

# Premium 5e<sup>®</sup> UTP

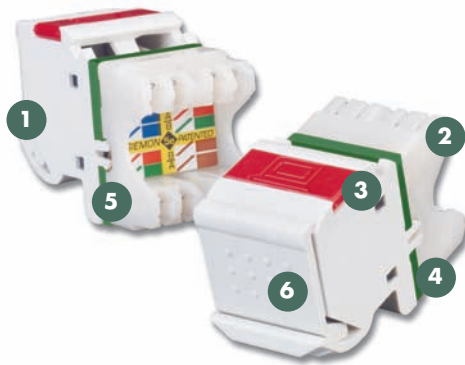
Siemon's end-to-end Premium 5e UTP cabling solution is guaranteed to provide transmission performance margins in excess of industry standards for category 5e/class D parameters, and has been independently verified to perform to 160 MHz.

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# MAX® 5e UTP Modules

MAX 5e modules exceed category 5e performance with component and channel performance to 160 MHz. These modules offer all the functional advantages of our MAX 6 modules in a variety of colour options. All modules utilise our 310 punch-down block — making termination quick and easy.



- 1 **Easy Installation** – Install from either front or rear of faceplate
- 2 **Easy Termination** – Punch-down with standard 110 termination tools
- 3 **Quick Identification** – Icons provided for port identification
- 4 **Slim Design** – Allows jacks to be side-stacked in faceplates to provide maximum density
- 5 **Universal Wiring** – T568A and T568B wiring compatible
- 6 **Protective Doors** – Minimise exposure to dust and other contaminants



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



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



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

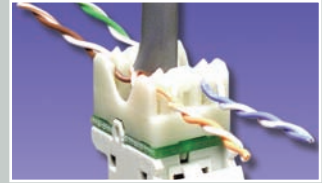
Use (XX) to specify colour: 01 = black, 02 = white, 03 = red, 04 = grey, 05 = yellow, 06 = blue, 07 = green, 09 = orange, 20 = ivory, 25 = bright white, 80 = light ivory

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

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

**Keystone version** is designed for integration with various international mounting products and is not compatible with MAX mounting hardware.

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



### Quick Installation

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



### Termination

Siemon's Palm Guard with MAX insert assists in securing module during termination.

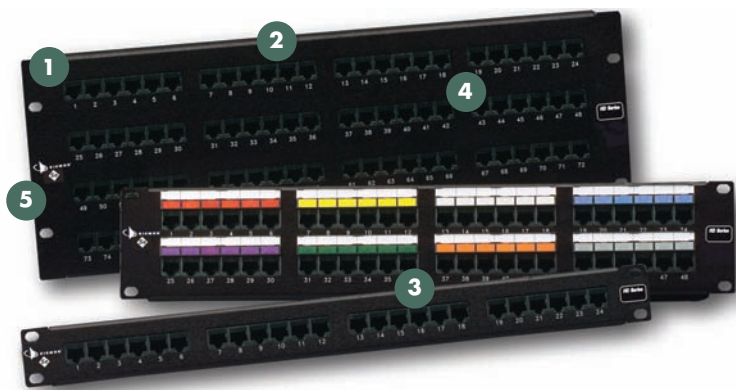


### Superior Performance

Use MC or BladePatch 5e modular cords to perfectly match performance of 5e MAX modules.

# HD<sup>®</sup> 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<sup>®</sup> punch-down tools to reduce termination time.



- 1 Universal Wiring** – HD 5e patch panels feature universal wiring for both T568A/B
- 2 Aesthetics** – Front surface is uninterrupted by screw heads for a clean appearance
- 3 Installer Friendly** – Panels available in 16-, 24-, 48- and 96-port configurations
- 4 Port Identification** – Bold port numbering enables quick identification of outlets
- 5 Standard Fit** – Panels can be mounted directly on standard 19 inch relay rack or cabinet

## Ordering Information:

### HD 5e UTP PATCH PANELS

PART #	Description
HD5-16 . . . . .	16-port category 5e UTP HD patch panel, T568A/B, 1U
HD5-24 . . . . .	24-port category 5e UTP HD patch panel, T568A/B, 1U
HD5-32 . . . . .	32-port category 5e UTP HD patch panel, T568A/B, 2U
HD5-48 . . . . .	48-port category 5e UTP HD patch panel, T568A/B, 2U
HD5-96 . . . . .	96-port category 5e UTP HD patch panel, T568A/B, 4U

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

16- and 32-port HD 5e panels feature S310 termination blocks.

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



### Compliant Pin Technology

Allows the use of Siemon's multi-pair impact tool to significantly reduce termination time. S110 termination opening 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.



## MAX® PATCH UTP PANELS

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

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

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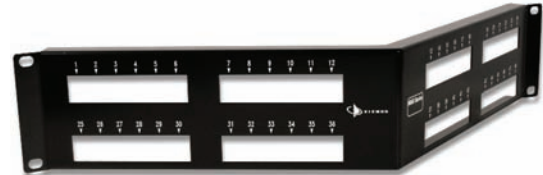
Panels include rear cable manager, designation labels, cable ties, and mounting hardware.  
 MAX Panels are not compatible with shielded Z-MAX or MAX modules. Use the TERA®-MAX or Z-MAX shielded panel.  
 Note: 1U = 44.5mm

## ANGLED MAX UTP PATCH PANELS

Simon'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



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

Panels include mounting hardware. Rear cable manager not included.  
 Angled MAX panels are not compatible with shielded Z-MAX or MAX modules. 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.  
 Note: 1U = 44.5mm

## OPTIONAL ACCESSORIES

MX-PNL-LBL4\* . . . . .  
 10 sheets of laser printable labels for 16-port MAX panel



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 labeling software.

# MC<sup>®</sup> 5e UTP Modular Cords

Siemon uses the highest quality components combined with stringent manufacturing processes to produce the best performing, most durable modular patch cords available. The end result is a cord that exceeds all TIA/IEA and ISO/IEC component specifications for transmission performance.



- 1 Bend Fatigue** – 24 AWG (7 strands @ 0.20mm) stranded wire for longer bend fatigue life
- 2 High Performance** – MC 5e cords are constructed using high performance Siemon category 5e cable

- 3 Modular Plugs** – Exceed FCC CFR 47 part 68 subpart F and IEC 60603-7 specifications and have 50 microinches minimum of gold plating over nickel

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

MC5-8T-(XX)M-B(XX)

Cord Length:	Cord Colour:
01 = 1.0m	01 = Black
1.5 = 1.5m	02 = White
02 = 2.0m	03 = Red
03 = 3.0m	04 = Grey
05 = 5.0m	05 = Yellow
7.5 = 7.5m	06 = Blue
	07 = Green

Category 5e UTP MC double-ended, 4-pair stranded modular cord, no boot, T568A/B, CMG

MC5-8-T-(XX)M-(XX)

Cord Length:	Cord Colour:
01 = 1.0m	01 = Black
1.5 = 1.5m	02 = White
02 = 2.0m	03 = Red
03 = 3.0m	04 = Grey
05 = 5.0m	05 = Yellow
7.5 = 7.5m	06 = Blue
	07 = Green

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



## Factory Terminated

Cords are tested to consistently achieve category 5e compatibility. Field termination is not recommended.



## Latch Guard

The MC 5e boot design incorporates a latch guard to protect the plug latch from snagging when pulling cords through pathways or cable managers.



## IC 5e SOLID UTP SINGLE-ENDED MODULAR CORDS

Siemon's solid, single-ended IC5e cable assemblies are designed for patching between the consolidation point and the work area or as equipment cords in cross-connect applications. These assemblies are constructed using cable that exceeds all category 5e performance parameters.

Part #	Description
IC5-8A-(XX)M-B(XX)L . . .	Category 5e IC, single-ended, 4 pair UTP solid modular cord, with coloured boot, Violet LSOH jacket, T568B wiring
IC5-8T-(XX)M-B(XX)L . . .	Category 5e IC, single-ended, 4 pair UTP solid modular cord, with coloured boot, Violet LSOH jacket, T568A wiring

*Use 1st (XX) to specify cord length:*

*03 = 3.0m, 05 = 5m, 10 = 10m, 15 = 15m, 20 = 20m*

*Use 2nd (XX) to specify boot colour: 01 = black, 02 = white, 03 = red, 04 = green, 05 = yellow, 06 = blue, 07=green*





# Premium 5e<sup>®</sup> UTP 4-Pair Cable (EMEA)

## COMPLIANCE

- ISO/IEC 11801:2002 (Category 5e)
- TIA-568-C.3 (Category 5e)
- IEC 61156-5:2002 (Category 5e)
- UL CM: IEC 60332-1
- LSOH: IEC 60332-1, IEC 60754 and IEC 61034

## CABLE CONSTRUCTION

- UTP
- 0.5mm (24 AWG) solid bare copper
- 5.5mm (max) jacket diameter

## Part #

## Description

- 9C5M4-E2 . . . . . PVC (CM, IEC 60332-1), Gray Jacket, 305m, Reelex
- 9C5L4-E2 . . . . . LSOH (IEC 60332-1), Violet Jacket, 305m, Reelex



## ELECTRICAL SPECIFICATIONS

DC Resistance	<9.38 Ω/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	70%
TCL	40-10 x log(f)/dB
Delay Skew	≤40ns

## PHYSICAL PROPERTIES

	LSOH	CM/CMR
Pulling Tension (max)	110N (25 lbf)	110N (25 lbf)
Bend Radius (min)	22mm (0.9 in.)	25mm (0.9 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

■ TIA & ISO/IEC

□ 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)	
	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 industry requirements are for information only

All performance based on 100 meters.