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.

Section Contents

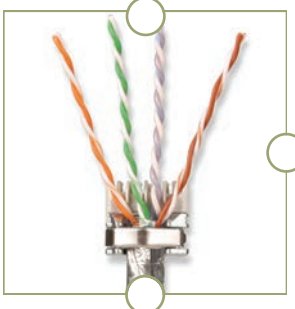
DON'T BLINK

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℠ have set world rercords for Category 6A Z-MAX® terminations at less than 30 seconds.

1 0:20 sec.

Prepare cable and place into Z-MAX's patent-pending Zero-Cross™ 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™.

Complete!

Watch Z-MAX termination video at 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

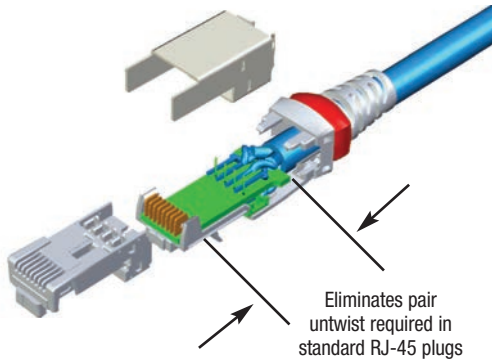
Performance based on use of 24 x 2M cords and 24 port /1U density. Because we continually improve our product, Siemon reserves the right to change specifications and availability without prior notice.

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

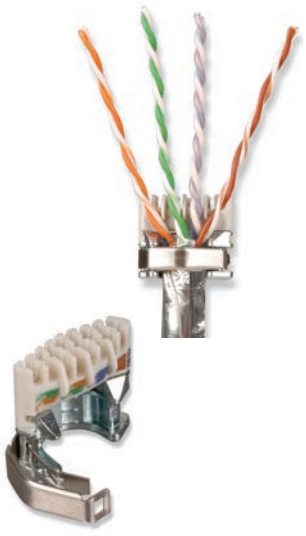
A critical element of Z-MAX systems' exceptional performance is our smart-plug technology. The Z-MAX smart plug contains a tuned printed circuit board (PCB), normally only found in outlets, to achieve high performance tuning. This advancement in miniaturisation has packaged the tuning capability and 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:

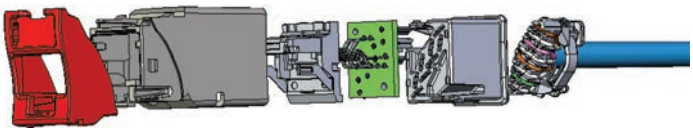
- Highest performance margins across all critical transmission parameters
- Fastest, easiest and most reliable termination process
- Superior transmission consistency
- The best customer focused usability, efficiency and ergonomic features

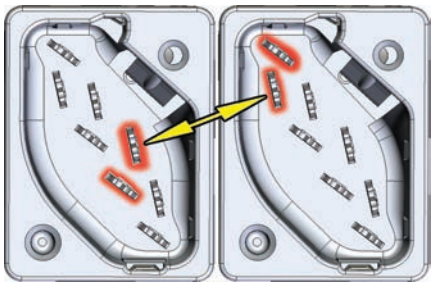
To meet these goals, we did what we have done for over a century — innovate.

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.



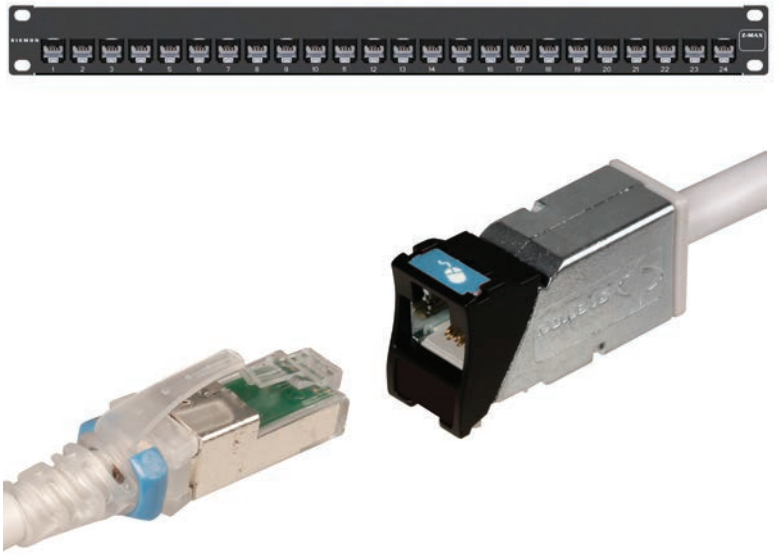


- Maximises pair-to-pair separation from adjacent outlets to minimise alien crosstalk even in the most dense Category 6A patching environments
- Enhances NEXT performance within outlets
- Limits untwist of pairs at termination to maximise cable performance
- Fully enclosed IDC's eliminates exposure of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

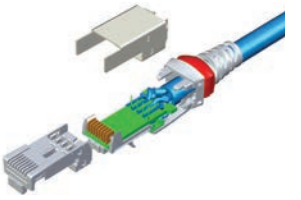
Z-MAX® 6A Shielded System Features and Benefits

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_A, 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.



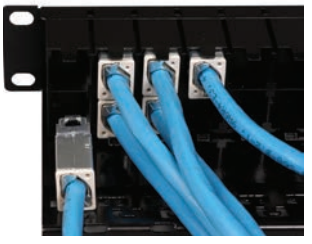
Z-TOOL™ Termination
- Fast
- Simple
- Consistent



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_A)
- ISO/IEC 11801 2nd Ed Amendment 1
- ISO/IEC 11801 2nd 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!

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

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 — 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

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

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.

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.

Spring Door Option

Minimises exposure to dust and other contaminants.

Ordering Information:

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

Mounting Style
(Blank) = Hybrid Flat/Angled
K = Keystone

Bezel Colour
01 = Black
02 = White
03 = Red
04 = Grey
05 = Yellow
06 = Blue
07 = Green
09 = Orange
20 = Ivory
80 = Light Ivory

Door Option
(Blank) = No Door
D = Door (Hybrid only)

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).

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

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

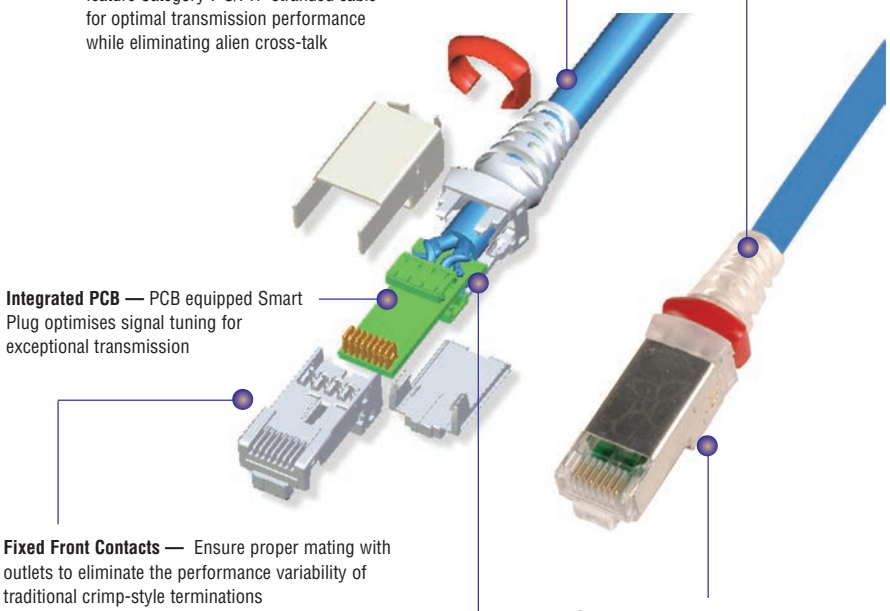
Rear
1 - Red Voice
1 - Blue Voice
1 - Bezel Colour-Matching Voice
1 - Bezel Colour-Matching Blank

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.

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

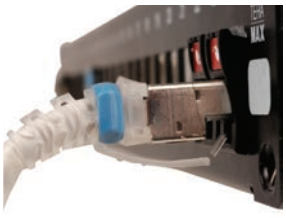
Low Profile Boot Design — Optimises side-stackability of patch cords and allows use in even the most dense patching environments

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/ LS0H

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 (16.5 ft.)
7.5 = 7.5m (24.6 ft.)

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

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

Length
03 = 3m (10 ft.)
05 = 5m (16.4 ft.)
10 = 10m (33 ft.)
15 = 15m (49 ft.)
20 = 20m (65.6 ft.)

Wiring
A = T568B
T = T568A

Plugs
(Blank) = Single-Ended
D = Double-Ended (T568A/B)

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

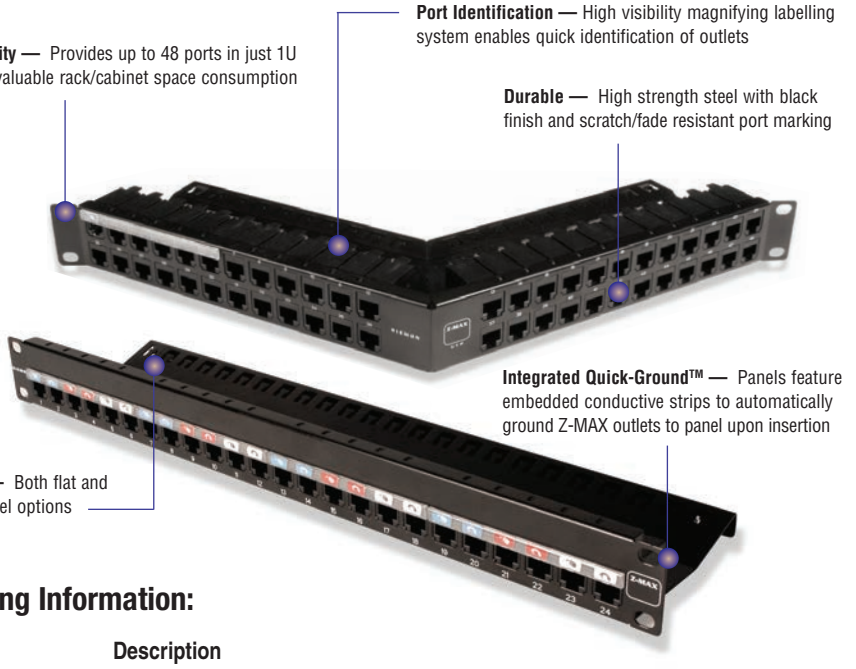
Clip Colour
01 = Black **04** = Grey **07** = Green
02 = White **05** = Yellow **08** = Violet
03 = Red **06** = Blue **09** = Orange

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.



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.

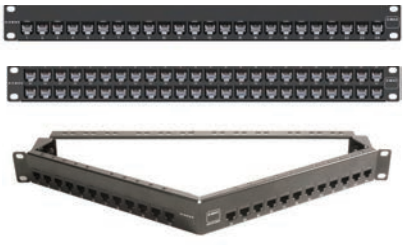
Ordering Information:

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.)

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

SIEMON

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.

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

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

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

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.

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

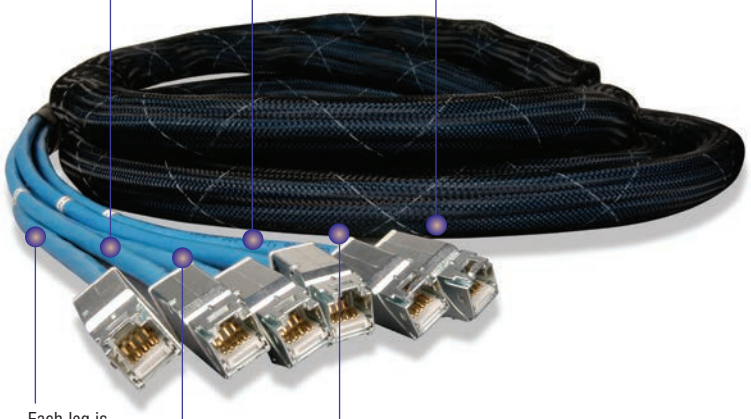
Z-MAX® 6A Shielded Trunking Cable Assemblies

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

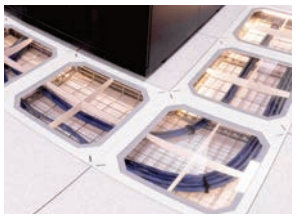
Quick-Ground™ — Shielded Z-MAX 6A outlets are automatically grounded upon insertion into Z-MAX panels



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-(XXXX)(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

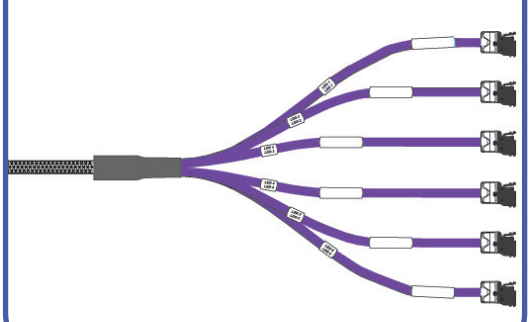
Standard wiring is T568B. Other lengths and configurations available upon request.

Keystone versions also available.

Trunk cable assembly constructed with EU CPR rated cable - Dca

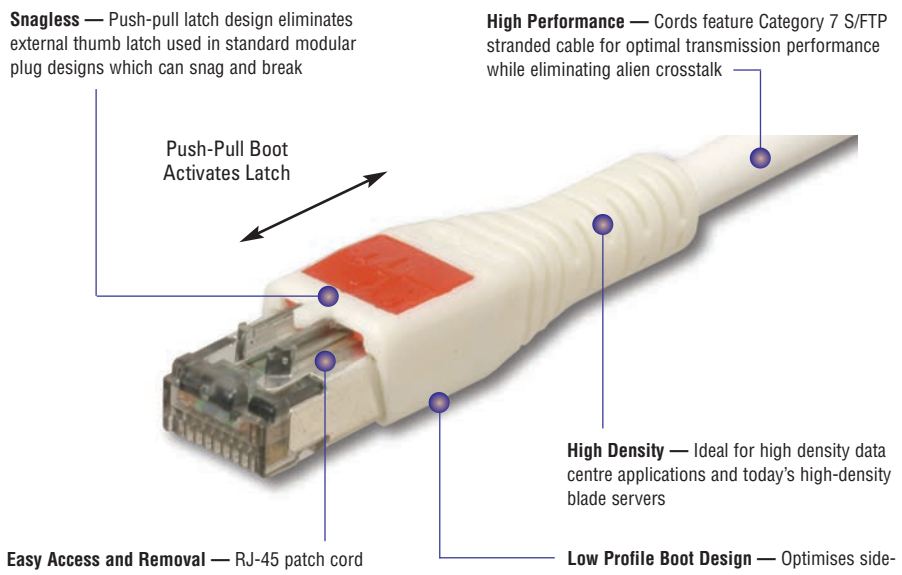
Note: These products are made to order. Call for lead time and part number availability in your region.

STRAIGHT CUT



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

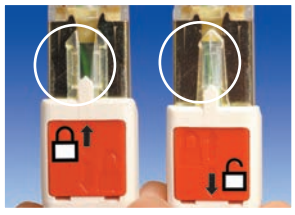
High Performance — Cords feature Category 7 S/FTP stranded cable for optimal transmission performance while eliminating alien crosstalk

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

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

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_{ca}
- LSOH: IEC 60332-1, IEC 60332-3-22, IEC 60754, IEC 61034, and EN 50399 Class $D_{ca}s_2d_2a_1$

CABLE CONSTRUCTION

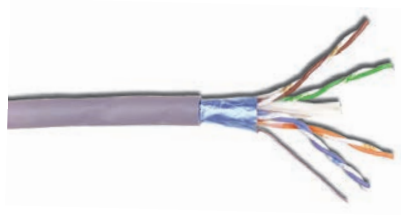
- F/UTP
- Nominal jacket OD: 6.8mm (0.27 in.)
- 0.57mm (0.022 in.) solid (non-tinned) copper
- Central isolation member
- Shield is an aluminium foil tape enclosing a 0.51mm (24 AWG) tinned copper drain wire

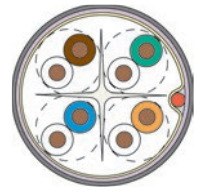
Ordering Information:

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

Jacket Material

M = PVC (CM, IEC 60332-1), Grey Jacket, Class E_{ca}
R = Riser (CMR, CSA FT4), Blue Jacket
L = LSOH (IEC 60332-1, IEC 60332-3-22), Violet Jacket, Class E_{ca}, D_{ca}





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

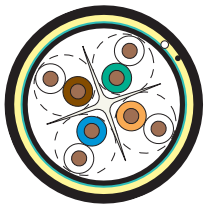
- ISO/IEC 11801 Ed 2.0 (Class E_A)
- ANSI/TIA-568-C.2 (Category 6A)
- RoHS
- IEC 61156-5 (Category 6A)
- ICEA-107-2012
- REACH

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_A)
- 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 $C_{ca}s_{1a}d_2a_1$*

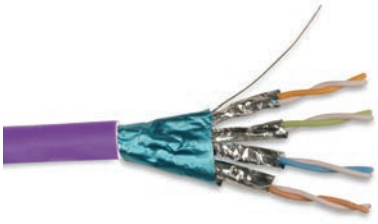
CABLE CONSTRUCTION

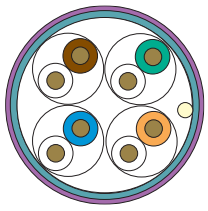
- Conductor Insulation: Foam PE
- Material: LSFROH
- Drain Wire: (Solid Tinned Copper)
- Aluminium Foil Overall Shield
- Conductor: 23 AWG (0.56mm) Solid Copper
- Aluminium Foil Pair Shield

Ordering Information:

Part #	Description
9N6J4-A5.	LSFROH (IEC 60332-3-25), violet jacket, Class E_{ca}, D_{ca}, C_{ca}*, 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 to75°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

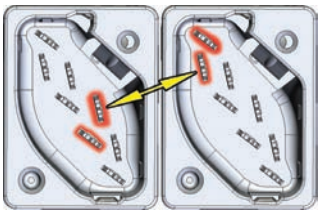
**Values for frequencies beyond 500 mHz are for information only.*

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_A, 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

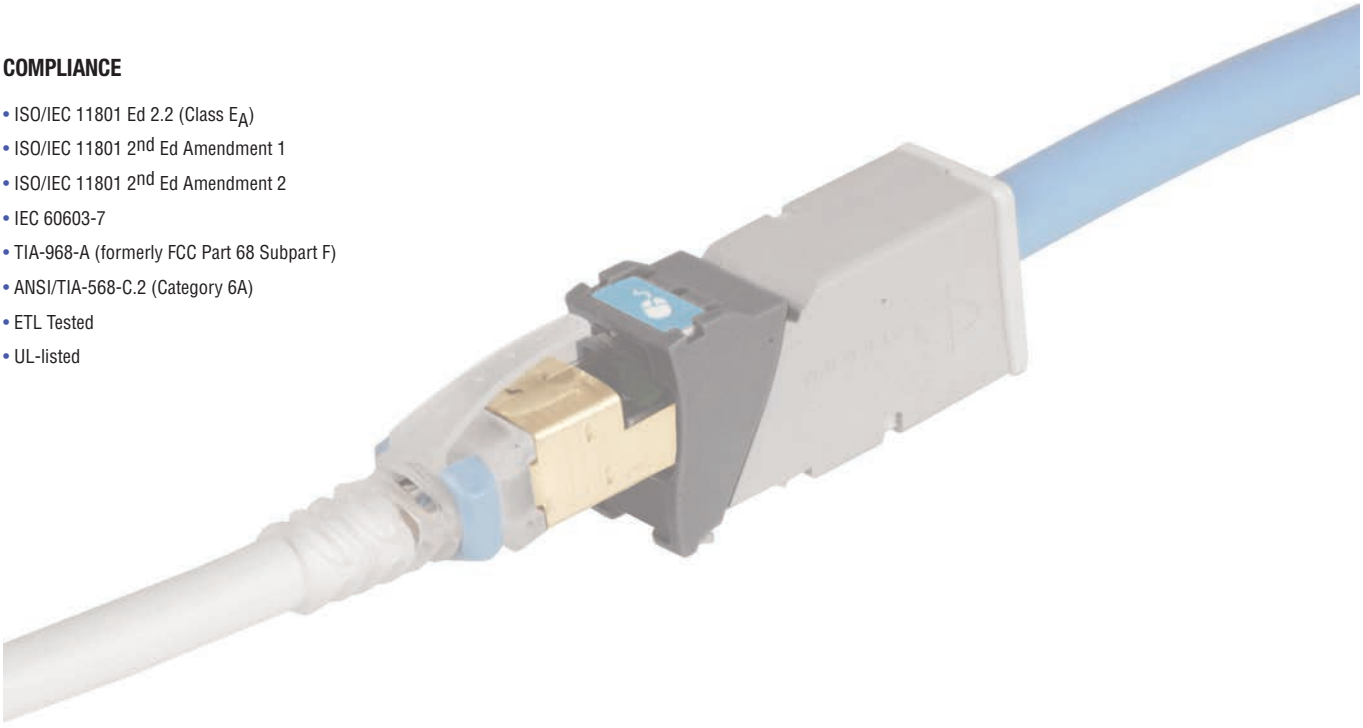
Features and Benefits

- 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_A)
- ISO/IEC 11801 2nd Ed Amendment 1
- ISO/IEC 11801 2nd 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

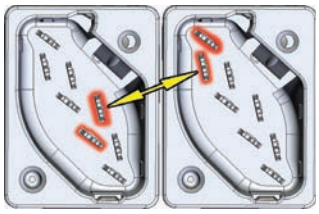
GUARANTEED 4-CONNECTOR CHANNEL MARGINS TO ISO / IEC 11801 ED 2.2 (1 - 500 MHz)

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

Door Option
(Blank) = No Door
D = Door (Hybrid only)

Mounting Style
(Blank) = Hybrid Flat/Angled
K = Keystone

Bezel Colour

01 = Black	**06 =** Blue
02 = White	**07 =** Green
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.

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

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

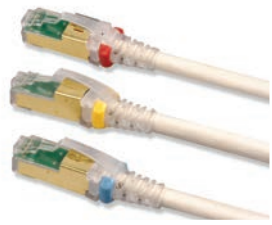
Note: Keystone version is designed for integration with various 3rd party mounting products and is not compatible with MAX® mounting hardware.

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.

Z-MAX® 6A UTP Modular Cords

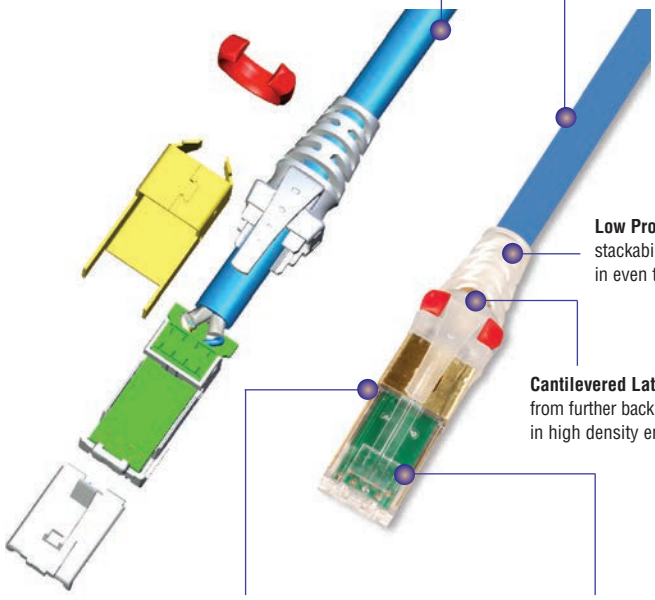
Combining the unparalleled performance of an exclusive PCB-based smart plug, alien crosstalk resistant construction and a host of innovative end-user features, Z-MAX 6A UTP modular cord sets the bar for Category 6A UTP patching.



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

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



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

Cantilevered Latch Guard — 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.

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

Integrated PCB — PCB equipped Smart Plugs optimise signal tuning for exceptional transmission. Solderless, press-fit contact design ensues long-term reliability

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
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 (16.5 ft.)
7.5 = 7.5m (24.6 ft.)

Jacket Colour
01 = Black **05** = Yellow
02 = White **06** = Blue
03 = Red **07** = Green
04 = Grey **09** = Orange

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

Length
03 = 3m (10 ft.)
05 = 5m (16.4 ft.)
10 = 10m (33 ft.)
15 = 15m (49 ft.)
20 = 20m (65.6 ft.)

Wiring
A = T568B
T = T568A

Plugs
(Blank) = Single-Ended
D = Double-Ended (T568A/B)

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

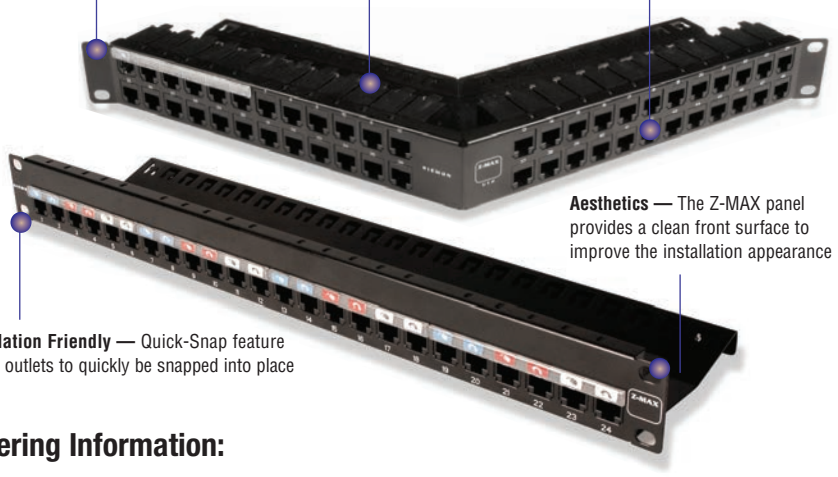
Clip Colour
01 = Black **04** = Grey **07** = Green
02 = White **05** = Yellow **08** = Violet
03 = Red **06** = Blue **09** = Orange

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.



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.

Ordering Information:

Part #	Description
Fixed Wire Manager	
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

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

Removable Wire Manager	
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.)

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

Panel Accessories:

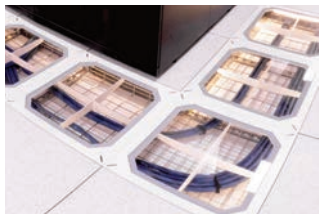
Part #	Description
Z-PNL-PL24	Patch panel label sheet, numbered 1 to 24, bag of 100
Z-PNL-PL48	Patch panel label sheet, numbered 25 to 48, bag of 100
Z-PNL-PS	Patch panel label holder, bag of 25
Z6A-P	Z-MAX 6A UTP panel outlet
PNLA-CVR-01	Angled panel cover, black
Z-BL-01	Z-MAX panel blank, bag of 10,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

PNLA-CVR-01

Z-BL-01

Z-MAX® 6A UTP Trunking Cable Assemblies

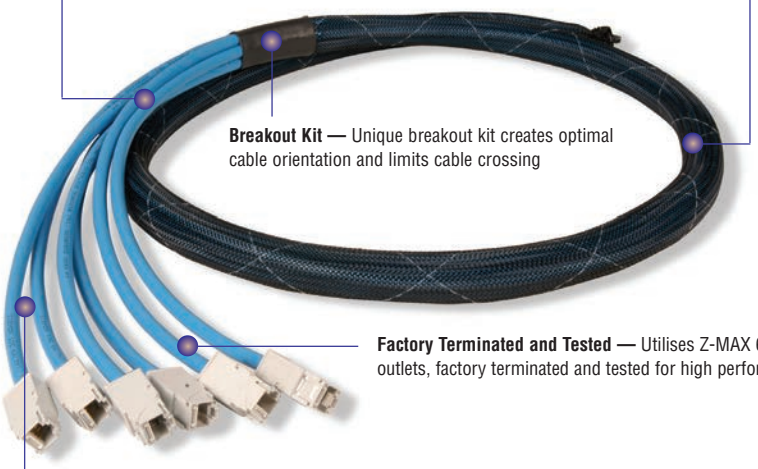
Siemon's Z-MAX 6A UTP trunking cable assemblies provide an easily installed and cost effective alternative to individual field-terminated channels. Combining factory terminated and tested Z-MAX outlets with Siemon's Category 6A UTP cable in a high-performance modular cable assembly, Z-MAX 6A UTP trunking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



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

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

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

Length

001-090 = Indicate length in metres

Connector Types

P0P0 = Z-MAX Panel Outlets (for use with Z-MAX panels)

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

P0J0 = Z-MAX Panel Outlets to Z-MAX Plugs

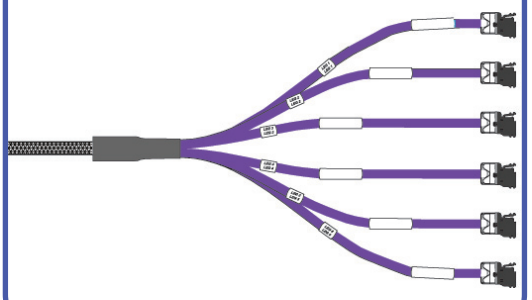
H1J0 = Z-MAX Hybrid Flat/Angled Outlets to Z-MAX Plugs

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



SIEMON

Category 6A UTP BladePatch® Modular Cords

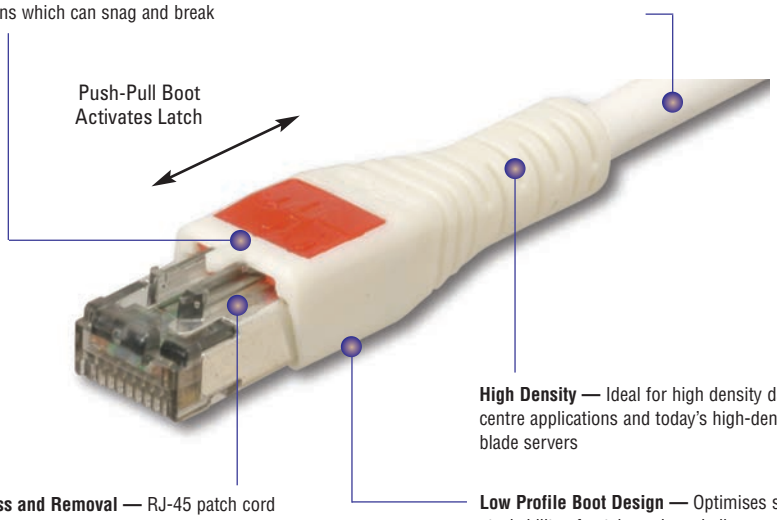
Siemon's Category 6A UTP BladePatch patch cord offers a unique Category 6A solution for high-density patching environments. It features an innovative push-pull boot design to control the latch, enabling easy access and removal of the cord in tight-fitting areas.

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

Universal Compatibility
Fits within any standard RJ-45 outlet.

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

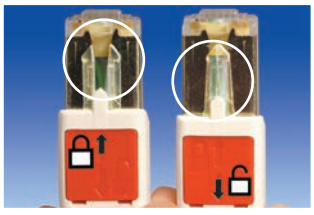
High Performance — Cords feature dual jacket construction for excellent alien crosstalk performance



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

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

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



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

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 (16.5 ft.)

Cord Colour

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

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

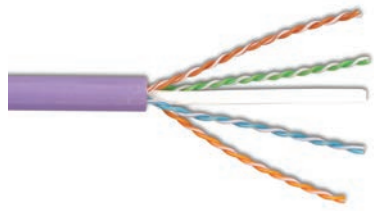
- ISO/IEC 11801 Ed. 2.2 (Class E_A)
- ISO/IEC 61156-5 (Category 6A)
- TIA-568-C.2 (Category 6A)
- LSOH: ISO/IEC 60332, IEC 60754, IEC 61034
- EN50399 Class E_{ca}

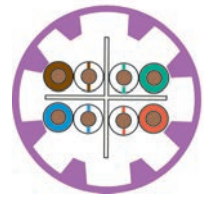
CABLE CONSTRUCTION

- 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_{ca}, 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.).