

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.

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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.

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

Terminates in as little as 45 seconds using the Z-TOOL™

Robust die cast housing optimises shielding from EMI and alien crosstalk

Zero-cross termination module accelerates lacing and eliminates pair crossing

Coloured icons provided for port identification

Pass-through feature allows mounting from front or rear of faceplate. Also compatible with optional outlet door.

Outlets are available in a wide range of colours and mount in MAX faceplates and accessories.

Rapid shield connection and cable jacket strain relief via integrated hinged metal clip



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.



Hybrid

Keystone

Door

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
<i>Fixed Wire Manager</i>	
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

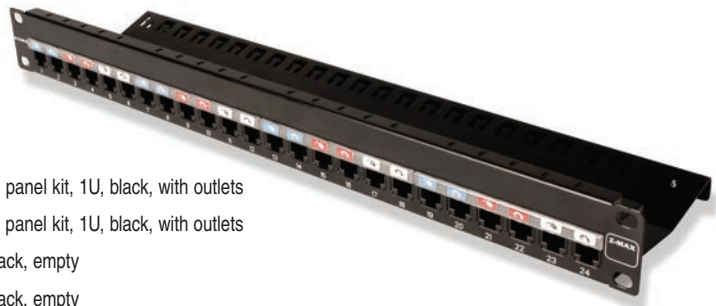
Use (X) to specify mounting style: (Blank) = Flat, A = Angled

<i>Removable Wire Manager</i>	
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.)

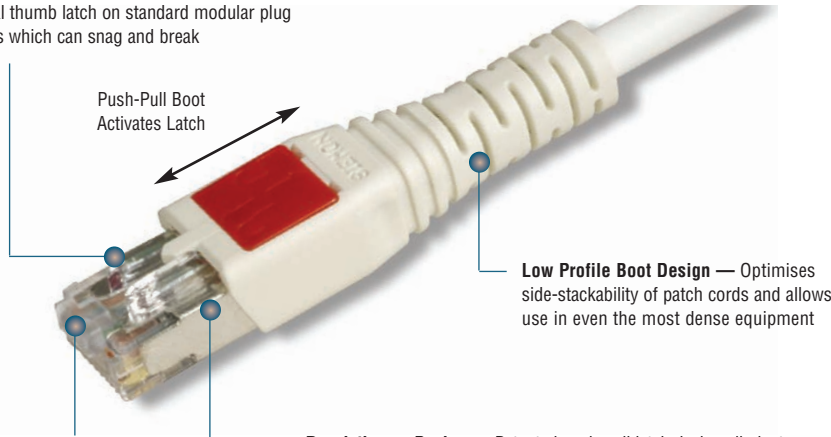


Note: TERA-MAX panels are designed for use with hybrid (flat/angled) shielded Z-MAX outlets. Also compatible with TERA outlets

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

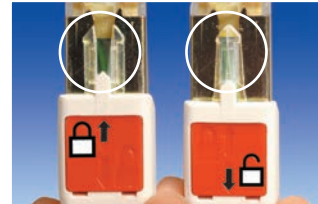


Universal Wiring — Compatible with T568A/B wiring schemes

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)

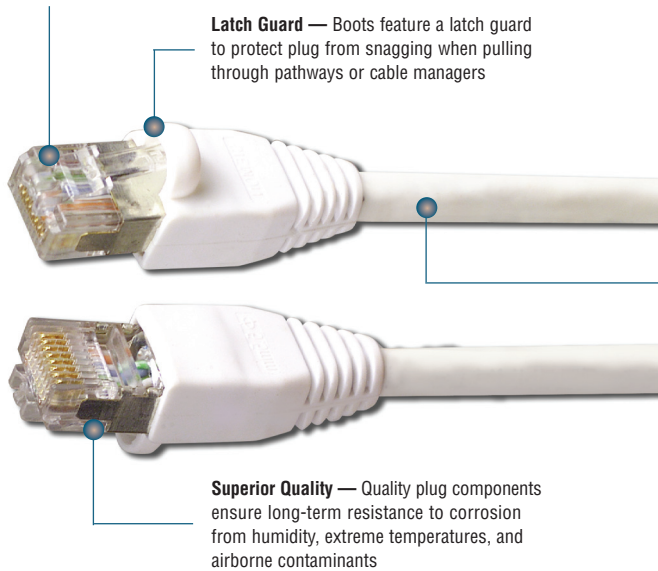
Cord Length:	Cord Colour:		
03 = 0.9m (3 ft.)	01 = Black	04 = Grey	07 = Green
05 = 1.5m (5 ft.)	02 = White	05 = Yellow	08 = Violet
07 = 2.1m (7 ft.)	03 = Red	06 = Blue	09 = Orange
10 = 3.1m (10 ft.)			
15 = 4.6m (15 ft.)			
20 = 6.1m (20 ft.)			

ⓑ 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

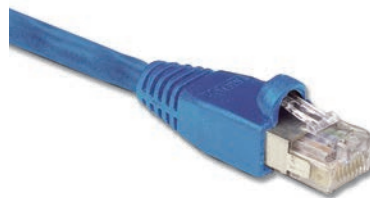
Boot ensures proper bend relief.

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_{ca}
- UL CMR and CSA FT4
- LSOH: IEC 60332-1, IEC 60754, IEC 61034, and Class E_{ca}

Part

Description

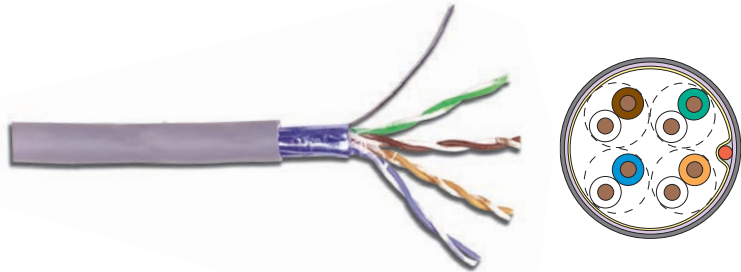
- 9A5R4-E2 PVC (CMR), blue jacket, 305m (1000 ft.) Reel-in-Box
- 9A5M4-E2 PVC (CM, IEC 60332-1), grey jacket, Class E_{ca}, 305m (1000 ft.) Reel-in-Box
- 9A5L4-E2 LSOH (IEC 60332-1), violet jacket, Class E_{ca}, 305m (1000 ft.) Reel-in-Box

Other cable lengths also available:

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

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



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)	
	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical
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.).