate for MAX, Z-MAX or TERA  
outlets

Use (XX) to specify colour: 02 = White, 80 = Light Ivory, 82 = Alpine White

## Z-MAX® Icon Cards

All Cards include:

- Red and blue icons with voice and data symbols
- Supplemental/colour-matched icon with voice, data, and blank designation
- 1 white blank icon for field designation
- Fully recyclable material

Z-ICON-(XX)B..... Z-MAX Icon Card, bag of 100

### Primary Colour

01 = Black	03 = Red	05 = Yellow	07 = Green	20 = Ivory
02 = White	04 = Grey	06 = Blue	09 = Orange	80 = Light Ivory



MAX® and CT® Icons

Part #	Description
CT-ICON-(XX)	25 Coloured icon tabs (phone on one side, computer on reverse)



Use (XX) to specify colour: 01 = Black, 02 = White, 03 = Red, 04 = Grey, 05 = Yellow, 06 = Blue, 07 = Green, 08 = Violet, 09 = Orange, 20 = Ivory, 25 = Bright White, 60 = Brown, 80 = Light Ivory

ⓑ Add "B" for bulk pack of 100 icons or tabs.

MAX Labelling and Accessories

Part #	Description
CT-FP-LBL-104*	10 Sheets of labels for faceplates that will fit any standard 8.5 x 11 printer, 104 labels/sheet
MX-FP-CVR-00	Bag of 100 clear label covers for MAX faceplates

\*Visit our web site or contact our Technical Support Department for labelling software.

ⓑ Add "B" for bulk pack of 100 icons or tabs.

MAX Outlet Blanks

Blank inserts for unused ports and future growth.

Part #	Description
MX-BL-(XX)	Blank outlet, bag of 10



Use (XX) to specify colour: 00 = Clear (MX-AD-XX only), 01 = Black, 02 = White, 04 = Grey, 20 = Ivory, 25 = Bright White, 80 = Light Ivory

## Surface Mount Boxes

Surface mount boxes feature a sleek compact, easy-to-install design. UTP, shielded, fibre, video, and coax MAX® modules, Z-MAX® or TERA® outlets can be quickly installed into the base. Multiple cable management features provide a high performance and well organised installation.

**Cable/Raceway Entry** — Breakouts on three sides and bottom

**Label Cover** — Conceals screw for added security if desired

**Compliant** — Is compliant with UL2043 and is appropriate for use in air handling spaces

**Snap-on Cover with Designation Areas** — For colour-coded icons/tabs and write-on labels



**Cable Management** — Built-in cable management features ensure proper bend radius for copper or fibre

**MAX Bezels Included** — Allows flat MAX outlets to be secured in place

**Optional Spring-loaded Shutter Doors** — Shutter doors offer added protection from dust and other contaminants

**Cable Tie Anchor Points** — Facilitates strain relief for cable

## Z-MAX Surface Mount Boxes

MX-SMZ(X)-(XX)-(X). . . . . Z-MAX surface mount box with cover base, multimedia bezel, cable ties, adhesive tape and mounting screws

Ports	Options
1 = 1 Port	(Blank) = N/A
2 = 2 Port*	M = Magnets
4 = 4 Port*	
6 = 6 Port*	
Colour	
01 = Black	
02 = White	
20 = Ivory	
80 = Light Ivory	

\* Includes designation labels and label covers

Also for use with single-port flat and duplex LC adapter modules and TERA outlets.



## MX-SM Surface Mount Boxes

Field-assembled surface mount boxes with MAX® bezels. Accepts flat single port MAX modules ordered separately.



MX-SM1-(XX) . . . . .

1-Port box with cover, base, one single port MAX bezel, cable ties, adhesive tape and mounting screws



MX-SM2-(XX) . . . . .

2-Port box with cover, base, one (2-port) MAX bezel, cable ties, adhesive tape, mounting screws, and designation labels



MX-SM4-(XX) . . . . .

4-Port box with cover, base, two (2-port) MAX bezels, cable ties, adhesive tape, mounting screws, designation labels and label covers



MX-SM6-(XX) . . . . .

6-Port box with cover, base, three (2-port) MAX bezels, cable ties, adhesive tape, mounting screws, designation labels and label covers

Use (XX) to specify colour: 01 = Black, 02 = White, 20 = Ivory, 80 = Light Ivory

Add "-D" for optional spring shutter doors.

Add "-M" for optional magnets.

Add "-MD" for optional doors and magnets.

MAX bezels are compatible with all single port, flat MAX outlets. For LC, SC duplex fibre adapters, Z-MAX® and TERA® options, see MX-SM multimedia bezels below.

## MX-SM Multimedia, SC Bezels and Blanks



MX-SMB1-MM-(XX) . . . .  
1-Port multimedia bezel



MX-SMB-MM-(XX) . . . . .  
2-Port multimedia bezel



MX-SMB-SC-(XX) . . . . .  
2-Port bezel with one duplex SC adapter\*



MX-SM-BLNK-(XX) . . . . .  
1-Port blank insert for MAX bezels

Use (XX) to specify colour: 01 = Black, 02 = White, 20 = Ivory, 80 = Light Ivory.

\*SC adapters are "universal" to support both Multimode and Singlemode.

Note: Multimedia bezel accommodates Z-MAX, TERA outlets and flat MAX duplex LC adapters.

They are also compatible with all other single port flat MAX modules, but require the use of icons to secure modules into bezel.



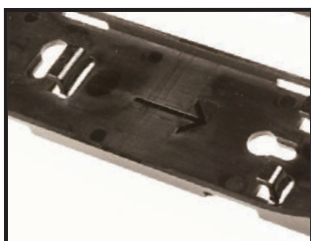
# Surface Pack™ Box

Siemon's Surface Pack Box is best described as a compact, lightweight box often utilised in high density work area environments that require rapid deployment of cabling systems. Typically deployed in buildings with a raised floor system, environments range from call centers to trading floors.

The box supports rapid deployment by allowing connectivity to be pre-terminated and stored away while construction is finalised. Cables can be routed within flexible conduit (not supplied), secured to the box and terminated to outlets. The small overall footprint allows the box and connectivity to be stored under a raised floor and then passed through standard size floor grommets for efficient deployment to the work station.

Surface Pack Boxes are available in 3 port and 6 port versions. Both boxes are the same size and compatible with MAX®, Z-MAX® and TERA® outlets allowing customers to support Category 5e, 6, 6A and 7A installations. The outlets are presented at an angle to allow patch cords to dress less prominently off the face of the box. Blanks may be used to accommodate port count variants and allow for expansion in the future. Ample labelling is provided for both the box and ports.

Two mounting options are available. One method features a mounting bracket that can be secured to a fixed location and allows the box to be clipped into the bracket via a one touch latch. For additional security, the box can be mounted without the use of the bracket by securing the base directly to the work area surface.



**Pre-mountable Bracket** — Allows box to be quickly installed at the work area location



**Cable Tie Down Point** — Within box secures cables for proper strain relief



**Easy Access** — All terminations and cables are contained within the box cover allowing easy access to terminations

# Product Information

## PERFORMANCE SPECIFICATIONS

Mechanical Properties		
	3-Port	6-Port
Part Number	SP-3-01	SP-6-01
Conduit Opening	26 mm (1.02 in.)	32 mm (1.26 in.)
Dimensions		
Length	192 mm (7.56 in.)	
Width	54 mm (2.13 in.)	
Height	61 mm (2.40 in.)	
Weight	181 grams (6.42 oz.)	
Material	Polycarb / ABS	
Flammability Rating	UL 94 V-0	
Operating Temperature	-10°C to +60° C (14 to 156°F)	
Relative Humidity	Up to 95%, non-condensing	
Storage Temperature	-40° C to +70° C (-56 to 158°F)	
Outlet Compatibility	TERA®, Z-MAX® Hybrid UTP or Shielded, MAX® Flat UTP Outlets, MAX Blanks	
Colour	Black	

## Ordering Information

Part #	Description
SP-3-01 .....	3-Port Surface Pack™ box, modular, black
SP-6-01 .....	6-Port Surface Pack box, modular, black



SP-3-01



SP-6-01

### Box Includes:

- 3 - Port identification labels and covers
- 1 - Box label and cover
- 1 - 203mm (8 in.) Tie-wrap
- 1 - Screw for securing cover to the base of the box


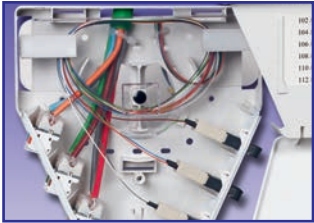
# Multi-User Telecommunications Outlet Assembly (MUTOA)

This low-profile multi-user/multimedia surface mount box is unsurpassed in features and flexibility, and is ideal for use as a Multi-user Telecommunications Outlet Assembly (MUTOA) as specified in TIA-568-C.1. It provides storage area for up to 12m (39.4 ft.) of buffered optical fibre cable using our optional fibre management tray and at least 2m (6.6 ft.) of 4-pair twisted pair cable in the base, while maintaining a minimum bend radius of 30mm (1.2 in.).

**US and European Compatible** — Compatible with any standard single or double gang electrical box including European standards

**Storage Capacity** — Provides TIA compliance for cable slack while maintaining minimum bend radius requirements

**Versatility** — MAX® MUTOA accommodates any combination of up to 18 ports of mixed media or up to 36 fibre ports  
CT® MUTOA accommodates any combination up to 6 CT couplers

**Fibre Management**  
Optional fibre management trays enable isolation and proper routing of optical fibre cabling.



**Innovative Labelling**  
Hideaway labelling system flips down to reveal a designation area that utilises standard size faceplate designation labels.

## MUTOA Ordering Information

Type	Part #	Description
	(XX)-MMO-(XX)	Multi-user/telecommunications outlet box with cable ties, mounting screws and adhesive tape
<b>MX</b> = For use with MAX Modules	<b>Colour</b>	<i>height: 200.2mm (7.8 in.)</i>
<b>CT</b> = For use with CT Couplers	<b>02</b> = White	<i>width: 200.2mm (7.8 in.)</i>
	<b>20</b> = Ivory	<i>depth: 57.0mm (2.2 in.)</i>
	<b>80</b> = Light Ivory	

*Optional fibre management tray sold separately (see below).*

Use (XX) to specify colour: 02 = White, 20 = Ivory, 80 = Light Ivory



## Accessories

Part #	Description
CT-MMO-MAG	Set of 3 magnets for mounting MUTOA
FMT	Clear fibre management tray for MUTOA

## MAX Fibre Adapter Outlets

Siemon MAX fibre adapter modules are compatible with all MAX series faceplates, modular furniture adapters, surface mount boxes and patch panels. All fibre adapters are "universal" to support either Multimode or Singlemode fibre connections.

MX-F1-LC(X)-(XX)C. . .

Flat outlet  
with 1 duplex LC  
adapter (2 fibres)



Use (X) to specify LC adapter colour:  
Blank = Beige, U = Blue, Q = Aqua

MX-F1S-LC(X)-(XX). . .

Flat outlet  
with 1 simplex LC  
adapter (1 fibre)



Use (X) to specify LC adapter colour:  
U = Blue, G = Green

MX-F-S2(X)-(XX). . . . .

Flat outlet  
with 1 duplex ST  
adapter (2 fibres)



MX-S2(X)-(XX). . . . .

Angled outlet  
with 1 duplex ST  
adapter (2 fibres)



MX-F-SC(X)-(XX). . . . .

Flat outlet  
with 1 duplex SC  
adapter (2 fibres)



Use (X) to specify ST or SC adapter colour:  
Blank = Black, Q = Aqua

MX-SC(X)-(XX). . . . .

Angled outlet  
with 1 duplex SC  
adapter (2 fibres)



MX-F1-SC(X)-(XX). . . . .

Flat outlet  
with 1 simplex SC  
adapter (1 fibre)



Use (X) to specify SC adapter colour:  
U = Blue, G = Green

MX-F-SA-(XX)\*. . . . .

Flat outlet  
with 1 simplex ST  
adapter (1 fibre)



MX-SA-(XX). . . . .

Angled outlet  
with 1 simplex ST  
adapter (1 fibre)



MX-F-MP-(XX). . . . .

Flat outlet  
with 1 MTP adapter



Use (XX) to specify colour: 01 = Black, 02 = White, 04 = Grey, 20 = Ivory, 25 = Bright White, 80 = Light Ivory  
Outlets include dust caps, one colour-matching, one red, and one blue icon per port.

\*Compatible with SM® boxes.

## Coax MAX Outlets

For terminating coaxial cables at the work area or telecommunications room, Siemon's coax MAX modules are available with both BNC and F-type adapters. The F-type is available in both flat and angled while the BNC is available in flat only. They each include a space for using colour coded icons to identify type of service.

MX-FA-(XX) . . . . .

Angled outlet with 1 F-type  
adapter, 75 ohms, 2 GHz



MX-F-FA-(XX)\* . . . . .

Flat outlet with 1 F-type  
adapter, 75 ohms, 2 GHz



MX-F-BA-(XX)\* . . . . .

Flat outlet with 1 BNC adapter,  
75 ohms



Use (XX) to specify colour: 01 = Black, 02 = White, 04 = Grey, 20 = Ivory, 80 = Light Ivory  
Outlets include one colour-matching, one red, and one blue icon.

\*Compatible with SM® boxes.

## MAX Audio/Video Outlets

Siemon audio/video MAX outlets provide connectivity for a wide range of applications. Available media types include RCA, SVHS and HD15.

MX-F-RC-(XX)\* . . . . .

Flat outlet with 1 RCA  
connector with solder tail



MX-RC-(XX) . . . . .

Angled outlet with 1 RCA  
connector with solder tail



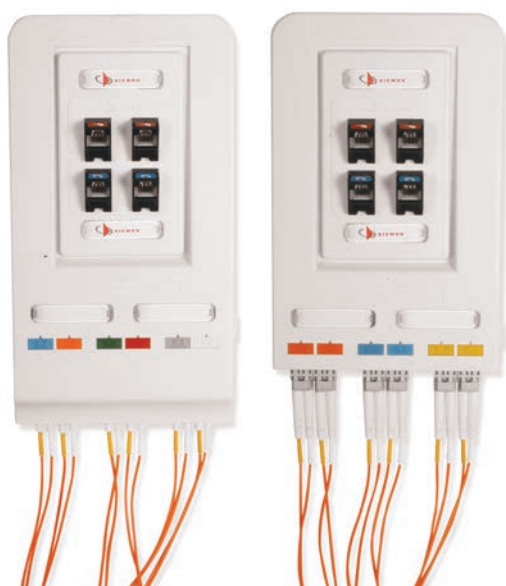
Use (XX) to specify colour: 01 = Black, 02 = White, 04 = Grey, 20 = Ivory, 80 = Light Ivory  
RCA Outlets include one colour-matching, one red, and one blue icon.

\*Compatible with SM boxes.



## Fibre Outlet Box (FOB2)

Siemon's low-profile Fibre Outlet Box (FOB2) is the optimal solution for bringing fibre to the desk. The FOB2 offers a well-defined method for managing fibre cabling at the work area by providing a connection point for up to 12 fibres connectors utilising slide-in bezels.



FOB2-(XX). . . . . Includes base, cover, designation labels, clear label covers, mounting hardware, cable ties, icons, and three blank bezels



FOB2-GRD-(XX). . . . . Includes base, extended cover, designation labels, clear label covers, mounting hardware, cable ties, icons, and three blank bezels

Use (XX) to specify colour: 01 = Black, 02 = White, 80 = Light Ivory

## Fibre Bezels



FOB-BZL-LC(X)1-01. . . . .  
1 Duplex LC adapter,  
(2 fibres)



FOB-BZL-LC(X)-01. . . . .  
2 Duplex LC adapters,  
(4 fibres)



FOB-BZL-SC(X)-01. . . . .  
1 Duplex SC adapter,  
(2 fibres)



FOB-BZL-SA-01. . . . .  
1 Duplex ST adapter,  
(2 fibres)



FOB-BZL-BL-01. . . . .  
Blank bezel

Use (X) to specify adapter colour: Blank = Beige, U = Blue, Q = Aqua

Note: Fibre adapters are "universal" to support both Multimode and Singlemode.

# CT® British Faceplates

The CT series British faceplates are compatible with British standards (85mm x 85mm).

CTE2-FP-02. . . . .  
Single gang  
British style faceplate  
for one CT adapter, white



CTE4-FP-02. . . . .  
Double gang  
British style faceplate  
for two CT adapters, white



Faceplates include designation labels, clear label cover and M3.5x0.6x25 mounting screws.

# CT International Faceplates

CT2-HFPZ-02. . . . .  
1-Port horizontal Australian/Italian  
faceplate for a CT adapter, white



# TERA®-MAX® Adapters for CT Faceplates

Designed for use in standard CT faceplates or adapters, adapters feature angled bezel orientation to reduce mounting depth requirements for Z-MAX®, TERA and flat MAX outlets and facilitates gravity feed installation design.



CTE-MXA-01-(XX). . . . .  
Angled CT adapter for  
one MAX, Z-MAX or  
TERA outlet



CTE-MXA-02-(XX). . . . .  
Angled CT adapter for  
two MAX, Z-MAX or  
TERA outlets



CTE-HZA-02-(XX). . . . .  
Horizontal CT adapter for  
two MAX, Z-MAX or  
TERA outlets

Use (XX) to specify colour: 01 = Black, 02 = White

# Faceplate Accessories

Part #	Description
CT-FP-LBL-104*. . . . .	10 sheets of labels for faceplates that will fit any standard 8.5 x 11 printer, 104 labels per sheet
CT-FP-CVR. . . . .	Bag of 100 clear label covers for CT faceplates

\*Visit our web site or contact our Technical Support Department for labelling software.

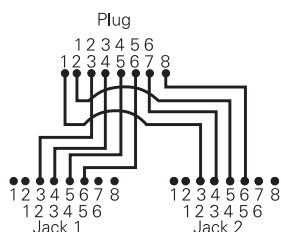
## Modular Y-Adapters

Y-Adapters are available as "splitters" which convert one 4-pair jack into two jacks. The Y-Adapters utilise Siemon's patented UP-2468 plug which allows adapters to be used in 6- or 8-position jacks. The adapter body can be rotated 180° to view either the coloured icons or the Y-Adapter pinouts, which are printed on the opposite side.



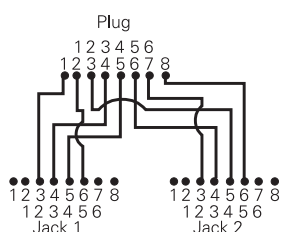
YU4-U2-U2. ....

Splits a 4-pair USOC jack for Token Ring or voice applications at either jack



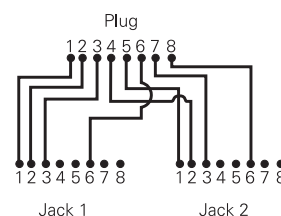
YA4-U2-U2. ....

Splits a 4-pair T568B jack for Token Ring or voice applications at either jack



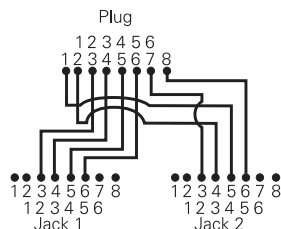
YT4-E2-E2. ....

Splits a 4-pair T568A/B jack for 10BASE-T applications at either jack



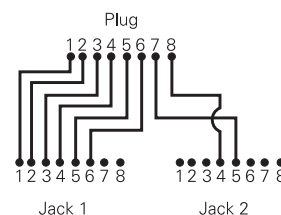
YT4-U2-U2. ....

Splits a 4-pair T568A jack for Token Ring or voice applications at either jack



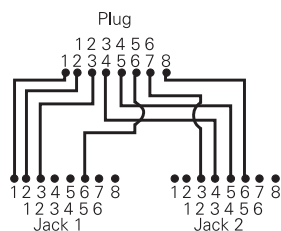
YA4-A3-U1. ....

Splits a 4-pair T568B jack for 1-, 2- or 3-pair voice and 1-pair voice/modem



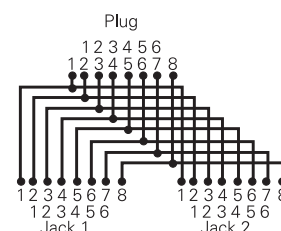
YT4-E2-U2. ....

Splits a 4-pair T568A/B jack for 10BASE-T and Token Ring or voice applications



Y-BRIDGE. ....

Bridges all jack pairs. Compatible with any jack wiring. Provides an additional 4-pair jack with the same wiring.

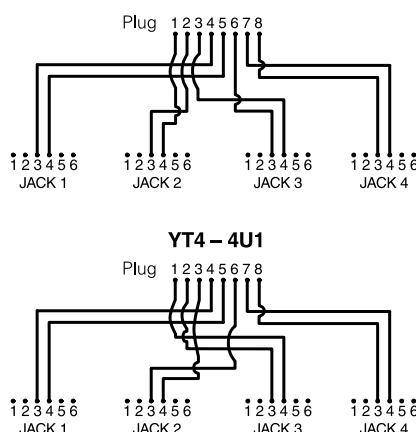


## Modular 4-Way Splitter

Siemon's modular 4-way splitter provides access to each individual pair of a 4-pair modular outlet. The splitter converts a single 4-pair outlet to 4 individual 1-pair, 6-position outlets to enable four unique modular connections. The universal plug design enables compatibility with both 6- and 8-position outlets.

YA4-4U1. .... Modular 4-way splitter, T568B

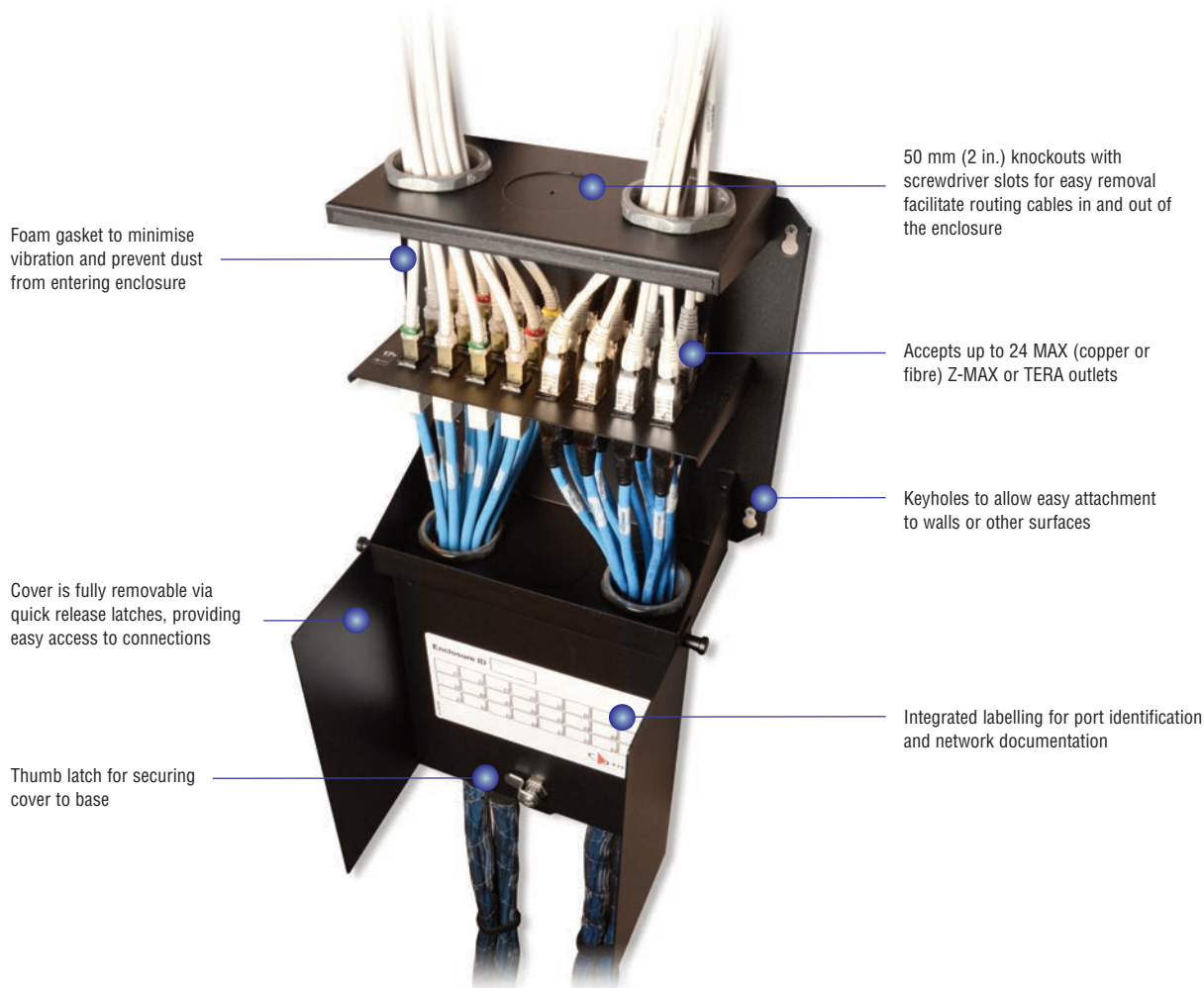
YT4-4U1. .... Modular 4-way splitter, T568A



Note: These modular adapters meet Category 3 transmission specifications.

## 24-Port MAX® Zone Unit Enclosure

The 24-Port MAX Zone Unit Enclosure is a flexible, economical solution designed to support zone cabling in a variety of enterprise workspaces, enabling shorter easy-to-manage connections to outlets serving voice, data, video and building automation system equipment. This low-profile enclosure accepts up to 24 ports using flat MAX (copper or fibre) Z-MAX® or TERA® outlets to support a wide range of horizontal copper and fibre applications. Designed to meet UL's plenum rating requirements, the 24-Port MAX Zone Unit enclosure can be easily mounted under a raised floor, in the ceiling, or on the wall.



A fully modular zone box solution that accepts any MAX, Z-MAX or TERA style outlet, enabling flexible copper and fibre distribution for LANs, PONs and intelligent buildings.



Low-profile, economical zone cabling solution that enables shorter links to outlets for significant cost savings over traditional "home run" work area cabling.



Meets plenum and non-plenum rating requirements for flexible mounting under a raised floor, in the ceiling, or on the wall.

Ordering Information

Part #	Description
ZU-MX-24P	24-Port MAX® Zone Unit Enclosure thumb latch, black Includes (4) electrical chase nipples and hardware



External Dimensions:  
height: 305mm (12.03 in.)  
width: 274mm (10.5 in.)  
depth: 121mm (4.79 in.)

SPECIFICATIONS:

Material	Powder Coated, cold rolled steel
Material Compliance	RoHS, lead-free, halogen-free, PVC free
Safety Compliance	UL 1863 Standard for Communications-Circuit Accessories
	UL 2043 Fire Test for Heat and Visible Smoke Release for Discrete Products and Their Accessories Installed in Air-Handling Spaces
	UL 2416 Audio/Video, Information and Communication Technology Equipment Cabinet, Enclosure and Rack Systems

Zone Cabling ROI

While dependent upon the exact number of moves, adds, and changes (MACs) performed per year, typical zone cabling plants of any size planned with 25% spare port availability not only significantly reduce client disruption, but allow the building owner to recoup the cost of the extra port capacity within a two to five year span or after reaching the ROI threshold (i.e. either 14 moves and 17 adds or 16 moves and 20 adds depending upon cabling type).

For more information and a detailed cost analysis on traditional vs. zone cabling please see Siemon's whitepaper titled: "Zone Cabling for Cost Savings" at [www.siemon.com](http://www.siemon.com).

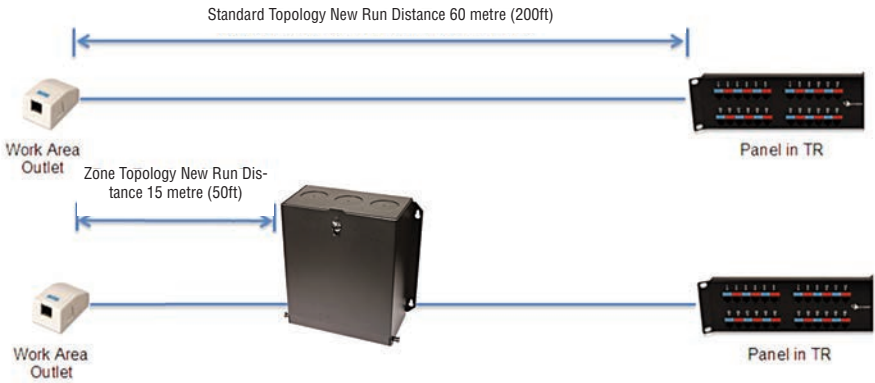
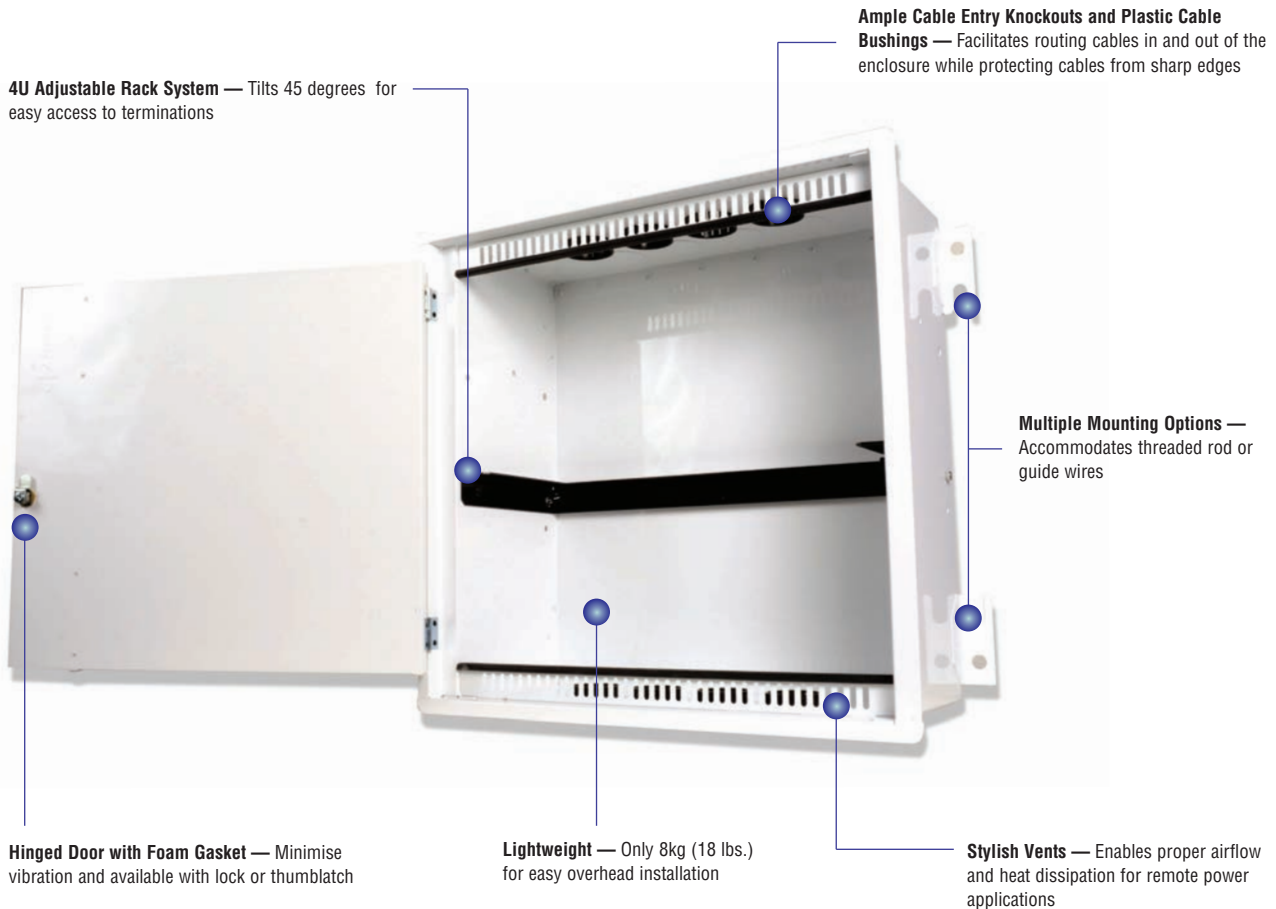


Figure 2: Example 60 metre (200 foot) traditional and zone cabling links depicting new cabling length required to support the addition of a new service



# Passive Ceiling Zone Enclosure

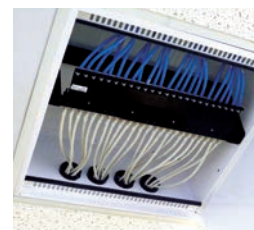
The Passive Ceiling Zone Enclosure is a flexible, economic solution to support zone cabling in a variety of enterprise workspaces, enabling shorter easy-to-manage connections directly to building devices such as LED lights, security cameras, wireless access points or building automation controllers, or to outlets serving voice, data or other systems. Designed to meet UL 2043 plenum requirements and install flush within a 0.6 x 0.6m (2 X 2 ft.) drop ceiling tile space, this lightweight EIA/ECA-310-E compliant ceiling enclosure is low profile while offering a 4U adjustable rack system with a recommended maximum 96-port count for copper cabling.



**Aesthetically Pleasing** — Installs flush within drop ceiling and cut ceiling panels easily slide into the door to blend into decor.



**Adjustable** — Fully adjustable 4U rack system supports a load capacity of 31.7 kg (70 lbs.) with less depth than other ceiling enclosures.



**Accessibility** — Hinged door and tilting bracket enable easy access to ports to facilitate terminations in a cost-effective zone cabling topology.

## Ordering Information:

Part #	Description
ZU-C4P-L02 .....	Passive Ceiling Zone Enclosure, 4U, white, key lock. Includes 8 plastic bushings
ZU-C4P-T02 .....	Passive Ceiling Zone Enclosure, 4U, white, thumb lock. Includes 8 plastic bushings
ZU-CN2-M .....	Optional 2-inch metal chase nipple. Sold in increments of 1.



External Dimensions:  
Height: 610mm (2 ft.)  
Width: 610mm (2 ft.)  
Depth: 257mm (10.125 in.)

### SPECIFICATIONS

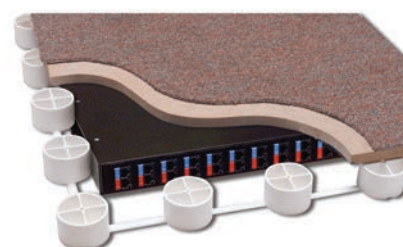
Weight	8 kg (18 lbs.)
Load Rating	Static: 31.7kg (70 lbs.)
Colour	White
Cable Access Openings	16 (8 per side) 50mm (2 in.)
Material	15 AWG Aluminium (Door is 16 AWG)
Material Compliance	RoHS, Lead free, Halogen free, PVC free
Finish	Textured powder coat
Standards Compliance	EIA/ECA-310-E UL 1863 Meets UL 2014 Plenum Requirements

## MAX® Low-Profile Zone Unit Enclosure

The MAX Zone Unit Enclosure is an economical, high-density solution designed for use with low-profile sub-floor applications including Flexspace Cablefloor® and Haworth Nexus™. Enclosures are available to accommodate up to 48 ports of media using flat MAX, Z-MAX® and TERA® series modules and feature a 44.5 x 101.6mm (1.75 x 4.0 in.) opening for cable entry. Cable tie anchor points (hook and loop cable managers included) and fibre managers are conveniently located within the enclosure for proper routing and securing of cabling.

The enclosures are constructed of durable 16 gauge steel and feature a simple two piece design with a base and cover secured by four #6-32 screws. There are four mounting holes in the base for securing the enclosure to a mounting surface. The 48-port version includes internal support posts to provide additional structural support.

Part #	Description
ZU-MX-48.....	48-Port MAX low-profile Zone Unit Enclosure height: 44.5mm (1.75 in.) width: 254.0mm (10.0 in.) depth: 377.8mm (14.9 in.)
ZU-MX-24-0515.....	24-Port MAX low-profile Zone Unit Enclosure height: 44.5mm (1.75 in.) width: 114.3mm (5.5 in.) depth: 377.8mm (14.9 in.)





# Racks and Cable Management

Siemon's line of open racks and cable management solutions covers nearly any network infrastructure need: 4-post and 2-post racks, exclusive rack-mount vertical cable managers, 19 in. horizontal managers, cable tray and much more.

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# VersaPOD® 4-Post Rack

Siemon's adjustable-depth, VersaPOD 4-Post Rack provides a stable platform for mounting extended depth/size active equipment. It is ideal for use in both Telecommunications Rooms and central patching areas within Data Centre environments.

In addition to providing compatibility with Siemon's stand alone vertical cable managers, the 4-post rack is fully compatible with the 45U Zero-U panels used in Siemon's VersaPOD cabinets. This compatibility allows for mounting of patch panels or cable management between bayed racks or at end of rows.

The headers, vertical rails and depth adjustment brackets all feature symmetrical designs to eliminate orientation errors during assembly. They also work in conjunction to self-square the rack during assembly saving valuable installation time. The result is a rack that can be field assembled in less than 20 minutes.

**Field Adjustable Depth** — Rack depth can be field adjusted in 25mm (1 in.) increments to accommodate a range of equipment depths

**Slotted Mounting Holes** — Provide a flexible securing point for ladder or wire basket trays mounted perpendicular or parallel to rack

**Stamped U Space Indications** — Provide ready visual indication of proper panel alignment

**In-Facing Headers and Footers** — Maximise floor space while maintaining full load capabilities



In addition to Siemon's stand alone vertical cable managers, the VersaPOD 4-Post Rack is compatible with Siemon's Zero-U patching and cable management panels



Eight (8) ground post locations (4 on top, 4 on bottom) provide ready accessible ground attachment points



## Ordering Information:

Part #	Description
RSQ1-07-S.....	VersaPOD 4-post rack, 560 - 915mm (23 - 36 in.), steel, 45U, black, #12-24
RSQ1-07C-S.....	VersaPOD 4-post rack, 560 - 915mm (23 - 36 in.), steel, 45U, black, cage nuts*
RSQ-BAY-VPP.....	VersaPOD 4-post rack baying bracket for Zero-U panels, set of 4

Zero-U baying brackets are required to ensure proper operation of Zero-U panels.

\*Includes bag of 50 M6 cage nuts.



External Dimensions:  
height: 2.13m (7 ft.)  
width: 560mm (22 in.)  
depth: 558 - 915mm (23 - 36 in.)

1U = 44.5mm (1.75 in.)

### VersaPOD 4-POST RACK SPECIFICATIONS:

U Space	45
Colour	Black
Packaging	Ships unassembled in a single carton
Standard Compliance	CEA-310-E, UL 60950, RoHS
Compatibility	RS-CNL, RS-CNL3, VPCA-6, VPCA-12, Zero-U VersaPOD Panels
Weight	48 kgs (105 lbs.), Full weight with packaging
Load Rating	907 kgs (2000 lbs.) Static load, evenly distributed

## Cable Managers

The VersaPOD 4-Post Rack is compatible with the following Siemon cable management products:

- RouteIT™ vertical managers and accessories
- Vertical cable management channels
- RouteIT horizontal cable managers, HCM-(X)-(X)U
- WM series horizontal cable managers
- RWM series horizontal cable managers
- S110 horizontal managers
- Vertical patching channels

# RS3 Cable Management Rack System

Siemon's RS3 series cable management rack system provides integral, high capacity cable management for routing of both horizontal/backbone cabling and patch cords. Vertical channels with hinged cable manager covers conceal and route patch cables for a clean, professional installation.

**High Capacity** — 76mm x 152mm (3 x 6 in.) front vertical managers provide capacity for approximately 190 Category 6 patch cords

**Cable Tray Compatibility** — Header bars incorporate unique slotted holes for securing cable trays routed perpendicular or parallel to RS3 racks

**Deeper Channels** — 116.8mm x 152.4mm (5 x 6 in.) vertical side rails provide higher cable capacity over standard rack designs

**Side Stackable** — RS3 design allows racks to be side-stacked without interference between adjacent racks

**Flexible Management** — Side rails compatible with Siemon's quarter-turn hook and loop cable managers for proper management of cable bundles

**Cable Access Holes** — Access holes on side rails allow cables to be routed between adjacent racks

**Power Strip Compatibility** — Mounting holes on rear of RS3 accommodate Siemon's vertical power strip (p/n RS-P04) and intelligent PDUs (see Section 12) to provide power to active equipment mounted in rack

**Anchoring** — Mounting holes provided for anchoring racks to floor



## Hinged Front Covers

Front covers fully conceal all vertical patch cord routing through an easy to use, modular design. Each section can be individually hinged in either direction to facilitate quick and easy changes. Covers include positive securing snap latches for trouble-free fastening.



## Rounded Managers

The individual managers on the vertical channels are rounded to allow patch cords to seamlessly enter and exit the managers without risk of cable deformation.



## Matching Horizontal Managers

Siemon's RS3 series horizontal cable managers provide a fully integrated appearance and same hinging design for comprehensive management of patch cords.

## RS3 Cable Management Rack System

Part #	Description
RS3-07.....	Aluminium enhanced cable management rack system, 45U black. Includes rack assembly hardware, vertical cable management channels with hinged covers, and ground lug

height: 2.1m (7 ft.)  
width: 685.0mm (27 in.)  
depth: 457.2mm (18 in.)

Add "S" for steel.

*Note: Aluminium racks (RS3-07) are available and intended for use with connecting hardware and cable managers only. For mounting of active equipment, steel racks are recommended.*

*Note: 1U = 44.5mm (1.75 in.)*

See Cable Management Capacity Table in the Cable Management Section of our E-Catalogue on our Website



## Cable Managers

The RS3 Cable Management Rack is compatible with the following Siemon rack-mounted cable management products:

- RouteIT™ horizontal cable managers, HCM-(X)-(X)U
- WM series horizontal cable managers
- RWM series horizontal cable managers
- S110® horizontal cable managers

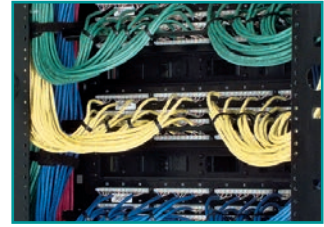
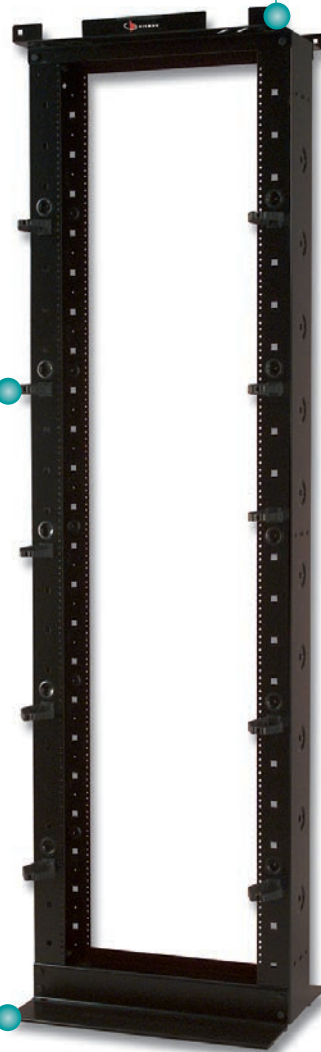
# RS Rack System

Siemon's RS series cable management rack system combines a 2.1m x 0.48m (19 inch) black rack with cable management accessories to provide a complete cable management solution. Ideal for all size installations, the rack features fully usable 45U capacity.

**Cable Tray Compatibility** — Header bars incorporate unique slotted holes for securing cable trays routed perpendicular to or parallel with RS racks

**Twist-Lock Cable Managers** — High capacity twist-lock cable managers lock into place quickly without use of screws or mounting tools and can be easily located in many positions on the front, side, back, and within channel to provide customised cable management

**Anchoring** — Mounting holes provided for anchoring rack to floor



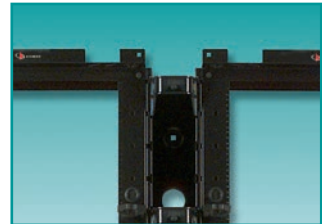
## High Capacity Side Rails

76 x 152mm (3 x 6 in.) vertical side rail channels on rack provide large area for routing high volumes of horizontal or backbone cables.



## Complete Management System

Comprehensive cable management can be created using Siemon's RouteIT™ Vertical and Horizontal Cable Managers.



## Optional Vertical Cable Channels

Compatible with all of Siemon's vertical cable managers to allow a high volume of patch cords to be routed between two racks or within a single rack.

## RS Rack System

Part #	Description
RS-07-S	Steel cable management rack system, 45U, black. Includes: rack assembly hardware, 10 high-capacity cable managers, 10 hook and loop cable managers, grommets, and ground lug <i>height: 2.1m (7 ft.)</i> <i>width: 609mm (23.8 ft.)</i> <i>depth: 457mm (18 in.)</i>

*Note: Aluminium racks are available (P/N: RS-07) and intended for use with connecting hardware and cable managers only. For mounting of active equipment, steel racks are recommended.*

See Cable Management Capacity Table in the Cable Management Section of our E-Catalogue on our Website



## Extended Depth RS Rack System

Siemon has developed a rack for managing extra large volumes of horizontal cables. The extended depth rack features vertical channels which are 0.37m (1.2 ft.) deep. These channels include multiple mounting holes allowing the user to configure Siemon's twist-lock hook and loop cable managers for properly managing large individual bundles of cables. The footers have also been designed to retain the 0.61m (2.0 ft.) overall footprint.

Part #	Description
RS-07E	2.1 x 0.48m (19 inch) Aluminium extra-deep cable management rack system, 45U, black. Includes rack assembly hardware, 10 high-capacity cable managers, 10 hook and loop managers, grommets and ground lug <i>height: 2.1m (7 ft.)</i> <i>width: 609mm (24 in.)</i> <i>depth: 609mm (24 in.)</i>

*Note: Aluminium racks are intended for use with connecting hardware and cable managers only. For mounting of active equipment, steel racks such as RS-07-S are recommended.*

See Cable Management Capacity Table in the Cable Management Section of our E-Catalogue on our Website



## Cable Managers

The RS Rack System is compatible with the following Siemon cable management products:

- RouteIT™ vertical managers and accessories
- Vertical cable management channels
- RouteIT horizontal cable managers with extended covers, HCME-(X)-(X)U
- WM series horizontal cable managers
- RWM series horizontal cable managers
- S110® horizontal cable magagers
- Vertical patching channels



## Rack Accessories

Siemon offers a full range of accessories to allow further customisation of Siemon racking systems.

### RS-VCM. ....

Quarter-turn hook and loop cable managers includes roll of (10) 457mm (18 in.) hook and loop black cable managers and (10) quarter-turn mounting clips



### RS-CH. ....

Quarter-turn cable managers



### SCREW-1224. ....

#12-24 Slotted head screws with washers, black, bag of 100



### RS-CNL-MGR. ....

Channel retainers for use with RS-CNL and RS-CNL3



### PH-3. ....

3U panel access hinge includes integral 1U panel with 5 removable cable managers and accepts one 2U or two 1U patch panels



### VP-SPL. ....

Quarter-turn fibre management spool, bag of five (can be installed in VP-VP and VP-VWM panels)



Note: 1U = 44.5mm (1.75 in.)

#### Technical Tip!

For information on Siemon's Power Distribution Units (PDUs) see Power and Cooling Section 12.0.

## Rack Hinge

Siemon rack hinges are designed to allow rack mounted patch panels to swing out (horizontally) from the rack. The hinges are available in 2 and 3U sizes which can be combined to mount 4 and 6U panels. The 2U hinge is capable of mounting one 2U or two 1U panels.

Part #	Description
RHNG-2. ....	Rack hinge, 2U, black
RHNG-3. ....	Rack hinge, 3U, black

Note: 1U = 44.5mm (1.75 in.)



## Vertical Cable Management Channels

Siemon's single-sided vertical cable management channels provide an economic solution for managing large cable bundles between adjacent racks. They feature an open design with six easily configured dual-hinge managers (additional managers available separately) that enable customised management of patch cords. Cable access holes allow cords to be routed between the front and rear of the channel. Mounting holes within the channel accommodate Siemon's quarter-turn cable managers (p/n: RS-CH) and quarter-turn hook and loop cable managers (p/n: RS-VCM) for further customisation of cable routing. The channels are available in both 76mm (3 in.) and 152mm (6 in.) depths for use with standard 76mm (3 in.) racks or 152mm (6 in.) deep cable management racks such as Siemon's RS-07. Alternately, the 76mm (3 in.) deep channels can be stacked back to back with the deeper cable management racks such as Siemon's RS-07E to optimise management of cables on both sides of the channel.

### RS-CNL. ....

Vertical cable management channel for mounting between 152mm (6 in.) deep racks (includes mounting hardware) 45U, black



height: 2.1m (7 ft.)  
width: 152.4 mm (6 in.)  
depth: 224.8 mm (8.9 in.)

### RS-CNL3. ....

Vertical cable management channel for mounting between 76mm (3 in.) deep racks (includes mounting hardware) 45U, black



height: 2.1m (7 ft.)  
width: 152.4 mm (6 in.)  
depth: 148.6 mm (5.9 in.)



Two RS-07's shown with three RS-CNL's

See Cable Management Capacity Table in the Cable Management Section of our E-Catalogue on our Website

# RS Rack System - Value Rack

Siemon's Value Rack provides an economical, durable solution for mounting and securing IT equipment in telecommunications spaces. With integrated bonding and grounding, visible U space markings and compatibility with Siemon's full range of cable management solutions, the Value Rack saves time, labour and floor space in a variety of indoor installations.



**Accessibility** — Open header design offers easy access for routing cables and includes holes for securing cable tray

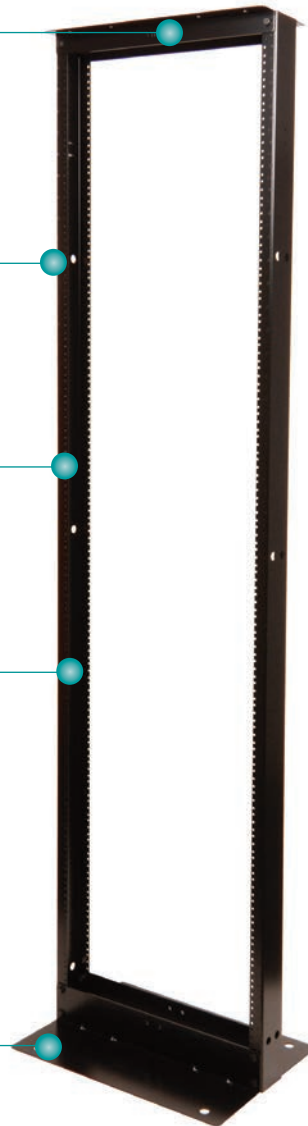
**Durability** — Heavy duty construction offers 544 kg (1200 lb.) weight capacity

**19-in. EIA, Universal Rail Spacing** —

- #12-24 threaded equipment mounting holes in 76mm (3 in.) deep channels
- U spaces marked and numbered

**Easy to Assemble** — Installs with standard hand tools

**Stability** — Mounting holes provided for bolting / anchoring to floor



## Excellent U Visibility

U space markings remain visible with rack-mounted equipment installed and align with cable management fingers to ease rack unit identification and facilitate moves, adds and changes



## Integrated Ground Path

Bonded assembly with integrated ground studs



## Cable Management

Compatible with Siemon's full range of horizontal and vertical cable management solutions

# Ordering Information:

Part #	Description
RS1-07-S .....	Value Rack, 2-post open frame rack, 45U, black. Includes rack assembly hardware, (30) #12-24 screws and (2) grounding nuts

## SPECIFICATIONS

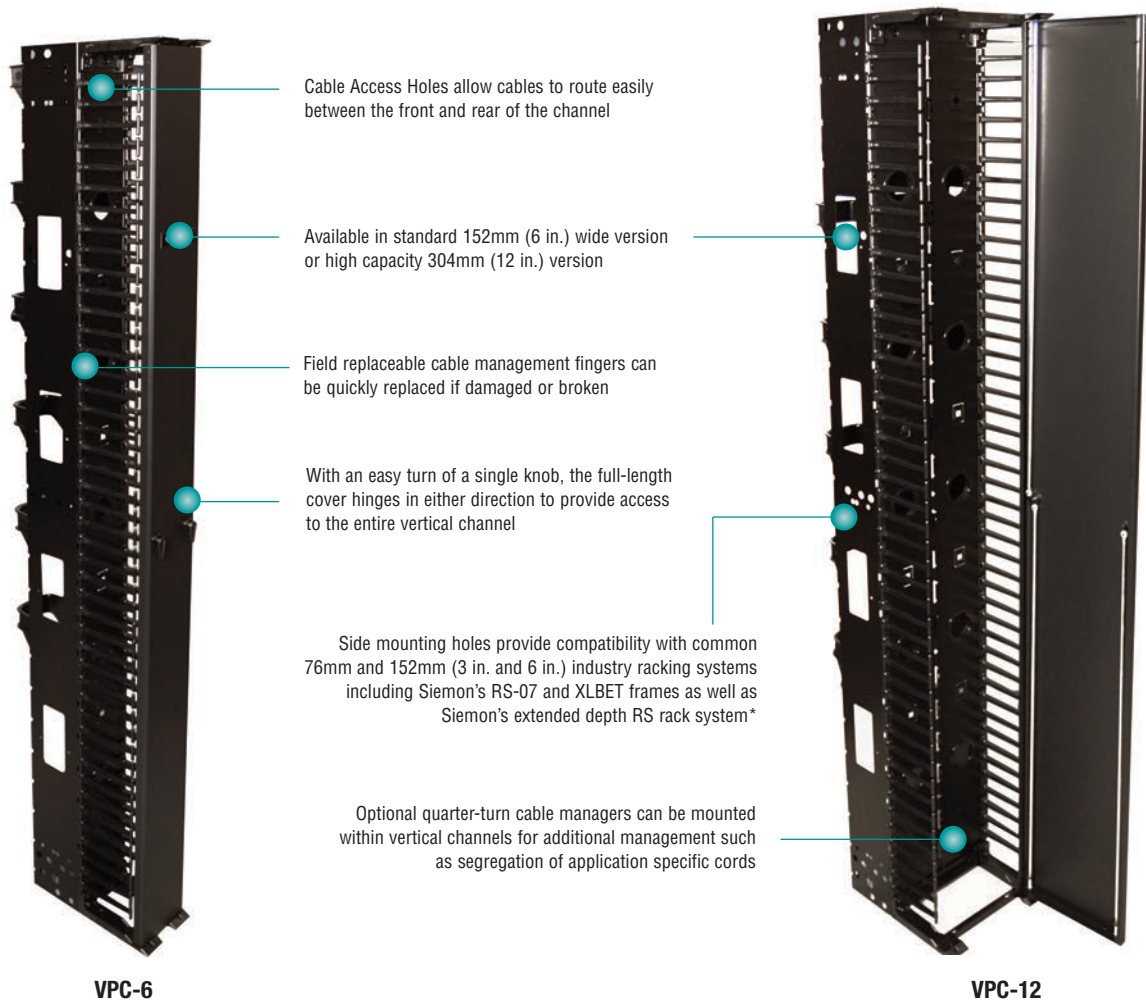
U Space	45U (1U = 1.75 in. ( 44.5mm ) )
Height	2.1m ( 7 ft.)
Overall Width	516mm (20.3 in.)
Rail Depth	76mm (3 in.)
Weight	21kg ( 47 lbs. )
Load Rating	544kg (1200 lbs.)
Material	Cold rolled steel
Finish	Painted, Black e-coat
Packaging	Ships unassembled in a compact carton
Standards Compliance	UL 1863, EIA-310-D, RoHS



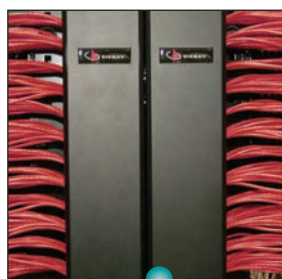
Fully compatible with Siemon's wide range of vertical and horizontal cable managers.

# Vertical Patching Channel (VPC)

Siemon's enhanced Vertical Patching Channel (VPC) sets a new standard for cable management systems by improving appearance, accessibility and cable routing on both the front and rear of the rack. Designed as a stand-alone manager to be mounted between adjacent racks the VPC features a full length, hinged door on the front to conceal patch cord routing. The rear manager is open for ready routing of large bundles of horizontal/backbone cabling. With its easy access design, high capacity and professional appearance, the VPC is ideal for both installers and end users alike.



Rear channel retainers can be hinged in either direction and are removable enabling relocation to any position along the rear vertical channel



The VPC is fully side stackable for use in ultra high density environments. The doors can be individually opened 60° or adjacent doors can be removed for full access



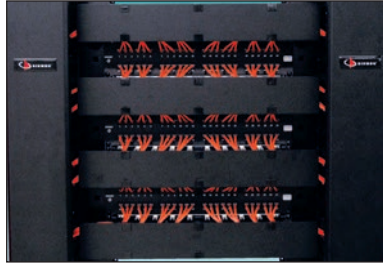
All of the cable routing points on the vertical channels are rounded to allow patch cords to seamlessly enter and exit the managers without risk of cable deformation

*Note:*

*\*When used with extended depth rack, rear channel is used for mounting purposes only.*

## 152mm (6 in.) Enhanced Vertical Patching Channel

Part #	Description
VPCA-6. ....	2.1m x 152mm (7 ft. x 6 in.) Vertical patching channel, 45U, black. Includes front cover, 6 rear channel retainers and mounting hardware <i>height: 2.1m (7 ft.)</i> <i>width: 152.4mm (6 in.)</i> <i>depth: 304.8mm (12 in.)</i>



Comprehensive cable management can be created using Siemon's RS-07 and HCM Series horizontal cable managers

## 305mm (12 in.) Enhanced Vertical Patching Channel

Part #	Description
VPCA-12. ....	2.1m x 305mm (7 ft. x 12 in.) Vertical patching channel, 45U, black. Includes front cover, 12 rear channel retainers and mounting hardware <i>height: 2.1m (7 ft.)</i> <i>width: 304.8mm (12 in.)</i> <i>depth: 304.8mm (12 in.)</i>



VPCA-12 shown with two RS-07 racks and angled patch panels



### CABLE MANAGER CAPACITY TABLE

Part Number	Cable Diameter											
	3.30	3.81	4.32	4.83	5.33	5.84	6.35	6.86	7.37	7.87	8.38	8.89
VPCA-6 (Front)	683	513	399	319	261	218	184	158	137	120	106	94
VPCA-6 (Rear)	1059	795	619	495	405	338	286	245	212	186	164	146
VPCA-12 (Front)	1464	1100	856	685	561	467	396	339	294	257	227	202
VPCA-12 (Rear)	2118	1591	1238	991	811	676	572	491	425	372	328	293

Cable capacities reflect a calculated fill rate of 40% which is intended to reflect 100% fill during actual use due to side cable entry

## VPC Accessories

Part #	Description
VCM-FGR-6. ....	152mm (6 in.) Vertical cable manager replacement fingers, 9U, Set of 2



Part #	Description
VCM-DR(XX). ....	Replacement door

Use (XX) to specify width:  
6 = 152mm (6 in.)  
12 = 304mm (12 in.)

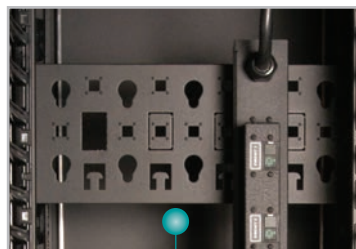
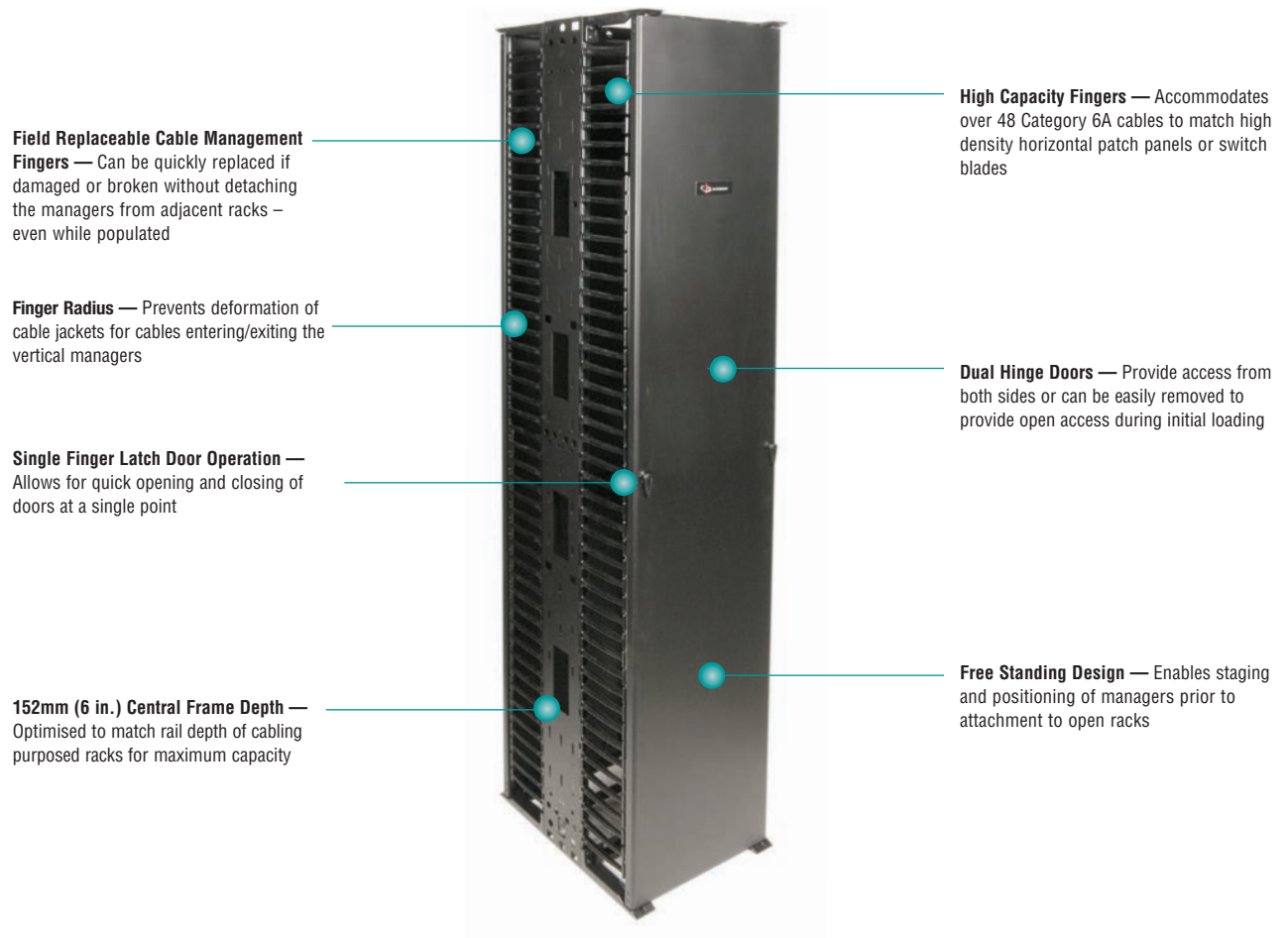




# RoutelT™ Cable Managers

Siemon's RoutelT vertical and horizontal cable managers are specifically designed to readily manage the challenges proposed by today's high volume, high density cabling systems. Available in multiple sizes, these versatile cable managers provide a system solution for ready routing and protection of both horizontal cables and patch cords.

Full length, dual hinge doors protect and conceal cabling providing a premium appearance capable of supporting today's high speed network cabling systems.



**PDU Ready** — Multiple attachment points available for optional tool-less button mounting of PDUs within double-sided managers or on rear of single-sided managers



**Diverse Mounting Points** — Allow for mounting of optional Siemon quarter-turn management accessories and cable ties

## Vertical Managers – Ordering Information



VCM-(XX) .....  
RoutelT™ single-sided vertical cable manager,  
45U, black

height: 2.1m (6.9 ft.)  
depth: 357mm (14 in.)

Use (XX) to specify width:  
6 = 152mm (6 in.),  
10 = 254mm (10 in.),  
12 = 305mm (12 in.),  
16 = 406mm (16 in.)



VCM-(XX)D .....  
RoutelT double-sided vertical cable manager,  
45U, black

height: 2.1m (6.9 ft.)  
depth: 562mm (22 in.)

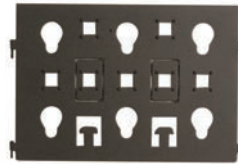
Use (XX) to specify width:  
6 = 152mm (6 in.),  
10 = 254mm (10 in.),  
12 = 305mm (12 in.),  
16 = 406mm (16 in.)

## Vertical Managers – Accessories



VCM-S .....  
2.13m x 457mm (7 ft. x 18 in.) Side  
panel kit for RoutelT double-sided  
vertical cable managers

*Note: Side panel kit is a two piece design  
comprised of one top and one bottom  
piece and includes mounting hardware*



VCM-(XX)D-RB .....  
Vertical dividers for RoutelT double-sided  
vertical cable managers, set of 3

Use (XX) to specify width:  
6 = 152mm (6 in.),  
10 = 254mm (10 in.),  
12 = 305mm (12 in.),  
16 = 406mm (16 in.)



VCM-FGR-6 .....  
152mm (6 in.) Vertical cable manager  
replacement fingers, 9U, set of 2

## Horizontal Managers – Ordering Information



HCM-4-(X)U .....  
RoutelT horizontal cable manager  
w/ 102mm (4 in.) fingers



HCME-4-(X)U\* .....  
RoutelT horizontal cable manager w/  
102mm (4 in.) fingers and extended  
length cover



HCM-6-(X)U .....  
RoutelT horizontal cable manager  
w/ 152mm (6 in.) fingers and cover



HCME-6-(X)U\* .....  
RoutelT horizontal cable manager w/  
152mm (6 in.) fingers and extended  
length cover

Use (X) to specify height: 1 = 1U, 2 = 2U, 4 = 4U  
Add “-D” to end of part number for double-sided version (2U only)



HCM(E)-CVR-(X)U .....  
RoutelT horizontal cable manager  
replacement cover

\* For use with Siemon's RS Rack System only (excludes Value Rack)

# Cable Tray Rack

Designed to mount directly to overhead ladder rack or cable tray, Siemon's Cable Tray Rack delivers 4U of easily installed and accessible 19 inch rack mount space above cabinets and racks without consuming additional floor space, making it ideal for use as a Zone Distribution Area (ZDA) or Equipment Distribution Area (EDA) in data centres. Used with copper patch panels or fibre enclosures, the Cable Tray Rack can increase cabling density, improve cable routing, simplify moves, adds and changes and provide pre-cabled connectivity for rapid deployment of new cabinets, racks and equipment.



## Improved Thermal Efficiency —

Helps improve airflow by managing patching fields and cabling above cabinets and racks, minimising obstruction of equipment cooling features.

## Rapid Data Centre Deployment —

Can be used in conjunction with Siemon's pre-terminated copper and fibre solutions to reduce installation time.

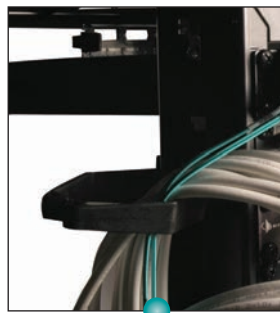
## Open Compatibility —

Rack mount solution attaches to all common overhead cable tray and ladder rack systems.



## Flexible Mounting —

Unique design can be mounted below, flush or above cable tray in both parallel and perpendicular configurations.



## Flexible Cable Routing —

High capacity quarter-turn twist-lock cable managers lock into place quickly without use of screws or mounting tools and can be easily located to provide customised cable management.



## Floor Space Maximisation —

Provides up to 6U of standard 19 inch rack mount space above cabinets and racks to maximise cabling density/ minimise data centre floor space needs.

## MAJOR PRODUCT FEATURES:

- CEA-310-E compliant mounting holes
- Robust 12 gauge steel construction
- Smooth black powder coat finish
- Mounting hardware and cable management included
- 267 N (60 lbf) load rating

## Ordering Information:

CTR-(XX)-01. . . . . Cable Tray Rack, black, #12-24. Includes mounting hardware, 1/4 turn cable managers, ground lugs

**Size**

**02** = 2U

**04** = 4U

**06** = 6U

*\*Add "C" to end of part number for cage nut version (includes M6 cage nuts)*

CTR-LRK. . . . . Ladder rack mounting kit for Cable Tray Rack



## Mounting Examples:



**Perpendicular to Tray  
(Below)**



**Parallel to Tray  
(Flush)**



**Parallel to Ladder Rack  
(Below)**

## WM Series Horizontal Cable Managers

The WM series cable managers provide increased strength and do not interfere with panels mounted above or below. They are a popular and economical solution for providing a clean and simple means of organising small-to-large bundles of cables and patch cords.

Part #	Description
WM-143-5.....	Horizontal cable manager with five S143 hangers, 1U, black
WM-144-5.....	Horizontal cable manager with five S144 hangers, 2U, black
WM-145-5.....	Horizontal cable manager with five S145 hangers, 2U, black

Note: 1U = 44.5mm (1.75 in.)



## Cable Hangers

The cable hanger design features structural integrity and sleek appearance. These cable hangers are ideal for routing small to very large quantities of cables. The durable plastic design ensures reliability for any application.

Part #	Height	Width	Depth
S143*	44mm (1.7 in.)	38mm (1.5 in.)	89mm (3.5 in.)
S144*	87mm (3.4 in.)	57mm (2.2 in.)	74mm (2.9 in.)
S145*	87mm (3.4 in.)	57mm (2.2 in.)	125mm (4.9 in.)
S146	151mm (5.9 in.)	63mm (2.5 in.)	130mm (5.1 in.)
S147	254mm (10 in.)	63mm (2.5 in.)	130mm (5.1 in.)

\*Add "-A" for optional adhesive backing.



## Reusable Hook and Loop Cable Managers

These cable managers are simple, yet extremely effective when used to bundle cables. To accommodate different sized bundles, they are available in 152mm (6 in.), 305mm (12 in.), or 457mm (18 in.) lengths. They can be easily loosened and removed to service cable and then tightened and reinstalled when the cables are rebundled. The handy dispenser rolls/spools are neat, convenient and quick. Adjustable tension prevents "over-cinched" conditions. A mounting hole in each hook and loop manager enables the manager to be mounted to a wall or rack.

Part#	Description
VCM-25-(XX)-01.....	Roll of 25 cable managers
VCM-250-(XX)-01.....	Spool of 250 cable managers

Use 1st (XX) to specify length:

06 = 152mm (6 in.), holds 51mm (2 in.) diameter cable bundle  
 12 = 305mm (12 in.), holds 102mm (4 in.) diameter cable bundle  
 18 = 457mm (18 in.), holds 153mm (6 in.) diameter cable bundle



Wrap-around cable managers offer a simplified approach to cable management. secure it to a single cable and then wrap it around the entire bundle.



Hook and Loop cable managers have a large head for added strength and a mounting hole is included for securing to a wall or rack.

### Technical Tip!

Hook and loop cable managers are recommended as an alternate to plastic cable ties for the reduction of alien crosstalk in Category 6A UTP installations.



## Stand-Off Brackets

Siemon hinged stand-off brackets can be mounted to a wall with the hinge on either side for convenient access to the back of the panel. The sides of the brackets will accept our S144 or S145 cable hangers for external cable management. The brackets accept any combination of Siemon patch panels and rack-mount cable management. Mounting hardware included.



**Part #**  
SBH-2..... 2U, black



**Part #**  
SBH-3..... 3U, black



**Part #**  
SBH-4..... 4U, black



**Part #**  
SBH-6\*..... 6U, black



height: See U information, width: 483mm (19 in.), depth: 152mm (6 in.)

\*Add -2 for (3) independent 2U hinges (instead of a single 6U hinge).

Note: 1U = 44.5mm (1.75 in.)

## Thermal Blanking Panels

Blank filler panels are ideal for installations where open or expansion rack space is to be covered. Aluminium panels are blank on one side and feature the Siemon logo on the other side.

Part #	Description
PNL-TBLNK010-1S.....	SnapFit™ thermal blanking panel for 19 inch rack, 1U, square holes, black, plastic, package of 10
PNL-TBLNK100-1S.....	SnapFit thermal blanking panel for 19 inch rack, 1U, square holes, black, plastic, box of 100
PNL-BLNK-(X).....	Blank filler panel for 19 inch rack, black



Use (X) to specify rack mount space height of panel: 1 = 1U, 2 = 2U, 3 = 3U, 4 = 4U

Note: 1U = 44.5mm (1.75 in.)

## 19 Inch Equipment Shelf

Siemon's double-sided 19 inch equipment shelf is designed to support heavy equipment loads up to 68.1 kg (150 lb.). The shelf is designed for use with any 152mm (6 in.) deep rack and is secured to the front and rear of the rack channels. Shelf accommodates equipment up to 432mm (17 in.) wide.

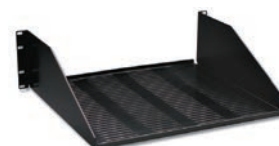
Part #	Description
SH-D19-01.....	Double-sided equipment shelf, for 152mm (6 in.) deep racks, solid, 3U, black height: 133mm (5.2 in.) width: 483mm (19 in.) depth: 457mm (18 in.)



SH-D19-01

Single sided solid and vented equipment shelves are ideal for mounting devices in standard 19 inch racks and cabinets. Supports equipment up to 22.7kg (50 lbs.) in weight and 438mm (19 in.) in width.

SH-S19-01.....	Single-sided equipment shelf, solid, 3U, black
SH-S19V-01.....	Single-sided equipment shelf, vented, 3U, black height: 133mm (5.2 in.) width: 483mm (19 in.) depth: 381mm (15 in.)



SH-S19V-01

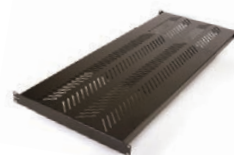
Note: 1U = 44.5mm (1.75 in.)

## 4-Post Adjustable Shelf

Shelves feature a robust, low profile design occupying only 1U of rack or cabinet space while listed to UL 2416 for support of up to 136kg (300 lb.) of weight

Part #	Description
V-SHV1-01-1U.....	4-Post, adjustable shelf, vented, 559-787mm (22- 31 in), black, 1U
V-SHV2-01-1U.....	4-Post, adjustable shelf, vented, 787-1016mm (31- 40 in), black, 1U

Note: 1U = 44.5mm (1.75 in.)



V-SHV1-01-1U

## RWM Series Horizontal Cable Managers

The multi-access horizontal cable managers are designed to provide both front and rear cable management in a compact, 1U space. The managers feature high capacity slots for entering and exiting cables, removable covers to conceal patch cords, and an innovative cable retention design to prevent patch cords from falling out when the covers are removed. The rear of the RWM-1 features attachments for using Siemon's hook and loop cable managers.

Part #	Description
RWM-1.....	Single-sided horizontal cable manager with cover, 1U, black
RWM-1DS.....	Double-sided horizontal cable manager with covers, 1U, black

Note: 1U = 44.5mm (1.75 in.)



RWM-1



RWM-1DS

## S110®/S210® Horizontal Cable Managers

The S110/S210 cable managers provide an economical, superior cable management solution in a compact space. 1U and 2U size and large capacity provide excellent cable management for 19 inch rack mount installations.

Part #	Description
S110-RWM-01.....	S110/S210 horizontal cable manager with covers, black, 1U
S110-RWM2-01.....	S110/S210 horizontal cable manager with covers, black, 2U

Note: 1U = 44.5mm (1.75 in.)



## Rear Cable Manager

Siemon rear cable manager can be mounted to the back side of a double-sided 19 inch rack, or can be mounted between a patch panel and the front face of the rack, using the same screws that hold the patch panel to the rack and the hex nuts provided. It provides strain relief anchor points and organisation of horizontal cables being routed to the back of the patch panel.

WM-BK.....	Rear cable manager with mounting screws and hex nuts
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# VersaPOD<sup>®</sup>, V800<sup>™</sup> and V600<sup>™</sup> Cabinets

Including both the innovative VersaPOD family of data centre solutions, V800 (800mm) and V600 (600mm) cabinets, Siemon's comprehensive line of cabinets deliver the design flexibility and options to deploy the physical infrastructure you need.

In addition to the space saving, flexible VersaPOD and its Zero-U vertical cable management, patching and power distribution accessories, be sure to check out the many innovations appearing in this section:

- **SidePOD<sup>™</sup> and Baffle** — Unique VersaPOD accessories designed to support thermally efficient airflow for side-venting equipment such as the Cisco Nexus 7018 Series switches
- **Vertical Exhaust Ducts (Chimneys)** — Compatible with VersaPOD (VP2), V800 (V82) and V600 (V62) cabinets, these chimneys bring VersaPOD's thermal capacity to 13kW
- **42U Options** — Full-featured VersaPOD cabinets are available in 42U and 45U sizes, and V800/V600 cabinets are available in 42U, 45U and 48U versions

## Section Contents

VersaPOD Features and Benefits . . . . .	10.1
VersaPOD Cabinet . . . . .	10.2
Cabinet Doors and Panels . . . . .	10.2
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VersaPOD Zero-U Cable Management . . . . .	10.4
VersaPOD End-of-Row Vertical Panels . . . . .	10.5
Vertical Exhaust Duct . . . . .	10.5
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SnapFit <sup>™</sup> Thermal Blanking Panels . . . . .	10.6
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VersaPOD (VP2A) SidePOD <sup>™</sup> and Baffle . . . . .	10.8 - 10.9
V800 Cabinet and Accessories . . . . .	10.10 - 10.13
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# VersaPOD® Features and Benefits

Siemon's VersaPOD enables an innovative and efficient approach to your physical data centre infrastructure. By leveraging the vertical space between bayed cabinets and at the end of row for patching, power distribution and cable management, the VersaPOD frees critical horizontal space for active equipment, providing improved air flow while optimising data centre floor space.

The VersaPOD's Zero-U vertical patch panels (VPP's) dramatically simplify even the most dense patching needs while its vertical patching channels (VPC) offer a clean, orderly and easy method of high-density cable routing.

All of the VersaPOD's unique features are integrated into a full-featured modular enclosure that is equally effective as a standalone cabinet or in a multi-unit bayed configuration, offering a simple, scalable expansion path in any data centre.

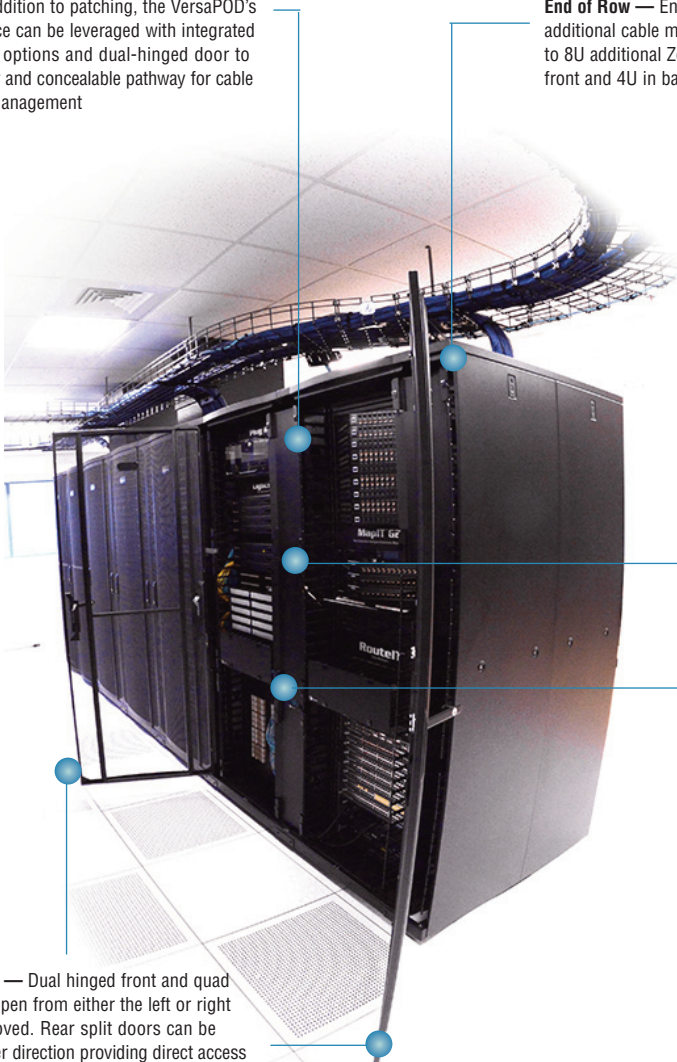
**Integration** — In addition to patching, the VersaPOD's Zero-U vertical space can be leveraged with integrated cable management options and dual-hinged door to offer a high capacity and concealable pathway for cable routing and slack management

**End of Row** — End of row vertical panels offer additional cable management channels or up to 8U additional Zero-U mounting space (4U in front and 4U in back at each end)

**Vertical Patching** — Vertical copper and fibre patch panels provide up to 24U (12U at front and 12U at rear) of Zero-U vertical patching space between every two cabinets. These panels conveniently slide forward providing access to the connections at the rear of the panel

**Cable Management** — Vertical cable management fingers can be mounted alongside each VPP or VPC to facilitate routing of copper or fibre jumpers between patching fields as well as cabinet to cabinet connections

**Dual Hinged Doors** — Dual hinged front and quad hinged rear doors open from either the left or right and are easily removed. Rear split doors can be hinged open in either direction providing direct access to vertical spaces. For standalone cabinets or end units, side panels can be removed for full side access

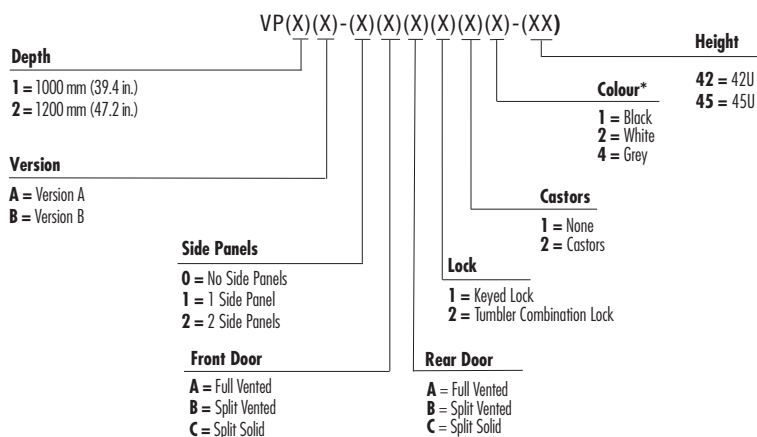




# VersaPOD® Cabinets

The VersaPOD cabinet is designed to integrate with Siemon's comprehensive assortment of Zero-U vertical and horizontal cable management accessories, Zero-U vertical patch panels and thermal management products, offering multiple top and bottom cable access points and mounting provisions for fans, brush-guards and vertical exhaust ducts†. The VersaPOD cabinet is available in both 42U and 45U heights and in 1000mm and 1200mm depths and a wide array of door, side panel and lock options.

† Vertical exhaust ducts compatible with 1200mm depth VP2 only.



\* Note: White and Grey cabinets and accessories available in July 2017.

Includes: 4 levelling feet, 50 M6 cage nuts, 50 combo M6 screws with cup washers, 1 cage nut removal tool, 1 combo torx/philips head screwdriver, 13/14mm wrench, door/side panel keys and 4 stabilising brackets

<b>Height *</b>	42U: 2016mm (79.4 in.) 45U: 2150mm (84.6 in.)
<b>Width</b>	762mm (30.0 in.)
<b>Depth</b>	VP1: 1000mm (39.4 in.) VP2: 1200mm (47.2 in.)
<b>Weight**</b>	42U VP1: 143 kg (316 lbs.) / VP2: 157kg (347 lbs.). 45U VP1: 150 kg (331 lbs.) / VP2: 163kg (358 lbs.)
<b>Usable Depth (Rail-to-Rail) MAX</b>	VP1: 615mm (24.2 in.) VP2: 815mm (32.1 in.)
<b>Load Rating</b>	Static: 1361kg (3000 lbs.) Dynamic: 1021kg (2250 lbs.)
<b>Base Type</b>	Open
<b>Colour</b>	Black (RAL 9011)
<b>% Door Perforation</b>	71%
<b>U Space Identification</b>	Yes
<b>Lid Cable Access Openings</b>	VP1A: 3 (large), 4 (small), 0 brushes VP1B: 3 (large), 0 (small), 4 brushes VP2A: 4 (large), 6 (small), 0 brushes VP2B: 4 (large), 0 (small), 4 brushes
<b>Material</b>	CRS of varying thickness
<b>Finish</b>	Textured powder coat
<b>Standard Compliance</b>	UL 60950-1 Ed 2.0, EIA/ECA-310-E, IP20

\*Nominal height with adjustable levelling feet or castors

\*\*Does not include packaging - add 33kg (72 lbs.) for packaging

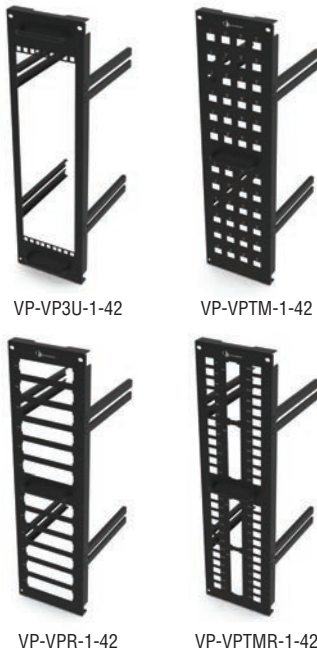
## VersaPOD Cabinet Doors and Panels

Part #	Description
VPA-DRA-1-(XX)	Full vented door, dual handle with standard keyed lock
VPA-DRB-1-(XX)	Split vented door, dual handle with standard keyed lock, (Set of 2)
VPA-DRC-1-(XX)	Split solid door, dual handle with standard keyed lock, (Set of 2)
VP1A-S-1-(XX)	1000mm (39.4 in.) locking side panel kit
VP2A-S-1-(XX)	1200mm (47.2 in.) locking side panel kit

Use (XX) to specify height. 42 = 42U, 45 = 45U

# VersaPOD® Zero-U Sliding Patch Panels

## 42U Triplex Zero-U Sliding Vertical Patch Panels



Part#	Description
VP-VP3U-1-42.....	Vertical 19 inch panel, 3U Mounts up to 3U of standard 19 inch panels or PDUs in vertical orientation
VP-VPTM-1-42.....	TERA®-MAX® vertical patch panel 48 Ports, supports all Category 5e and Category 6 MAX and Z-MAX®, Category 6A UTP and shielded Z-MAX, TERA outlets and MAX fibre adapters (port spacing compatible for Z-MAX 6A UTP)
VP-VPTMR-1-42.....	TERA-MAX RIC vertical patch panel 48 Ports, supports all Category 5e and Category 6 MAX and Z-MAX, Category 6A shielded Z-MAX outlets TERA® outlets and MAX fibre adapters (port spacing not compatible for Z-MAX 6A UTP) - 4 fibre RIC adapter mounting spaces for mounting RIC adapter plates or fibre Plug and Play modules
VP-VPR-1-42.....	RIC vertical patch panel 12 RIC adapter mounting spaces for mounting RIC fibre adapter plates or fibre Plug and Play modules

**Note:**

- (3) VPPs/VPCs can be mounted vertically at the front and/or rear of 2 bayed cabinets or between a VersaPOD cabinet and SidePOD®  
(3) VPPs/VPCs are required to fully populate 42U Zero-U space

## 45U Duplex Zero-U Sliding Vertical Patch Panels



Part#	Description
VP-VPP-6U.....	Vertical 19 inch panel, 6U Mounts up to 6U of standard 19 inch panels in Zero-U vertical orientation
VP-VPP-TM.....	TERA-MAX patch panel 96 Ports, supports all Category 5e Category 6, Category 6A UTP MAX and Z-MAX outlets, Category 6A shielded Z-MAX, TERA outlets and MAX fibre adapters (Port spacing compatible with Z-MAX 6A UTP)
VP-VPP-TMRIC.....	TERA-MAX-RIC vertical patch panel 96 Ports, supports all Category 5e and Category 6 UTP MAX and Z-MAX, Category 6A shielded Z-MAX outlets, TERA® outlets an MAX fibre adapters. (Not for use with Z-MAX 6A UTP) 6 fibre RIC adapter mounting spaces for mounting RIC adapter plates or fibre Plug and Play modules

**Note:**

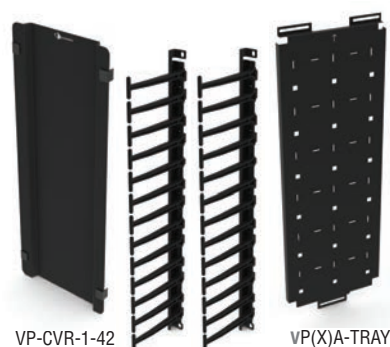
- (2) VPPs/VPCs can be mounted vertically at the front and/or rear of 2 bayed cabinets or between a VersaPOD cabinet and SidePOD  
(2) VPPs/VPCs are required to fully populate 45U Zero-U space

# VersaPOD® Zero-U Cable Management

## 42U Triplex Zero-U Vertical Cable Management



VP-VPC6-1-42



VP-CVR-1-42

VP-FGR6-1-42

VP(X)A-TRAY

Part #	Description
VP-VPC6-1-42 . . . . .	Vertical patching channel Includes back plate, 152mm (6 in.) cable management fingers and cover
VP-FGR6-1-42 . . . . .	152mm (6 in.) Vertical cable management fingers (set of 2) Can be mounted alongside each VPP and/or VPC to facilitate routing of copper and fibre jumpers between patching fields as well as cabinet to cabinet connections
VP-CVR-1-42 . . . . .	Vertical cover Hinged cover used in conjunction with vertical cable management fingers to conceal patching areas
VP1A-TRAY-1-42 . . . . .	Vertical cable management tray for 42U VP1A cabinets Manages/secures cable between cabinets, use 4 trays to isolate airflow between VP1A cabinets
VP2A-TRAY-1-42 . . . . .	Vertical cable management tray for 42U VP2A cabinets Manages/secures cable between cabinets, use 4 trays to isolate airflow between VP2A cabinets

**Note:**

- (3) VPP's/VPCs can be mounted vertically at the front and/or rear of 2 bayed cabinets or between a VersaPOD cabinet and SidePOD
- (3) VPPs/VPCs are required to fully populate 42U Zero-U space

## 45U Duplex Zero-U Vertical Cable Management



VP-VPC6

VP-FGR6

VP(X)A-TRAY

Part #	Description
VP-VPC6-1-45 . . . . .	Vertical patching channel Includes back plate, 152mm (6.0 in.) cable management fingers and cover
VP-FGR6-1-45 . . . . .	152mm (6.0 in.) Vertical cable management fingers, (set of 2) Can be mounted alongside each VPP and/or VPC to facilitate routing of copper and fibre jumpers between patching fields as well as cabinet to cabinet connections
VP-CVR . . . . .	Vertical cover Hinged cover used in conjunction with vertical cable management fingers to conceal patching areas
VP1A-TRAY-1-45 . . . . .	Vertical cable management tray for 45U VP1A cabinets Manages/secures cable between cabinets, use 4 trays to isolate airflow between VP1A cabinets
VP2A-TRAY-1-45 . . . . .	Vertical cable management tray for 45U VP2A cabinets Manages/secures cable between cabinets, use 4 trays to isolate airflow between VP2A cabinets

**Note:**

- (2) VPP's/VPCs can be mounted vertically at the front and/or rear of 2 bayed cabinets or between a VersaPOD cabinet and SidePOD
- (2) VPPs/VPCs are required to fully populate 45U Zero-U space

# VersaPOD® End-of-Row Vertical Panels

## 42U Triplex End of Row Zero-U Panels



Part #	Description
VP-VP1U-1-42 . . . . .	Vertical 19 inch panel, 1U Mounts 1U of standard 19 inch rack mount products
VP-EVPC6-1-42 . . . . .	VersaPOD end of row vertical patching with 6 in. fingers and cover, black Used to manage patch panel cords vertically at the end of a cabinet row
VP-BLNK1-1-42 . . . . .	Vertical blanking panel Used to block off unused spaces to prevent re-circulation of air

*Note:*  
(3) Vertical panels can be mounted vertically at the front and/or rear on each side of a single cabinet or at each end of multiple bayed cabinets.

## 45U Duplex End of Row Zero-U Panels



Part #	Description
VP-VPP-2U . . . . .	Vertical 19 inch panel, 2U Mounts up to 2U of standard 19 inch rack mount products
VP-EVPC6-1-45 . . . . .	VersaPOD end of row vertical patching with 6 in. fingers and cover, black Used to manage patch panel cords vertically at the end of a cabinet row
VP-BLNK1 . . . . .	Vertical blanking panel, end of row Used to block off unused spaces to prevent re-circulation of air

*Note:*  
(2) Vertical panels can be mounted vertically at the front and/or rear on each side of a single cabinet or at each end of multiple bayed cabinets.  
(2) End of row vertical panels are required to fully populate 45U Zero-U space

## Vertical Exhaust Duct (Chimney)

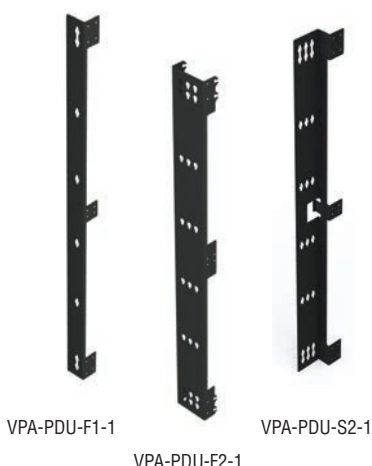


Part #	Description
VP-DUCT1 . . . . .	Vertical exhaust duct, 523 x 653 x 516-923mm (20.6 x 25.7 x 20.3-36.3 in.), black
VP-DUCT2 . . . . .	Vertical exhaust duct, 523 x 653 x 912-1320mm (20.6 x 25.7 x 35.9-52.0 in.), black

*Note:*  
Chimney compatible with 1200mm VersaPOD (VP2), V800 (V82) and V600 (V62) cabinets only.  
† Solid doors recommended for use with chimneys.

# VersaPOD® Zero-U Accessories

## Full Height Zero-U PDU Mounting Brackets



Part #	Description
VPA-PDU-F1-1 . . . . .	Front-facing, single PDU mounting bracket Supports mounting of (1) front-facing PDU in full height Zero-U spaces for end of row applications
VPA-PDU-F2-1 . . . . .	Front-facing, dual PDU mounting bracket Supports mounting of (2) front-facing PDU's in full height Zero-U spaces between bayed cabinets
VPA-PDU-S2-1 . . . . .	Side-facing, dual PDU mounting bracket Supports mounting of (2) side-facing PDU's. Can be used in either end of row or in full height Zero-U spaces between bayed cabinet

*Note: Compatible with 42U and 45U VersaPODs.*

## Zero-U Horizontal Cable Trough



Part #	Description
VPA-SPAN-1 . . . . .	Adjustable depth cable trough Used to route cables between the front and rear of cabinets. Mounts between vertical patching channels mounted to front and rear of cabinets

## Zero-U Blanking Panels



Part #	Description
VP-BLNK-1-42 . . . . .	Vertical blanking panel Used to isolate airflow in unused Zero-U spaces within 42U cabinets

*Note:*  
(3) VPP's/VPCs can be mounted vertically at the front and/or rear of 2 bayed cabinets or between a VersaPOD cabinet and SidePOD  
(3) VPPs/VPCs are required to fully populate 42U Zero-U space

VP-BLNK . . . . .	Vertical blanking panel Used to isolate airflow in unused Zero-U spaces within 45U cabinets
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*Note:*  
(2) VPP's/VPCs can be mounted vertically at the front and/or rear of 2 bayed cabinets or between a VersaPOD cabinet and SidePOD  
(2) VPP's/VPCs are required to fully populate 45U Zero-U space

## SnapFit™ Thermal Blanking Panels



Part #	Description
PNL-TBLNK010-1S . . . . .	19 inch SnapFit thermal blanking panel, 1U, black, (box of 10)
PNL-TBLNK100-1S . . . . .	19 inch SnapFit thermal blanking panel, 1U, black, (box of 100)



## Accessories

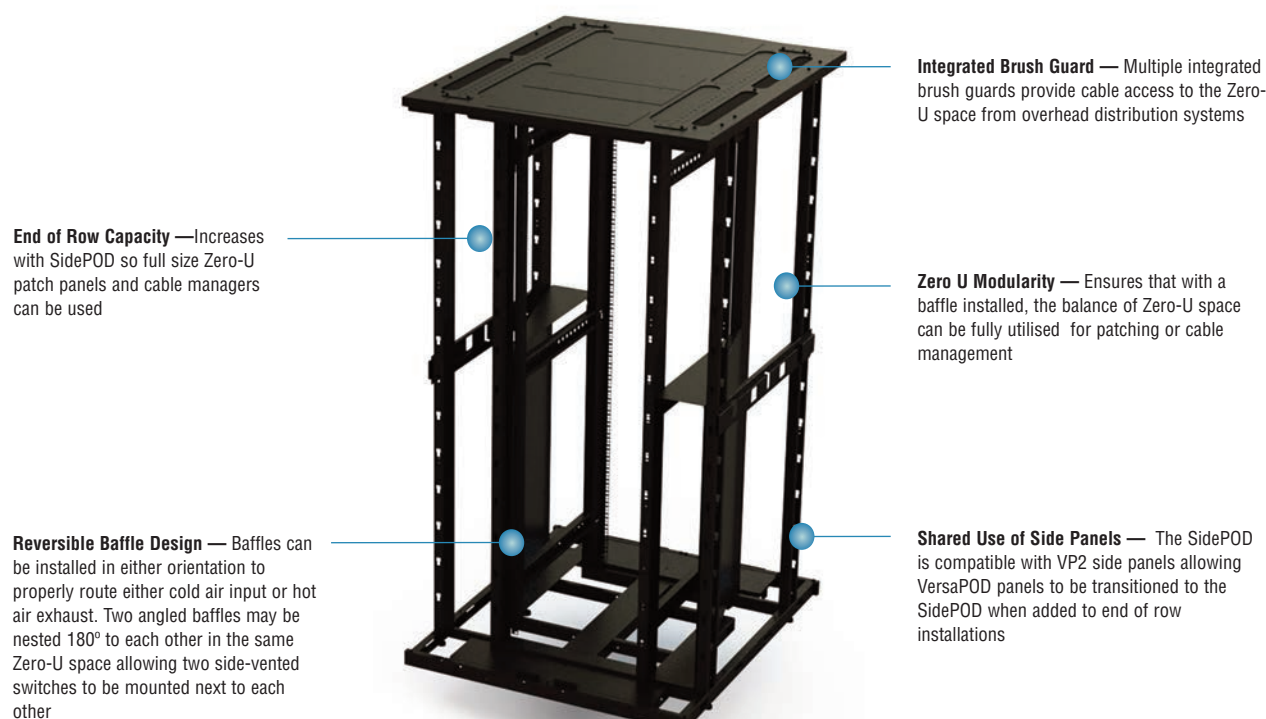


Part #	Description
VPA-R-1-(XX)	VersaPOD equipment mounting rails (set of 2), black Use (XX) to specify height. 42 = 42U, 45 = 45U
VP-FAN	Top-mount cooling fan panel - 3 fans x 110CFM, 120VAC w/ NEMA 5-15P plug
VP-FAN-220	Top-mount cooling fan panel - 3 fans x 110CFM, 220VAC w/ C13 plug
VP-T3	Brush guard, large - for large centre top panel cable openings
VP-BRUSH	Brush guard, small - for small perimeter top panel cable openings
VP-BAY2	VersaPOD baying kit - secures (2) VersaPOD cabinets together
VA-VPA-BAY-1	VersaPOD-to-V600/V800 baying kit - secures (1) VersaPOD cabinet to (1) V600 or V800 cabinet
VP-GRD	Grounding kit - includes ground bar, ground wire, mounting hardware and accessories (capacity to support all required grounding connections for a single cabinet)
RS-VCN	¼-Turn hook and loop cable managers (box of 10) Can be installed in vertical cable management tray, vertical patching channel and end of row vertical wire manager
VP-SPL	¼-Turn fibre management spool (bag of 5) Can be installed in vertical patching channel and end of row vertical wire manager
VP-143	¼-Turn D-ring cable manager 88.9 x 44.5mm (3.5 x 1.75 in.) Can be installed in vertical cable management trays only
VP-145	¼-Turn D-ring cable manager 27.0 x 88.9mm (1.1 x 3.5 in.) Can be installed in vertical management trays only
PNL-BRSH-1	19 Inch brush guard panel, 1U, black
V-SHV1-01-1U	4-Post, adjustable shelf, vented, 559-787mm (22 - 31 in.), 1U, black
V-SHV2-01-1U	4-Post, adjustable shelf, vented, 787-1016mm (31- 40 in.), 1U, black
VPA-LD-1	VersaPOD lid divider panel, set of 2, 107mm (4.2 in.) high, used to create cable pathways on top of bayed cabinets (compatible with VersaPOD version B only)

## VersaPOD® (VP2A) SidePOD™ and Baffle

Siemon's SidePOD and Baffle solution is designed to support side-to-side ventilated active equipment such as the Cisco Nexus® 7018 Series Switches. The SidePOD is an optional add on to Siemon's 1200mm (48 in.) deep VersaPOD (VP2A) cabinets and creates the necessary clearance for proper airflow to the switch. Optional baffles may be mounted within the SidePOD to properly route cold air from the front of the cabinet to the input side of the switch as well as route exhaust from the output side of the switch to be vented in the hot aisle. The baffles can also be mounted in the Zero-U space between adjacent, bayed VP2A cabinets.

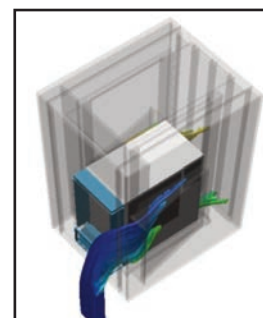
In addition to providing a cooling platform, the SidePOD also allows full size Zero-U panels to be used in End of Row applications. For 45U cabinets, this includes up to 12U of vertical patching and high capacity vertical cable management with hinged covers.



**Split Baffle Design** — Allows the baffles to be nested in the Zero-U space enabling placement of side venting equipment in adjacent cabinets



**Zero-U Modularity** — Ensures that with even a baffle installed, the balance of Zero-U space can be fully utilised for patching or cable management



**Operational Compliance** — Has been validated via Computational Fluid Dynamics (CFD) modelling under maximum operating conditions

## Ordering Information:

### SidePOD™

Part #	Description
VP2A-SPAA1-(XX) . . . . .	VP2A SidePOD with 2 vented doors, black Includes 2 levelling feet, 2 sets of baying brackets, 1 bonding conductor and assembly hardware (ships unassembled)
VP2A-SPAC1-(XX) . . . . .	VP2A SidePOD with 1 vented door and 1 solid door, black Includes 2 levelling feet, 2 sets of baying brackets, 1 bonding conductor and assembly hardware (ships unassembled)

Use (XX) to specify height. 42 = 42U, 45 = 45U

### Zero-U Baffle

Part #	Description
VP2A-BFL-S . . . . .	Zero-U baffle, black Includes mounting hardware
VP2A-BFP-1-42 . . . . .	Zero-U baffle filler panel, black Blank panel used to fill gap between baffle and adjacent triplex Zero-U space on 42U cabinets

VP2A-SPAA1-(XX)



VP2A-BFL-S-1

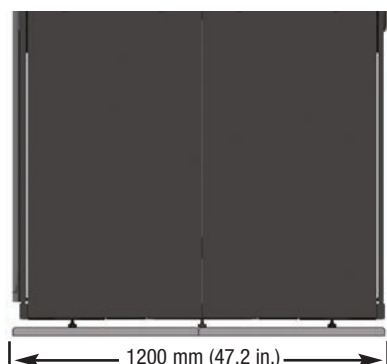
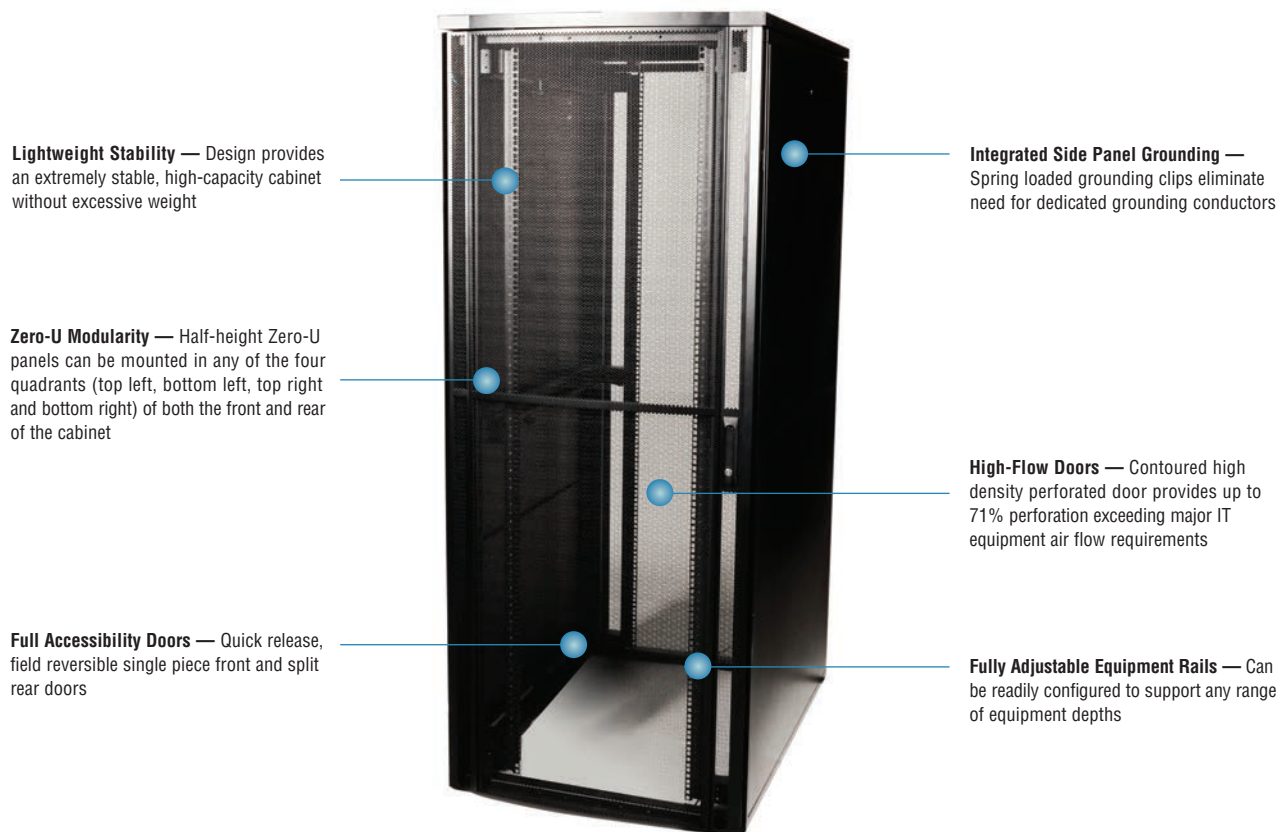


## SidePOD Product Specifications

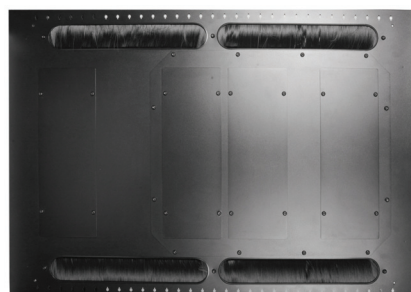
Height	42U: 2016mm (79.4 in.) 45U: 2150mm (84.6 in.)
Width	140mm (5.5 in.)
Depth	1200mm (48 in.)
Weight	26.2 kg (57.8 lbs.)
Base Type	Open
Colour	Black (RAL 9005)
Front Doors	Perforated, keyed lock
Rear Doors	Perforated, keyed lock
% Door Perforation	71%
Material	CRS of varying thickness
Finish	Textured powder coat
Standard Compliance	UL 60950-1 Ed2.0, CSA C22.2 NO. 60950-1-07
Small Cable Access Openings	3 openings, 280 x 45mm (11.4 x 1.8 in.)

## V800™ Cabinet

Siemon's V800 cabinets provide a robust, cost-effective enclosure solution that offers valuable Zero-U space on each side of the equipment rails for cable management, PDU mounting or connectivity on both the front and rear of the cabinet. The V800 cabinet is ideal for high-density data centre environments, enabling increased cabling and equipment density while providing excellent accessibility and thermal efficiency. All of these features are integrated into a full-featured modular enclosure that is equally effective as a standalone network and server cabinet or in a multi-unit bayed configuration, offering a simple, scalable expansion path in any data centre.

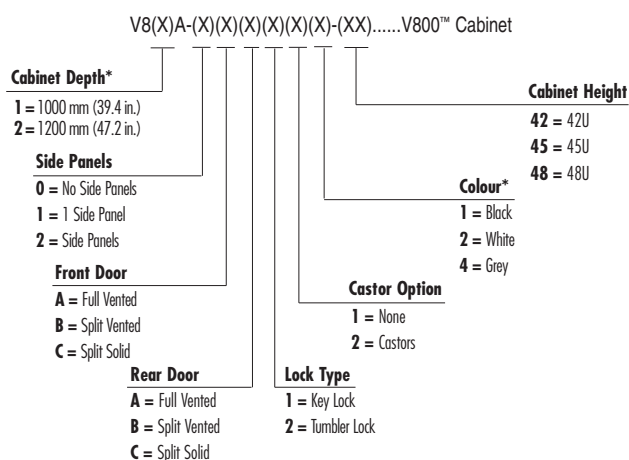


The V82A cabinet is exactly 1200mm (47.2 in.) deep, allowing for full access to adjacent tiles immediately in front or in back of placed cabinets and provides full 1.2m (3.9 ft.) aisle spacing as specified within ISO/IEC 14763-2 and EN 50600-2-4



The cabinet lid includes four integrated brush guards for cables to enter the cabinet without compromising thermal integrity

## Ordering Information:



Includes: 4 levelling feet, 50 M6 cage nuts, 50 combo M6 screws with cup washers, 1 cage nut removal tool, 1 combo torx/ philips head screwdriver, 13/14mm wrench, door/side panel keys and 2 stabilising brackets

\*Note: White and grey cabinets and accessories available in July 2017.

## V800 Cabinet Product Specifications

Height*	42U: 2013mm (79.3 in.) 45U: 2146mm (84.5 in.) 48U: 2280mm (89.8 in.)
Width	800mm 31.5 in.)
Depth - External (Door-to-Door)	V81A: 1000mm (39.4 in.) V82A: 1200mm (47.2 in.)
Depth - Usable (Rail to Rail Max.)	V81A: 806mm (31.7 in.) V82A: 1006mm (39.6 in.)
Weight**	42U V81A: 111kg/ V82A: 126kg (277.8 lbs.) 45U V81A: 116kg/ V82A: 131kg (288.8 lbs.) 48U V81A: 121kg/ V82A: 136kg (299.8 lbs.)
Load Rating	Static: 1000kg (2204.6 lbs.) Dynamic: 714kg (1574.1 lbs.)
Base Type	Open
Colour	Black (RAL 9011)
% Door Perforation	71%
U Space Identification	Yes (bottom-to-top)
Lid Cable Access Openings	V81A: 3 large; (4) 63 x 406mm (2.5 x 16.0 in.) integrated brush guards V82A: 4 large; (4) 63 x 406mm (2.5 x 16.0 in.) integrated brush guards
Material	CRS of varying thickness
Finish	Textured Powder Coat
Standards Compliance	UL 60950-1 Ed2.0, EIA/ECA-310-E, IP20

\* Nominal height with stabilising brackets

\*\* Does not include packaging



## V800™ Cabinet Zero-U Accessory Ordering Information



V8A-VPC4-1-(XX).....  
Half-height Zero-U vertical  
patching channel with 4 in.  
(102mm) fingers and cover



V8A-VPC6-1-(XX).....  
Half-height Zero-U vertical  
patching channel with 6 in.  
(152mm) fingers and cover



V8A-VPC145-1-(XX).....  
Half-height Zero-U vertical  
patching channel with D-ring  
managers



V8A-BRSH-1-(XX).....  
Half-height Zero-U vertical  
brush guard panel



V8A-VPP2U-1-(XX).....  
Half-height Zero-U vertical  
patch panel, 2U

Mounts 2U of standard 19 in.  
panels in vertical orientation

Includes (8) M6 cage nuts



V8A-PDU-F1-1-(XX).....  
Full-height Zero-U vertical PDU  
panel

Full length brackets support  
tool-less mounting of one (1)  
vertical rack mount PDU with a  
maximum width of 86.4mm  
(3.4 in.) and 1.24m (4.1 ft.),  
1.56m (5.1 ft.) or 1.65m (5.4 ft.)  
O.C. mounting buttons



V8A-BLNK-1-(XX).....  
Half-height Zero-U Vertical  
Blanking Panel

Used to block unused Zero-U  
spaces to prevent re-circulation  
of air

Use (XX) to specify cabinet height: 42 = 42U, 45 = 45U, 48 = 48U

## Cabinet Accessory Ordering Information

Part #	Description
VPA-SPAN-1 . . . . .	Adjustable depth cable trough, extends from 555mm (21.9 in.) to 911mm (35.9 in.), 81mm (3.2 in.) wide; 65mm (2.6 in.) high Used to route cables between the front and rear of cabinets. Mounts between vertical patching channels mounted to front and rear of cabinets
V8A-LD-1 . . . . .	V800 lid divider panel, set of 2, 107mm (4.2 in.) high Used to create cable pathways on top of bayed cabinets
V-TRAY-100-1-(XX) . . . . .	100mm (3.9 in.) V600/V800 vertical cable tray, set of 2, black
V-TRAY-150-1-(XX) . . . . .	150mm (5.9 in.) V600/V800 vertical cable tray, set of 2, black
V-TRAY-300-1-(XX) . . . . .	300mm (11.8 in.) V600/V800 vertical cable tray, set of 2, black

These trays can be easily mounted at any location along the front-to-rear cabinet rails of V600 and V800 cabinets and feature keyholes for PDU mounting, t-shaped cutouts for cable tie attachment cable management and 9.5mm (0.375 in.) cage nut openings for cable management accessory mounting such as Siemon's VP-143 ¼-turn cable managers.

Use (XX) to specify cabinet height: 42 = 42U, 45 = 45U, 48 = 48U



VPA-SPAN-1

V8A-LD-1

V8A-DRA-1-(XX) . . . . . V800 full vented door, black

V8A-DRB-1-(XX) . . . . . V800 split vented doors, black, set of 2

V8A-DRC-1-(XX) . . . . . V800 split solid doors, black, set of 2

V1A-S-1(XX) . . . . . V600/V800 1000mm (39.4 in.) split side panels, black, set of 2

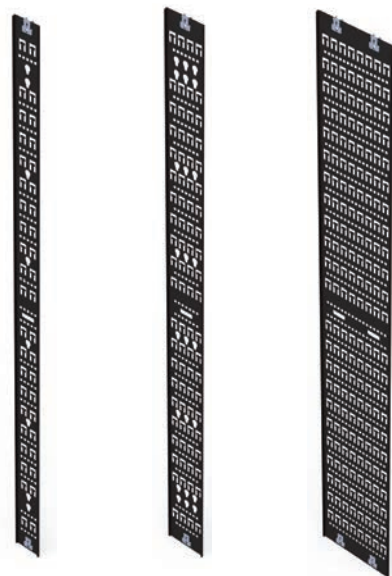
V2A-S-1(XX) . . . . . V600/V800 1200mm (47.2 in.) split side panels, black, set of 2

V8A-R-1-(XX) . . . . . V800 equipment mounting rail, black, set of 2

V-SHV1-01-1U . . . . . 4-Post, adjustable shelf, vented, 559-787mm (22- 31 in.), 1U, black

V-SHV2-01-1U . . . . . 4-Post, adjustable shelf, vented, 787-1016mm (31- 40 in.), 1U, black

Use (X) to specify cabinet height: 42 = 42U, 45 = 45U, 48 = 48U



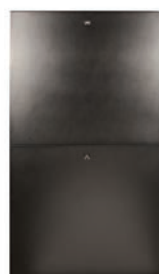
V-TRAY-100-1-(XX) V-TRAY-150-1-(XX) V-TRAY-300-1-(XX)



V8A-DRA-1-(XX)



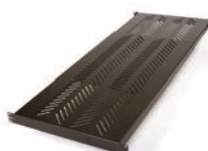
V8A-DRB-1-(XX)



V1A-S-1(XX)



V8A-R-1-(XX)



V-SHV1-01-1U

## V600 Cabinet

The V600 cabinet provides a robust, cost-effective enclosure solution that is ideal for use in conjunction with VersaPOD® or V800 data centre cabinets. While not compatible with VersaPOD or V800 Zero-U vertical patching and cable management accessories, it shares a common appearance for standard cabinet applications and is ideal for use as a server cabinet.

**Lightweight Stability** — Design provides an extremely stable, high-capacity cabinet without excessive weight

**Enhanced Side Access** — Split level side panels provide convenient access to installed equipment

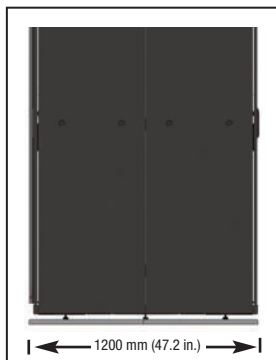


**High-Flow Doors** — Contoured high density perforated door provides up to 71% perforation exceeding major IT equipment air flow requirements

**Full Accessibility Doors** — Quick release, field reversible single piece front and split rear doors



**Flexible Mounting Options** — Fully adjustable mounting rails can be readily configured to support any range of equipment depths



**Consistent Aesthetics** — The V62A cabinet is exactly 1200mm (47.2 in.) deep, allowing for full access to adjacent tiles immediately in front or in back of placed cabinets



**Thermally Efficient** — Compatible with VersaPOD thermal management options including exhaust fans and brush guards. V62A cabinet is compatible with VersaPOD Vertical Exhaust Ducts

# V600 Cabinet Accessories

## Ordering Information:

V6(X)(X)-(X)(X)(X)(X)(X)(X)-(XX) . . . V600 Cabinet

<b>Depth</b>	<b>Height</b>
1 = 1000mm (39.4 in.)	42 = 42U
2 = 1200mm (47.2 in.)	45 = 45U
	48 = 48U
<b>Version</b>	<b>Colour*</b>
A = Version A	1 = Black
B = Version B	2 = White
	4 = Grey
<b>Side Panels</b>	<b>Castors</b>
0 = No Panels	1 = None
1 = 1 Panels	2 = Castors
2 = 2 Panels	
<b>Front Door</b>	<b>Lock Type</b>
A = Full Vented	1 = Key Lock
B = Split Vented	2 = Tumbler Combination Lock
C = Split Solid	
<b>Rear Door</b>	
A = Full Vented	
B = Split Vented	
C = Split Solid	



Includes: 4 levelling feet, 50 M6 cage nuts, 50 combo M6 screws with cup washers, 1 cage nut removal tool, 1 combo torx/ philips head screwdriver, 13/14mm wrench, door/side panel keys and 2 stabilising brackets

\*Note: White and grey cabinets and accessories available in July 2017.

## V600 Cabinet Specifications

<b>Height*</b>	42U: 2016mm (79.4 in.) 45U: 2150mm (84.6 in.) 48U: 2280mm (89.7 in.)
<b>Width</b>	600mm (23.6 in.)
<b>Depth - External (Door to Door)</b>	V61: 1000mm (39.4 in.) V62: 1200mm (47.2 in.)
<b>Depth - Usable (Rail-to-Rail Max.)</b>	V61: 806mm (31.8 in.) V62: 1006mm (39.6 in.)
<b>Weight **</b>	42U V61: 97kg (214 lbs.) V62: 112kg (247 lbs.) 45U V61: 102kg (224 lbs.) V62: 117kg (258 lbs.) 48U V61: 107kg (236 lbs.) V62: 122kg (269 lbs.)
<b>Load Rating</b>	Static: 1361kg (3000 lbs.) Dynamic: 1021kg (2250 lbs.)
<b>Base Type</b>	Open
<b>Colour</b>	Black (RAL 9011)
<b>% Door Perforation</b>	71%
<b>U Space Identification</b>	Yes
<b>Lid Cable Access Openings</b>	V61A: 1 (large), 4 (small) V61B: 3 (large), 0 (small) V62A: 4 (large), 3 (small) V62B: 4 (large), 0 (small)
<b>Material</b>	CRS of varying thicknesses
<b>Finish</b>	Textured powder coat
<b>Standards Compliance</b>	UL 60950-1 Ed2.0, EIA/ECA-310-E, IP20

## V600 Cabinet Accessories

VP-DUCT1*	VersaPOD vertical exhaust duct, 523mm x 653mm x 516-923mm (20.6 x 25.7 x 20 - 36 in.), black
VP-DUCT2*	VersaPOD vertical exhaust duct, 523mm x 653mm x 912-1320mm (20.6 x 25.7 x 36-52 in.), black
V-TRAY-100-1-(XX)*	100mm (3.9 in.) V600/V800 vertical cable tray, set of 2, black
V-TRAY-150-1-(XX)*	150mm (5.9 in.) V600/V800 vertical cable tray, set of 2, black
V-TRAY-300-1-(XX)*	300mm (11.8 in.) V600/V800 vertical cable tray, set of 2, black
V6A-R-1-42.	V600 mounting rails (set of 2), 42U, black
V6A-R-1-45.	V600 mounting rails (set of 2), 45U, black
V6A-R-1-48.	V600 mounting rails (set of 2), 48U, black
VP-FAN	Top-mount cooling fan panel, 3 fans x 110CFM, 120VAC w/NEMA 5-15P plug
VP-FAN-220.	Top-mount cooling fan panel, 3 fans x 110CFM, 220VAC w/C13 plug
VP-T3	Brush guard, large For large centre top panel cable openings
VP-BRUSH	Brush guard, small (compatible with version A only) For small perimeter top panel cable openings
V-W.	V600 castors V600/V800 castors (set of four)
VA-VPA-BAY-1.	VersaPOD baying kit Secures (1) VersaPOD cabinet to (1) V600 cabinet
VP-GRD	Grounding kit – includes ground bar, ground wire, mounting hardware, and accessories (capacity to support all required grounding connections for a single cabinet)
V6A-LD-1.	V600 lid divider panel, set of 2, 107mm (4.2 in.) high, used to create cable pathways on top of bayed cabinets (compatible with V600 version B only)

\* Nominal height with adjustable levelling feet or castors

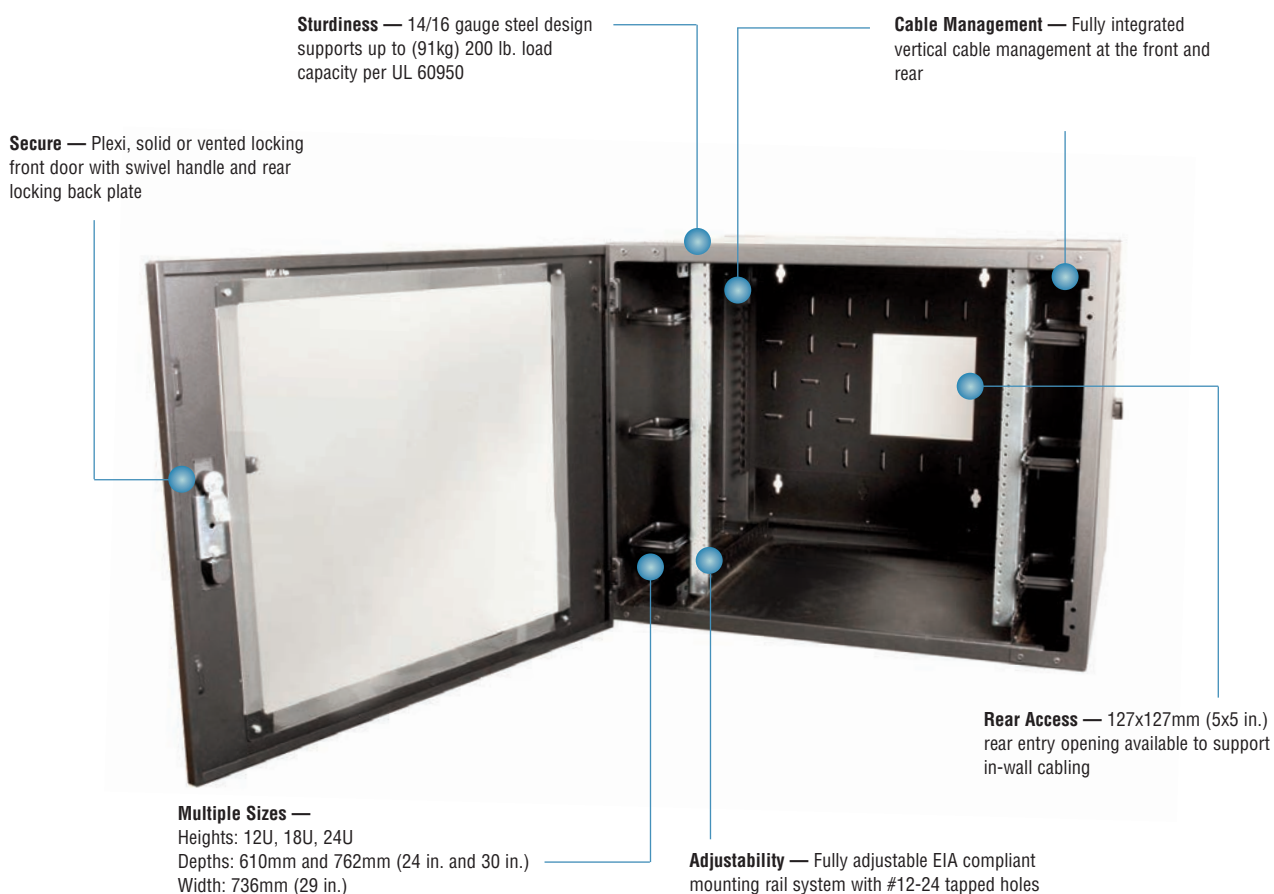
\*\* Does not include packaging

Use (XX) to specify cabinet height: 42 = 42U, 45 = 45U, 48 = 48U

\*Vertical exhaust ducts are compatible with V62A cabinets only. Solid doors should be specified for cabinets using exhaust ducts.

## Wall Mount Cabinet

Siemon's feature-rich Wall Mount Cabinet saves valuable floor space while providing a cost-effective means to secure and protect network equipment from dust, tampering, and other hazards. Designed with excellent cable management, easy rear access and a fully adjustable mounting rail system, the Wall Mount Cabinet is extremely versatile for a wide range of applications. It is ideal as a mini telecommunications room or for remote network distribution and consolidation points in open, unprotected spaces such as warehouses, retail facilities and schools. This EIA/ECA and UL 60950-compliant Wall Mount Cabinet is also ideal for zone cabling in intelligent building applications, passive optical networks, or wherever more expensive full-size cabinets are not required. It is compatible with Siemon VersaPOD® fan kits, rack-mount PDUs, shelves and other accessories.



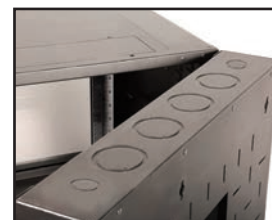
**Accessibility** — Easy rear access to equipment and wiring with right- or left-hinged back plate design



**Front Cable Management** — Integrated vertical cable management at front of cabinet provides means to route patch cords vertically within cabinet



**Intelligent Ready** — Standard swing handle can be easily retrofitted with 3rd party card or biometric handles for high security applications

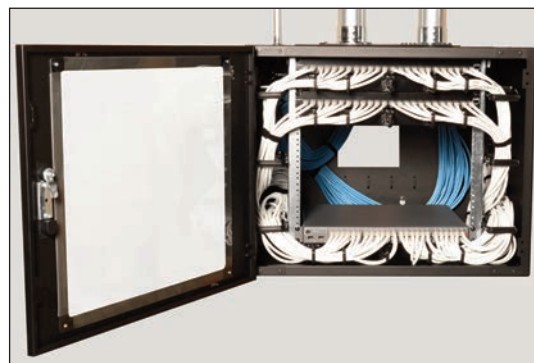


**Cable Entry** — (4) concentric 63.5 / 76.2mm (2.5 / 3 in.) and (2) 19mm (0.75 in.) cable entry knockouts at the top and bottom of the back plate



## Ordering Information:

WC(X)-(X)1(XX)-(XX) . . . . . Wall mount cabinet	
<b>Depth</b>	<b>Height</b>
2 = 610mm (24 in.)	12 = 12U
3 = 762mm (30 in.)	18 = 18U
	24 = 24U
<b>Front Door</b>	<b>Colour</b>
S = Solid	01 = Black
P = Plexiglass	02 = White
V = Vented	04 = Grey



## Wall Mount Specifications

<b>Height</b>	12U: 584mm (23 in.) 18U: 864mm (34 in.) 24U: 1118mm (44 in.)
<b>Width</b>	737mm (29 in.)
<b>Depth - External (Door to Door)</b>	WC2: 610mm (24 in.) WC3: 762mm (30 in.)
<b>Depth - Usable (Rail-to-Rail Max.)</b>	WC2: 394mm (15.5 in.) WC3: 546mm (21.5 in.)
<b>Weight *</b>	WC2 12U: 36kg (80 lbs.) WC2 18U: 48kg (105 lbs.) WC2 24U: 59kg (130 lbs.) WC3 12U: 45kg (100 lbs.) WC3 18U: 57kg (125 lbs.) WC3 24U: 68kg (150 lbs.)
<b>Load Rating</b>	Static: 91kg (200 lbs.)
<b>Colour</b>	Black, White or Grey
<b>% Door Perforation</b>	41%
<b>U Space Identification</b>	Equipment Rail Notches
<b>Lid Cable Access Openings</b>	6 small
<b>Material</b>	14/16 gauge steel
<b>Finish</b>	Textured powder coat
<b>Standards Compliance</b>	EIA/ECA-310-E UL 60950 NEMA Type 1 Enclosure IP20 Rated

\* Does not include packaging

Wall Mount Cabinets are also available as Siemon's V-Built® Customised Preconfigured Cabinet Solutions, where each cabinet is identified by one unique customer-specific part number, preloaded with Siemon components and packaged at one of our regional Siemon manufacturing facilities. This speeds deployment time and reduces on site packaging waste. Contact Siemon for more information.



## Wall Mount Cabinet Accessories

- VP-FAN. . . . . Top-mount cooling fan panel, 2 fans x 110CFM, 120VAC w/NEMA 5-15P plug
- VP-FAN-220. . . . . Top-mount cooling fan panel, 3 fans x 110CFM, 220VAC w/C13 plug
- VP-GRD. . . . . Grounding kit - Includes ground bar, ground wire, mounting hardware, and accessories (capacity to support all required grounding connections for a single cabinet)

# Data Centre Power and Cooling

With power costs continuing to rise, the ability to maximise a data centre's energy efficiency has rapidly become one of the most critical considerations for network infrastructure professionals. To meet this growing challenge, Siemon has developed a solution set that addresses energy efficiency from two key angles — cooling and power distribution.

## Section Contents

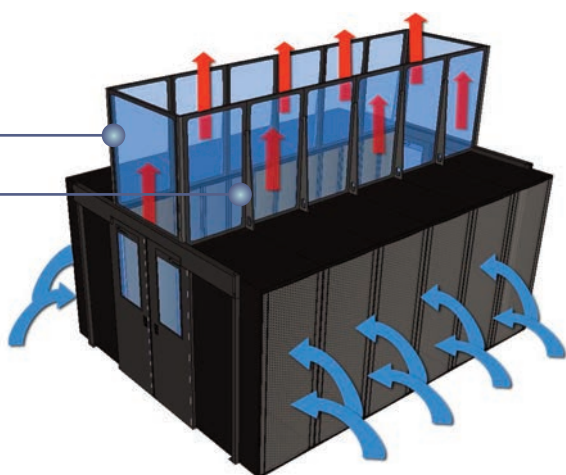
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# Aisle Containment Solutions

Siemon Aisle Containment Solutions are available in cold aisle containment (CAC) and hot aisle containment (HAC) configurations with roof or vertical panels that can be easily attached to Siemon VersaPOD®, V800™ and V600™ cabinets in a pod system to improve efficiency and expand the capacity of a data centre. By either containing cold air supply to provide targeted cooling to active equipment and isolating it from the rest of the room (CAC), or by guiding hot air exhaust for efficient return to cooling systems (HAC), Siemon Aisle Containment Solutions prevent the mixing of hot and cold air in the data centre. This allows higher temperature return air to improve the efficiency of existing cooling systems and reduce energy costs while preventing overprovisioning of air conditioning units. These passive containment solutions also cost effectively increase capacity by allowing greater heat densities without costly supplemental cooling. Custom size panels, door kits and several accessories are available to meet a wide variety of spaces and environments, including wall mount brackets for installation of a single cabinet row against a wall and riser brackets for greater headroom when using 42U cabinets.

**HAC Standing Top and End Panels** — Sized to match width of cabinet and height to suspended ceiling, these panels guide hot air to overhead air return.

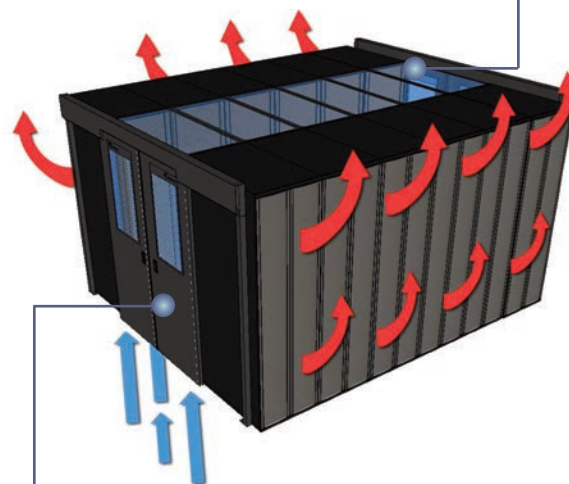
## Hot Aisle Containment



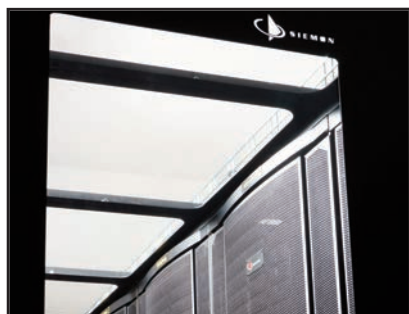
**Angled Support Brackets** — Provide lateral support to vertically mounted HAC standing top panels

**CAC Roof Panels** — These panels form a horizontal roof across the aisle to contain cold air for targeted cooling to active equipment.

## Cold Aisle Containment



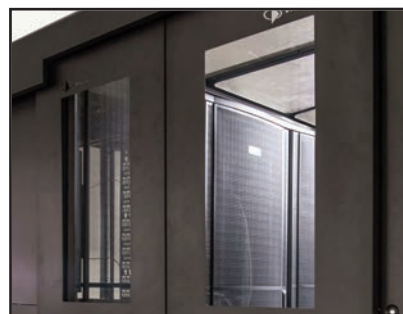
**Self-closing or Manual Doors** — Used to close off the end of the aisle with an integral frame design for smooth operation



**Made to Order** — Custom size CAC roof and HAC standing top and end panels with polycarbonate inserts



**Easy to Retrofit** — Easily attaches to cabinets to leverage existing perimeter cooling and hot aisle/cold aisle arrangement

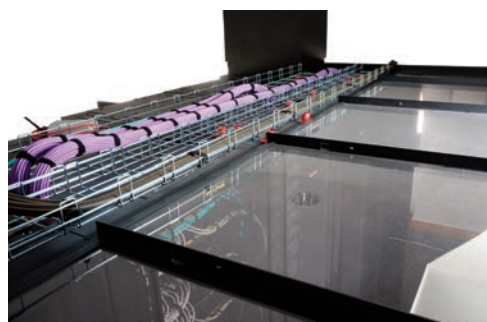


**Thermal Insulation** — Robust seals and self-closing or manual doors ensure optimal isolation between hot and cold air

## Ordering Information:

### PERFORMANCE SPECIFICATIONS

<b>Material – Windows</b>	Polycarbonate 4mm (0.157 in.)
<b>Material – Metal Components</b>	CRS
<b>Finish</b>	Textured powder coat
<b>Colour</b>	Black (RAL 9011)
<b>Light Transmission</b>	87%



### CAC Roof Panels

1200mm Long Horizontal CAC Roof Panels with Window

Part #	Description
VC-RP(X)-VPN-A12B.....	VersaPOD®
VC-RP(X)-V8N-A12B.....	V800™
VC-RP(X)-V6N-A12B.....	V600™
VC-RP(X)-VPS-A12B.....	SidePOD™
VC-RP(X)-(XXX)-A12B.....	Custom



Use (X) to specify UL, A = Non-UL, B = UL

Use (XXX) to specify width in cm

### Filler Panels

These solid panels fill spaces where cabinets are not present, such as where columns or other obstructions exist.

Part #	Description
VC-FP-VPN-BB.....	VersaPOD, 42U
VC-FP-VPN-AB.....	VersaPOD, 45U
VC-FP-V8N-BB.....	V800, 42U
VC-FP-V8N-AB.....	V800, 45U
VC-FP-V8N-CB.....	V800, 48U
VC-FP-V6N-BB.....	V600, 42U
VC-FP-V6N-AB.....	V600, 45U
VC-FP-V6N-CB.....	V600, 48U
VC-FP-VPS-BB.....	SidePOD, 42U
VC-FP-VPS-AB.....	SidePOD, 45U
VC-FP-(XXX)-(YYY)B.....	Custom



Use (XXX) to specify width in cm

Use (YYY) to specify height in cm

### HAC Standing Top and End Panels

Vertical Standing Top Panels

Part #	Description
VC-ST(X)-VPN-(YYY)B.....	VersaPOD
VC-ST(X)-V8N-(YYY)B.....	V800
VC-ST(X)-V6N-(YYY)B.....	V600
VC-ST(X)-(XXX)-(YYY)B.....	Custom

Use (X) to specify UL, A = Non-UL, B = UL

Use (XXX) to specify width in cm

Use (YYY) to specify height in cm

Vertical Standing End Panels

Part #	Description
VC-SE(X)-(XXX)-(YYY)B.....	Custom

Use (X) to specify UL, A = Non-UL, B = UL

Use (XXX) to specify width in cm

Use (YYY) to specify height in cm

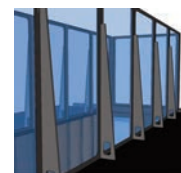
### Angled Support Brackets

For supporting vertically mounted HAC top panels

Part #	Description
VC-AS-(XXX)-(YYY)B .....	Angled support bracket

Use (XXX) to specify width in cm

Use (YYY) to specify height in cm



## Ordering Information:

### Door Kits & Accessories

45U Doors with Window(s), No Lock

Part #	Description
VC-DR(X)-SSL-AB.....	45U Single self closing left
VC-DR(X)-SSN-AB.....	45U Single self closing right
VC-DR(X)-SML-AB.....	45U Single manual closing left
VC-DR(X)-SMR-AB.....	45U Single manual closing right
VC-DR(X)-DSN-AB.....	45U Double self closing
VC-DR(X)-DMN-AB.....	45U Double manual closing

Use (X) to specify UL, A = Non-UL, B = UL



48U Adjustment Brackets to raise doors when using 48U cabinets

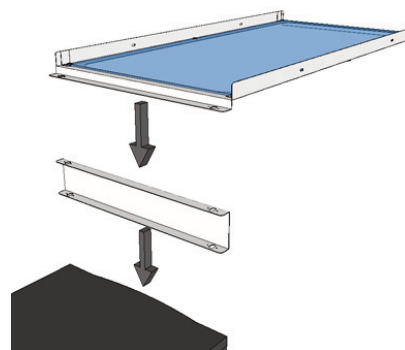
Part #	Description
VC-DR-DAB-CB .....	48U Double door adjustment bracket
VC-DR-SAB-CB .....	48U Single door adjustment bracket

### End Panels

1200mm wide end panel with window to fill aisle space opposite the door

Part #	Description
VC-EP(X)-B12B.....	End panel, 42U
VC-EP(X)-A12B.....	End panel, 45U
VC-EP(X)-C12B.....	End panel, 48U

Use (X) to specify UL, A = Non-UL, B = UL



### Wall Mounting Brackets

Brackets to mount CAC roof panels to the wall when deploying containment for a single cabinet row

Part #	Description
VC-WM-VPN-AB.....	VersaPOD®
VC-WM-V8N-AB.....	V800
VC-WM-V6N-AB.....	V600
VC-WM-VPS-AB.....	SidePOD™
VC-WM-(XXX)-AB.....	Custom

Use (XXX) to specify width in cm

### Riser Brackets

These brackets are installed on top of cabinets in order to raise roof panels and increase clearance in the cold aisle. Riser brackets can aid in the installation of fire suppression systems within the contained space. They are also useful to establish a uniform level when differing heights of cabinets are used in an aisle.

Part #	Description
VC-RB-VPN-AB.....	VersaPOD,3U
VC-RB-VPN-DB.....	VersaPOD,6U
VC-RB-V8N-AB.....	V800,3U
VC-RB-V8N-DB.....	V800,6U
VC-RB-V6N-AB.....	V600,3U
VC-RB-V6N-DB.....	V600,6U
VC-RB-VPS-AB.....	SidePOD,3U
VC-RB-VPS-DB.....	SidePOD,6U
VC-RB-(XXX)-(YYY)-B.....	Custom

Use (XXX) to specify width in cm

Use (YYY) to specify height in cm



## PowerMax™ Power Distribution Units

Siemon's PowerMax line of PDUs range from basic and metered for simple, reliable and cost-effective power distribution, to a full line of intelligent PDUs that deliver real-time power information with varying degrees of intelligent functionality for valuable troubleshooting, control and monitoring of power usage, capacity and environmental conditions. Available in both single phase and either Delta or Wye three phase power, PowerMax PDUs feature a variety of input currents and voltages with either NEMA or IEC style plugs. Multiple NEMA and IEC output options distribute reliable 120V, 208V or 230V to a wide range of rack-mounted IT equipment, ranging from 1.8kW to 22kW.

All PowerMax PDUs come in both horizontal and vertical styles. Horizontal PDUs mount easily in any standard EIA 19-inch rack, while vertical PDUs are ideal for mounting within a cabinet's Zero-U space, such as the Zero-U space offered with Siemon's VersaPOD® and V800™ cabinets.

### Mounting

- Vertical PDUs mount via tool-less button attachments
- Horizontal PDUs mount to standard EIA 19 in. configurations

### Features

- NEMA and IEC plug inputs
- Single and 3-phase voltages
- Horizontal and Zero-U vertical styles
- 3m (10 ft.) cords with other lengths available
- Soldered connections for high reliability

### PDU Families

- Basic
- Metered
- Monitored
- Smart
- Switched
- Managed



**PowerMax™**



Function	Basic	Metered	Monitored	Smart	Switched	Managed
Built-In Display for Local Use		✓	✓	✓	✓	✓
Device-Level Monitoring		✓	✓	✓	✓	✓
Remote Monitoring via Ethernet Port			✓	✓	✓	✓
Outlet Level Monitoring				✓		✓
Outlet Level Switching/Control					✓	✓

### Specifications

General	
Safety Compliance	CE
Emissions	FCC Part 15 Class A
Cord Length	3m (10ft)
Circuit breakers	Above 16 Amps
Finish	Black, painted
Warranty	3 years
Meter Accuracy	+/-1%

Environmental	
Operating Temperature	10° to 40°C (50° to 104°F)
Storage Temperature	-25° to 65°C (-13° to 149°F)
Operating Humidity	5% to 95% (non-condensing)
Storage Humidity	5% to 95% (non-condensing)
Operating Elevation	0 to 3000 m (0 to 9842 ft)
Storage Elevation	0 to 15240 m (0 to 50000 ft)

# Basic PDUs

Basic PDUs offer a lower-cost alternative for everyday, reliable power distribution when advanced features are not required, providing a robust yet economical means to distribute power to IT equipment.

## Ordering Information

Mounting	Input Current	Input Voltage	Power	Input Plug	Output Receptacles	Output Voltage	Length	Part Number
Vertical	20A	120/208V	5.7kW	NEMA L21-20P	5-20R (24)	120V	66in (1680mm)	8BV11-AB24Z-K1A
Vertical	20A	120/208V	5.7kW	NEMA L21-20P	C13 (21) + C19 (3)	120V	66in (1680mm)	8BV11-BA21C-K1A
Horizontal	15A	120V	1.4kW	NEMA 5-15P	5-15R (8)	120V	19in (482.6mm)	8BH01-AA08Z-K1A
Horizontal	15A	120V	1.4kW	NEMA L5-15P	5-15R (8)	120V	19in (482.6mm)	8BH04-AA08Z-K1A
Vertical	15A	120V	1.4kW	NEMA 5-15P	5-15R (24)	120V	61in (1560mm)	8BV01-AA24Z-K1A
Vertical	15A	120V	1.4kW	NEMA L5-15P	5-15R (24)	120V	61in (1560mm)	8BV04-AA24Z-K1A
Horizontal	20A	208V	3.3kW	NEMA L6-20P	C13 (10)	208V	19in (482.6mm)	8BH07-BA10Z-K1A
Horizontal	30A	208V	4.9kW	NEMA L6-30P	C13 (10)	208V	19in (482.6mm)	8BH08-BA10Z-K1A
Vertical	20A	208V	3.3kW	NEMA L6-20P	C13 (21) + C19 (3)	208V	66in (1680mm)	8BV07-BA21C-K1A
Vertical	30A	208V	4.9kW	NEMA L6-30P	C13 (21) + C19 (3)	208V	66in (1680mm)	8BV08-BA21C-K1A
Vertical	16A	230/400V	11.0kW	IEC 60309	C13 (24) + C19 (6)	230V	70in (1785mm)	8BV26-BA24E-K1A
Vertical	32A	230/400V	22.0kW	IEC 60309	C13 (24) + C19 (6)	230V	70in (1785mm)	8BV27-BA24E-K1A
Horizontal	16A	230V	3.6kW	IEC 60309	C13 (12)	230V	19in (482.6mm)	8BH20-BA12Z-K1A
Horizontal	32A	230V	7.3kW	IEC 60309	C13 (12)	230V	19in (482.6mm)	8BH22-BA12Z-K1A
Horizontal	16A	230V	3.6kW	IEC C20	C13 (12)	230V	19in (482.6mm)	8BH33-BA12Z-K1A
Vertical	16A	230V	3.6kW	IEC 60309	C13 (21) + C19 (3)	230V	61in (1560mm)	8BV20-BA21C-K1A
Vertical	16A	230V	3.6kW	IEC 60309	C13 (24) + C19 (6)	230V	61in (1560mm)	8BV20-BA24E-K1A
Vertical	32A	230V	7.3kW	IEC 60309	C13 (24) + C19 (6)	230V	66in (1680mm)	8BV22-BA24E-K1A
Vertical	16A	230V	3.6kW	IEC C20	C13 (24) + C19 (6)	230V	61in (1560mm)	8BV33-BA24E-K1A

Other configurations are available - please contact your local Technical Support Group for more information.



## Metered PDUs

Metered PDUs provide local visual monitoring capability through a built-in LED meter that displays real-time power data. Metered PDUs are a cost-effective alternative for providing more intelligence than basic PDUs.

### Ordering Information

Mounting	Input Current	Input Voltage	Power	Input Plug	Output Receptacles	Output Voltage	Length	Part Number
Vertical	20A	120/208V	5.7kW	NEMA L21-20P	5-20R (24)	120V	1785mm (70 in.)	8TV11-AB24Z-K1A
Vertical	20A	120/208V	5.7kW	NEMA L21-20P	C13 (21) + C19 (3)	120V	1785mm (70 in.)	8TV11-BA21C-K1A
Horizontal	15A	120V	1.4kW	NEMA L5-15P	5-15R (8)	120V	482.6mm (19 in.)	8TH04-AA08Z-K1A
Vertical	15A	120V	1.4kW	NEMA L5-15P	5-15R (24)	120V	1560mm (61 in.)	8TV04-AA24Z-K1A
Horizontal	20A	208V	3.3kW	NEMA L6-20P	C13 (10)	208V	482.6mm (19 in.)	8TH07-BA10Z-K1A
Horizontal	30A	208V	4.9kW	NEMA L6-30P	C13 (10)	208V	482.6mm (19 in.)	8TH08-BA10Z-K1A
Vertical	20A	208V	3.3kW	NEMA L6-20P	C13 (21) + C19 (3)	208V	1680mm (66 in.)	8TV07-BA21C-K1A
Vertical	30A	208V	4.9kW	NEMA L6-30P	C13 (21) + C19 (3)	208V	1680mm (66 in.)	8TV08-BA21C-K1A
Vertical	16A	230/400V	11.0kW	IEC 60309	C13 (24) + C19 (6)	230V	1850mm (73 in.)	8TV26-BA24E-K1A
Vertical	32A	230/400V	22.0kW	IEC 60309	C13 (24) + C19 (6)	230V	1850mm (73 in.)	8TV27-BA24E-K1A
Horizontal	16A	230V	3.6kW	IEC C20	C13 (12)	230V	482.6mm (19 in.)	8TH33-BA12Z-K1A
Horizontal	32A	230V	7.3kW	IEC 60309	C13 (12)	230V	482.6mm (19 in.)	8TH22-BA12Z-K1A
Vertical	16A	230V	3.6kW	IEC 60309	C13 (24) + C19 (6)	230V	1680mm (66 in.)	8TV33-BA24E-K1A
Vertical	32A	230V	7.3kW	IEC 60309	C13 (24) + C19 (6)	230V	1785mm (70 in.)	8TV22-BA24E-K1A

Other configurations are available - please contact your local Technical Support Group for more information.



- Single phase PDUs display current voltage.
- Three-phase PDUs display voltage and current for each phase.



Three-Phase



Single-Phase

## PowerMax™ Intelligent PDUs

With an industry-leading accuracy of  $\pm 1\%$ , Siemon's line of PowerMax Intelligent PDUs are ideal for reducing energy costs, managing and optimising power capacity, and identifying and preventing potential problems to ensure uptime and improve power usage effectiveness (PUE).

PowerMax Intelligent PDUs identify high and erratic power consumption, underutilised equipment and overcooling situations to save operating costs, while collecting information on actual usage, true power needs and capacity to make informed decisions regarding equipment density, consolidation, and moves, adds and changes. They reduce downtime via real-time monitoring of environmental conditions at the cabinet level via sensor ports and potential problems such as overloads. Smart, Switched and Managed PDUs enable individual outlet control for remotely restarting or shutting down specific equipment.

- IP address sharing enables 4 PDUs to share a single IP address in a master-slave hierarchy
- Optional lights-out mode turns off PDU displays after 15 seconds to reduce power consumption of the PDU itself
- Display rotation facilitates screen reading whether the power supply is delivered from above or below
- Embedded web-based intuitive interface or accessible via any third-party software via SNMP
- Outlet grouping and group access control for Smart, Switched and Managed PDUs facilitate overall management



## User-Friendly Firmware

Embedded in PowerMax™ Intelligent PDUs is a firmware that enables access to each PDU via a web browser that features an intuitive user interface for viewing real-time monitoring information. Simple, easy-to-read log trends and graphs display historical data of power and environmental conditions at the device or outlet level. Accessing PDUs via the web browser offers improved user control, allowing for configuring IP address sharing, setting alarm thresholds, grouping outlets, assigning users to different groups, and establishing outlet group access to user groups. PowerMax Intelligent PDUs can also be accessed with third-party software via SNMP using the Ethernet port.



- Easy-to-read graphs display power and environmental conditions
- For Smart, Switched and Managed intelligent PowerMax PDUs, six outlet groups can be configured and user groups can be assigned / denied access to outlet groups

## Monitored PDUs

Monitored PDUs enable remote monitoring at an aggregate, device-level via an Ethernet port, generating a smaller quantity of information to simplify management.

- Built-in display for local use
- Device level monitoring
- Remote monitoring via Ethernet port
- Environmental sensor ports
- IP address sharing
- Log trends and historical data
- User defined alarms



### Ordering Information

Mounting	Input Current	Input Voltage	Power	Input Plug	Output Receptacles	Output Voltage	Length	Part Number
Vertical	20A	120/208V	5.7kW	NEMA L21-20P	5-20R (24)	120V	1850mm (73 in.)	8MV11-AB24Z-K1A
Vertical	20A	120/208V	5.7kW	NEMA L21-20P	C13 (21) + C19 (3)	120V	1850mm (73 in.)	8MV11-BA21C-K1A
Horizontal	15A	120V	1.4kW	NEMA L5-15P	5-15R (8)	120V	482.6mm (19 in.)	8MH04-AA08Z-K1A
Vertical	15A	120V	1.4kW	NEMA L5-15P	5-15R (24)	120V	1850mm (73 in.)	8MV04-AA24Z-K1A
Vertical	20A	208V	3.3kW	NEMA L6-20P	C13 (21) + C19 (3)	208V	1850mm (73 in.)	8MV07-BA21C-K1A
Vertical	30A	208V	4.9kW	NEMA L6-30P	C13 (21) + C19 (3)	208V	1850mm (73 in.)	8MV08-BA21C-K1A
Vertical	16A	230/400V	11.0kW	IEC 60309	C13 (24) + C19 (6)	230V	1850mm (73 in.)	8MV26-BA24E-K1A
Vertical	32A	230/400V	22.0kW	IEC 60309	C13 (21) + C19 (3)	230V	1850mm (73 in.)	8MV27-BA21C-K1A
Horizontal	16A	230V	3.6kW	IEC 60309	C13 (8)	230V	482.6mm (19 in.)	8MH20-BA08Z-K1A
Horizontal	16A	230V	3.6kW	IEC C20	C13 (8)	230V	482.6mm (19 in.)	8MH33-BA08Z-K1A
Horizontal	32A	230V	7.3kW	IEC 60309	C13 (8)	230V	482.6mm (19 in.)	8MH22-BA08Z-K1A
Vertical	16A	230V	3.6kW	IEC 60309	C13 (24) + C19 (6)	230V	1850mm (73 in.)	8MV20-BA24E-K1A
Vertical	16A	230V	3.6kW	IEC 60309	C13 (36)	230V	1850mm (73 in.)	8MV20-BA36Z-K1A
Vertical	16A	230V	3.6kW	IEC C20	C13 (24) + C19 (6)	230V	1850mm (73 in.)	8MV33-BA24E-K1A
Vertical	32A	230V	7.3kW	IEC 60309	C13 (18) + C19 (6)	230V	1850mm (73 in.)	8MV22-BA18E-K1A
Vertical	32A	230V	7.3kW	IEC 60309	C13 (36)	230V	1850mm (73 in.)	8MV22-BA36Z-K1A



## Smart PDUs

Smart PDUs offer a higher level of monitoring at the device or outlet-level via an Ethernet port. Smart PDUs offer the ability to configure outlets into up to six groups and assign user group access to specific outlets groups.

- Built-in display for local use
- Device level monitoring
- Remote monitoring via Ethernet port
- Outlet level monitoring
- Environmental sensor ports
- IP address sharing
- Log trends and historical data
- User defined alarms



### Ordering Information

Mounting	Input Current	Input Voltage	Power	Input Plug	Output Receptacles	Output Voltage	Length	Part Number
Vertical	20A	120/208V	5.7kW	NEMA L21-20P	5-20R (24)	120V	1850mm (73 in.)	8NV11-AB24Z-K1A
Vertical	20A	120/208V	5.7kW	NEMA L21-20P	C13 (21) + C19 (3)	120V	1850mm (73 in.)	8NV11-BA21C-K1A
Horizontal	15A	120V	1.4kW	NEMA L5-15P	5-15R (8)	120V	482.6mm (19 in.)	8NH04-AA08Z-K1A
Vertical	15A	120V	1.4kW	NEMA L5-15P	5-15R (8)	120V	482.6mm (19 in.)	8NH01-AA08Z-K1A
Vertical	15A	120V	1.4kW	NEMA L5-15P	5-15R (24)	120V	1850mm (73 in.)	8NV04-AA24Z-K1A
Vertical	20A	208V	3.3kW	NEMA L6-20P	C13 (21) + C19 (3)	208V	1850mm (73 in.)	8NV07-BA21C-K1A
Vertical	30A	208V	4.9kW	NEMA L6-30P	C13 (21) + C19 (3)	208V	1850mm (73 in.)	8NV08-BA21C-K1A
Vertical	32A	230/400V	22.0kW	IEC 60309	C13 (21) + C19 (3)	230V	1850mm (73 in.)	8NV27-BA21C-K1A
Vertical	16A	230V	3.6kW	IEC 60309	C13 (21) + C19 (3)	230V	1850mm (73 in.)	8NV20-BA21C-K1A
Vertical	16A	230V	3.6kW	IEC C20	C13 (21) + C19 (3)	230V	1850mm (73 in.)	8NV33-BA21C-K1A
Horizontal	32A	230V	7.3kW	IEC 60309	C13 (8)	230V	482.6mm (19 in.)	8NH22-BA08Z-K1A
Vertical	32A	230V	7.3kW	IEC 60309	C13 (21) + C19 (3)	230V	1850mm (73 in.)	8NV22-BA21C-K1A
Horizontal	16A	230V	3.6kW	IEC C20	C13 (8)	230V	482.6mm (19 in.)	8NH33-BA08Z-K1A
Horizontal	16A	230V	3.6kW	IEC 60309	C13 (8)	230V	482.6mm (19 in.)	8NH20-BA08Z-K1A

## Switched PDUs

Switched PDUs combine total monitoring with outlet-level switching that enables users to remotely control individual receptacles, allowing equipment to be restarted or remotely shut down. Switched PDUs offer the ability to configure outlets into up to six groups and assign user group access to specific outlets groups.

- Built-in display for local use
- Device level monitoring
- Remote monitoring via Ethernet port
- Environmental sensor ports
- Outlet level switching/control
- IP address sharing
- Log trends and historical data
- User defined alarms



### Ordering Information

Mounting	Input Current	Input Voltage	Power	Input Plug	Output Receptacles	Output Voltage	Length	Part Number
Vertical	20A	120/208V	5.7kW	NEMA L21-20P	5-20R (24)	120V	1850mm (73 in.)	8SV11-AB24Z-K1A
Vertical	20A	120/208V	5.7kW	NEMA L21-20P	C13 (21) + C19 (3)	120V	1850mm (73 in.)	8SV11-BA21C-K1A
Horizontal	15A	120V	1.4kW	NEMA 5-15P	5-15R (8)	120V	482.6mm (19 in.)	8SH01-AA08Z-K1A
Horizontal	15A	120V	1.4kW	NEMA L5-15P	5-15R (8)	120V	482.6mm (19 in.)	8SH04-AA08Z-K1A
Vertical	15A	120V	1.4kW	NEMA L5-15P	5-15R (24)	120V	1850mm (73 in.)	8SV04-AA24Z-K1A
Vertical	20A	208V	3.3kW	NEMA L6-20P	C13 (21) + C19 (3)	208V	1850mm (73 in.)	8SV07-BA21C-K1A
Vertical	30A	208V	4.9kW	NEMA L6-30P	C13 (21) + C19 (3)	208V	1850mm (73 in.)	8SV08-BA21C-K1A
Horizontal	32A	230/400V	22.0kW	IEC 60309	C13 (21) + C19 (3)	230V	1850mm (73 in.)	8SV27-BA21C-K1A
Horizontal	16A	230V	3.6kW	IEC 60309	C13 (8)	230V	482.6mm (19 in.)	8SH20-BA08Z-K1A
Horizontal	16A	230V	3.6kW	IEC C20	C13 (8)	230V	482.6mm (19 in.)	8SH33-BA08Z-K1A
Horizontal	32A	230V	7.3kW	IEC 60309	C13 (8)	230V	482.6mm (19 in.)	8SH22-BA08Z-K1A
Horizontal	32A	230V	7.3kW	IEC 60309	C13 (21) + C19 (3)	230V	1850mm (73 in.)	8SV22-BA21C-K1A
Vertical	16A	230V	3.6kW	IEC 60309	C13 (21) + C19 (3)	230V	1850mm (73 in.)	8SV20-BA21C-K1A
Vertical	16A	230V	3.6kW	IEC C20	C13 (21) + C19 (3)	230V	1850mm (73 in.)	8SV33-BA21C-K1A

## Managed PDUs

Managed PDUs offer the highest level of control and monitoring with outlet-level monitoring and outlet-level switching that enable users to remotely monitor and control individual receptacles. Managed PDUs offer the ability to configure outlets into up to six groups and assign user group access to specific outlets groups.

- Built-in display for local use
- Device level monitoring
- Remote monitoring via Ethernet port
- Environmental sensor ports
- Outlet level monitoring
- Outlet level switching/control
- IP address sharing
- Log trends and historical data
- User defined alarms



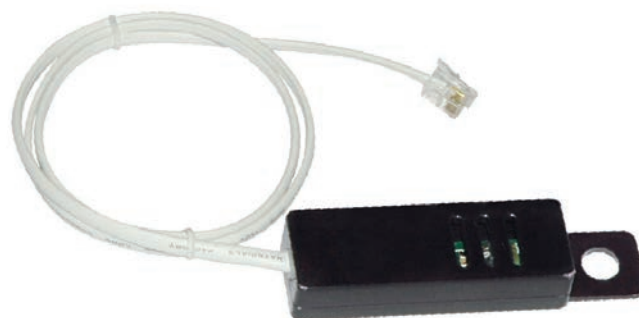
## Ordering Information

Mounting	Input Current	Input Voltage	Power	Input Plug	Output Receptacles	Output Voltage	Length	Part Number
Vertical	20A	120/208V	5.7kW	NEMA L21-20P	5-20R (24)	120V	1850mm (73 in.)	8WV11-AB24Z-K1A
Vertical	20A	120/208V	5.7kW	NEMA L21-20P	C13 (21) + C19 (3)	120V	1850mm (73 in.)	8WV11-BA21C-K1A
Horizontal	15A	120V	1.4kW	NEMA 5-15P	5-15R (8)	120V	482.6mm (19 in.)	8WH01-AA08Z-K1A
Horizontal	15A	120V	1.4kW	NEMA L5-15P	5-15R (8)	120V	482.6mm (19 in.)	8WH04-AA08Z-K1A
Vertical	15A	120V	1.4kW	NEMA L5-15P	5-15R (24)	120V	1850mm (73 in.)	8WV04-AA24Z-K1A
Vertical	20A	208V	3.3kW	NEMA L6-20P	C13 (21) + C19 (3)	208V	1850mm (73 in.)	8WV07-BA21C-K1A
Vertical	30A	208V	4.9kW	NEMA L6-30P	C13 (21) + C19 (3)	208V	1850mm (73 in.)	8WV08-BA21C-K1A
Vertical	32A	230/400V	22.0kW	IEC 60309	C13 (21) + C19 (3)	230V	1850mm (73 in.)	8WV27-BA21C-K1A
Horizontal	16A	230V	3.6kW	IEC 60309	C13 (8)	230V	482.6mm (19 in.)	8WH20-BA08Z-K1A
Horizontal	16A	230V	3.6kW	IEC C20	C13 (8)	230V	482.6mm (19 in.)	8WH33-BA08Z-K1A
Vertical	16A	230V	3.6kW	IEC 60309	C13 (21) + C19 (3)	230V	1850mm (73 in.)	8WV20-BA21C-K1A
Vertical	16A	230V	3.6kW	IEC C20	C13 (21) + C19 (3)	230V	1850mm (73 in.)	8WV33-BA21C-K1A
Vertical	32A	230V	7.3kW	IEC 60309	C13 (21) + C19 (3)	230V	1850mm (73 in.)	8WV22-BA21C-K1A

# PowerMax™ PDU Accessories

## Temperature/Humidity Sensor 8ACC-S-TEHU

Each PowerMax PDU can be fitted with two temperature/humidity sensors, providing the customer with accurate environmental measurements at the cabinet level



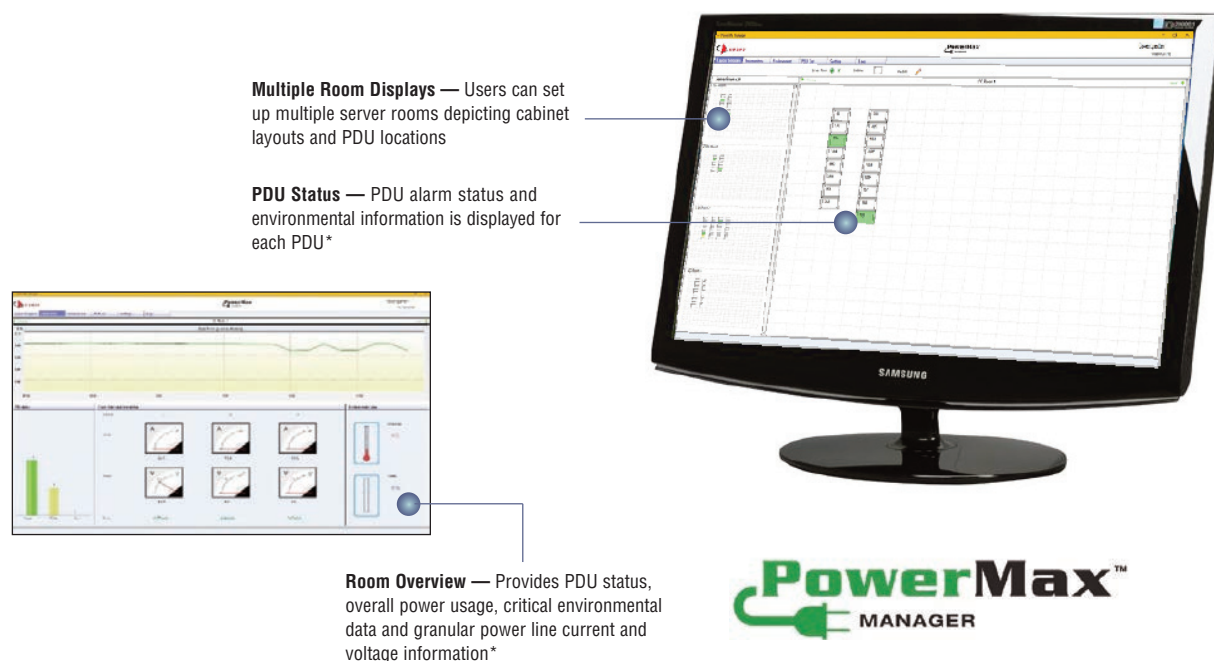
Item	Parameter	
Environment	Working temperature	0°C-55°C (32°F - 131°F)
Temperature Measurement	Relative Humidity	10-90%
	Range	-40°C - 95°C (-40°F - 203°F)
	Resolution	0.1°C (32.2°F)
	Accuracy	0.5°C (32.9°F)
	Response time	400ms
Humidity Measurement	Range	0 - 95%
	Resolution	0.1%
	Accuracy	0.5%
	Response time	400ms
Working Voltage	5V DC	
Power Consumption	1.0W	



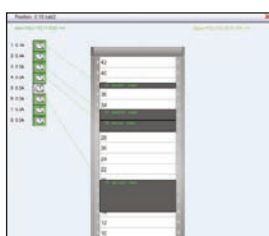
A variety of additional sensors are available for use with PowerMax PDUs. Visit [www.siemon.com](http://www.siemon.com) for a complete listing or contact customer service.

# PowerMax™ Manager Software

Siemon's PowerMax Manager is an easy-to-use application that provides an intuitive graphical interface for monitoring and managing up to 200 Siemon power distribution units (PDUs). Ideal for data centres and telecommunications spaces, users can set up multiple equipment room layouts that graphically depict cabinets and PDU locations. Depending on the intelligence level and functionality of the PDU, PowerMax Manager collects status, power usage and environmental data to provide room, cabinet, PDU and port level information, including total power usage and environmental data via any connected PDU temperature and humidity sensors. With multiple levels of granularity and control, PowerMax Manager enables individual PDU ports to be turned on or off and sends alarms based on user-defined thresholds, helping data centre managers avoid downtime, maximise asset utilisation and improve overall power usage effectiveness (PUE).



**Web Browser Capability** — System users can view PowerMax Manager data via compatible web browser for remote monitoring



**Monitor Up to 200 PDUs** — PowerMax Manager displays power, environmental data, and port, PDU and alarm status for up to 200 Siemon PDUs\*



**Manage at the Device Level** — Easily add devices to a cabinet with device information and assign rack unit location, PDU and PDU ports

\* PowerMax Manager capabilities are based on PDU intelligence level, functionality and accessories (i.e. environmental sensors).

## Ordering Information:

Part #	Description
PM-SWL-A.....	PowerMax manager software

PowerMax Manager Software is optimised for use with Siemon's PowerMax line of intelligent PDUs, available with varying degrees of intelligence, including managed, metered, monitored, smart and switched.

## SYSTEM REQUIREMENTS

Requirement	Component and Version
Operating System	Windows 7 or higher
Client Web Access	Internet Explorer, Firefox and Google Chrome



# High Speed Interconnects

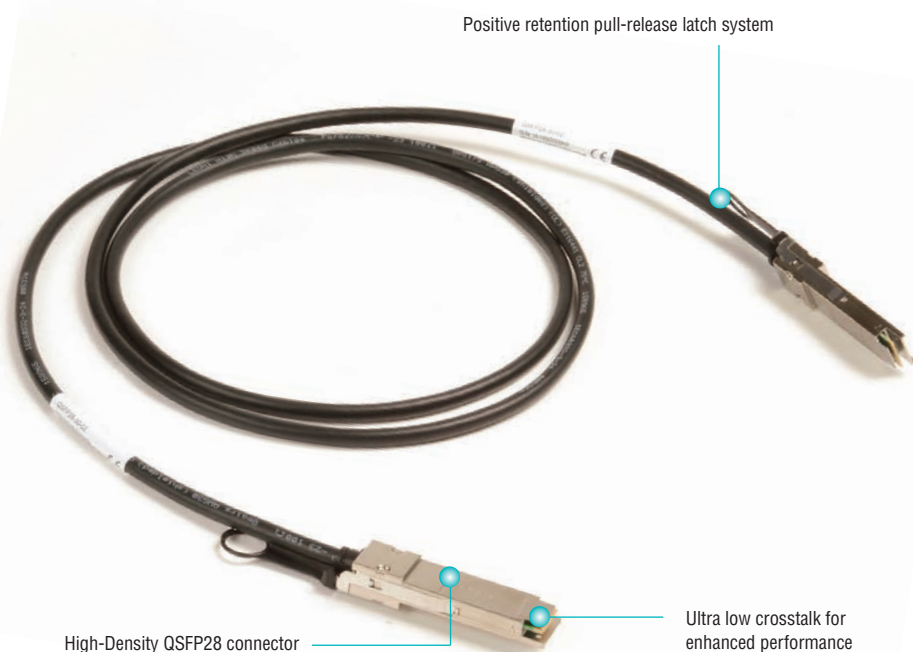
Siemon has a comprehensive offering of interconnect assemblies for ultra high-speed point-to-point applications. Supporting speeds up to 100Gb/s across an array of application standards, the line features QSFP28, SFP28, QSFP+, SFP+, and CXP interfaces, as well as hybrid assemblies. Independently tested to be interoperable with most major equipment manufacturers, Siemon interconnects deliver cost-effective, flexible support for your high-speed, direct attach equipment connections.

## Section Contents

QSFP28 100G Passive Copper Cable Assemblies . . . . .	12.1 - 12.2
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QSFP28 to 4 SFP28 25/100G Passive Copper Cable Assemblies . . . . .	12.5 - 12.6
SFP28 25G Passive Copper Cable Assemblies . . . . .	12.7 - 12.8
CXP 100G Passive Copper Cable Assemblies . . . . .	12.9 - 12.10
CXP to 3 QSFP+ 40/100G Passive Copper Cable Assemblies . . . . .	12.11 - 12.12
QSFP+ 56G FDR Passive Copper Cable Assemblies . . . . .	12.13 - 12.14
QSFP+ 40G Passive Copper Cable Assemblies . . . . .	12.15 - 12.16
QSFP+ 40G Active Optical Cable Assemblies . . . . .	12.17 - 12.18
QSFP+ to 4 SFP+ 10/40G Passive Copper Cable Assemblies . . . . .	12.19 - 12.20
SFP+ 10G Active and Passive Copper Cable Assemblies . . . . .	12.21 - 12.22
SFP+ 10G Cisco Compatible Active and Passive Copper Cable Assemblies . . . . .	12.23- 12.24

# QSFP28 100G Passive Copper Cable Assemblies

Siemon QSFP28 Passive Copper Cable assemblies exceed 100G Ethernet (100GBASE-CR4) specifications. They are designed for high-density applications, offering a cost-effective, low-power option for high-speed data centre interconnects. This next generation product shares the same mating interface with QSFP+ (SFF-8436) form factors, making it backward compatible with existing QSFP+ ports. These direct attach cable assemblies are available in standard lengths up to 5 metres (16.4 ft.) for support of up to 100G Ethernet applications.



## STANDARDS COMPLIANCE

- Electrical: IEEE 802.3by, IEEE 802.3bj
- SFF-8636, SFF-8661, SFF-8665, SFF-8679
- RoHS

## APPLICATIONS

- Ethernet 10G, 25G, 40G, 100G (100GBASE-CR4)
- Intra-Rack System, Top of Rack (ToR), Middle of Rack (MoR)
- Switch, Storage, Server, NIC
- Switch-to-Switch, Switch-to-Server

## PCB Termination

Laser stripped conductors

Overmould provides additional strain relief to minimise pistoning



Automatic welding for unmatched consistency

Welding results in less dielectric shrink-back than soldering

# Product Information

## PERFORMANCE SPECIFICATIONS

Electrical	
Min. Dielectric Withstand Voltage	300 VDC
Insulation Resistance	1000 Mohms
Current Rating	0.5 Amp Min/Signal Contact
General	
Operating Temperature	-5 to 70° C (32 to 158° F)
Flammability Rating (Plastics)	UL 94
Green Features	RoHS, Lead-Free
Shield	Braid/Foil
Marking	Mfg Name, Part #, Date Code



Plug	
Backshell Material	Nickel Plated Zinc Diecast
Contact Material	PCB with Gold-Plated Pads
Latch	Positive Latching with Nylon Pull Tab
Insertion Force	40N (9.0 lbf.) Max
Withdrawal Force	30N (6.7 lbf.) Max
Retention Force	90N (20.2 lbf.) Min
Durability	250 Cycles Min
Cable	
Conductor	Solid
Wire Gauge	30 AWG and 26 AWG
Impedance	100 +/- 10 ohms
Construction	Twinaxial
Cable OD	30 AWG = 4.1mm (0.16 in.)
	26 AWG = 4.8mm (0.18 in.)
Jacket Type	PVC or LS0H
Bend Radius	5X Cable OD - Single
	10X Cable OD - Repeated

## Ordering Information:

QSFP28 to QSFP28 Passive Copper Cable Assemblies

Part Number	Length	Gauge
Q1Q28P300.5-01(X)	0.5m (1.6 ft.)	30
Q1Q28P301.0-01(X)	1m (3.3 ft.)	30
Q1Q28P301.5-01(X)	1.5m (4.9 ft.)	30
Q1Q28P302.0-01(X)	2m (6.6 ft.)	30
Q1Q28P262.5-01(X)	2.5m (8.2 ft.)	26
Q1Q28P263.0-01(X)	3m (9.8 ft.)	26
Q1Q28P265.0-01(X)*	5m (16.4 ft.)	26

Use (X) to specify jacket: L = LS0H, P = PVC

All cables compliant to IEEE 802.3by, CA-N. Will work with or without FEC unless otherwise noted.

\*Compliant to IEEE 802.3bj, CA-L. Will work with RS-FEC.

# QSFP28 to 2 QSFP28 50/100G Passive Copper Cable Assemblies

Siemon QSFP28 to 2 QSFP28 Passive Copper Cable assemblies exceed 100G Ethernet (100GBASE-CR4) specifications. They are designed for high-density applications, offering a cost-effective low-power option for high-speed data centre interconnects. This next generation product shares the same mating interface with QSFP+ (SFF-8436) form factors, making it backward compatible with existing QSFP+ ports. These direct attach cable assemblies are available in standard lengths up to 5 metres (16.4 ft.) for support of up to 50/100G (2x50G) Ethernet applications.

High-Density QSFP28 connectors

Ultra low crosstalk for enhanced performance

Positive retention pull-release latch system

## STANDARDS COMPLIANCE

- Electrical: IEEE 802.3by, IEEE 802.3bj
- SFF-8636, SFF-8661, SFF-8665, SFF-8679
- RoHS

## APPLICATIONS

- Ethernet 10G, 25G, 40G, 100G (25GBASE-CR, 100GBASE-CR4)
- Intra-Rack System, Top of Rack (ToR), Middle of Rack (MoR)
- Switch, Storage, Server, NIC
- Switch-to-Switch, Switch-to-Server

## PCB Termination

Laser stripped conductors

Overmould provides additional strain relief to minimise pistoning

Automatic welding for unmatched consistency

Welding results in less dielectric shrink-back than soldering



# Product Information

## PERFORMANCE SPECIFICATIONS

Electrical	
Min. Dielectric Withstand Voltage	300 VDC
Insulation Resistance	1000 Mohms
Current Rating	0.5 Amp Min/Signal Contact
General	
Operating Temperature	-5 to 70° C (32 to 158° F)
Flammability Rating (Plastics)	UL 94
Green Features	RoHS, Lead-Free
Shield	Braid/Foil
Marking	Mfg Name, Part #, Date Code



Plug	
Backshell Material	Nickel Plated Zinc Diecast
Contact Material	PCB with Gold-Plated Pads
Latch	Positive Latching with Nylon Pull Tab
Insertion Force	40N (9.0 lbf.) Max
Withdrawal Force	30N (6.7 lbf.) Max
Retention Force	90N (20.2 lbf.) Min
Durability	250 Cycles Min
Cable	
Conductor	Solid
Wire Gauge	30 AWG and 26 AWG
Impedance	100 +/- 10 ohms
Construction	Twinaxial
Cable OD	30 AWG = 4.1mm (0.16 in.)
	26 AWG = 4.8mm (0.18 in.)
Jacket Type	PVC or LS0H
Bend Radius	5X Cable OD - Single
	10X Cable OD - Repeated

## Ordering Information:

QSFP28 to 2 QSFP28 Passive Copper Cable Assemblies

Part Number	Length	Gauge
Q2Q28P300.5-01(X)	0.5m (1.6 ft.)	30
Q2Q28P301.0-01(X)	1m (3.3 ft.)	30
Q2Q28P301.5-01(X)	1.5m (4.9 ft.)	30
Q2Q28P302.0-01(X)	2m (6.6 ft.)	30
Q2Q28P262.5-01(X)	2.5m (8.2 ft.)	26
Q2Q28P263.0-01(X)	3m (9.8 ft.)	26
Q2Q28P265.0-01(X)*	5m (16.4 ft.)	26

Use (X) to specify jacket: L = LS0H, P = PVC

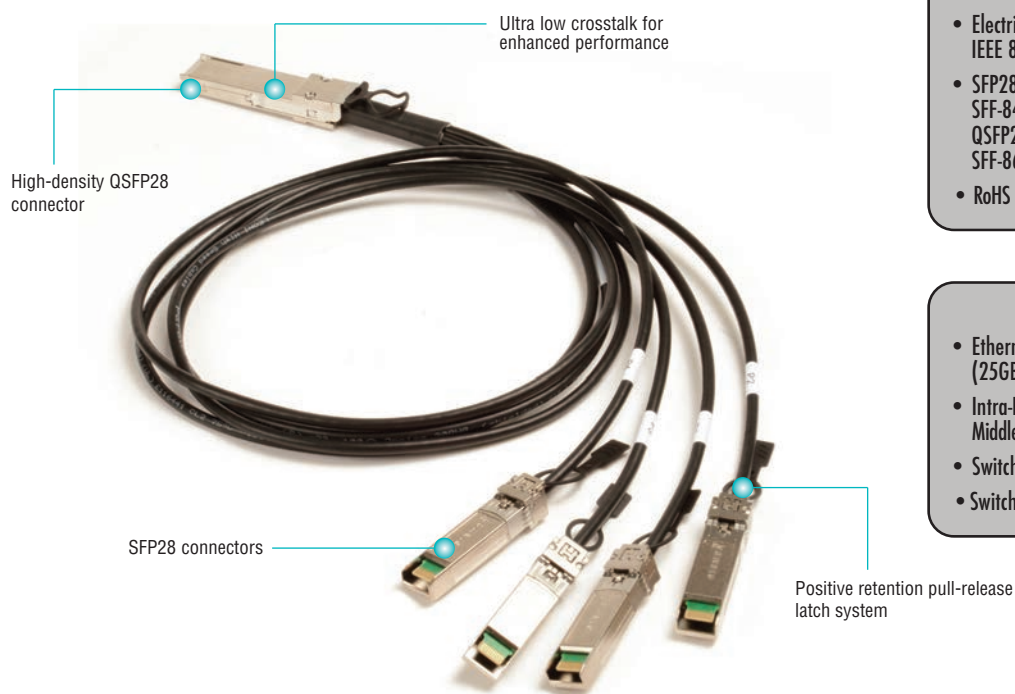
All cables compliant to IEEE 802.3by, CA-N. Will work with or without FEC unless otherwise noted.

\*Compliant to IEEE 802.3bj, CA-L. Will work with RS-FEC..



# QSFP28 to 4 SFP28 25/100G Passive Copper Cable Assemblies

Siemon QSFP28 to 4 SFP28 Passive Copper Cable assemblies exceed 100G Ethernet (100GBASE-CR4) specifications. They are designed for high-density applications, offering a cost-effective, low-power option for high-speed data centre interconnects. This next generation product shares the same mating interface with QSFP+ (SFF-8436) and SFP+ (SFF-8431) form factors, making it backward compatible with existing QSFP+ and SFP+ equipment ports. These direct attach cable assemblies are available in standard lengths up to 5 metres (16.4 ft.) for support of up to 100G (4x25G) Ethernet applications.



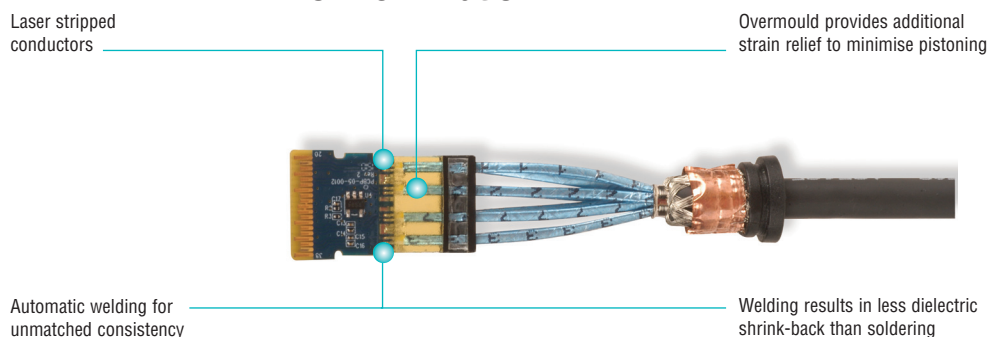
## STANDARDS COMPLIANCE

- Electrical: IEEE 802.3by, IEEE 802.3bj
- SFP28: SFF-8402, SFF-8419, SFF-8437, SFF-8472
- QSFP28: SFF-8636, SFF-8661, SFF-8665, SFF-8679
- RoHS

## APPLICATIONS

- Ethernet 10G, 25G, 40G, 100G (25GBASE-CR, 100GBASE-CR4)
- Intra-Rack System, Top of Rack (ToR), Middle of Rack (MoR)
- Switch, Storage, Server, NIC
- Switch-to-Switch, Switch-to-Server

## PCB Termination



# Product Information

## PERFORMANCE SPECIFICATIONS

Electrical	
Min. Dielectric Withstand Voltage	300 VDC
Insulation Resistance	1000 MΩ
Current Rating	0.5 Amp Min/Signal Contact
General	
Operating Temperature	-5 to 70° C (32 to 158° F)
Flammability Rating (Plastics)	UL 94
Green Features	RoHS, Lead-Free
Shield	Braid/Foil
Marking	Mfg Name, Part #, Date Code



Plug	
Backshell Material	Nickel Plated Zinc Diecast
Contact Material	PCB with Gold-Plated Pads
Latch	Positive Latching with Nylon Pull Tab
Insertion Force	QSFP28: 40N (9.0 lbf.) Max SFP28: 18N (4.0 lbf.) Max
Withdrawal Force	QSFP28: 30N (6.7 lbf.) Max SFP28: 12.5N (2.8 lbf.) Max
Retention Force	90N (20.2 lbf.) Min
Durability	QSFP28: 250 Cycles Min SFP28: 250 Cycles Min
Cable	
Conductor	Solid
Wire Gauge	30 AWG and 26 AWG
Impedance	100 +/- 10 ohms
Construction	Twinaxial
Cable OD	30 AWG = 4.1mm (0.16 in.)
	26 AWG = 4.8mm (0.18 in.)
Jacket Type	PVC or LS0H
Bend Radius	5X Cable OD - Single 10X Cable OD - Repeated

## Ordering Information:

QSFP28 to 4 SFP28 Passive Copper Cable Assemblies

Part Number	Length	Gauge
Q4S28P300.5-01(X)	0.5m (1.6 ft.)	30
Q4S28P301.0-01(X)	1m (3.3 ft.)	30
Q4S28P301.5-01(X)	1.5m (4.9 ft.)	30
Q4S28P302.0-01(X)	2m (6.6 ft.)	30
Q4S28P262.5-01(X)	2.5m (8.2 ft.)	26
Q4S28P263.0-01(X)	3m (9.8 ft.)	26
Q4S28P265.0-01(X)*	5m (16.4 ft.)	26

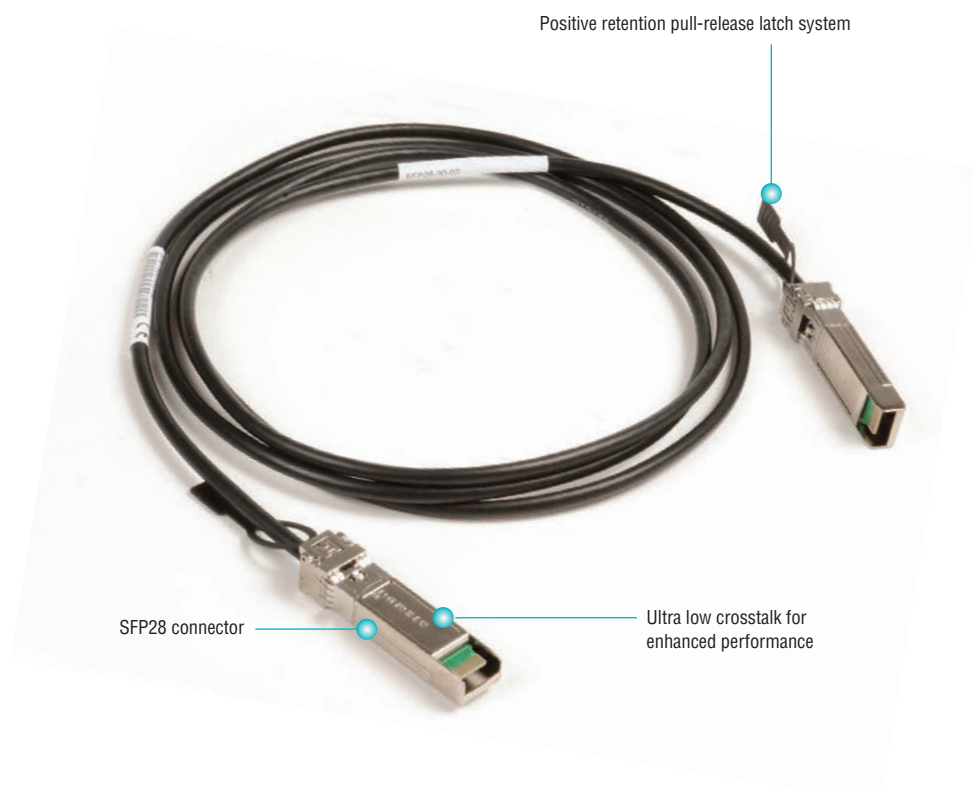
Use (X) to specify jacket: L = LS0H, P = PVC

All cables compliant to IEEE 802.3by, CA-N. Will work with or without FEC unless otherwise noted.

\*Compliant to IEEE 802.3bj, CA-L. Will work with RS-FEC.

## SFP28 25G Passive Copper Cable Assemblies

Siemon SFP28 Passive Copper Cable assemblies exceed 25G Ethernet (25GBASE-CR) specifications. They are designed for high-density applications, offering a cost-effective, low-power option for high-speed data centre interconnects. This next generation product shares the same mating interface with SFP+ (SFF-8431) form factors, making it backward compatible with existing SFP+ ports. These direct attach cable assemblies are available in standard lengths up to 5 metres (16.4 ft.) for support of up to 25G Ethernet applications.



### STANDARDS COMPLIANCE

- Electrical: IEEE 802.3by
- SFF-8402, SFF-8419, SFF-8432, SFF-8472
- RoHS

### APPLICATIONS

- Ethernet 10G, 25G (25GBASE-CR)
- Intra-Rack System, Top of Rack (ToR), Middle of Rack (MoR)
- Switch, Storage, Server, NIC
- Switch-to-Switch, Switch-to-Server

## PCB Termination

Laser stripped  
conductors

Overmould provides additional  
strain relief to minimise pistoning



Automatic welding for  
unmatched consistency

Welding results in less dielectric  
shrink-back than soldering

# Product Information

## PERFORMANCE SPECIFICATIONS

Electrical	
Min. Dielectric Withstand Voltage	300 VDC
Insulation Resistance	1000 Mohms
Current Rating	0.5 Amp Min/Signal Contact
General	
Operating Temperature	-5 to 70° C (32 to 158° F)
Flammability Rating (Plastics)	UL 94
Green Features	RoHS, Lead-Free
Shield	Braid/Foil
Marking	Mfg Name, Part #, Date Code



Plug	
Backshell Material	Nickel Plated Zinc Diecast
Contact Material	PCB with Gold-Plated Pads
Latch	Positive Latching with Nylon Pull Tab
Insertion Force	18N (4.0 lbf.) Max
Withdrawal Force	12.5N (2.8 lbf.) Max
Retention Force	90N (20.2 lbf.) Min
Durability	250 Cycles Min
Cable	
Conductor	Solid
Wire Gauge	30 AWG and 26 AWG
Impedance	100 +/- 10 ohms
Construction	Twinaxial
Cable OD	30 AWG = 4.1mm (0.16 in.)
	26 AWG = 4.8mm (0.18 in.)
Jacket Type	PVC or LS0H
Bend Radius	5X Cable OD - Single 10X Cable OD - Repeated

## Ordering Information:

SFP28 to SFP28 Passive Copper Cable Assemblies

Part Number	Length	Gauge
S1S28P300.5-01(X)	0.5m (1.6 ft.)	30
S1S28P301.0-01(X)	1m (3.3 ft.)	30
S1S28P301.5-01(X)	1.5m (4.9 ft.)	30
S1S28P302.0-01(X)	2m (6.6 ft.)	30
S1S28P262.5-01(X)	2.5m (8.2 ft.)	26
S1S28P263.0-01(X)	3m (9.8 ft.)	26
S1S28P265.0-01(X)*	5m (16.4 ft.)	26

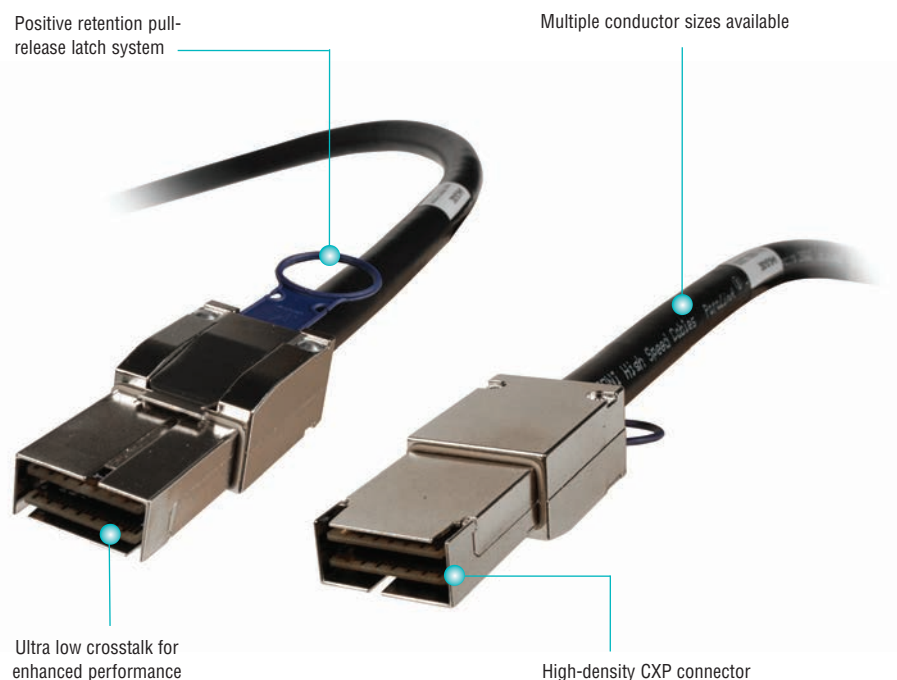
Use (X) to specify jacket: L = LS0H, P = PVC

All cables compliant to IEEE 802.3by, CA-N. Will work with or without FEC unless otherwise noted.

\*Compliant to IEEE 802.3bj, CA-L. Will work with RS-FEC.

# CXP 100G Passive Copper Cable Assemblies

Siemon CXP Copper Cable assemblies were developed for high-density applications, offering a cost-effective, low-power option for high-speed data centre interconnects. The CXP form factor can replace up to three standard QSFP+ connections, providing greater density and reduced system cost. These direct attached assemblies support 12 channels of 10Gb/s (QDR) for 120Gb/s InfiniBand, or 10 channels of 10Gb/s for 100Gb/s (IEEE 802.3ba) and are available in standard lengths up to 4 metres with longer custom lengths available.



## STANDARDS COMPLIANCE

- SFF-8642
- IBTA V2 Revision 1.3
- IEEE 802.3ba
- RoHS

## APPLICATIONS

- InfiniBand 12xSDR, 12xDDR, 12xQDR
- Ethernet 10G, 40G, 100G
- Rack-to-Rack, Shelf-to-Shelf Interconnect
- Networking, NIC
- Storage: DAS, SAN, NAS
- Hubs, switches, routers, servers



# Product Information

## PERFORMANCE SPECIFICATIONS

Electrical	
Min. Dielectric Withstand Voltage	300 VDC
Insulation Resistance	1000 Mohms
Current Rating	0.5 Amp Min/Signal Contact
General	
Operating Temperature	0 to 70° C (32 to 158° F)
Flammability Rating (Plastics)	UL 94
Green Features	RoHS, Lead-Free
Shield	Braid/Foil
Marking	Mfg Name, Part #, Date Code



## Ordering Information:

CXP to CXP Passive Copper Cable Assemblies

Part Number	Length	Gauge
CXP30-01	1m (3.3 ft.)	30
CXP30-02	2m (6.6 ft.)	30
CXP28-03	3m (9.8 ft.)	28
CXP27-04	4m (13.1 ft.)	27

## Maximum Lengths

Gauge	IBTA DDR	IBTA QDR	IEEE 802.3ba
30	4m (13.1 ft.)	2m (6.6 ft.)	2m (6.6 ft.)
28	7m (22.9 ft.)	3m (9.8 ft.)	3m (9.8 ft.)
27	7m (22.9 ft.)	3m (9.8 ft.)	3m (9.8 ft.)

CXP27-04 is not guaranteed to meet IBTA QDR or IEEE 802.3ba insertion loss requirements.

Note: Contact Customer Service for additional lengths.

Plug	
Backshell Material	Nickel Plated Zinc Diecast
Contact Material	PCB with Gold-Plated Pads
Plastic Material	Nylon
Latch	Positive Latching w/Pull Tab
Insertion Force	150N (33.7 lbf.) Max
Withdrawal Force	30N (6.7 lbf.) Max
Durability	250 Cycles
Tightest Recommended Vertical Spacing (Belly to Belly)	27.00mm (1.06 in.) Centre to Centre
Tightest Recommended Vertical Spacing (Stacked)	16.50mm (0.65 in.) Centre to Centre
Cable	
Conductor	Solid
Wire Gauge	30 AWG, 28 AWG and 27 AWG
Impedance	100 +/- 5 ohms
Construction	Twinaxial
Cable OD	30 AWG = 9.5mm (0.37 in.)
	28 AWG = 11mm (0.43 in.)
	27 AWG = 13.8mm (0.54 in.)
Jacket Type	PVC
Bend Radius	5X Cable OD - Single 10X Cable OD - Repeated

# CXP to 3 QSFP+ 40/100G Passive Copper Cable Assemblies

Siemon CXP to 3 QSFP+ Copper Cable assemblies allow users to connect CXP and QSFP+ equipment together. Compliant with both CXP and QSFP+ specifications, this breakout cable provides a cost effective, low-power option for high density high-speed data centre interconnects. The CXP form factor can replace up to three standard QSFP+ connections, providing greater density and reduced system cost. The direct-attach assemblies support emerging 100Gb/s applications and are available in standard lengths up to 3 metres with longer custom lengths available.

Multiple conductor sizes available

Positive retention pull-release latch system



High-density CXP connector

Ultra low crosstalk for enhanced performance

## STANDARDS COMPLIANCE

### QSFP+ End

- SFF-8436

### CXP End

- SFF-8642

### Assembly

- IEEE 802.3ba
- IBTA V2 Revision 1/3
- RoHS

## APPLICATIONS

- InfiniBand 12xSDR, 12xDDR, 12xQDR
- Ethernet 10G, 40G, 100G
- Rack-to-Rack, Shelf-to-Shelf Interconnect
- Networking, NIC
- Storage: DAS, SAN, NAS
- Hubs, switches, routers, servers

# Product Information

## PERFORMANCE SPECIFICATIONS

Electrical	
Min. Dielectric Withstand Voltage	300 VDC
Insulation Resistance	1000 Mohms
Current Rating	0.5 Amp Min/Signal Contact
General	
Operating Temperature	0 to 70° C (32 to 158° F)
Flammability Rating (Plastics)	UL 94
Green Features	RoHS, Lead-Free
Shield	Braid/Foil
Marking	Mfg Name, Part #, Date Code



Plug	
Backshell Material	Nickel Plated Zinc Diecast
Contact Material	PCB with Gold-Plated Pads
Plastic Material	Nylon
Latch	Positive Latching w/Pull Tab
Insertion Force	CXP: 150N (33.7 lbf.) Max QSFP+: 40N (8.9 lbf.) Max
Withdrawal Force	CXP: 50N (11.2 lbf.) Max QSFP+: 30N (6.7 lbf.) Max
Durability	250 Cycles
CXP Tightest Recommended Horizontal Spacing	27.00mm (0.54 in.) Centre to Centre
CXP Tightest Recommended Vertical Spacing (Stacked)	16.50mm (0.65 in.) Centre to Centre
Cable	
Conductor	Solid
Wire Gauge	30 AWG to 26 AWG
Impedance	100 +/- 5 ohms
Construction	Twinaxial
Cable OD	30AWG = 9.5mm (0.37 in.)
	28AWG = 11mm (0.43 in.)
Jacket Type	PVC
Bend Radius	5X Cable OD -Single
	10X Cable OD - Repeated

## Ordering Information:

CXP to QSFP+ Passive Copper Cable Assemblies

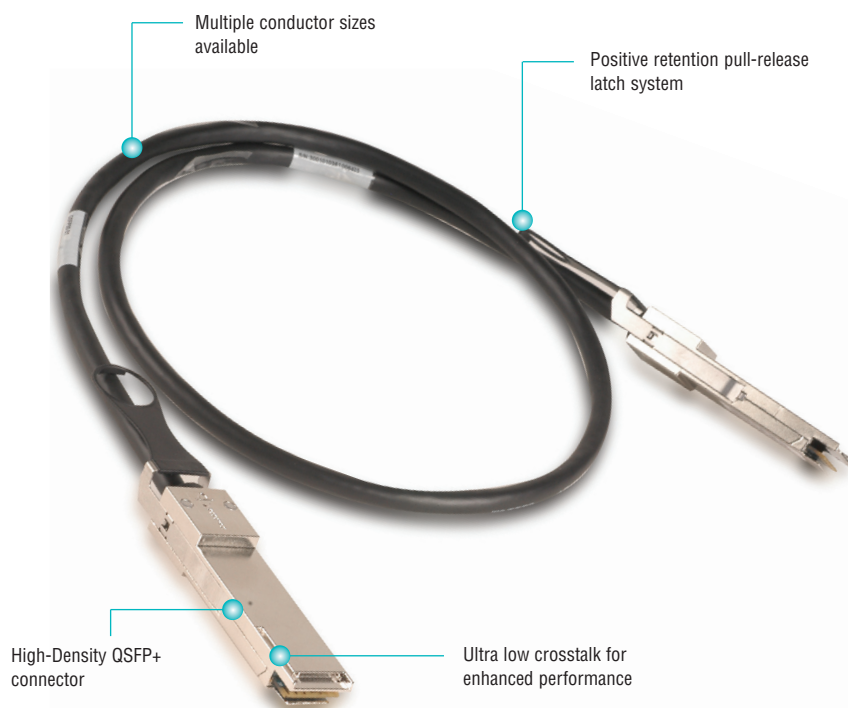
Part Number	Length	Gauge
CXPQSFP30-01	1m (3.3 ft.)	30
CXPQSFP30-02	2m (6.6 ft.)	30
CXPQSFP28-03	3m (9.8 ft.)	28

## Maximum Lengths

Gauge	IBTA DDR	IBTA QDR	IEEE 802.3ba
30	4m (13.1 ft.)	2m (6.6 ft.)	2m (6.6 ft.)
28	6m (19.7 in.)	3m (9.8 ft.)	3m (9.8 ft.)

# QSFP+ 56G FDR Passive Copper Cable Assemblies

Siemon QSFP+ Fourteen Data Rate (FDR) Copper Cable assemblies provide 56Gb/s of bandwidth (4 X 14Gb/s). These QSFP+ (SFF-8436) cables exceed industry standards to support DDR, QDR, FDR and emerging 4x16Gb/s applications. Siemon's QSFP+ FDR assemblies are a high-density, cost-effective, low-power option for leading edge 56Gbs high-speed data centres, available in standard lengths up to 3 metres with longer custom lengths available upon request.



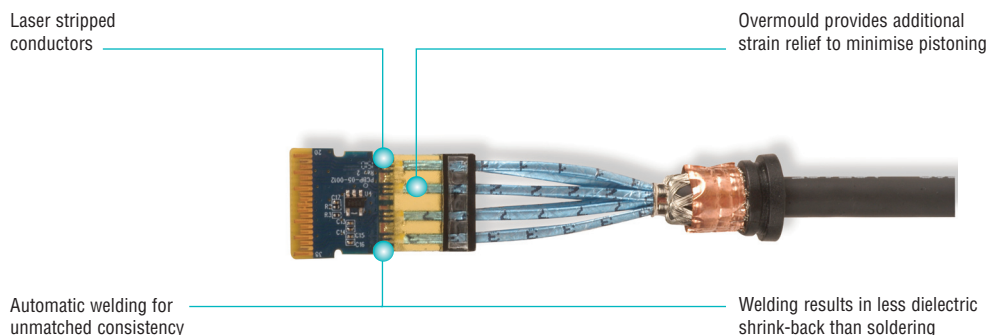
## STANDARDS COMPLIANCE

- Electrical: IBTA V2 Revision 1.3
- IEEE 802.3ba
- EEPROM: SFF-8436
- RoHS

## APPLICATIONS

- InfiniBand 4X SDR, DDR, QDR
- Ethernet 10G, 40G
- Fibre Channel 10G, 40G, SAN, 4x16G
- RapidIO
- Myrinet 40G
- Rack-to-Rack, Shelf-to-Shelf Interconnect
- Networking
- Storage
- Hubs, switches, routers, servers

## PCB Termination



# Product Information

## PERFORMANCE SPECIFICATIONS

Electrical	
Min. Dielectric Withstand Voltage	300 VDC
Insulation Resistance	1000 Mohms
Current Rating	0.5 Amp Min/Signal Contact
General	
Operating Temperature	0 to 70° C (32 to 158° F)
Flammability Rating (Plastics)	UL 94
Green Features	RoHS, Lead-Free
Shield	Braid/Foil
Marking	Mfg Name, Part #, Date Code



Plug	
Backshell Material	Nickel Plated Zinc Diecast
Contact Material	PCB with Gold-Plated Pads
Plastic Material	Nylon
Latch	Positive Latching w/Pull Tab
Insertion Force	40N (8.9 lbf.) Max
Withdrawal Force	30N (6.7 lbf.) Max
Retention Force	90N (20.2 lbf.) Min
Durability	250 Cycles
Tightest Recommended Vertical Spacing (Belly to Belly)	11.80mm (0.46 in.) Centre to Centre
Tightest Recommended Vertical Spacing (Stacked)	17.50mm (0.69 in.) Centre to Centre
Cable	
Conductor	Solid
Wire Gauge	30 AWG to 24 AWG
Impedance	100 +/- 5 ohms
Construction	Twinaxial
Cable OD	30 AWG = 6.1mm
	28 AWG = 8.7mm
Jacket Type	PVC
Bend Radius	5X Cable OD - Single 10X Cable OD - Repeated

## Ordering Information:

QSFP+ to QSFP+ FDR Passive Copper Cable Assemblies

Part Number	Length	Gauge
QSFPFDR30-0.5	0.5m (1.6 ft.)	30
QSFPFDR30-01	1m (3.3 ft.)	30
QSFPFDR30-02	2m (6.6 ft.)	30
QSFPFDR28-03	3m (9.8 ft.)	28

## Maximum Lengths

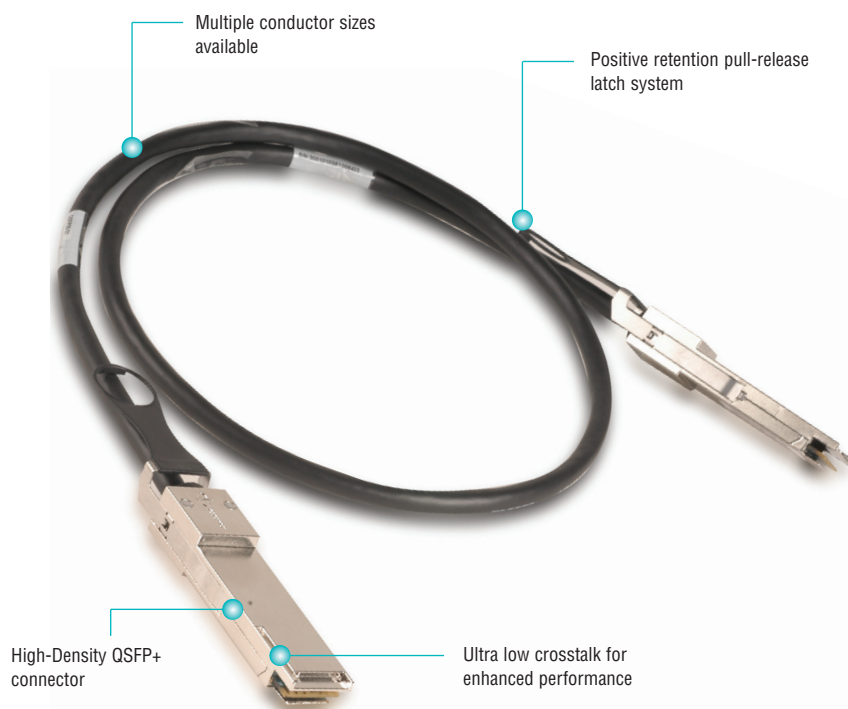
Gauge	IBTA DDR	IBTA QDR	IEEE 802.3ba	IBTA FDR
30	5m (16.4 ft.)	3m (9.8 ft.)	3m (9.8 ft.)	2m (6.6 ft.)
28	7m (22.9 ft.)	4m (13.1 ft.)	4m (13.1 ft.)	3m (9.8 ft.)

Note: Contact Customer Service for additional lengths.



# QSFP+ 40G Passive Copper Cable Assemblies

Siemon QSFP+ Copper Cable assemblies were developed for high-density applications, offering a cost-effective, low-power option for high-speed data centre interconnects. The QSFP+ form factor can replace up to four standard SFP+ connections, providing greater density and reduced system cost. The direct-attach assemblies support emerging 40Gb/s applications and are available in standard lengths up to 5 metres with longer custom lengths available.



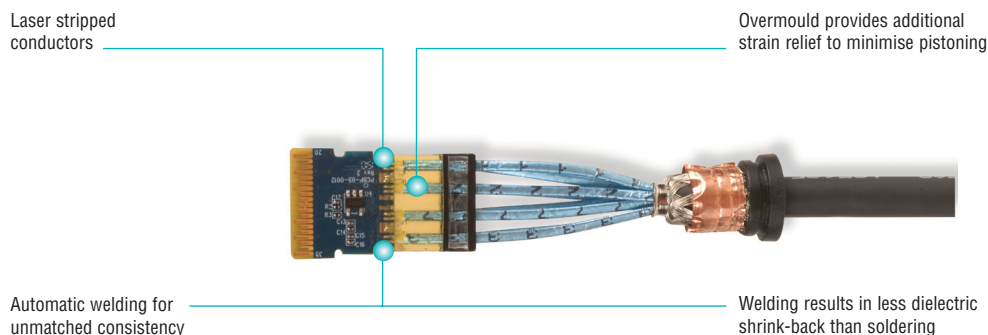
## STANDARDS COMPLIANCE

- Electrical: IBTA V2 Revision 1.3
- IEEE 802.3ba
- EEPROM: SFF-8436
- RoHS

## APPLICATIONS

- InfiniBand 4X SDR, DDR, QDR
- Ethernet 10G, 40G
- Fibre Channel 10G, 40G, SAN
- RapidIO
- Myrinet 40G
- Rack-to-Rack, Shelf-to-Shelf Interconnect
- Networking
- Storage
- Hubs, switches, routers, servers

## PCB Termination



# Product Information

## PERFORMANCE SPECIFICATIONS

Electrical	
Min. Dielectric Withstand Voltage	300 VDC
Insulation Resistance	1000 Mohms
Current Rating	0.5 Amp Min/Signal Contact
General	
Operating Temperature	0 to 70° C (32 to 158° F)
Flammability Rating (Plastics)	UL 94
Green Features	RoHS, Lead-Free
Shield	Braid/Foil
Marking	Mfg Name, Part #, Date Code

Colour Options Available:



## Ordering Information:

QSFP+ to QSFP+ Passive Copper Cable Assemblies

Part Number (Black)	Part Number (Coloured)	Length	Gauge
QSFP30-00.5(X)	QSFP30-00.5-(XX)(X)	0.5m (1.6 ft.)	30
QSFP30-01(X)	QSFP30-01-(XX)(X)	1m (3.3 ft.)	30
QSFP30-01.5(X)	QSFP30-01.5-(XX)(X)	1.5m (4.9 ft.)	30
QSFP30-02(X)	QSFP30-02-(XX)(X)	2m (6.6 ft.)	30
QSFP30-02.5(X)	QSFP30-02.5-(XX)(X)	2.5m (8.2 ft.)	30
QSFP30-03(X)	QSFP30-03-(XX)(X)	3m (9.8 ft.)	30
QSFP26-05(X)	QSFP26-05-(XX)(X)	5m (16.4 ft.)	26

Use (X) to specify cable jacket: L = LS0H, blank = PVC

Use (XX) to specify colour: 01 = Black, 02 = White, 03 = Red, 06 = Blue

Plug	
Backshell Material	Nickel Plated Zinc Diecast
Contact Material	PCB with Gold-Plated Pads
Plastic Material	PA66
Latch	Positive Latching w/Pull Tab
Insertion Force	40N (8.9 lbf.) Max
Withdrawal Force	30N (6.7 lbf.) Max
Retention Force	90N (20.2 lbf.) Min
Durability	250 Cycles
Tightest Recommended Vertical Spacing (Belly to Belly)	11.80mm (0.46 in.) Centre to Centre
Tightest Recommended Vertical Spacing (Stacked)	17.50mm (0.69 in.) Centre to Centre
Cable	
Conductor	Solid
Wire Gauge	30 AWG to 24 AWG
Impedance	100 +/- 5 ohms
Construction	Twinaxial
Cable OD	30 AWG = 6.50mm (0.26 in.)
	28 AWG = 7.49mm (0.29 in.)
	26 AWG = 8.61mm (0.34 in.)
Jacket Type	PVC or LS0H
Bend Radius	5X Cable OD - Single 10X Cable OD - Repeated

## Maximum Lengths

Gauge	IBTA DDR	IBTA QDR <sup>1</sup>	IEEE 802.3ba
30	5m (16.4 ft.)	3m (9.8 ft.)	3m (9.8 ft.)
28	7m (22.9 ft.)	4m (13.1 ft.)	4m (13.1 ft.)
26	8m (26.2 ft.)	5m (16.4 ft.)	5m (16.4 ft.)
24	10m (32.8 ft.)	6m (19.7 ft.)	n/a

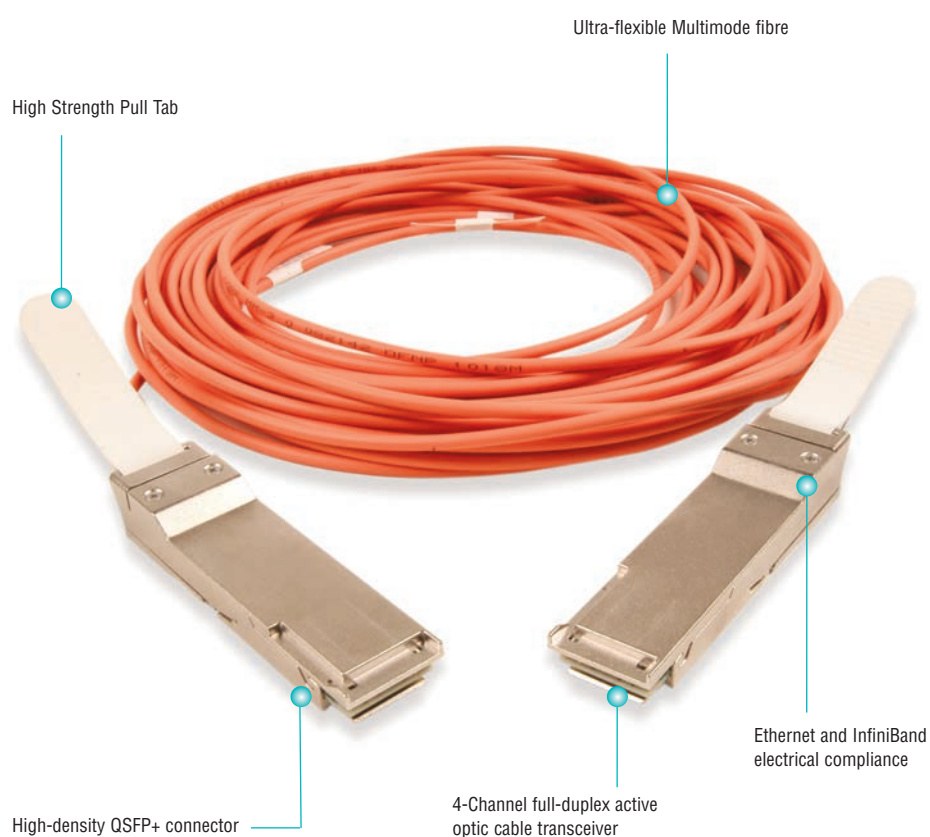
<sup>1</sup> Per IBTA cable MOI V0.69: -13dB @5GHz

Note: Contact Customer Service for additional lengths.

# QSFP+ 40G Active Optical Cable Assemblies

Siemon 40Gb/s Low Power Active Optical Cable (AOC) assemblies offer a cost-effective, extended reach option for high-speed data centre interconnects. These AOC assemblies incorporate integrated opto-electronics with four fibre optic transceivers per end, each operating at data rates from 1 to 10.5 Gb/s and supporting a reach up to 100 metres. The cable is available in a number of standard lengths up to 100 metres.

AOC's offer customers the flexibility of traditional optical modules by interfacing to systems via a standard QSFP+ MSA, SFF-8436 connector. The cable is electrically compliant with the SFP+ interface supporting InfiniBand, Ethernet, Fibre Channel and other applications. The QSFP+ connector includes the Digital Diagnostic Monitoring Interface (DDMI).



## STANDARDS COMPLIANCE

- Electrical: ITBTA V2 Revision 1.3, IEEE 802.3ba
- SFF-8436, SFF-8636
- RoHS-6 (lead free)
- Class 1 laser product per IEC 60825-1
- IEEE 802.3ba

## APPLICATIONS

- InfiniBand SDR, DDR, QDR
- Ethernet 40G BASE-SR4
- Fibre Channel 4G, 8G, 10G
- Rack-to-Rack, Shelf-to-Shelf Interconnect
- Proprietary Cluster Interconnect
- Networking
- Storage
- Hubs, switches, routers, servers

# Product Information

## PERFORMANCE SPECIFICATIONS

Electrical	
Supply Voltage	3.1 to 3.6V
Power Consumption Per End	0.8W typical, 1.2W Max
General	
Operating Temperature	0 to 70° C (32 to 158° F)
Storage Temperature	-25 to 75° C (-13 to 167° F)
Channels	4 channels, bi-directional
Connector (each end)	QSFP+

Cable	
Type	OFNP (PVC)
Minimum Bend Radius	15xDIA - Dynamic 10xDIA - Static
Minimum Cable Assembly Bend Radius	Cable and Connector: 56mm (2.20 in.)
Cross Section (without connector)	3 -13mm (0.12 - 0.51 in.) to OD
Channel Parametres	
Channels	4 Lanes, bi-directional
Date Rate	10.5 Gbps/ channel Max
Operating Optical Wavelength	850nm



## Ordering Information:

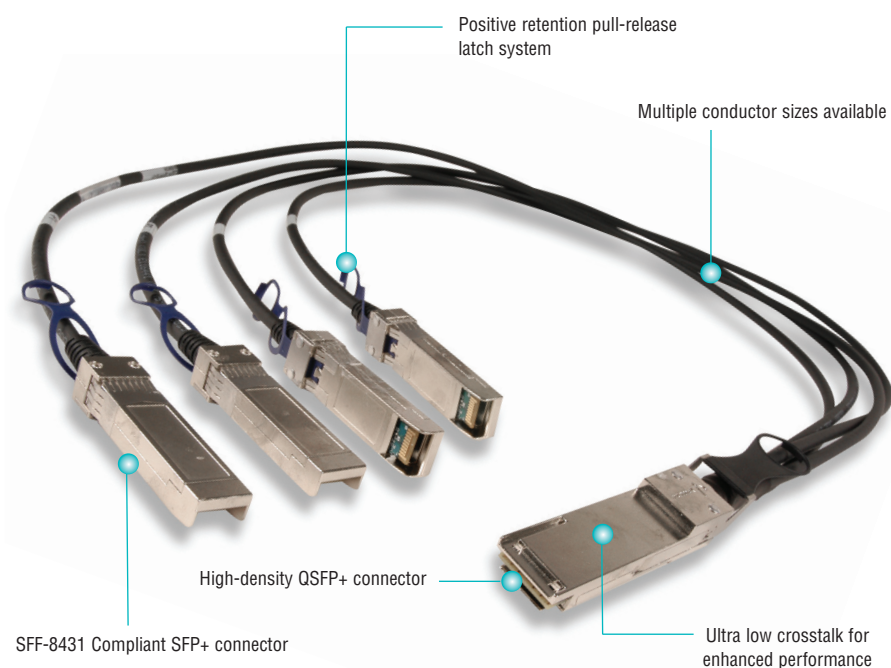
QSFP+ to QSFP+ Active Optical Cable Assemblies

Part Number	Length
QSFP-FB-005	5m (16.4 ft.)
QSFP-FB-010	10m (32.8 ft.)
QSFP-FB-015	15m (49.2 ft.)
QSFP-FB-020	20m (65.6 ft.)
QSFP-FB-030	30m (98.4 ft.)
QSFP-FB-050	50m (164.0 ft.)
QSFP-FB-100	100m (328.1 ft.)

*Note: Contact Customer Service for additional lengths.*

# QSFP+ to 4 SFP+ 10/40G Passive Copper Cable Assemblies

Siemon hybrid cables allow users to connect SFP+ and QSFP+ equipment. They offer a cost-effective, low-power option for high-speed data centre interconnects. The direct-attach assemblies support 4 lanes of 10Gb/s (40Gb/s composite) and are available in standard lengths up to 5 metres with longer custom lengths available.



## STANDARDS COMPLIANCE

### QSFP+ End

- Electrical: IBTA V2 Revision 1.3, IEEE 802.3ba
- SFF-8436, SFF-8636
- RoHS

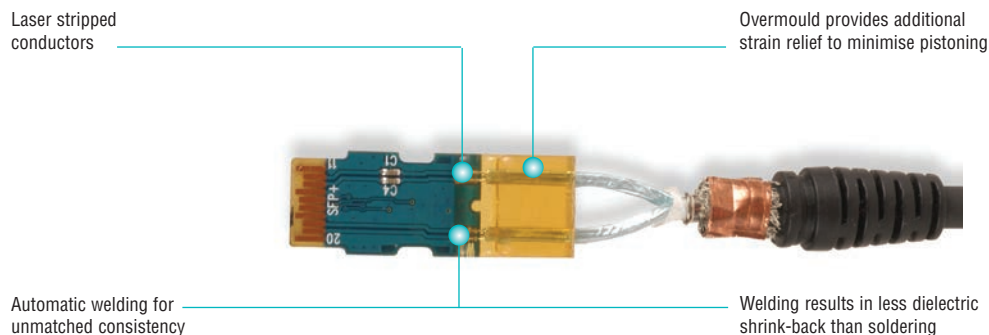
### SFP+ End

- SFF-8431
- SFF-8432
- SFF-8472
- RoHS

## APPLICATIONS

- InfiniBand SDR, DDR
- Ethernet 1G, 10G
- Fibre Channel
- Rack-to-Rack, Shelf-to-Shelf Interconnect
- Networking
- Storage
- Hubs, switches, routers, servers

## PCB Termination

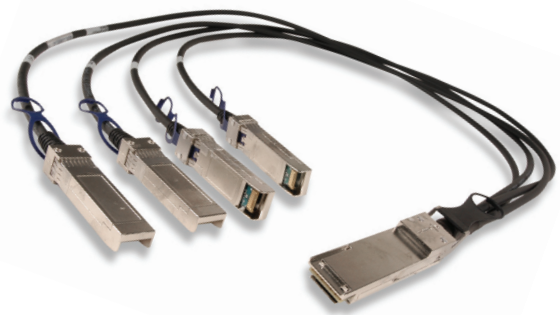




# Product Information

## PERFORMANCE SPECIFICATIONS

Electrical	
Min. Dielectric Withstand Voltage	300 VDC
Insulation Resistance	1000 Mohms
Current Rating	0.5 Amp Min/Signal Contact
General	
Operating Temperature	0 to 70° C (32 to 158° F)
Flammability Rating (Plastics)	UL 94
Green Features	RoHS, Lead-Free
Shield	Braid/Foil
Marking	Mfg Name, Part #, Date Code



## Ordering Information:

QSFP+ to SFP+ Passive Copper Cable Assemblies

Part Number (Black PVC)	Part Number (Black LS0H)	Length	Gauge
SFPPQSFP30-00.5	SFPPQSFP3000.5L	0.5m (1.6 ft.)	30
SFPPQSFP30-01	SFPPQSFP3001L	1m (3.3 ft.)	30
SFPPQSFP30-01.5	SFPPQSFP3001.5L	1.5m (4.9 ft.)	30
SFPPQSFP30-02	SFPPQSFP3002L	2m (6.6 ft.)	30
SFPPQSFP30-02.5	SFPPQSFP3002.5L	2.5m (8.2 ft.)	30
SFPPQSFP28-03	SFPPQSFP2803L	3m (9.8 ft.)	28
SFPPQSFP28-05	SFPPQSFP2805L	5m (16.4 ft.)	28

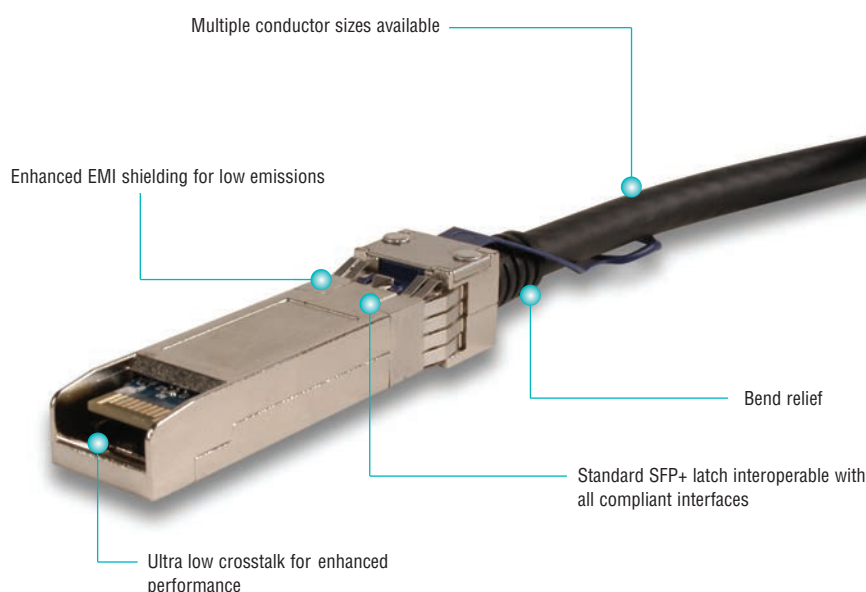
Plug	
Backshell Material	Nickel Plated Zinc Diecast
Contact Material	PCB with Gold-Plated Pads
Latch	Positive Latching w/Pull Tab
Insertion Force	QSFP+: 40N (8.9 lbf.) Max SFP+: 30N (6.7 lbf.) Max
Withdrawal Force	QSFP+: 30N (6.7 lbf.) Max SFP+: 20N (4.5 lbf.) Max
Retention Force	90N (20.2 lbf.) Min
Durability	QSFP+: 250 Cycles Min SFP+: 50 cycles Min
Cable	
Conductor	Solid
Wire Gauge	30 AWG and 28 AWG
Impedence	100 +/- 5 ohms
Construction	Twinaxial
Cable OD	30 AWG = 4.5mm (0.18 in.) 28 AWG = 4.7mm (0.19 in.)
Jacket Type	PVC or LS0H
Bend Radius	5X Cable OD - Single 10X Cable OD - Repeated

# SFP+ 10G Active and Passive Copper Cable Assemblies

Siemon SFP+ active and passive copper cable assemblies were developed specifically as a cost-effective alternative to optical modules for short reach links in high-speed interconnect applications such as high-performance computing (HPC), enterprise networking and network storage markets. These assemblies support data transfer rates up to 10+ Gb/s per lane, meeting or exceeding current standards specifications.

These SFP+ fully-shielded assemblies combine twin-axial shielded cable configuration with robust die cast housings for enhanced support of high frequency data rates. These SFP+ assemblies are impedance matched to ensure interoperability and minimise EMI leakage through their fully-shielded design.

The active cables use signal processing within the connector back shells to extend the length that copper cables can reach beyond the limits of passive copper solutions.

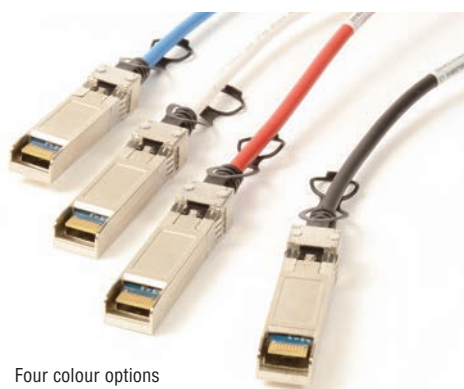


## STANDARDS COMPLIANCE

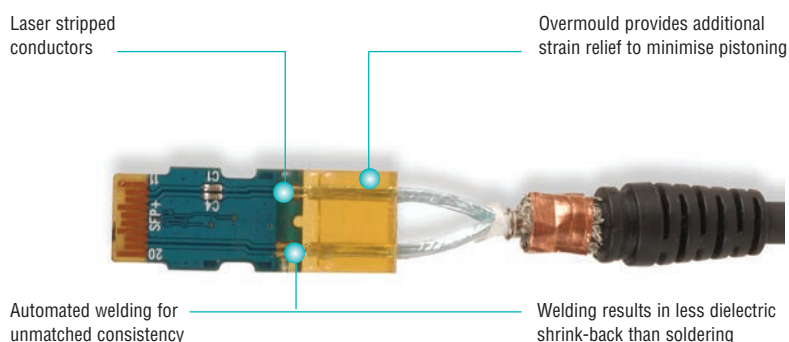
- Electrical: SFF-8431, SFF-8083
- Mechanical: SFF-8432
- EEPROM: SFF-8472
- RoHS

## APPLICATIONS

- InfiniBand SDR, DDR and QDR
- Ethernet 1G, 10G and 40G
- Fibre Channel
- Rack-to-Rack, Top of Rack (TOR) and Core Switch
- Networking
- Storage
- Hubs, switches, routers, servers



## PCB Termination

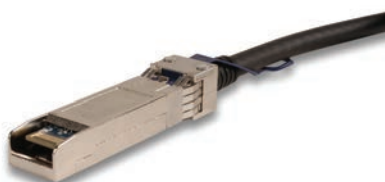


# Product Information

## PERFORMANCE SPECIFICATIONS

Electrical	
Min. Dielectric Withstand Voltage	300 VDC
Insulation Resistance	1000 Mohms
Current Rating	0.5 Amp Min/Signal Contact
Power Consumption (active cables only)	700mw Max
General	
Operating Temperature	-10 to 70°C (14 to 158°F)
Flammability Rating	UL 94 V-0
Green Features	RoHS, Lead-Free
Shield	Braid/Foil
Marking	Mfg Name, Part #, Date Code

Colour Options Available:



Plug	
Backshell Material	Nickel-Plated Zinc Diecast
Contact Material	PCB with Gold-Plated Pads
Latch	Positive Latching w/ Pull
Insertion Force	30N (6.7 lbf.) Max
Withdrawal Force	20N (4.5 lbf.) Max
Retention Force	90N (20.2 lbf.) Max
Durability	50 Cycles Min
Cable	
Conductor	Solid
Wire Gauge	30 AWG to 24 AWG
Impedance	100± 5 ohms
Construction	Twinaxial
Cable OD	30 AWG = 4.5mm (0.18 in.)
	28 AWG = 4.7mm (0.19 in.)
	24 AWG = 6.2mm (0.24 in.)
Jacket Type	PVC or LS0H
Bend Radius	5X Cable OD

## Ordering Information:

SFP+ Passive/Active Copper Cable Assemblies

Part Number (Black)	Part Number (Coloured)	Length	Gauge	Type
SFPP30-00.3(X)	SFPP30-00.3-(XX)(X)	0.3m (1 ft.)	30	Passive
SFPP30-00.5(X)	SFPP30-00.5-(XX)(X)	0.5m (1.6 ft.)	30	Passive
SFPP30-01(X)	SFPP30-01-(XX)(X)	1m (3.3 ft.)	30	Passive
SFPP30-01.5(X)	SFPP30-01.5-(XX)(X)	1.5m (4.9 ft.)	30	Passive
SFPP30-02(X)	SFPP30-02-(XX)(X)	2m (6.6 ft.)	30	Passive
SFPP30-02.5(X)	SFPP30-02.5-(XX)(X)	2.5m (8.2 ft.)	30	Passive
SFPP30-03(X)	SFPP30-03-(XX)(X)	3m (9.8 ft.)	30	Passive
SFPP30-03.5(X)	SFPP30-03.5-(XX)(X)	3.5m (11.5 ft.)	30	Passive
SFPP30-04(X)	SFPP30-04-(XX)(X)	4m (13.1 ft.)	30	Passive
SFPP28-05(X)	SFPP28-05-(XX)(X)	5m (16.4 ft.)	28	Passive
SFPP24-07(X)	SFPP24-07-(XX)(X)	7m (23.0 ft.)	24	Passive
SFPPA28-07(X)	SFPPA28-07-(XX)(X)	7m (23.0 ft.)	28	Active
SFPPA28-10(X)	SFPPA28-10-(XX)(X)	10m (32.8 ft.)	28	Active

Use (X) to specify LS0H: L = LS0H, blank = PVC

Use (XX) to specify colour: 01 = Black, 02 = White, 03 = Red, 06 = Blue

## Colour-Coded Cable Clips:

Our colour-coded cable clips are designed to be highly visible, have a secure fit to the cable and easily field attachable to Siemon SFP+ cables. With 8 available colours to choose from, these colour-coded cable clips provide Data Centre Administrators the ability to customise their cables to clearly differentiate and identify various networks.

### Part#

### Description

CLIP-CBL-50-(XX)..... Colour-coded cable clip, 30 and 28 AWG, bag of 25 clips

CLIP-CBL-62-(XX)..... Colour-coded cable clip, 26 and 24 AWG, bag of 25 clips

Use (XX) to specify colour:

02 = White, 03 = Red, 04 = Grey, 05 = Yellow, 06 = Blue, 07 = Green, 08 = Violet, 09 = Orange



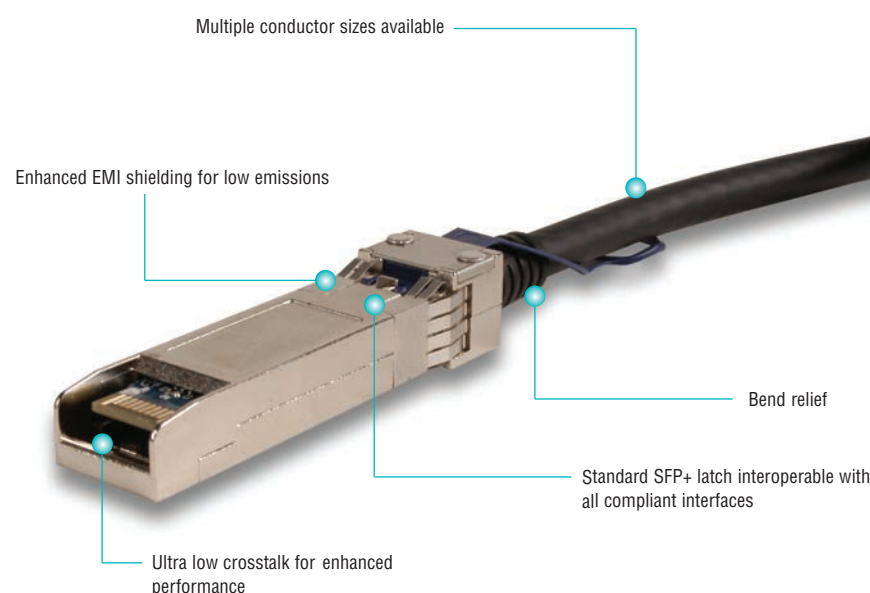
# SFP+ 10G Cisco Compatible Active and Passive Copper Cable Assemblies

Cisco Compatible SFP+ cables from Siemon were developed specifically as a cost-effective and lower-power alternative to optical modules for short reach links in high-speed interconnect applications such as high-performance computing (HPC), enterprise networking including top-of-rack switching and network storage markets. The assemblies support data transfer rates up to 10+ Gb/s per lane, meeting or exceeding current standards specifications.

Cisco Compatible SFP+ active and passive copper cable assemblies are programmed specifically to work with Cisco equipment. When these cables are plugged into Cisco equipment they will not trigger the warning message that a non-Cisco transceiver has been detected. These cables do not violate Cisco's warranty.

These SFP+ fully-shielded assemblies combine twin-axial shielded cable configuration with robust die cast housings for enhanced support of high frequency data rates. These SFP+ assemblies are impedance matched to ensure interoperability and minimise EMI leakage through their fully-shielded design.

The active cables use signal processing within the connector back shells to extend the length that copper cables can reach beyond the limits of passive copper solutions.



## STANDARDS COMPLIANCE

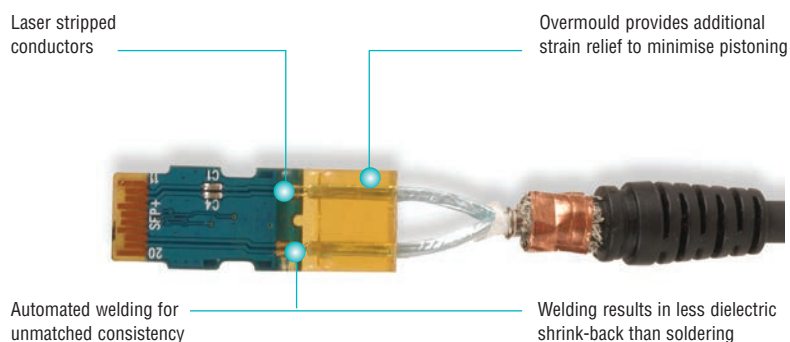
- Electrical: SFF-8431, SFF-8083
- Mechanical: SFF-8432
- EEPROM: SFF-8472
- RoHS

## APPLICATIONS

- All Cisco Network equipment having 10GBASE-CX1 ports including Catalyst and Nexus



## PCB Termination



*"Cisco" is a registered trademark of Cisco and/or its affiliates.*

# Product Information

## PERFORMANCE SPECIFICATIONS

Electrical	
Min. Dielectric Withstand Voltage	300 VDC
Insulation Resistance	1000 Mohms
Current Rating	0.5 Amp Min/Signal Contact
Power Consumption (active cables only)	700mw Max
General	
Operating Temperature	-10 to 70° C (32 to 15° F)
Flammability Rating	UL 94 V-0
Green Features	RoHS, Lead-Free
Shield	Braid/Foil
Marking	Mfg Name, Part #, Date Code

Colour Options Available:



Plug	
Backshell Material	Nickel-Plated Zinc Diecast
Contact Material	PCB with Gold-Plated Pads
Latch	Positive Latching w/ Pull
Insertion Force	30N (6.7 lbf.) Max
Withdrawal Force	20N (4.5 lbf.) Max
Retention Force	90N (20.2 lbf.) Max
Durability	50 Cycles Min
Cable	
Conductor	Solid
Wire Gauge	30 AWG to 24 AWG
Impedance	100± 5 ohms
Construction	Twinaxial
Cable OD	30 AWG = 4.5mm (0.18 in.)
	28 AWG = 4.7mm (0.19 in.)
	24 AWG = 6.2mm (0.24 in.)
Jacket Type	PVC or LS0H
Bend Radius	5X Cable OD

## Ordering Information:

SFP+ Passive/Active Copper Cable Assemblies

Part Number (Black)	Part Number (Coloured)	Part Number (LS0H)	Length	Gauge	Type
SFPH10GBCU0.3MS	SFPH10GB0.3MS(XX)	SFPH10GB0.3M(XX)L	0.3m (1 ft.)	30	Passive
SFPH10GBCU0.5MS	SFPH10GB0.5MS(XX)	SFPH10GB0.5M(XX)L	0.5m (1.6 ft.)	30	Passive
SFPH10GBCU1MS	SFPH10GB1MS(XX)	SFPH10GB1.0M(XX)L	1m (3.3 ft.)	30	Passive
SFPH10GBCU1.5MS	SFPH10GB1.5MS(XX)	SFPH10GB1.5M(XX)L	1.5m (4.9 ft.)	30	Passive
SFPH10GBCU2MS	SFPH10GB2MS(XX)	SFPH10GB2.0M(XX)L	2m (6.6 ft.)	30	Passive
SFPH10GBCU2.5MS	SFPH10GB2.5MS(XX)	SFPH10GB2.5M(XX)L	2.5m (8.2 ft.)	30	Passive
SFPH10GBCU3MS	SFPH10GB3MS(XX)	SFPH10GB3.0M(XX)L	3m (9.8 ft.)	30	Passive
SFPH10GBCU3.5MS	SFPH10GB3.5MS(XX)	SFPH10GB3.5M(XX)L	3.5m (11.5 ft.)	30	Passive
SFPH10GBCU4MS	SFPH10GB4MS(XX)	SFPH10GB4.0M(XX)L	4m (13.1 ft.)	26	Passive
SFPH10GBCU5MS	SFPH10GB5MS(XX)	SFPH10GB5.0M(XX)L	5m (16.4 ft.)	24	Passive
SFPH10GBACU7MS	SFPH10GBA7MS(XX)	SFPH10GBA7M(XX)L	7m (23.0 ft.)	28	Active
SFPH10GBACU10MS	SFPH10GBA10MS(XX)	SFPH10GBA10M(XX)L	10m (32.8 ft.)	28	Active

Use (XX) to specify colour: 01 = Black, 02 = White, 03 = Red, 06 = Blue

## Colour-Coded Cable Clips:

Our colour-coded cable clips are designed to be highly visible, have a secure fit to the cable and easily field attachable to Siemon SFP+ cables. With 8 available colours to choose from, these colour-coded cable clips provide Data Centre Administrators the ability to customise their cables to clearly differentiate and identify various networks.

### Part# Description

CLIP-CBL-50-(XX)....Colour-coded cable clip, 30 and 28 AWG, bag of 25 clips  
CLIP-CBL-62-(XX)....Colour-coded cable clip, 26 and 24 AWG, bag of 25 clips

Use (XX) to specify colour:

02 = White, 03 = Red, 04 = Grey, 05 = Yellow, 06 = Blue, 07 = Green, 08 = Violet, 09 = Orange







# Ruggedised/Industrial Connectivity

Siemon's line of ruggedised/industrial connectivity allows cabling professionals to deliver high-performance copper and fibre cabling in harsh environments that would damage standard connectivity. Including sealed and vibration-resistant outlets, couplers, cords and mounting accessories for twisted-pair copper and fibre systems, Siemon's ruggedised connectivity is ideal for industrial, outdoor and other harsh environments.

## Section Contents

Ruggedised Copper Connectivity . . . . .	13.1
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# Ruggedised Copper Connectivity

Siemon is well-known for its industry leading high performance connectivity. The same high performance copper and fibre products are available with our patented Ruggedised MAX® & Z-MAX® housings. Ruggedised outlets and modular patch cords provide an IP66/IP67-rated seal, protecting plug and outlet contacts from dust, moisture, vibration, and common cleaning chemicals. These solutions are ideal for protecting valuable connections in laboratory environments, hospitals, food processing plants and other harsh environments.

**Easy Termination** — The Ruggedised MAX outlets utilise a standard 110 tool for quick and easy punch-down termination while Z-MAX outlets feature an innovative record-setting termination method

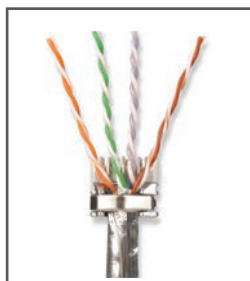


**Standardised Interface** — Ruggedised connector has been recognised by the Open DeviceNet Vendor Association (ODVA), IEC 61076-3-106 and TIA-1005-2009

**Gripping Ribs** — Plug housing and dust caps feature ribs to provide additional gripping for mating and unmating



**Ensures Proper Seal** — Quarter-turn bayonet-style mating ensures proper plug depth into the outlet and an IP66/IP67 rated seal



Compared to all other RJ-45 products on the market today the Z-MAX termination process embraces the principle that simpler is better. By establishing straight forward steps that eliminate potential errors, Siemon has been able to set a new benchmark for the fastest UTP and shielded category 6A outlet termination speed.



## Meets Harsh Demands of the Environment

Specially designed ruggedised connectors can withstand humidity, dust and vibration.



## Vibration Causes Contact Damage In Typical Outlets

Seen under a microscope after exposure to extreme vibration, contact between a typical modular plug and outlet can pit the contact pins, causing intermittent transmission problems.



## Humidity Affects Typical Outlets

Humidity corrodes contact pins inside typical outlets. Repeated exposure can eventually destroy the contact pins, rendering the outlet unusable. The ruggedised outlet's special housing prevents this corrosion.

## Ruggedised Z-MAX® Outlets

The Ruggedised G2 Z-MAX Outlets feature Siemon's high performance Z-MAX Outlets with innovative and fastest termination method in the industry. The combination of premium connectivity and ruggedised housing with quarter-turn bayonet-style mating design provides a high performance solution for harsh environments.

Part #	Description
XG2-Z5S. ....	Category 5e shielded ruggedised G2 Z-MAX outlet, T568A/B
XG2-Z6. ....	Category 6 UTP ruggedised G2 Z-MAX outlet, T568A/B
XG2-Z6A. ....	Category 6A UTP ruggedised G2 Z-MAX outlet, T568A/B
XG2-Z6AS. ....	Category 6A shielded ruggedised G2 Z-MAX outlet, T568A/B



## Ruggedised MAX® Outlets

The Ruggedised MAX outlet features a MAX module housed in a protective shell. The outlet's outer housing is made of durable, chemical-resistant, ruggedised-grade thermoplastic and features Siemon's patented quarter-turn bayonet-style mating design. Guaranteed Category 5e and 6 performance to 160 MHz even in the most punishing environments.

Part #	Description
X5. ....	Category 5e UTP, MAX ruggedised outlet, T568A/B
X5-X5S. ....	Category 5e shielded, MAX ruggedised bulkhead coupler (outlet to outlet)
X6. ....	Category 6 UTP, MAX ruggedised outlet, T568A/B



## Ruggedised MAX Plugs

The Ruggedised MAX Plug features a category 5e modular plug contained in Siemon's ruggedised-grade housing with patented quarter-turn bayonet-style mating design. The plug can be terminated in the field, allowing custom lengths to be assembled quickly on site in the event a cable is cut or damaged. It terminates to twisted-pair cable with 24 – 26 AWG (0.51 – 0.40mm) solid or stranded conductors.

Part #	Description
XP85. ....	Category 5e UTP, MAX ruggedised plug, 8-position, 8-contacts
XP85S. ....	Category 5e shielded, MAX ruggedised plug, 8-position, 8-contacts



## Ruggedised Category 6 UTP Patch cords

Siemon's Ruggedised Category 6 UTP patch cords are constructed using flame-retardant thermoplastic elastomer (TPE) outer jacket over a polyvinyl chloride (PVC) inner jacket. Combined with a -40 to 75°C (-40 to 167°F) temperature range, high flex construction, oil resistant jacket and UL/cUL CM/CMX outdoor rating, they are ideal for use in providing end-to-end Category 6 channel performance in harsh environments.

### Ruggedised to Ruggedised

Part #	Description
XC6-(XX)T. ....	Category 6 UTP, ruggedised plug-to-ruggedised plug, TPE, black jacket



### Ruggedised to Modular

Part #	Description
XC6-(XX)-B05T. ....	Category 6 UTP, ruggedised plug-to-modular RJ-45 plug w/ yellow boot, TPE, black jacket

Use (XX) to specify length: 03 = 0.9m (3 ft.), 05 = 1.5m (5 ft.), 07 = 2.1m (7 ft.), 10 = 3.1m (10 ft.), 15 = 4.6m (15 ft.)



## Ruggedised Category 6A Shielded Patch cords

These cable assemblies provide the final component necessary to construct a Category 6A shielded channel solution for harsh environments when used in conjunction with Siemon's Category 6A shielded cable and Category 6A compatible shielded ruggedised outlets.

### Ruggedised to Modular

Part #	Description
XC6A-S(XX)-B05. ....	Category 6A patch cord, shielded (S/FTP), ruggedised-to-modular, ivory w/ yellow boot, CM/LSOH

Use (XX) to specify length: 03 = 0.9m (3 ft.), 05 = 1.5m (5 ft.), 07 = 2.1m (7 ft.), 10 = 3.1m (10 ft.), 15 = 4.6m (15 ft.), 20 = 6.1m (20 ft.)



## Ruggedised Category 5e UTP Patch Cords

Designed to withstand the rigors of harsh environments Siemon's Ruggedised Category 5e stranded cordage is petroleum and UV resistant, is not effected by common chemicals and water, operates in a wider temperature range and provides a longer flex life. Available in two jacket types to meet various environmental requirements (see table on last page for jacket comparison)

### Ruggedised to Ruggedised

Part #	Description
XC5-(XX)	Category 5e UTP, ruggedised plug-to-ruggedised plug, PVC jacket
XC5-(XX)T	Category 5e UTP, ruggedised plug-to-ruggedised plug, TPE jacket

### Ruggedised to Modular

Part #	Description
XC5-(XX)-B05	Category 5e UTP, ruggedised plug-to-modular RJ-45 plug, yellow boot, PVC jacket
XC5-(XX)-B05T	Category 5e UTP, ruggedised plug-to-modular RJ-45 plug, yellow boot, TPE jacket

### Modular to Modular

Part #	Description
XC5NS-(XX)-B05T	Category 5e UTP, modular RJ-45 plug -to-modular RJ-45 plug, yellow boot, TPE jacket

PVC = Polyvinyl Chloride, TPE =Thermoplastic Elastomer

Use (XX) to specify length: 03 = 0.9m (3 ft.), 05 = 1.5m (5 ft.), 07 = 2.1m (7 ft.), 10 = 3.1m (10 ft.), 15 = 4.6m (15 ft.), 20 = 6.1m (20 ft.)

PVC jacket colour is teal. TPE jacket colour is black.



## Ruggedised Category 5e Shielded Patch Cords

Designed to withstand the rigors of harsh environments, Siemon's Ruggedised Category 5e stranded cordage is petroleum and UV resistant, is not effected by common chemicals and water, operates in a wider temperature range and provides a longer flex life. Available in three ruggedised jacket types to meet various environmental requirements (see table on last page for jacket comparison)

### Ruggedised to Ruggedised

Part #	Description
XC5S-(XX)	Category 5e shielded (SF/UTP) ruggedised plug-to-ruggedised plug, PVC jacket
XC5S-(XX)T	Category 5e shielded (SF/UTP) ruggedised plug-to-ruggedised plug, TPE jacket
XC5S-(XX)U	Category 5e shielded (SF/UTP) ruggedised plug-to-ruggedised plug, PUR jacket

### Ruggedised to Modular

Part #	Description
XC5S-(XX)-B05	Category 5e shielded (SF/UTP) ruggedised plug-to-modular RJ-45 plug, yellow boot, PVC jacket
XC5S-(XX)-B05T	Category 5e shielded (SF/UTP) ruggedised plug-to-modular RJ-45 plug, yellow boot, TPE jacket
XC5S-(XX)-B05U	Category 5e shielded (SF/UTP) ruggedised plug-to-modular RJ-45 plug, yellow boot, PUR jacket

### Modular to Modular

Part #	Description
XC5SNS-(XX)-B05T	Category 5e shielded (SF/UTP) modular RJ-45 plug-to-modular RJ-45 plug, yellow boot, TPE jacket
XC5SNS-(XX)-B05U	Category 5e shielded (SF/UTP) modular RJ-45 plug-to-modular RJ-45 plug, yellow boot, PUR jacket

PVC = Polyvinyl Chloride, PUR = Polyurethane, TPE =Thermoplastic Elastomer

Use (XX) to specify length: 03 = 0.9m (3 ft.), 05 = 1.5m (5 ft.), 07 = 2.1m (7 ft.), 10 = 3.1m (10 ft.), 15 = 4.6m (15 ft.), 20 = 6.1m (20 ft.)

PVC and PUR jacket colour is teal. TPE jacket colour is black.





## Ruggedised Dust Caps

The Ruggedised dust caps are the ideal way to protect your investment in your ruggedised cabling system. Outlet dust caps can be used to protect unused outlets or to seal an outlet during wash down periods when the outlet and plug may be disconnected. Plug dust caps protect ruggedised patch cords from exposure to elements or accidental damage when not mated to an outlet.

Dust caps are constructed of industrial-grade thermoplastic for superior protection and durability. Additionally, outlet and plug dust caps feature a retention tether, which prevents them from being misplaced when not in use.



XP-CAP2. ....  
Ruggedised plug dust cap  
with metal retention tether



XG2P-CAP. ....  
Ruggedised G2 plug dust cap  
with nylon retention tether



X-CAP. ....  
Ruggedised MAX outlet dust  
cap with metal retention tether



XG2-CAP. ....  
Ruggedised G2 outlet dust cap  
with nylon retention tether

## Ruggedised Surface Mount Boxes

The Siemon Ruggedised MAX Surface Mount Box (IBOX) mounts either Siemon copper or fibre ruggedised outlets. Boxes provide an IP66/IP67 (NEMA 4X) seal and can be mounted on virtually any flat surface. Available in 1, 2, 3, and 4-port versions. Compression fittings provided for cable entry.



X-IBOX-01. ....  
Ruggedised surface mount box,  
1-port, supplied with 1 cable  
entry compression fitting



X-IBOX-02. ....  
Ruggedised surface mount box,  
2-port, supplied with 2 cable  
entry compression fittings



X-IBOX-03. ....  
Ruggedised surface mount box,  
3-port, supplied with 3 cable  
entry compression fittings



X-IBOX-04. ....  
Ruggedised surface mount box,  
4-port, supplied with 4 cable  
entry compression fittings

*Note: Compression fittings accommodate cable diameters from 4.1 – 7.9mm (0.16 - 0.31 in.)*

### Technical Tip!

Contact Technical Support for punch tool to create Ruggedised knockouts for custom mounting.

## Ruggedised Stainless Steel Faceplates

Mount Siemon's Ruggedised outlets and adapters into these stainless steel faceplates for a protective seal from moisture and debris. The faceplates are available in 1-, 2-, 3- and 4-port options with a rear sealing gasket and carry an IP44 rating.



XFP-S-01-SS. ....  
Single gang faceplate,  
1-port, stainless steel



XFP-S-02-SS. ....  
Single gang faceplate,  
2-port, stainless steel



XFP-D-03-SS. ....  
Double gang faceplate,  
3-port, stainless steel



XFP-D-04-SS. ....  
Double gang faceplate,  
4-port, stainless steel

*Faceplates include mounting screws with sealed screw head.*

# Ruggedised LC Fibre Connectivity

The Siemon Ruggedised LC Fibre solution provides a robust fibre connection with an IP66/IP67-rated seal and is ideal for protecting fibre connections in laboratory environments, hospitals, food processing plants and other harsh environments.

The Siemon Ruggedised Fibre solution is ideal for installations requiring extended distances, in close proximity to heavy sources of EMI, or where fibre active equipment is used.

**Robust Design** — Protects fibre connections in virtually any harsh environment

**Specialised Bend Relief** — Compression fitting provides a superior rear seal and ensures fibre meet minimum bend radius requirements

**Proper Seal** — Bayonet-style mating ensures proper fibre alignment and an IP66/IP67 rated seal

**High Performance** — Meets ISO/IEC 11801 Ed 2.0 and TIA-568-C.3 specifications for Multimode and Singlemode components

**Field-Termination** — Plug includes two industrial qualified Multimode LC connectors that accept 2 strand, round, breakout style fibre optic cable

Rear of adapter accepts standard LC connectors



## Precision Performance

R&D labs develop, design and implement rigorous testing programs using sophisticated instrumentation. The ruggedised LC provides reliability with leading edge technology for applications where highly accurate performance is critical.



## Robust and Reliable

Ruggedised fibre connections help to streamline operations and reduce costs in manufacturing environments by avoiding regular replacement of standard connectors that cannot withstand these environments.



## Meets Harsh Demands of the Environment

The ruggedised LC connector is ideal in areas where chemicals, corrosive gases and liquids are commonplace.

## Ruggedised G2 LC Fibre Adapters

The Ruggedised G2 LC adapters are inserted from the front of the mounting service and feature an aggressive rear locking nut to ensure secure positioning. They can be used in conjunction with Siemon's ruggedised LC fibre plugs to provide a robust fibre connection with an IP66/67 rated seal.

Part #	Description
XG2-XLC-LC-MM	Ruggedised G2 bulkhead adapter, LC, duplex, Multimode, beige adapter
XG2-XLCQ-LCQMM	Ruggedised G2 bulkhead adapter, LC, duplex, Multimode, aqua adapter
XG2-XLC-LC-SM	Ruggedised G2 bulkhead adapter, LC, duplex, Singlemode, blue adapter
XG2-XLC-XLC-MM	Ruggedised G2 inline adapter, LC, duplex, Multimode, beige adapter
XG2-XLCQ-XLCQMM	Ruggedised G2 inline adapter, LC, duplex, Multimode, aqua adapter
XG2-XLC-XLC-SM	Ruggedised G2 inline adapter, LC, duplex, Singlemode, blue adapter



XG2-XLC-LC-MM



XG2-XLCQ-LCQMM

## Ruggedised LC Fibre Adapters

Part #	Description
XLC-MM	Ruggedised LC bulkhead fibre adapter, Multimode, duplex, beige adapter
XLCQ-MM	Ruggedised LC bulkhead fibre adapter, Multimode, duplex, aqua adapter
XLC-SM	Ruggedised LC bulkhead fibre adapter, Singlemode, duplex, blue adapter

*Note: Bulkhead adapters feature bayonet-style mating on the front of the adapter and a standard LC interface on the rear for use with sealed work area faceplates or fully sealed enclosures where the rear of the adapter is protected from the environment. Inline adapters feature bayonet-style mating on both front and rear of the adapter for use as pass through connections or with unsealed enclosures.*



XLC-MM

## Ruggedised LC Fibre Plugs

Part #	Description
XPLC2-MM	Ruggedised LC fibre plug, Multimode, duplex. Includes two beige Multimode LC connectors
XPLC2-SM	Ruggedised LC fibre plug, Singlemode, duplex. Includes two blue Singlemode LC connectors



XPLC2-MM



XPLC2-SM

*Note: Ruggedised LC fibre plugs accepts 2 strand, round, breakout style fibre optic cable with O.D. ranges from 5mm – 8mm (0.20 - 0.31 in.) with two 2.4mm – 3.0mm (0.09 - 0.12 in.) jacketed subunits.*

## LightSpeed® Termination Kit Upgrade for Ruggedised LC Connectivity

Use the Ruggedised LC Kit with Siemon's *LightSpeed* Termination Kit for Ruggedised LC connector terminations. The kit contains a dual LC polishing puck, which decreases polish time by 50%.

Part #	Description
FTerm-XLC	Ruggedised LC fibre termination kit used in conjunction with FTerm-L2 includes dual polishing puck
FT-LC2PUCK	Dual LC polishing puck
FT-MSLC2HEAD	Dual LC microscope adapter

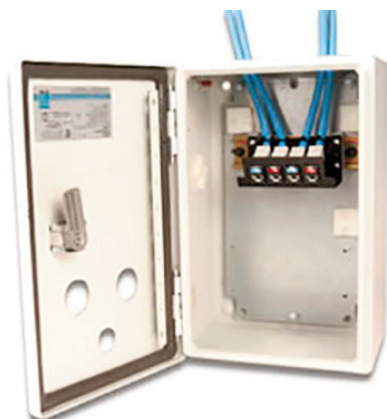
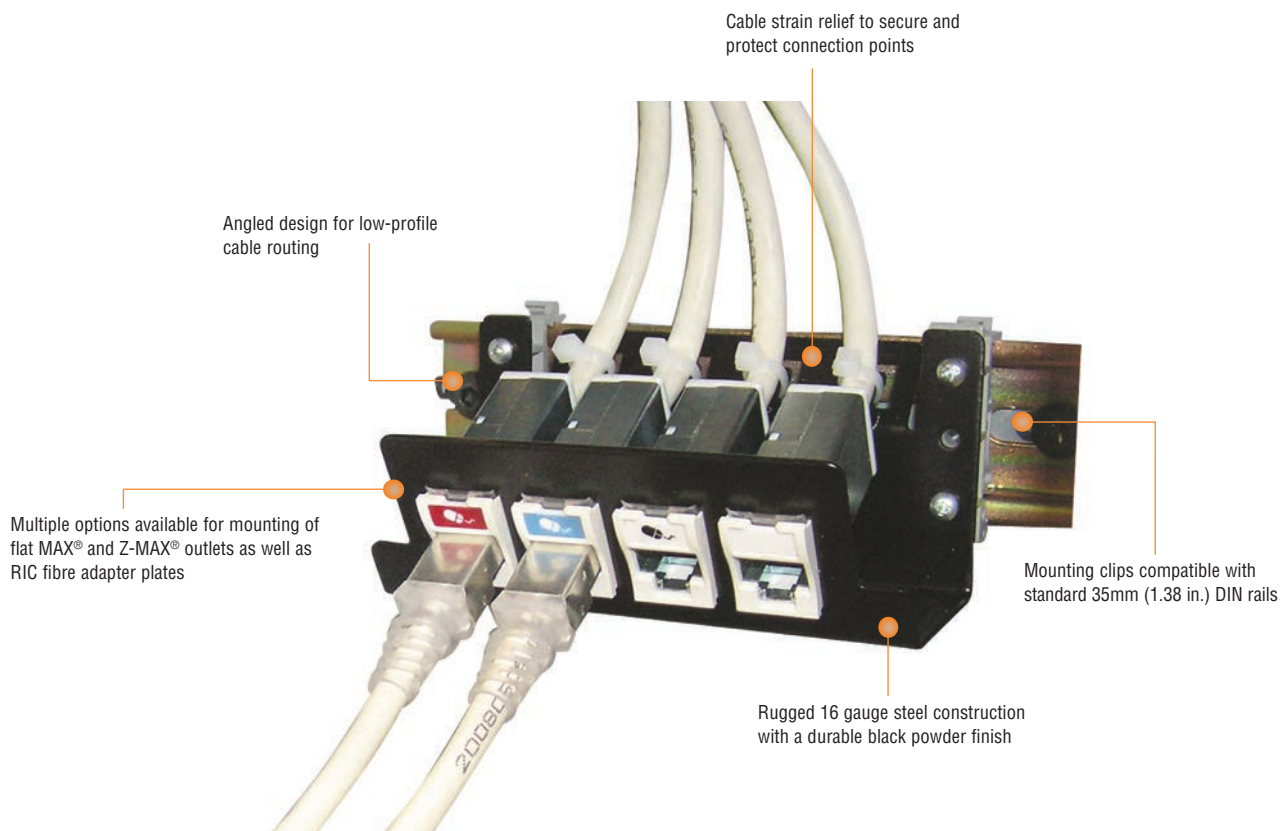


## Technical Information

<b>Enclosure Protection</b>	IP66/IP67	<b>Plug/Outlet</b>
<b>Temperature:</b>	-40°C to 85°C (-40 to 185°F) Service Environment Testing: IEC 61753-1 Ed. 1.0	<b>Plug/Outlet</b>
<b>Shell Material</b>	PBT - Polybutylene Terephthalate (Valox®), UL94V-0	<b>Plug/Outlet</b>
<b>Collar Nut Material</b>	PBT - Polybutylene Terephthalate (Valox®), UL94V-0	<b>Plug</b>
<b>Gasket Material</b>	Silicone	<b>Plug/Outlet</b>
<b>Ferrule Material</b>	Ceramic	<b>Plug</b>
<b>Adapter Sleeve Material</b>	Ceramic	<b>Outlet</b>
<b>Mechanical Durability</b>	500 mating cycles minimum	<b>Plug/Outlet</b>
<b>Chemical Resistance</b>	Materials selected to provide the widest range of protection from most solvents and common industrial chemicals. (Details available upon request)	<b>Plug/Outlet</b>
<b>Bulkhead Thickness</b>	0.762mm to 3.175mm (0.030 in. to 0.125 in.)	<b>Outlet</b>
<b>Strain Relief</b>	250 Newtons (56 lbf) typical	<b>Plug</b>
<b>Optical Performance</b>	ISO/IEC 11801 ED 2.2, TIA-568-C.3, Telcordia GR-326-CORE	<b>Plug/Outlet</b>

## DIN Rail Mounted Patch Panels

DIN Rail Mounted Patch Panels provide an effective patching solution for industrial networks inside control panels and distribution cabinets where DIN mounted equipment is being used. The modular design accommodates copper, fibre and multimedia modules to support most applications. The low-profile angled design minimises cable bend radius in shallow enclosures where space is a premium and can be side stackable to grow with your networking changes.



### APPLICATIONS

- Inside equipment cabinets with DIN rails
- Alongside Industrial Ethernet switches and PLC's

### STANDARDS COMPLIANCE

- European Standard EN 50022
- IEC International Standard 60715



## Ordering Information:

Part #	Description
DIN-PNL-04-01. ....	4-Port MAX® DIN rail patch panel, black with individual port openings.* Includes (4) cable ties



Part #	Description
DIN-PNL-04W-01. ....	4-Port MAX DIN rail patch panel, black with single opening.* Includes (4) cable ties



Part #	Description
DIN-PNL-RIC-01. ....	RIC adapter DIN rail patch panel, black with a single RIC adapter plate opening. Includes (4) cable ties and (2) fibre management clips



\* 1 When using shielded outlets bond other end of link to ground

2 For use with flat MAX outlets/ modules and hybrid Z-MAX outlets mounted in flat orientation

## M12 D-Coded Cable Assemblies

Siemon's M12 D-Coded connector is an industry standard interface for Ethernet and PROFINET industrial networks and meets ISO/IEC 11801 Ed 2.2 and ANSI/TIA Category 5e specifications. Designed for use in industrial automation environments or other harsh environment applications where a compact, robust, reliable connection is needed. Siemon's M12 cable assemblies combine a specially designed Polyurethane (PUR) cable jacket with an overmolded connector to provide an IP67 rating. These robust cord-sets also provide protection from other common industrial elements including EMI, chemicals and mechanical stress.

Available with straight or angled connectors and RJ45 options, the M12 D-Coded cable assemblies are part of Siemon's wide selection of industrial Ethernet cord-sets which are able to satisfy most industrial switch, sensor and control applications.

UV and chemical resistant jacket

### STANDARDS COMPLIANCE

- ISO/IEC 11801 Ed 2.2 Category 5e
- ANSI/TIA-568-C.2 Category 5e
- UL 1863 and CSA-C22.2 No. 182.4
- IEC61076-2-101

Over-moulded IP67 connector resistant to vibration, shock and chemicals

Straight, angled and RJ45 connector options



M12 cable assemblies can be configured with a variety of connector types including RJ45, straight and angled



Resistant to dust, vibration and shock, the M12 D-Code is ideal for any industrial networking environment

# M12 D-Code

## PERFORMANCE SPECIFICATIONS

Cable Attributes	PUR
Low Temperature Flexibility and Brittle Point	Excellent
Tear Resistance	Excellent
Abrasion and Scuff Resistance	Excellent
Tensile Strength and Toughness	Excellent
Ultraviolet and Weather Resistance	Good
Resistance to Acids	Fair
Resistance to Bases	Good
Resistance to Moisture	Excellent
Resistance to Ozone	Good
Resistance to Petro-Chemicals	Fair
Flame and Flame Resistance	Excellent
Zero Halogen	Yes
Flexibility and Flex Life	Excellent
RoHS Compliant and Lead Free	Yes
Dielectric strength and Electrical Performance	Fair

Electrical	
Contact Resistance	10 mΩ
Input to Output Resistance	Contact ≤ 200 mΩ
Min. Dielectric Withstand Voltage	1.4k Volts contact to contact & shield
Insulation Resistance	10 MΩ
Mechanical	
Operating Temperature	-10 to 75°C (14 to 167°F)
Flammability Rating	UL 94 V-0
Green Features	RoHS, Lead Free,
RJ45 Plug Housing Material	Polycarbonate
Contact Materials	30 Microinches Gold Plating or equivalent
Shield	360 Degree
Number of Plug Insertion Cycles	100
Cable Construction	SF/UTP
Cable Wire Size Range	26 AWG 7/34 Stranded Tinned Copper
Cable to Plug Tensile Strength (min)	89N (20 lbf)

## Ordering Information:

XD5S(X)(X)(X)(XXX)(X)-U . . . Shielded assembly, PUR jacket, black	
<b>Wiring Scheme</b> Blank = Straight Through X = Crossover	<b>Unit of Measure</b> F = Feet M = Metres
	<b>Cord Length</b> Length must be 3 digits Example: 003 = 3m 010 = 10ft.
<b>Connector Side A</b> M = Straight Male F = Straight Female A = Angled Male B = Male Bulkhead G = Female Bulkhead	<b>Connector Side B</b> M = Straight Male F = Straight Female A = Angled Male B = Male Bulkhead G = Female Bulkhead S = Straight RJ45 R = Right Angle RJ45 L = Left Angle RJ45 N = No Connector

## IP RATING

SIEMON'S M12 D-CODE CABLE ASSEMBLIES ARE RATED IP67.

IP Rating Chart			
Solid Protection Against		Liquid Protection Against	
0	No Protection	0	No Protection
1	Solid objects greater than 50mm (1.96 in)	1	Water drops
2	Solid objects greater than 12.5mm (.49 in)	2	Water drops at 15° angle
3	Solid objects greater than 2.5mm (.09 in)	3	Water spray at 60° angle
4	Solid objects greater than 1mm (.03 in)	4	Water splash at any angle
5	Dust and particles	5	Water jets at any angle
6	Dust tight, no ingress of dust	6	Powerful jets and heavy seas
		7	30 minute submersion at 3 feet
		8	Permanent submersion at 15 feet

# Tools and Testers

## Section Contents

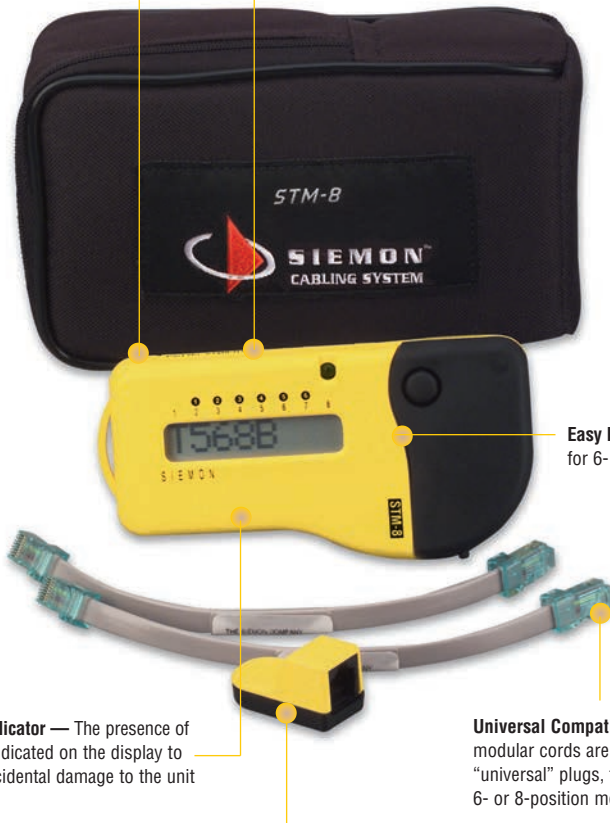
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# STM-8

The STM-8 is an economical and versatile hand-held tester designed for the testing of UTP and shielded cabling for opens, shorts, reversals, miswires, split pairs and cable length. Its rugged, state-of-the-art construction, easy-to-read LCD display and multiple remotes allow one person to quickly test and identify up to four different cable runs from one location.

**Extended Battery Life** — A low battery status indication is provided, as well as automatic shut-off

**Long Length Testing** — Test cable runs up to 900m (2952 ft.)



**Line Voltage Indicator** — The presence of line voltage is indicated on the display to help prevent accidental damage to the unit

**Easy Reference** — Indications for 6- and 8-position jacks

**Universal Compatibility** — The UTP modular cords are equipped with patented "universal" plugs, that fit into any standard 6- or 8-position modular jack

**Multi-Location Testing** — Additional remotes can be purchased separately



## Tests All Wiring Configurations

Tests T568A, T568B, USOC, 10BASE-T, Token Ring, and TP-PMD wiring configurations.



## Determines Unknown Wiring

In FIND mode, the STM-8 will detect and identify which wiring scheme is present in the cabling being tested.



## Determines Cable Length

In the LENGTH mode, the STM-8 will determine the distance measurements on any given cable link up to 900m. This feature may be used with all four identifiable remotes.

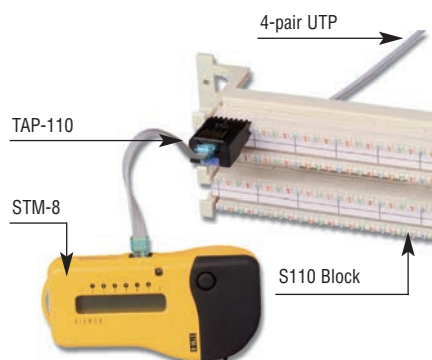


## STM-8 and STM-8-S

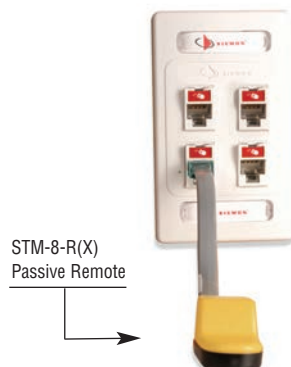
Part #	Description
STM-8.....	UTP (unshielded, twisted-pair) tester. Includes carrying case, remote "A", two universal plug-ended modular cords, wiring guide, 9V alkaline battery, instructions and warranty card
MC-8-005.....	Universal plug-ended modular replacement cord

### Horizontal Cross-Connect

The S110® Test Adapter can be used to test horizontal cabling that is terminated on 110-type connecting blocks

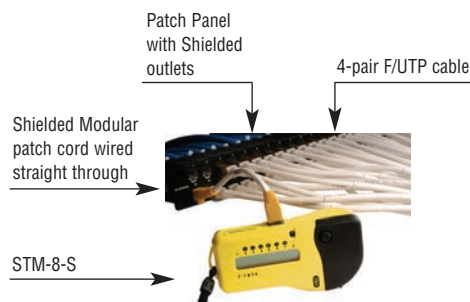


### Work Area Outlet

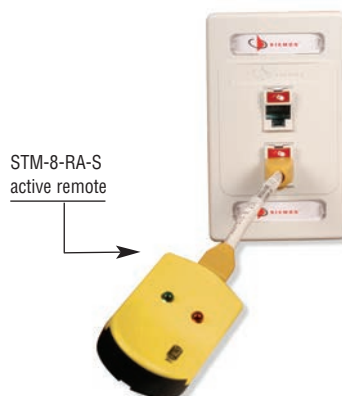


STM-8-S.....	Shielded twisted-pair tester. Includes carrying case, active remote, two screened modular cords, wiring guide, 9V alkaline battery, instructions, and warranty card
MC5-S-8-005.....	Shielded modular replacement cord

### Horizontal Cross-Connect



### Work Area Outlet



## Accessories

Siemon's active remote utilizes a shielded jack for testing both UTP and shield continuity of F/UTP cabling. LEDs on remote indicate test results after each test cycle; solid green LED flash for pass and solid red LED flash for fail. Identifiable passive remotes are also available for testing multiple locations.

STM8-RA-S.....
Active remote for UTP or F/UTP with two shielded modular cords, instructions, 3V lithium battery, and warranty card



STM8-R(X).....
Additional identifiable UTP passive remotes

Use (X) to specify remote identity:  
A = Remote A,  
3 = Kit of Remotes B, C, and D



# 25-Pair Test Adapters

Siemon 25-pair test adapters are designed for accessing all 25 pairs on a 66M connecting block. A positive connection ensures accurate testing with easy installation and removal. They can also be used to field-connect 66M blocks. Available with either male or female 25-pair connectors.

Part #	Description
TAP-50F. . . . .	25-Pair S66™ test adapter with female connector
TAP-50M. . . . .	25-Pair S66 test adapter with male connector

See page 9.23 for 25-pair cable assemblies.



TAP-50

# MODAPT®

This modular adapter allows in-line testing for any plug/jack combination. It includes two 4-pair jacks plus a 152mm (6 in.) modular cord terminated with our patented 4-pair “universal” plug for accessing any standard 6- or 8-position jack. Individual conductors are broken out by pin number and correspond to eight separate test pads. Test equipment can be securely attached to the test pads using alligator clips. For quick reference in the field, USOC, T568A, and T568B wiring charts are printed right onto the MODAPT body. When used with Siemon’s TESTAR® adapter and S110® test adapter, the MODAPT can be used to test connections on S66M and S110 blocks.

Part #	Description
MODAPT. . . . .	Test adapter with one 152mm (6 in.) 4-pair universal plug-ended modular cord
MC-8-005. . . . .	Universal plug-ended modular replacement cord, 152 mm (6 in.)



## TESTAR®

The TESTAR creates easy test access to 66 quick clips. It plugs directly onto S66M blocks, establishing a positive connection and providing a 4-pair modular jack for plugging in test equipment. The body is moulded in blue plastic and has moulded-in finger grips for easy handling.

Part #	Description
TESTAR-8T-C5.....	Category 5e compatible, 4-pair, 8-position, TESTAR, T568A
TESTAR-8A-C5.....	Category 5e compatible, 4-pair, 8-position, TESTAR, T568B



## Other TESTARs

The positive connection made by the TESTAR eliminates possible problems associated with handling alligator clips or test probes such as accidental shorting across terminals or intermittent test connections. Test equipment is inserted into the TESTAR through a 1-, 2-, 3-, or 4-pair modular jack. To utilise equipment requiring alligator clips, our MODAPT® adapter can be plugged into the TESTAR.

Part #	Description
TESTAR-2.....	1-Pair, 6-position, TESTAR, USOC
TESTAR-4.....	2-Pair, 6-position, TESTAR, USOC
TESTAR-6.....	3-Pair, 6-position, TESTAR, USOC
TESTAR-8R1.....	4-Pair, 8-position, TESTAR, USOC
TESTAR-8.....	4-Pair, 8-position, TESTAR, T568B
TESTAR-8T.....	4-Pair, 8-position, TESTAR, T568A

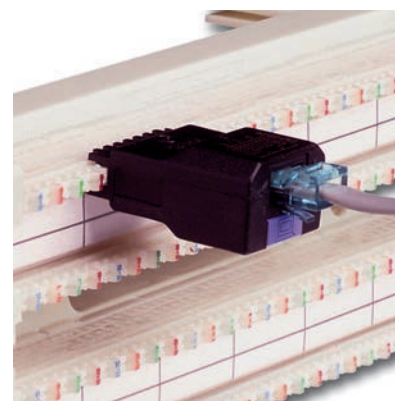


## S110® Test Adapters

Siemon's 4-pair S110 test adapters provide a convenient way to test 110-type connecting blocks. These adapters plug directly onto any 110-type connecting block and provide a modular jack for connection to test equipment or patch cords. It is the only 110 style test adapter that can be attached to both terminated and unterminated 110 connecting blocks. The adapters are end-stackable, and are polarised to prevent incorrect insertion.

The adapters have an area for a coloured icon (a blue and red icon are included) for additional identification. They are available in T568A and T568B wiring configurations and are Category 5e compatible.

Part #	Description
TAP-110-T4.....	Category 5e compatible, 4-pair, 8-position, S110 test adapter, T568A
TAP-110-A4.....	Category 5e compatible, 4-pair, 8-position, S110 test adapter, T568B



### Technical Tip!

The adapters utilise a unique, spring-loaded contact design to ensure a reliable connection without disturbing existing cross-connect terminations. This also extends the life-cycle of the test adapter.



4-pair

# Termination Tools

## Z-TOOL™

The Z-TOOL is an integral part of the exclusive Z-MAX® termination process and is used with both UTP and shielded Z-MAX modules. This easy-to-use and ergonomic designed tool is used both to secure the cable retention/grounding clip and to fully engage the termination module into the back of the outlet.

**Alignment Aids** — Keyed guide ensures correct outlet insertion during termination

**Ergonomic** — Minimal hand strain, limited pressure and zero-impact for comfortable repeatability

**Attachment Point** — For key ring or lanyard and rack-mount capability

**One-Handed Activation** — Allows final Z-MAX termination step to be accomplished with one hand for operation space-restricted areas

**Retention Clip Locking** — Additional function closes and locks hinged cable retention/grounding clip

**Slim Profile** — To fit in a pocket or toolbox

### Ordering Information:

Part #	Description
Z-TOOL	Z-MAX Termination Tool

## S110®/S210® Multi-Pair Termination Tools

The Siemon S110/S210 multi-pair termination tool is a versatile impact tool designed to terminate and cut UTP cable, and seat connecting blocks. The impact mechanism and termination blades have been designed to reliably terminate and cut UTP cable the first time, every time. The tool features an easy to hold, ergonomically designed handle that helps reduce fatigue when trimming wire or seating connecting blocks to the wiring base.

<p>S788J4-210..... 4-Pair S210 termination tool</p>	<p>S788J4B-210..... 4-Pair S210 replacement cutting blade and insertion assembly</p>	<p>S788J4H-210..... 4-Pair S210 replacement head for impact tool, including housing, cutting blade and insertion assembly</p>
<p>S788J4..... 4-Pair S110 termination tool</p>	<p>S788J4B..... 4-Pair S110 replacement cutting blade and insertion assembly</p>	<p>S788J4H..... 4-Pair S110 replacement head for impact tool, including housing, cutting blade and insertion assembly</p>
<p>S788J5..... 5-Pair S110 termination tool</p>	<p>S788J5B..... 5-Pair S110 replacement cutting blade and insertion assembly</p>	<p>S788J5H..... 5-Pair S110 replacement head for impact tool, including housing, cutting blade and insertion assembly</p>

# MAX® TurboTool™

Simon's MAX TurboTool significantly reduces the time associated with the termination of Category 5e and 6 UTP MAX outlets in as little as 18 seconds. In contrast to single conductor punchdown tools which require eight individual termination cycles for each outlet, the MAX TurboTool seats and cuts all 8 conductors with a single action.

**Durable Construction** — 13 gauge CRS ensures reliable operation through daily handling

**Definitive Ratcheting Action** — Provides positive audible and tactile feedback indicating that the termination process is complete

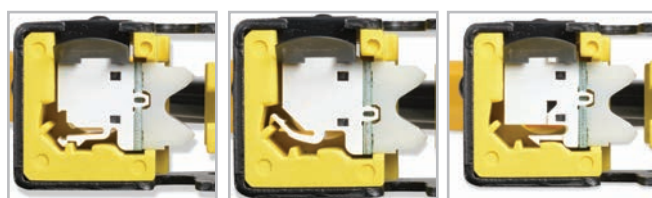
**Established Platform** — The tool shares the same proven core ratcheting platform as Simon's PT-908 crimp tool which has been in the market for nearly 20 years

**High Contrast Colours** — Provide optimal visibility to prevent tool from inadvertently being left behind in low light areas



**Replaceable Termination Cartridges** — Allows the wearable part of the tool to be readily replaced

**Retention Clip** — Ensures outlets are fully seating prior to termination

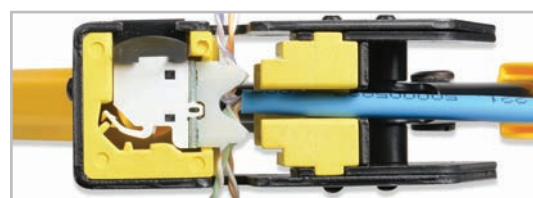


Flat

Angled

Keystone

The tool supports termination of all Category 5e and 6 MAX outlets – flat, angled and keystone



The rear cable channel provides cable access for the full range of Category 5e and 6 UTP cable sizes while the side slots provide clearance for laced twisted-pair conductors

## Ordering Information:

Part #	Description
MAX-TT.....	MAX TurboTool



Part #	Description
MAX-TTREP.....	Replacement MAX TurboTool cartridge kit - Includes outlet nesting die, termination die, attachment hardware and Allen wrench





## S814 Impact Tool

The S814 impact tool terminates wires on 66 and 110 clips. The tool is spring-loaded and fully adjustable; a helpful feature when working with wires of varying thicknesses. The bayonet-style mount allows the blades to be changed quickly and easily, and a compartment in the handle stores an extra blade.



Part #	Description
S814	Tool body only
S814-66	Tool body with 66 termination blade
S814-110	Tool body with 110 termination blade
S81401-66	66 termination blade
S81401-110-88	110 termination blade

### Technical Tip!

Termination blades for Siemon punch down tools are reversible — one end terminates and cuts off the excess wire, the other end terminates without cutting.

## Palm Guard

The Siemon palm guard has been ergonomically designed to provide a safe and convenient means of terminating our flat or angled CT couplers and MAX® modules. The palm guard absorbs the impact of termination while securing the connector to prevent movement. Includes an adjustable elastic strap and a removable insert, which can be used to hold MAX modules while terminating on flat surfaces.



Part #	Description
PG	Palm guard with MAX insert
PG-MX6	MAX Insert

## CI-KIT

The CI-KIT provides all the tools that a telecommunications technician needs for day-to-day activities. Included in the kit is an S814 impact tool with 66 and 110 termination blades, a probe pic, electrician's scissors, mini flathead screwdriver, and a CPT-WEB cable preparation tool. These tools are stored in a handy, lightweight clip-on pouch which allows the installer to cut, strip, and terminate cabling without having to carry separate tools or larger tool kits.

Part #	Description
CI-KIT	Clip-on tool kit with S814 impact tool (with 66 and 110 termination blades), probe pic, electrician's scissors, mini flathead screwdriver, and CPT-WEB tool
CI-POUCH	Clip-on CI-KIT tool pouch only



## CI-KIT2

Siemon's CI-KIT2 includes all the components of the standard CI-KIT, with the addition of our popular AllPrep™ cable preparation tool in place of the CPT-WEB tool. Also, a "D-Ring" has been added to carry additional tools. These tools are stored in a handy, lightweight, clip-on pouch which allows the installer to cut, strip and terminate cabling without having to carry separate tools or larger tool kits.

Part #	Description
CI-KIT2	Clip-on tool kit with S814 impact tool (with 66 and 110 termination blades), probe pic, electrician's scissors, mini flathead screwdriver, and AllPrep cable preparation tool
CI-POUCH2	Clip-on CI-KIT2 tool pouch only

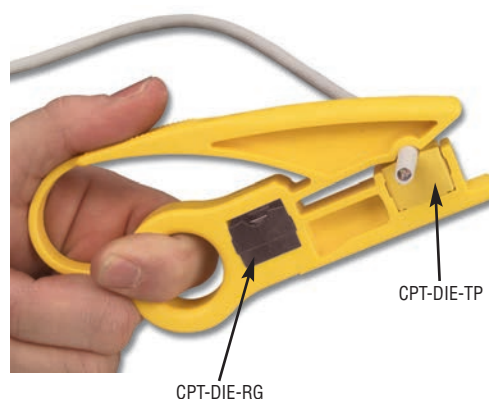


"D-Ring"

## AllPrep™ Cable Preparation Tool

The AllPrep cable preparation tool provides a robust and reliable method of preparing both coaxial and twisted-pair cable for termination. The tool features two colour-coded dies that are interchangeable for each media type. The coaxial die strips RG59 and RG6 coaxial cable and the twisted-pair die strips a wide variety of UTP, shielded and fibre cables.

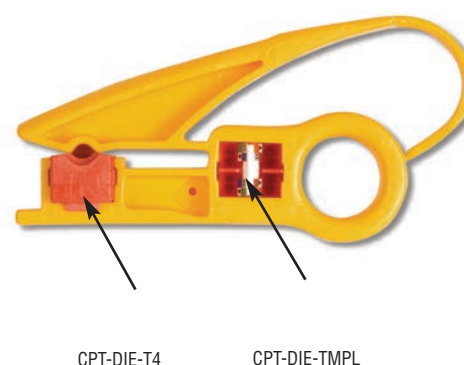
Part #	Description
CPT-RGTP. ....	AllPrep cable preparation tool for coax/twisted pair cables
CPT-DIE-RG. ....	Replacement coax die (black)
CPT-DIE-TP. ....	Replacement twisted-pair die (yellow)
CPT-DIE-6A. ....	Replacement Category 6A UTP die (green)



## TERA® Cable Preparation Tool

The TERA cable preparation tool significantly reduces the time required to prepare fully shielded (S/FTP) cable. The tool includes an insert die with a blade, which is specifically designed to accurately strip the jacket and foil from 4-pair fully shielded cable without damaging the conductors. A template is also included to pre-align cable pairs and ensure proper pair positioning during termination.

Part #	Description
CPT-T. ....	TERA preparation tool. Includes CPT-DIE-T4 and TERA cable preparation template
CPT-DIE-T4. ....	Replacement TERA cable die (red)
CPT-DIE-TMPL. ....	Replacement TERA wiring guide (red)



## CPT

The CPT provides a simple and effective method to remove the outer cable jacket from 2-, 3-, or 4-pair cables without damaging the inner conductor insulation. The CPT is recommended for use with any round cable with an exterior diameter from 2.54 – 6.35mm (0.1 - 0.25 in.) and an outer jacket thickness from 0.380 – 0.635mm (1.015 - 0.25 in.).

Part #	Description
CPT. ....	Cable preparation tool



## CPT-WEB

The CPT-WEB is designed to easily strip the outer cable jacket, flatten and separate the webbed conductors of Siemon's Category 5e cross-connect jumper wire and other UTP cable with webbed conductor pairs.

Part #	Description
CPT-WEB. ....	Webbed cable preparation tool



## PT-908 Crimp Tool

This 3-in-1 ratchet-style crimp tool cuts, strips, and crimps modular plugs on either round or flat cables. The parallel action design maintains accurate alignment of the die with the plug for a precision crimp every time. The PT-908 comes with a padded carrying case which includes a storage compartment for carrying spare dies, replacement stripper blades, and modular plugs, and will attach to a technician's belt.

PT-908. ....

Crimp tool with built-in round cable cutter/stripper, 8-position die set and padded nylon carrying case



PT-908-D. ....

Crimp tool with built-in round cable cutter/stripper, 8-position die set packaged in a clear plastic display case



PT-DIE-8. ....

Replacement 8-position die set



PT-DIE-6. ....

6-position die set



### Technical Tip!

Siemon does not recommend field termination of modular cords. We recommend the use of factory-terminated and tested modular cords for any Category 5e or higher application.

# Glossary

**Alien Crosstalk:** Noise or interference caused by electromagnetic coupling from one cable to another cable, expressed in decibels.

**Attenuation:** See Insertion Loss.

**Attenuation to Crosstalk Ratio (ACR):** The difference between insertion loss and crosstalk measured in decibels.

**Attenuation to Crosstalk Ratio, Far-end (ACR-F):** Crosstalk measured at the opposite end from which the disturbing signal is transmitted, normalized by the insertion loss of the cable or cabling.

**Backbone Cabling:** Alternate name for Cabling Subsystem 2 or Cabling Subsystem 3 in a typical commercial building environment.

**Balance:** An indication of signal voltage equality and phase polarity on a conductor pair. Perfect balance occurs when the signals across a twisted-pair are equal in magnitude and opposite in phase with respect to ground.

**Balanced Signal Transmission:** Two voltages, equal and opposite in phase with respect to each other, across the conductors of a twisted-pair (commonly referred to as tip and ring).

**Balun:** An impedance matching transformer used to convert unbalanced signals to balanced signals and vice versa.

**Bandwidth:** A range of frequencies, usually the difference between the upper and lower limits of the range, typically expressed in megahertz (MHz). Bandwidth may also be used to describe the information-carrying capacity of a medium, for example optical fibre bandwidth is specified in megahertz kilometres (MHz.km).

**Base 8:** End-to-end optical fibre cabling systems, consisting of cables, modules, adapters, trunk assemblies, jumpers, and other components, capable of supporting up to 8-fibre transmission schemes.

**Base 12:** End-to-end optical fibre cabling systems, consisting of cables, modules, adapters, trunk assemblies, jumpers, and other components, capable of supporting up to 12-fibre transmission schemes.

**Bonding:** The permanent joining of metallic parts to form an electrically conductive path that will assure electrical continuity and the capacity to conduct safely any current likely to be imposed on it.

**Bridged Tap:** The multiple appearances of the same cable pair or optical fibre at several distribution points. Also known as parallel connections.

**Bridging:** A means of providing through connections between conductors or pairs that are terminated on connecting blocks. These through connections are commonly provided by means of individual metallic "bridging" clips or multiple "bridging" clips that are housed in a plastic insulator.

**Building Distributor (BD):** The international term for intermediate cross-connect; the location where the building backbone cable(s) terminates and at which connections to the campus backbone cable(s) may be made.

**Bundled Cable:** An assembly of two or more cables continuously bound together to form a single unit prior to installation (sometimes referred to as loomed, speed-wrap or whip cable constructions).

**Cabling:** A combination of cables, wire, cords and connecting hardware used in the telecommunications infrastructure.

**Cabling Subsystem 1:** Cabling from the equipment outlet to Distributor A, Distributor B, or Distributor C.

**Cabling Subsystem 2:** Cabling between Distributor A and either Distributor B or Distributor C (if Distributor B is not implemented).

**Cabling Subsystem 3:** Cabling between Distributor B and Distributor C.

**Campus Backbone:** Cabling between buildings that share telecommunications facilities.

**Campus Distributor (CD):** The international term for main cross-connect; the location where the campus backbone cabling begins.

**Category:**

**1. ANSI/TIA/568-C family of Standards:** These North American standards define mechanical and electrical performance of balanced twisted-pair cabling and components by a category of performance (i.e. category 3, category 5e, category 6, category 6A, and category 8).

**2. ISO/IEC 11801 2nd edition and addenda:** These international standards define

mechanical and electrical performance of telecommunications cabling by a class of performance (class C, class D, class E, class EA, class F, and class FA) and components by a category of performance (i.e. category 3, category 5, category 6, category 6A, category 7, and category 7A).

**Channel:** The end-to-end transmission path connecting any two points between application specific equipment. Equipment and work area cords, with the exception of the modular interface connecting to equipment, are included in the channel.

**Class:** See category.

**Common Mode Transmission:** A transmission scheme where voltages appear equal in magnitude and phase across a conductor pair with respect to ground; may also be referred to as longitudinal mode.

**Consolidation Point (CP):** A connection facility within Cabling Subsystem 1 for interconnection of cables extending from building pathways to the equipment outlet.

**Cord:** An assembly of cord cable with a plug on one or both ends used to connect telecommunications equipment to horizontal or backbone cabling.

**Cross-connect:** A facility enabling the termination of cables as well as their interconnection or cross-connection with other cabling or equipment; also known as a distributor.

**Cross-connection:** A connection scheme between cabling runs, subsystems and equipment using patch cords or jumpers that attach to connecting hardware on each end.

**Crosstalk:** Noise or interference caused by electromagnetic coupling from one signal path to another. Crosstalk performance is generally expressed in decibels.

**Data centre:** A building or portion of a building whose primary function is to house a computer room and its support areas.

**Decibel (dB):** A standard unit for expressing transmission gain or loss as derived from a ratio of signal voltages or power.

**Delay Skew:** The difference in propagation delay between the fastest and slowest pair in a cable or cabling system.

**Demarcation Point (DP):** A point where operational control or ownership changes.

**Differential Mode Transmission:** A transmission scheme where voltages appear equal in magnitude and opposite in phase across a twisted-pair with respect to ground; may also be referred to as balanced mode.

**Distributor A:** Optional connection facility that is cabled between the equipment outlet and Distributor B or Distributor C in a hierarchical star topology; representing the horizontal cross-connect (HC) in a typical commercial building environment.

**Distributor B:** Optional intermediate connection facility that is cabled to Distributor C in a hierarchical star topology; representing the intermediate cross-connect (IC) in a typical commercial building environment.

**Distributor C:** Central connection facility in a hierarchical star topology; representing the main cross-connect (MC) in a typical commercial building environment.

**Electromagnetic Compatibility (EMC):** The ability of a system to minimise radiated emissions and maximise immunity from external noise sources.

**Electromagnetic Interference (EMI):** The interference in signal transmission or reception caused by the radiation of electrical and magnetic fields.

**Entrance Facility (EF):** The location where both public and private network telecommunications services (e.g. cables, antennae, etc.) enters into a building and/or where backbone pathways linking to other buildings in a campus environment are located. The entrance facility may contain public network interface devices as well as telecommunications equipment. Entrance facilities are often used to house electrical protection equipment and connecting hardware for the transition between outdoor and indoor cable.

**Entrance Point, Telecommunications:** The point of emergence of telecommunications conductors through an exterior wall, a concrete floor slab, or from a rigid metal conduit or intermediate metal conduit.

**Equipment Outlet (EO):** Outermost connection facility in a hierarchical star topology; representing the telecommunications outlet/connector (TO) in a typical commercial building environment.

**Equipment Room (ER):** A centralized space for telecommunications equipment that serves the occupants of the building or multiple buildings in a campus environment. An equipment room is considered distinct from a telecommunications



room because it is considered to be a building or campus serving (as opposed to floor serving) facility and because of the nature or complexity of the equipment that it contains.

**Equipment Room, Telecommunications:** A centralised space for telecommunications equipment that serves the occupants of the building. An equipment room is considered distinct from the telecommunications room because of the nature and complexity of the equipment it houses.

**Ethernet:** A family of copper and optical fibre communications technologies for local area networks (LANs).

**Far-end Crosstalk (FEXT):** Crosstalk measured at the opposite end from which the disturbing signal is transmitted.

**Fibre Optic Transmission:** See Optical Fibre Transmission.

**Fibre Channel:** A high-speed network communications technology (commonly running at 2, 4, 8, or 16 Gb/s speeds) that can be deployed over optical fibre or twisted-pair cabling and is primarily used for storage networking.

**Floor Distributor (FD):** The international term for horizontal cross-connect; the distributor used to connect between the horizontal cable and other cabling subsystems or equipment.

**Fully Shielded twisted-pair (S/FTP):** A balanced twisted-pair cable containing balanced twisted-pair conductors that are individually foil shielded, surrounded by an overall metallic braid, and bound in a single cable sheath.

**Ground:** A conducting connection, whether intentional or accidental, between an electrical circuit (telecommunications) or equipment and earth, or to some conducting body that serves in place of the earth.

**Hertz (Hz):** A measure of frequency as defined in units of cycles per second.

**Horizontal Cabling:** Alternate name for Cabling Subsystem 1 in a typical commercial building environment.

**Horizontal Cross-connect (HC):** A cross-connect of horizontal cabling to other cabling, e.g., horizontal, backbone, or equipment.

**Hybrid Cable:** An assembly of two or more cables, of the same or different types or categories, covered by one overall sheath.

**InfiniBand:** A switched network communications technology featuring point-to-point bidirectional serial links connecting I/O networks such as storage area networks (SAN) or processors with high-speed peripheral devices such as disks.

#### Insertion loss:

1. In a copper twisted-pair system, the voltage loss resulting from the insertion of a connector into a transmission line.

2. In an optical fibre system, the loss of optical power caused by inserting a component, such as a connector, coupler or splice, into a previously continuous optical path.

**Insulation Displacement Connection (IDC):** A wire connection device that penetrates the insulation of a copper wire when it is being inserted (punched-down) into a metal contact, allowing an electrical connection to be made.

**Interbuilding Backbone:** Telecommunications cable(s) that is part of the campus subsystem that connects one building to another.

**Interconnection:** A connection scheme that provides direct access to the cabling infrastructure and the ability to make cabling system changes using equipment cords.

**Intermediate Cross-Connect (IC):** The connection point between a backbone cable that extends from the main cross-connect (first-level backbone) and the backbone cable from the horizontal cross-connect (second-level backbone).

**Intrabuilding Backbone:** Telecommunications cable(s) that are part of the building /subsystem that connect one equipment room to another.

**Jumper:** An assembly of twisted-pairs without connectors on either end used to join telecommunications links at a cross-connect.

**Laser Optimised:** A multimode optical fibre with a refractive index profile optimised for use with laser light sources such as a vertical-cavity surface-emitting laser, or VCSEL.

**Link:** An end-to-end transmission path provided by the cabling infrastructure. Cabling links include all cables and connecting hardware that comprise the horizontal or backbone subsystems. Equipment and work area cables are not included as part of a link.

**Local Area Network (LAN):** A geographically limited data communications system for a specific user group consisting of a group of interconnected computers, sharing applications, data, and peripheral devices such as printers and CD-ROM drives intended for the local transport of data, BAS services, video, and voice.

**Longitudinal Conversion Loss (LCL):** A measure (in dB) of the differential voltage induced on a conductor pair as a result of subjecting that pair to longitudinal voltage. LCL is a measure of circuit balance.

**Main Cross-connect (MC):** A cross-connect for first level backbone cables, entrance cables, and equipment cables.

**Modular Jack:** A telecommunications outlet/connector for wire or cords as defined in the FCC Part 68 Subpart F. Modular jacks can have 4, 6 or 8 contact positions, but not all the positions need be equipped with contacts.

**Modular Plug:** A telecommunications connector for wire or cords as defined in the FCC Part 68 Subpart F. Modular plugs can have 4, 6 or 8 contact positions, but not all the positions need be equipped with contacts.

**Multimode Optical Fibre:** An optical fibre that will allow multiple modes of light to propagate. The fibre may be either a graded-index or step-index fibre. Multimode optical fibres have a much larger core than singlemode fibres.

**Multi-user Telecommunications Outlet Assembly (MuTOA):** A grouping in one location of several telecommunications/outlet connectors.

**Nanosecond (ns):** One billionth of a second (10<sup>-9</sup> seconds).

**Near-end Crosstalk (NEXT Loss):** The undesired coupling of a signal from one pair of wires to another. Signal distortion as a result of signal coupling from one pair to another at various frequencies.

**Network Demarcation Point:** The point of interconnection between the local exchange carrier's telecommunication facilities and the telecommunications systems wiring and equipment the end user's facility. This point shall be located on the subscriber side of the telephone company's protector or the equivalent thereof in cases where a protector is not required.

**Open Office Cabling:** The cabling that distributes from the telecommunications closet to the open office area utilizing a consolidation point or multi-user telecommunications outlet assembly.

**Optical Fibre Transmission:** A communications scheme whereby electrical data is converted to light energy and transmitted through optical fibres.

**Outlet/Connector, Telecommunications:** A connecting device in the work area on which horizontal cable terminates.

**Patch Cord:** A length of cable with connectors on one or both ends used to join telecommunications links at a cross-connect.

**Patch Panel:** Connecting hardware that typically provides means to connect horizontal or backbone cables to an arrangement of fixed connectors that may be accessed using patch cords or equipment cords to form cross-connections or interconnections.

**Pathway:** A facility (i.e. conduit) for the placement and protection of telecommunications cables. Same as raceway or ducting.

**Plenum:** A compartment or chamber to which one or more air ducts are connected and that forms part of the air distribution system.

**PoE:** Typically associated with IEEE 802.3 applications, Power over Ethernet is a remote powering strategy whereby up to 1A of current per balanced twisted-pair is used to deliver up to 100W of dc power to an IP-enabled device.

**Private Branch Exchange (PBX):** A private switching system usually serving an organisation, such as a business, located on the customer's premises. It switches calls both inside a building or premises and outside to the telephone network, and can sometimes provide access to a computer from a data terminal.

**Propagation Delay:** The amount of time that passes between when a signal is transmitted and when it is received at the opposite end of a cable or cabling.

**Punch Down:** A method for securing wire to a quick clip in which the insulated wire is placed in the terminal groove and pushed down with a special tool. As the wire is seated, the terminal displaces the wire insulation to make an electrical connection. The punch down operation may also trim the wire as it terminates.

**Return Loss:** Noise or interference caused by impedance discontinuities along the transmission line at various frequencies; may be called echo. Return loss is expressed in decibels.



**Shielded twisted-pair (F/UTP):** A balanced twisted-pair cable surrounded by foil (screen) and bound in a single cable sheath.

**Shielded twisted-pair (F/FTP):** A balanced twisted-pair cable where each twisted pair is surrounded by an individual foil, and all four pairs are surrounded by an overall foil (screen), bound in a single cable sheath.

**Singlemode Optical Fibre:** An optical fibre that will allow only one mode of light to propagate; this fibre is typically a step-index fibre.

**Small Form Factor:** An optical fibre connector and adapter that provide for two strands of fibre in a footprint similar to an unshielded twisted-pair (RJ-style) plug and socket.

#### Star Topology:

1. A method of cabling each telecommunications outlet/connector directly to a cross-connect in a horizontal cabling subsystem.
2. A method of cabling each cross-connect (HC and IC) to the main cross-connect (MC) in a backbone cabling subsystem.

**Surge:** A rapid rise in current or voltage, usually followed by a fall back to a normal level; also referred to as a transient.

**Telecommunications:** Any transmission, emission or reception of signs, signals, writings, images, sounds or information of any nature by cable, radio, visual, optical or other electromagnetic systems.

**Telecommunications Room (TR):** An enclosed space for housing telecommunications equipment, cable terminations, and cross-connect cabling used to serve work areas located on the same floor. The telecommunications room is the typical location of the horizontal cross-connect and is considered distinct from an equipment room because it is considered to be a floor serving (as opposed to building or campus serving) facility.

**Topology:** The physical or logical layout of links and nodes in a network. These include star, ring, and bus configurations.

**Transfer Impedance:** A measure (in milliohms/metre) of shield effectiveness.

**Trunk:** A communication line between two switching systems. The term "switching systems" typically includes equipment in a central office (the telephone company) and PBXs. A tie trunk connects PBXs. Central office trunks connect a PBX to the switching system at the central office.

**Unshielded Twisted-Pair (UTP):** A balanced twisted-pair cable bound in a single cable sheath.

**Work Area:** A space, typically in a commercial building, where the occupants interact with telecommunications equipment.

**Work Area Cord:** See Cord.

**Zone Cabling:** A Standards-recognized cabling infrastructure topology consisting of horizontal cables run from the horizontal interconnect or cross connect in the telecommunications room (TR) to an intermediate connection point that is typically housed in a zone enclosure (sometimes called a zone box or floor box) located in the ceiling, on the wall, or below a raised floor

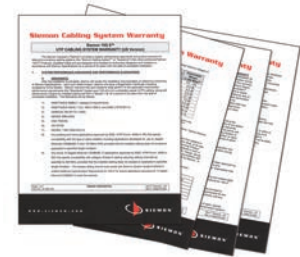
## Acronyms & Abbreviations

ACR	Attenuation-to-crosstalk ratio
ANSI	American National Standards Institute
AWG	American wire gauge
BAS	Building Automation System
BD	Building distributor
BER	Bit Error Rate
CD	Campus distributor
CP	Consolidation point
CSA	Canadian Standards Association
dB	Decibel
DA	Distributor A
DB	Distributor B
DC	Distributor C
EF	Entrance facility
EMC	Electromagnetic compatibility
EMI	Electromagnetic interference
EO	Equipment Outlet
ER	Equipment room
FCC	Federal Communications Commission
FD	Floor distributor
ft	Feet
FEXT	Far-end crosstalk
F/UTP	Shielded or screened twisted-pair
Gb/s	Gigabit per second
GHz	Gigahertz
HC	Horizontal cross-connect
HDA	Horizontal Distribution Area (same as Zone Distributor in ISO)
HVAC	Heating, ventilation and air conditioning
IC	Intermediate cross-connect
IDA	Intermediate Distribution Area
IDC	Insulation displacement connection
IEC	International Electrotechnical Commission
IEEE®	Institute of Electrical and Electronic Engineers®
ISO	International Standards Organisation
Kb/s	Kilobit per second
Km	Kilometre
LAN	Local area network
lbf	Pounds force
LED	Light emitting diode
m	Metre
µm	Micron; one millionth of a metre (0.000001); also micrometre
Mb/s	Megabits per second
MC	Main cross-connect
MDA	Main Distribution Area (same as Main Distribution in ISO)
MPO	Multi-fibre push on
MTP®	Registered trademark of US Connec MPO-Style Connector
MHz	Megahertz
MHz.km	Megahertz kilometre
mm	Millimetre
MuTOA	Multi-user Telecommunications Outlet Assembly
NAS	Network Attached Storage
NEXT	Near-end crosstalk
nm	Nanometre
POE	Power over Ethernet
PBX	Private branch exchange
PDU	Power Distribution Unit
RF	Radio frequency
RMS	Rack mount space
SAN	Storage Area Network
SC	Subscriber connector
S/FTP	Fully shielded twisted-pair
TIA	Telecommunications Industry Association
TO	Telecommunications outlet/connector
UL®	Underwriters Laboratories Inc.®
UPS	Uninterruptible power supply
USOC	Universal Service Order Code
UTP	Unshielded twisted-pair
Vrms	Volts root mean square
WA	Work area
ZDA	Zone Distribution Area (same as Local Distribution Point in ISO)

# Warranty

Siemon delivers a range of product and system warranties:

- A one (1) year repair or replace warranty on Tools and Testers and active electronics (ie MapIT G2)
- A five (5) year repair or replace warranty for all Siemon Products (cabling system connecting hardware) when not installed in a certified Siemon Cabling System®
- An extended Siemon Cabling System Warranty covering application assurance, product, quality and performance margins when designed and installed by a Siemon Certified Installer<sup>SM</sup> and registered with Siemon.



\*Please contact your local Siemon Company sales office or visit Siemon's website for more information.

## Limited Five (5) Year Product Warranty

Siemon warrants its products to be free from defects in material and workmanship. Should any product fail to conform, Siemon will, upon written notice from Distributor of such non-conforming product, within five (5) years after date of purchase, either replace it F.O.B. original point-of-delivery, or refund the purchase price, at Siemon's option, and shall have the right to require Distributor to return the defective product to Siemon's plant unless such return is impracticable. The remedies provided herein shall be Buyer's sole and exclusive remedies, and no statement or recommendation not contained herein shall have any force or effect unless in writing and signed by an authorized officer of Siemon. Siemon makes no warranty, expressed or implied, as to merchantability or fitness for a particular purpose of any product sold. In no event will Siemon be liable for any special incidental, or consequential damages, where asserted in contract, tort, or otherwise. This warranty applies only to those cabling products that are used to terminate or cross-connect telecommunications cabling. Warranty terms for other categories of cabling products (e.g., tools, test equipment, protection apparatus, etc.) may vary.

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8MV20-BA36Z-K1A	11.8
8MV22-BA18E-K1A	11.8
8MV22-BA36Z-K1A	11.8
8MV26-BA24E-K1A	11.8
8MV27-BA21C-K1A	11.8
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8NH01-AA08Z-K1A	11.9
8NH04-AA08Z-K1A	11.9
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8NV04-AA24Z-K1A	11.9
8NV07-BA21C-K1A	11.9
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8SH01-AA08Z-K1A	11.10
8SH04-AA08Z-K1A	11.10
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8SH33-BA08Z-K1A	11.10
8SV04-AA24Z-K1A	11.10
8SV07-BA21C-K1A	11.10
8SV08-BA21C-K1A	11.10
8SV11-AB24Z-K1A	11.10
8SV11-BA21C-K1A	11.10
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8TH07-BA10Z-K1A	11.6
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8WV07-BA21C-K1A	11.11
8WV08-BA21C-K1A	11.11
8WV11-AB24Z-K1A	11.11
8WV11-BA21C-K1A	11.11
8WV20-BA21C-K1A	11.11
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9T7L4-E10-1KR	1.8
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ZC6A-S(XX)M(X)-L(X)	2.7
ZM6A-(XX)M-(XX)	2.18
ZM6A-S(XX)M-(XX)	2.7
ZS-P(X)-24	2.8, 4.2
ZS-P(X)-48	2.8, 4.2
ZS-PNL(X)-24E	2.8, 4.2
ZS-PNL(X)-U48E	2.8, 4.2
ZU-C4P-L02	8.20
ZU-C4P-T02	8.20
ZU-CN2-M	8.20
ZU-MX-24-0515	8.20
ZU-MX-24P	8.18
ZU-MX-48	8.20



