SIEMON CATALOG

SIEMON™

NETWORK CABLING SOLUTIONS

CATALOG

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Siemon Innovation

Inspired by our past, focused on the future

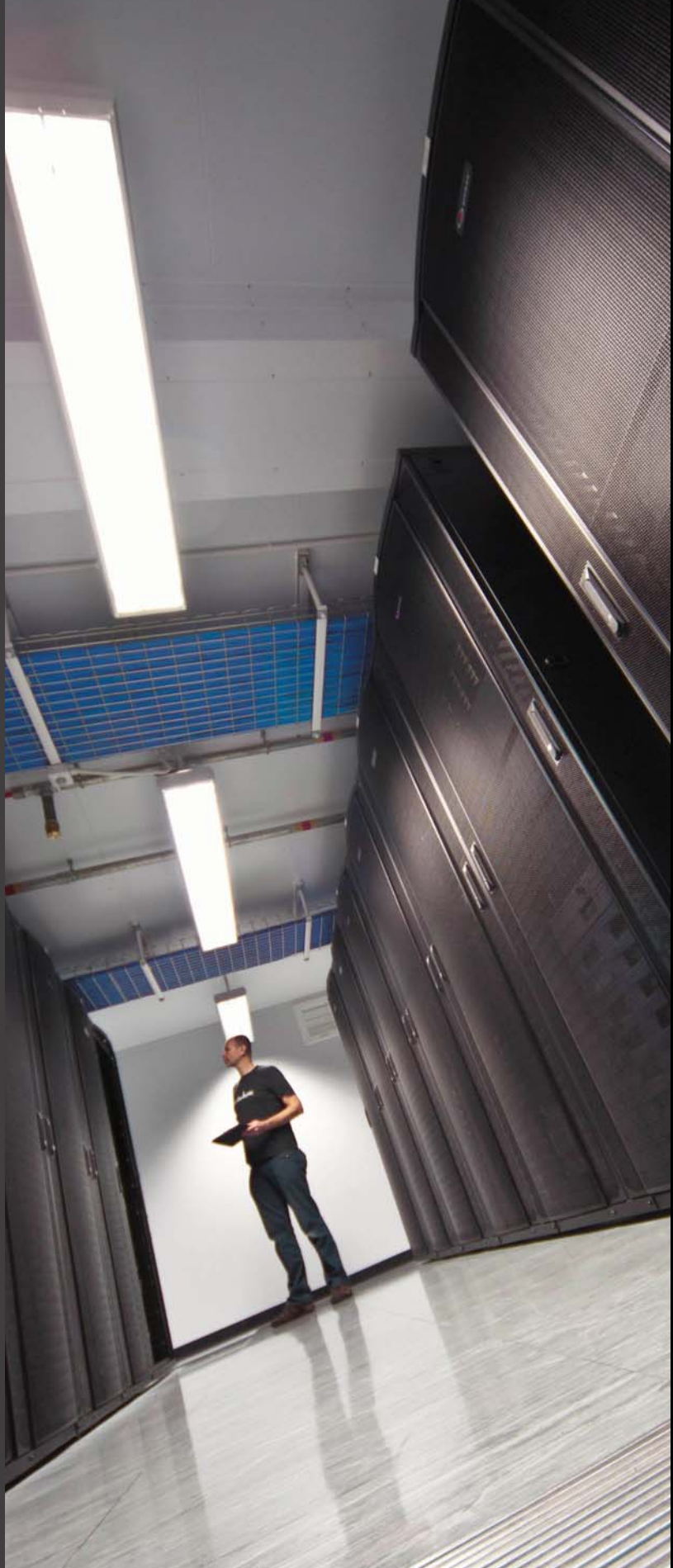
In 1903, Carl Siemon launched The Siemon Company on the strength of his own innovative plastic compounds and soon began pioneering new telecommunication technologies.

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 in each of Siemon's high-performance cabling systems.

New in this edition:

- **Ultra-Efficient IcePack Cooling-Door System for Data Centers**
- **Innovative Intelligent Power Distribution Units (PDU) for Data Center Power Management**
- **V600 Cabinets - Feature-Rich, Cost-Effective 600mm (24 inch) Cabinet Solution**
- **Universal Modular Furniture Adapter - Easily Adapts to Mount Connectivity in Nearly All Furniture Openings**
- **New MapIT® G2 Solutions, Including Interconnect Topology and Plug and Play Fiber Options**
- **High-Quality RouteIT™ Cable Tray and J-Hooks**



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Category 7_A/Class F_A Products

Exceeding ISO/IEC category 7_A/class F_A 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_A/class F_A interface, TERA fits within a standard RJ45 footprint and is easily connected to RJ45 equipped electronics via hybrid TERA to RJ patch cords.

Section Contents

TERA® Outlet

Invented by Siemon in 1999 and subsequently chosen as an industry standard interface for category 7/class F and category 7_A/class F_A, the Siemon TERA outlet 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 7_A/class F_A 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 patchpanels

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.

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

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

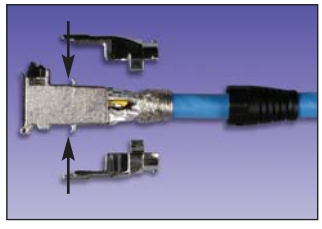
Quadrant Isolation — Shielded quadrant design fully isolates pairs for optimum NEXT performance

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 contaminates

Easy Installation
CPT-T tool reduces preparation and termination time.

Mounting Options
The TERA outlet is compatible with TERA-MAX® patch panels and all MAX series faceplates.



Quick-Ground™ Termination
No additional steps required for termination. Cable shield is automatically terminated within the outlet without additional steps or tools.

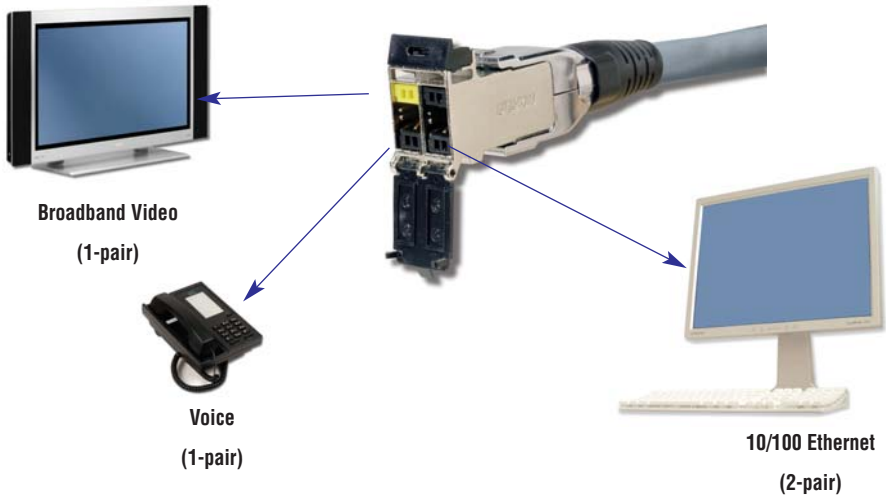
TERA® 4-Pair Outlet

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_A cables. TERA outlets can be used in both the work area and in the telecommunications room.

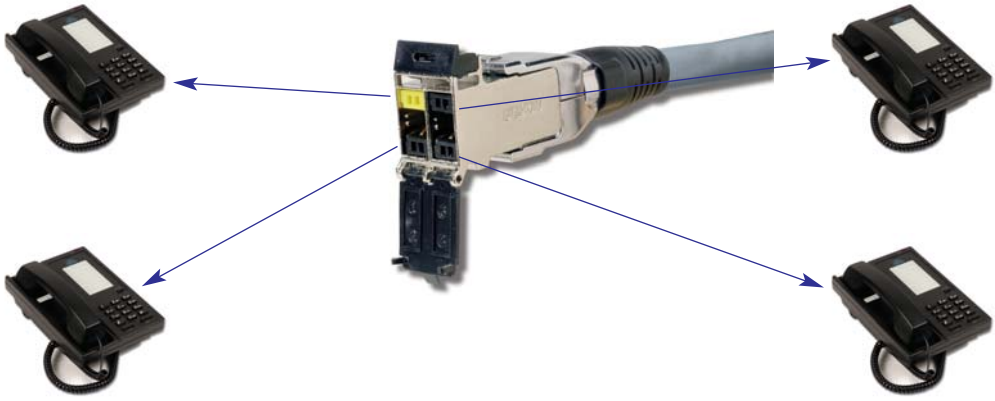
Part #	Description
T7F-01-1	TERA 4-pair outlet with black door, latch and boot. Compatible with 0.64-0.55mm (22-23 AWG) solid S/FTP and F/FTP cable

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, labor, pathway and rack space.



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



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

High Density — 24 ports in only 1U - up to 96 ports with cable sharing

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.

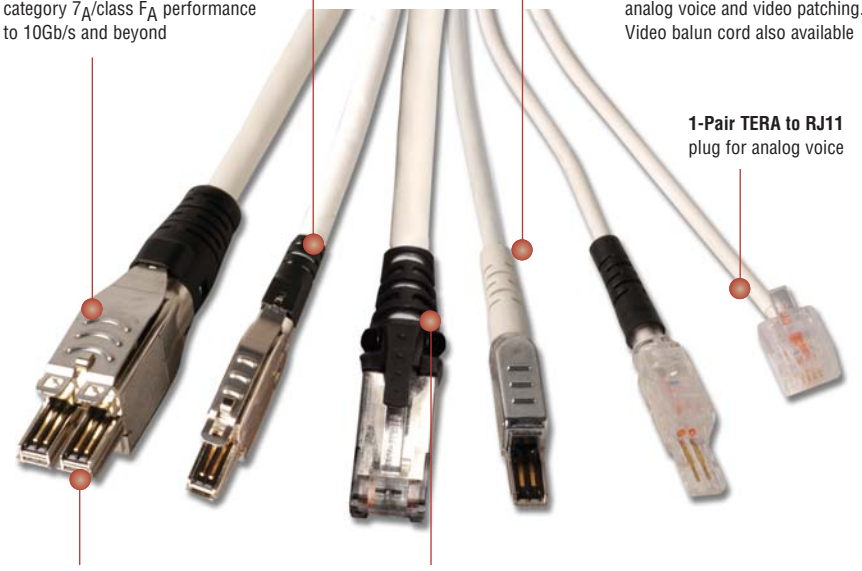
TERA-MAX Patch Panels

Part #	Description
TM-PNLZ-24-01	24-port 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 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_A/class F_A 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 and data onto a single 4-pair cable and outlet.



Standard Footprint
ISO recognized 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 7A solid cable.

Part #	Description
T7P4-B(XX)-1	4-pair TERA plug with colored boot. Compatible with 0.64 – 0.55mm (22 – 23 AWG) solid S/FTP and F/FTP cable

Use (XX) to specify boot color: 01 = black, 02 = white, 03 = red, 05 = yellow, 06 = blue, 07 = green

TERA® Patch Cords

TERA Category 7_A Patch Cords

Category 7_A compatible, TERA to TERA, LS0H cable assembly, ivory jacket, colored boot.

T(X)-(XX)M-B(XX)L

Plug Type:
1 = 1-Pair
4 = 4-Pair

Cord Length:
01 = 1m (3.28 ft.)
02 = 2m (6.56 ft)
03 = 3m (9.84 ft.)
05 = 5m (16.4 ft.)

Boot Color:
01 = Black
02 = White
03 = Red
05 = Yellow
06 = Blue
07 = Green

TERA Category 5e Compatible Patch Cords

TERA to Shielded RJ-45, or TERA to 6 position (Voice) modular plug, LS0H cable assembly, ivory jacket, colored boot.

T(XXX)-(XX)M-B(XX)L

Plug Type:
2E2 = 2-Pair, RJ-45, 10/100BASE-T
2UT = 2-Pair, RJ-45, Token Ring
1U1 = 1-Pair, UTP, 6-position, Voice

Cord Length:
01 = 1m (3.28 ft.)
02 = 2m (6.56 ft.)
03 = 3m (9.84 ft.)
05 = 5m (16.4 ft.)

Boot Color:
01 = Black
02 = White
03 = Red
05 = Yellow
06 = Blue
07 = Green

TERA Category 6A Patch Cords

Augmented Category 6A, TERA to Shielded RJ-45 modular plug, LS0H cable assembly, ivory jacket, colored boot

T4(X)-S(XX)M-B(XX)L

Plug Type:
A = T568B
T = T568A

Cord Length:
01 = 1m (3.28 ft.)
02 = 2m (6.56 ft.)
03 = 3m (9.84 ft.)
05 = 5m (16.4 ft.)

Boot Color:
01 = Black
02 = White
03 = Red
05 = Yellow
06 = Blue
07 = Green

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

Clip Color

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

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 useable 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, gray jacket
T1VF-(XX)M-B01L	1-pair TERA to F connector, LS0H cable assembly, gray jacket
T1S4V-(XX)M-B01L	1-pair shielded TERA to RJ45 patch cord

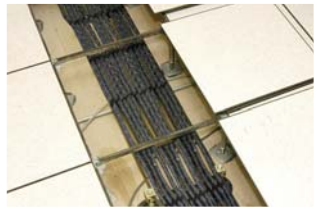
Use (XX) to specify length: 01 = 1m (3 ft.), 1.5 = 1.5m (4.5 ft.), 02 = 2m (6 ft.), 03 = 3m (9 ft.), 05 = 5m (15 ft.)

T1VF-(XX)M-B01L

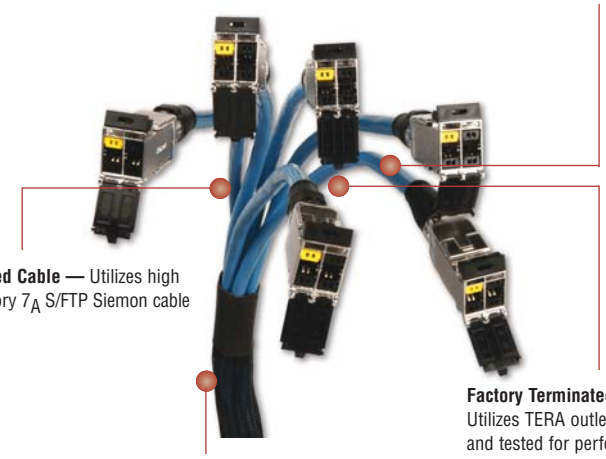
T1S4V-(XX)M-B01L

TERA® - S/FTP Trunking Cable Assemblies

Siemon'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_A cable, Siemon TERA trunking cable assemblies offer industry leading performance to 10Gb/s and beyond. 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 Centers
Ideal for data center, raised floor and ladder rack environments enabling up to 75% faster deployment time. Well organized cable bundles improve cable management and air flow



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

Fully Shielded Cable — Utilizes high quality category 7_A S/FTP Siemon cable

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

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

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.

TERA S/FTP Trunking Cable Assemblies

6 Leg Double-Ended Trunking Cable Assemblies

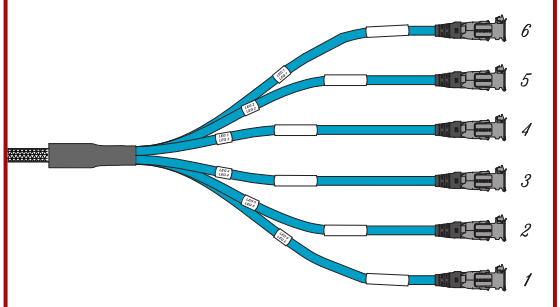
Part #	Description
TJRD6E-F1F1(XXX)F	Riser rated (CMR), blue jacket, 1000MHz
TJPD6E-F1F1(XXX)F	Plenum rated (CMP), blue jacket, 1000MHz

Use (XXX) to specify length: 2.7 - 90m (009 - 295 ft.) in increments of 1 meter (3 feet)

Other lengths and configurations available upon request.

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

STRAIGHT CUT



TERA® S/FTP 1000 MHz 4-Pair Cable (US)

COMPLIANCE

- ISO/IEC 11801:2002 (Category 7)
- ISO/IEC 11801 2nd ed Amendment 1
- IEC 61156-5:2002 (Category 7)
- IEC 61156-5 Ed 2.0 (Category 7_A)
- UL CMR and CSA FT4
- UL CMP and CSA FT6

Part #	Description
9T7P4-E10-06-R1	Plenum (CMP, CSA FT6), Blue Jacket, 305m (1000 ft.) Reel
9T7R4-E10-06-R1	Riser (CMR, CSA FT4), Blue Jacket, 305m (1000 ft.) Reel

CABLE CONSTRUCTION

- S/FTP
- 0.64mm (0.025 in.) (22 AWG) solid bare copper
- 8.9mm (0.35 in.) [CMR], 8.4mm (0.33 in.) [CMP] max jacket diameter
- Pairs individually shielded with aluminum-polyester foil
- Overall tinned copper braid

ELECTRICAL SPECIFICATIONS

DC Resistance	<17.0Ω/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	CMR = 79% - CMP = 60%
TCL	40-10 log(*f*) dB
Delay Screw	≤20ns

PHYSICAL PROPERTIES

	CMP	CMR
Pulling Tension (max)	110N (25 lbf)	110N (25 lbf)
Bend Radius (min)	50mm (2.0 in.)	50mm (2.0 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	1.7	78.0	100.0	75.0	97.0	75.9	98.3	72.9	95.3	78.0	90.0	75.0	87.0	20.0	30.0	570	492
4.0	3.7	3.4	78.0	100.0	75.0	97.0	74.3	96.6	71.3	93.6	78.0	90.0	75.0	87.0	23.0	33.0	552	474
10.0	5.8	5.0	78.0	100.0	75.0	97.0	72.2	95.0	69.2	92.0	74.0	90.0	71.0	87.0	25.0	35.0	545	467
16.0	7.3	6.4	78.0	100.0	75.0	97.0	70.7	93.6	67.7	90.6	69.9	90.0	66.9	87.0	25.0	35.0	543	465
20.0	8.2	7.1	78.0	100.0	75.0	97.0	69.8	92.9	66.8	89.9	68.0	90.0	65.0	87.0	25.0	35.0	542	464
31.25	10.3	9.0	78.0	100.0	75.0	97.0	67.7	91.0	64.7	88.0	64.1	90.0	61.1	87.0	23.6	33.6	540	462
62.5	14.6	13.0	75.5	100.0	72.5	97.0	60.9	87.0	57.9	84.0	58.1	85.0	55.1	82.0	21.5	31.5	539	461
100.0	18.5	16.8	72.4	98.0	69.4	95.0	53.9	81.2	50.9	78.2	54.0	81.0	51.0	78.0	20.1	30.1	538	460
200.0	26.5	23.9	67.9	93.0	64.9	90.0	41.4	69.1	38.4	66.1	48.0	77.0	45.0	74.0	18.0	28.0	537	459
250.0	29.7	28.5	66.4	92.1	63.4	89.1	36.7	63.6	33.7	60.6	46.0	76.0	43.0	73.0	17.3	27.3	536	458
300.0	32.7	29.2	65.2	91.0	62.2	88.0	32.6	61.8	29.6	58.8	44.5	71.0	41.5	68.0	17.3	27.3	536	458
350.0	35.4	31.8	64.2	90.3	61.2	87.3	28.8	58.5	25.8	55.5	43.1	69.0	40.1	66.0	17.3	27.3	536	458
400.0	38.0	33.4	63.4	89.1	60.4	86.1	25.4	55.7	22.4	52.7	42.0	68.1	39.0	65.1	17.3	27.3	536	458
550.0	45.0	37.2	61.3	87.3	58.3	84.3	16.3	50.1	13.3	47.1	39.2	66.2	36.2	63.1	17.3	27.3	536	458
600.0	47.1	42.5	60.7	86.1	57.7	83.1	13.6	43.6	10.6	40.6	38.4	60.0	35.4	57.0	17.3	27.3	536	458
800.0	54.9	48.2	58.9	83.1	55.9	80.1	3.9	34.9	0.9	31.9	35.9	52.1	32.9	49.1	16.1	27.3	477	457
900.0	58.5	53.8	58.1	82.0	55.1	79.0	-0.4	28.2	-3.4	25.2	34.9	48.0	31.9	45.0	15.5	25.0	477	456
1000.0	61.9	57.5	57.4	81.0	54.4	78.0	-4.5	23.5	-7.5	20.5	34.0	46.0	31.0	43.0	24.0	24.0	477	456

**Values below 4 MHz are for information only.*

All performance based on 100 meters (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.

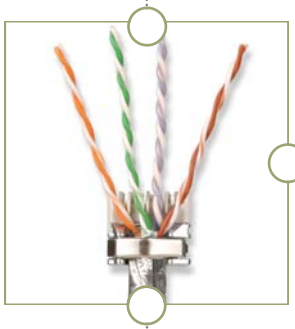
Section Contents

DON'T BLINK

Best-in-class category 6A performance for UTP and Shielded **in as little as 60 seconds.**

1 0:30 sec.

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



2 0:45 sec.

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

3 0:60 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/us/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

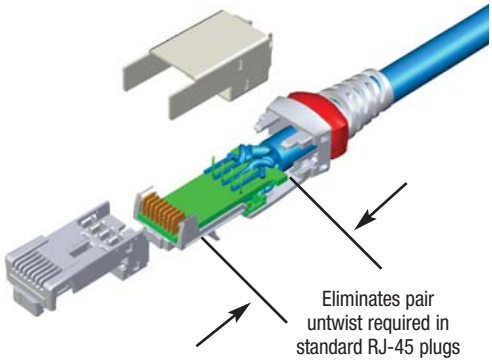
Performance based on use of 24 x 2M cords and 24 port /1U density. Because we continually improve our product, Siemon reserves the right to change specifications and availability without prior notice.

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
- TIA channel, link and component compliant
- ISO channel, link and component compliant
- Consistent, superior performance, eliminates marginal testing (*PASS)

Patent-Pending Smart Plug Technology

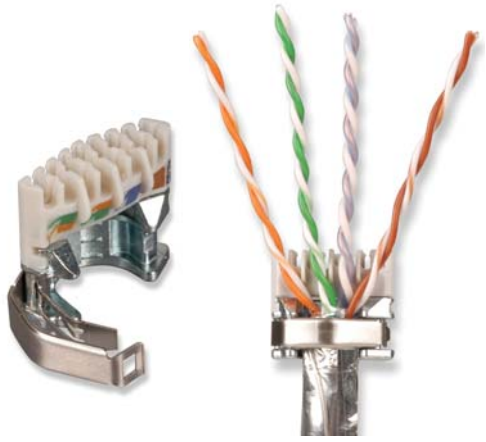
A critical element of Z-MAX systems' exceptional performance is our smart-plug technology. The Z-MAX smart plug contains a tuned printed circuit board (PCB), normally only found in outlets, to achieve high performance tuning. This advancement in miniaturization has packaged the tuning capability and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

ZeroCross™ Terminations

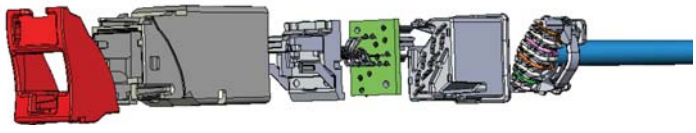
The crossing of cable pairs has long been recognized as a source of variability and performance degradation in connector systems. The linear design of the Z-MAX termination module allows conductors to feed naturally into position without the need for pair crossing.

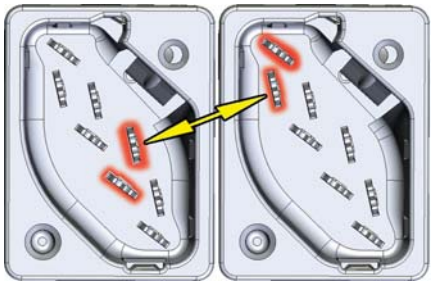


- Linear design dramatically speeds and simplifies cable prep and conductor alignment
- Removes a significant source of noise and interference present in all other RJ-45 outlets
- Maintains and protects cable pair structure for optimized transmission performance consistency
- Intuitive cable lacing significantly minimizes miswires that lead to costly reworks

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.



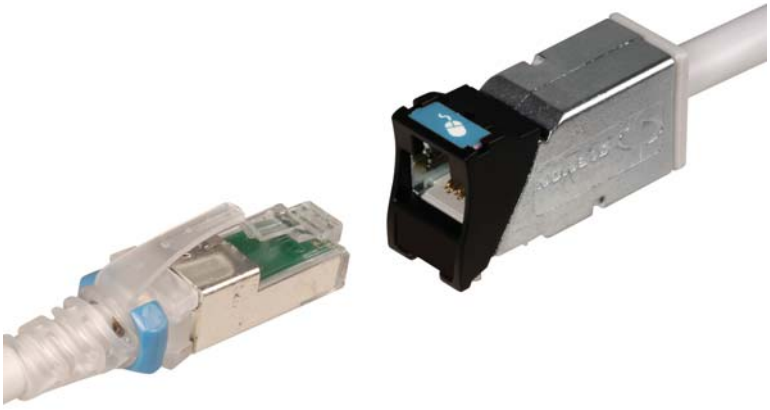


- Maximizes pair-to-pair separation from adjacent outlets to minimize alien crosstalk even in the most dense category 6A patching environments
- Enhances NEXT performance within outlets
- Limits untwist of pairs at termination to maximize cable performance
- Fully enclosed IDC's eliminates exposure of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

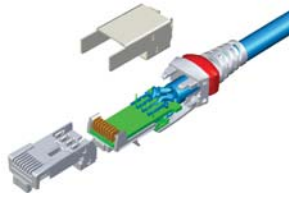
Z-MAX® 6A Shielded System Features and Benefits

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 TIA and ISO 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 F/UTP cable and Z-MAX patch panels as well as shielded, stranded or solid cord options.



Z-TOOL™ Termination
- Fast
- Simple
- Consistent



PCB-based Smart Plug™
Z-MAX cords feature exclusive PCB-based smart plug specifically tuned to maximize overall system performance

Features and Benefits

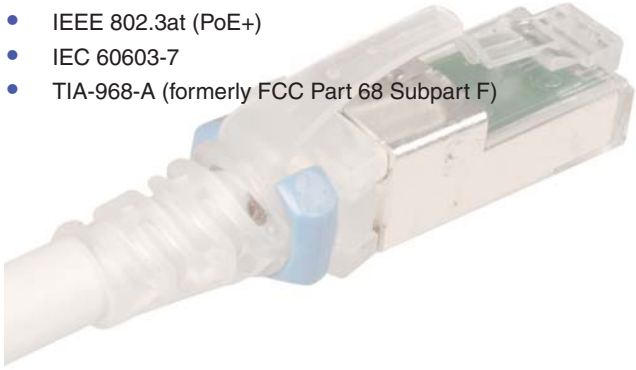
- Hybrid work area outlets mount in either flat or angled orientation
- Industry's fastest termination time accelerates project completion
- Guided, tool-based termination process enhances system quality and reliability
- Field-terminated outlets or pre-terminated trunking cables can be quickly snapped 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 color-coding provides the capability to code and customize your cabling system

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

System Performance Overview

Standard Compliance

- ANSI/TIA-568-C.2
- ISO/IEC 11801 Class E_A
- ISO/IEC 11801 2nd ed Amendment 1
- ISO/IEC 11801 2nd ed Amendment 2
- ETL Tested
- UL-listed
- IEEE 802.3an
- IEEE 802.3af (PoE)
- IEEE 802.3at (PoE+)
- IEC 60603-7
- TIA-968-A (formerly FCC Part 68 Subpart F)



Z-MAX 6A F/UTP Performance

GUARANTEED 4-CONNECTOR CHANNEL MARGINS TO ISO / IEC 11801 2.1 (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.
Because we continually improve our products, Siemon reserves the right to change specifications and availability without prior notice.

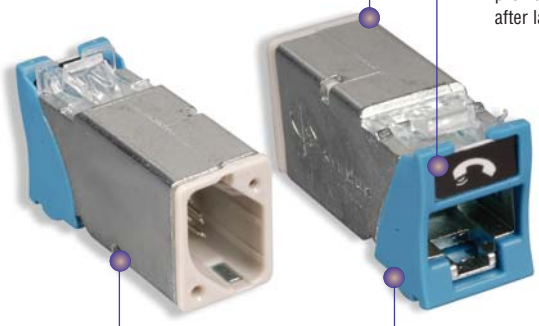
Z-MAX® 6A Shielded Outlets

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 color 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 color-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

Color Coding Capability — Bezel allows outlets to be color coded for customer identification to match faceplates and other mounting accessories

Robust Hinged Cable Retention — Clip accommodates multiple cable diameters

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

Minimizes exposure to dust and other contaminants.

Ordering Information:

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

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

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

Bezel Color

01= Black	**06=** Blue
02= White	**07=** Green
03= Red	**09=** Orange
04= Gray	**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).*

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

Front

1 - Red Data
1 - Blue Data
1 - Bezel Color-matching Data
1 - White Blank

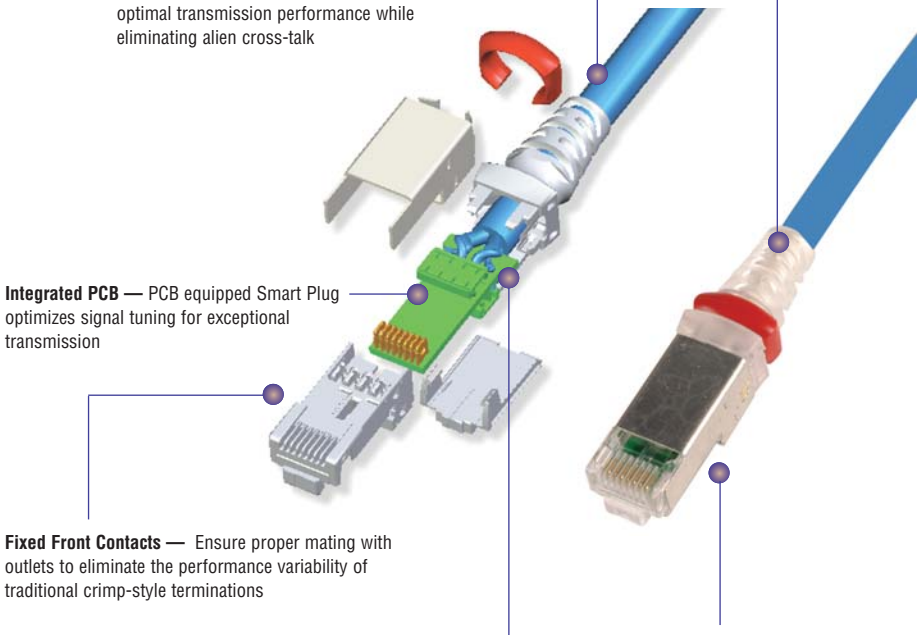
Rear

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

For more Z-MAX icon colors and options see page 9.5.

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 — Optimizes side-stackability of patch cords and allows use in even the most dense patching environments

Integrated PCB — PCB equipped Smart Plug optimizes 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 pair symmetry to point of termination and provide robust strain relief

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

Colored Clips
Removable clips allow field color 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)(XX) . . . . . Z-MAX 6A shielded (S/FTP), double-ended, stranded modular cord, clear boot, T568A/B, dual-listed CMP/LS0H

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.)

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

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

Length
- **10** = 3.1m (10 ft.)
- **20** = 6.1m (20 ft.)
- **30** = 9.1m (30 ft.)
- **40** = 12.2m (40 ft.)
- **50** = 15.2m (50 ft.)
- **60** = 18.3m (60 ft.)

Wiring
- **A** = T568B
- **T** = T568A

Jacket
- **R** = CMR
- **P** = CMP

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

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

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

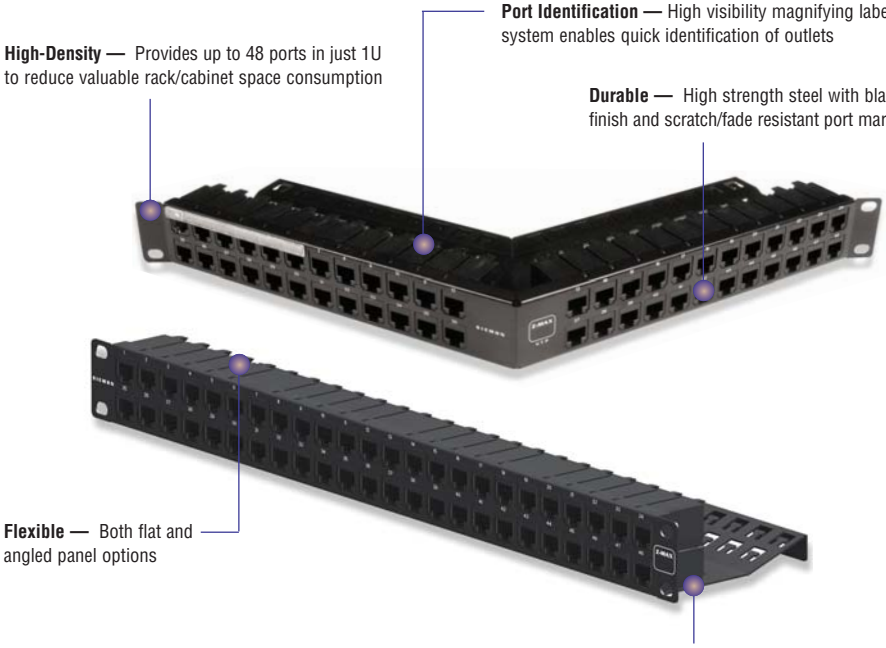
Clip Color
- **01** = Black
- **02** = White
- **03** = Red
- **04** = Gray
- **05** = Yellow
- **06** = Blue
- **07** = Green
- **08** = Violet
- **09** = Orange

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



High-Density — Provides up to 48 ports in just 1U to reduce valuable rack/cabinet space consumption

Port Identification — High visibility magnifying labeling system enables quick identification of outlets

Durable — High strength steel with black finish and scratch/fade resistant port marking

Flexible — Both flat and angled panel options

Integrated Quick-Ground™ — Panels feature embedded conductive strips to automatically ground Z-MAX modules to panel upon insertion

Trunking Applications
Ideal for Trunking applications combine Z-MAX trunk assemblies (with panel outlets) and empty Z-MAX panels for rapid data center 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:

Z6AS-PNL(X)-24K	Z-MAX 24-Port, CAT 6A Shielded Patch Panel, Kit, 1 RMS, Black, with Jacks
Z6AS-PNL(X)-U48K	Z-MAX 48-Port, CAT 6A Shielded Patch Panel Kit, 1 RMS, Black, with Jacks
ZS-PNL(X)-24E	Z-MAX 24-Port Shielded Patch Panel, 1RMS, Black, Empty
ZS-PNL(X)-U48E	Z-MAX 48-Port Shielded Patch Panel, 1RMS, Black, Empty

Use (X) to specify mounting style: Blank = 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, bag of 25
Z6A-SP	Z-MAX 6A shielded panel outlet

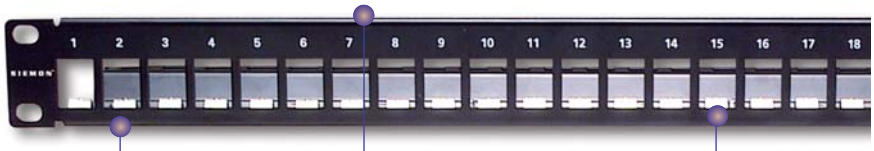
Note: Z-MAX shielded patch panels designed for use with Z-MAX shielded panel outlets only

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:

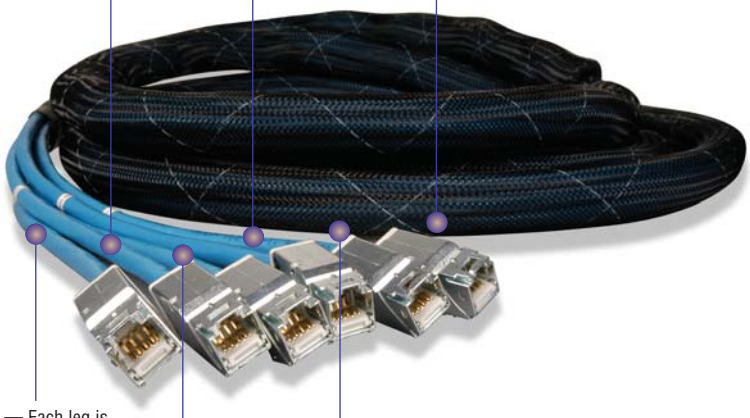
Part #	Description
TM-PNLZ-24-01	24-port TERA-MAX panel, black, 1U
TM-PNLZ-24	24-port TERA-MAX panel, metallic, 1U
TM-PNLZA-24-01	24-port Angled TERA-MAX panel, black, 1U
TM-PNLZA-24	24-port Angled TERA-MAX panel, metallic, 1U

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

Note: 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 F/UTP cable, Z-MAX 6A shielded copper trunking cable assemblies were designed with data center 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 — Utilizes 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 labeled for proper outlet orientation

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

Factory Terminated and Tested — Utilizes shielded Z-MAX outlet, factory terminated and tested for high performance

Data Centers
Ideal for data centers, raised floor and ladder rack environments enabling up to 75% faster deployment time

Simple Installation
Pre-terminated Z-MAX panel outlets utilize the 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:

TE(X)D6E-(XXXX)(XXX)F . . . . . 6 Leg Solid Cable Double-Ended Trunking Cable Assembly

Cable Jacket
R = Riser rated (CMR), blue jacket
P = Plenum rated (CMP), blue jacket

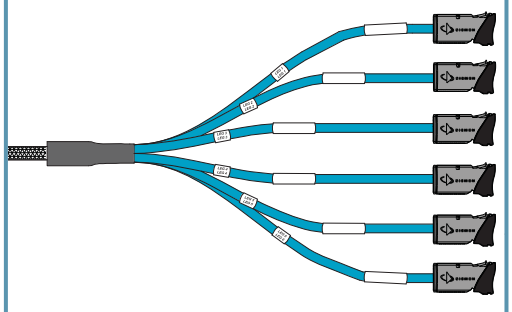
Length
009-295= Indicate length in feet (increments of 3 feet)

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.

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

STRAIGHT CUT

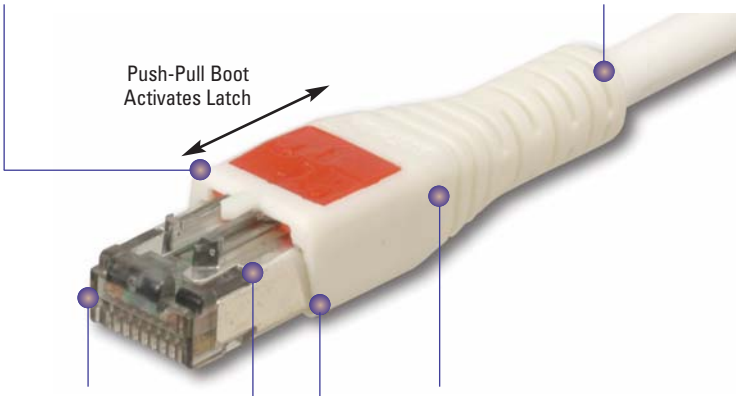


Category 6A Shielded BladePatch® Modular Cords

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 design eliminates external thumb latch which can snag and break

Backwards Compatible — With category 5e/class D and category 6/class E systems and components



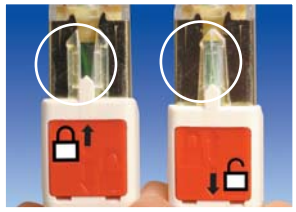
Universal Wiring — Compatible with T568A/B wiring schemes

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

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

Low Profile Boot Design — Optimizes 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, color matching cord/boot T568A/B.

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

Cord Length:	Cord Color:
01 = 1m (3.3 ft.)	**01** = Black
1.5 = 1.5m (4.9 ft.)	**02** = White
02 = 2m (6.6 ft.)	**03** = Red
03 = 3m (9.8 ft.)	**04** = Gray
04 = 4m (13.1 ft.)	**05** = Yellow
05 = 5m (16.4 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.

Siemon Category 6A F/UTP 4-Pair Cable (North America)

CABLE CONSTRUCTION

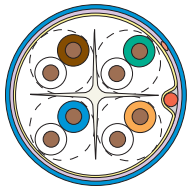
- F/UTP
- 0.57mm (0.023 in.) (23 AWG) solid bare copper
- 7.4mm (0.29 in.) nom. jacket diameter
- Central isolation member
- Shield is an aluminum foil tape enclosing a 0.51mm (0.20 in.) (24 AWG) tinned copper drain wire

COMPLIANCE

- ISO/IEC 11801
- ANSI/TIA-568-C.2
- UL CMR and CSA FT4
- UL CMP and CSA FT6

PHYSICAL PROPERTIES

	CMP	CMR
Pulling Tension (max)	110N (25 lbf)	110N (25 lbf)
Bend Radius (min)	50mm (2.0 in.)	50mm (2.0 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)



Ordering Information:

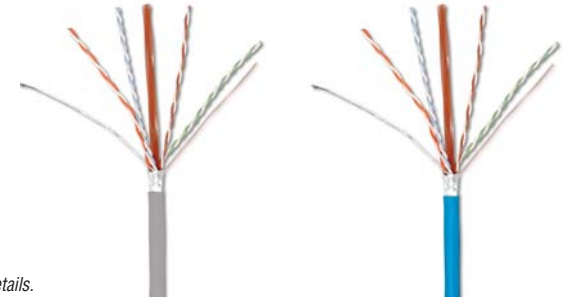
9A6(X)4-A5-(XX)-R1A . . . . . 305m (1000 ft.) Reel (North America Only)

Jacket Color

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

Jacket Material

P = Plenum (CMP, CSA FT6)
R = Riser (CMR, CSA FT4)



Lead time and minimum order quantities may vary by cable type. Please contact Customer Service for details.

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*	2.0	1.8	74.3	86.0	72.3	82.3	72.3	84.2	70.3	80.5	67.8	91.0	64.8	85.0	20.0	33.0	570	545
4.0	3.8	3.4	65.3	77.0	63.3	73.3	61.5	73.6	59.5	69.9	55.8	79.0	52.8	73.0	23.0	35.5	552	527
10.0	6.0	5.4	59.3	71.0	57.3	67.3	53.3	65.6	51.3	61.9	47.8	71.0	44.8	65.0	25.0	38.0	545	520
16.0	7.6	6.9	56.2	68.0	54.2	64.2	46.7	61.1	46.7	57.3	43.7	67.0	40.7	61.0	25.0	35.2	543	518
20.0	8.5	7.7	54.8	67.0	52.8	62.8	46.3	59.3	44.3	55.1	41.8	65.0	38.8	59.0	25.0	35.0	542	517
31.25	10.7	9.9	51.9	64.0	49.9	59.9	41.2	54.1	39.2	50.0	37.9	61.0	34.9	55.0	23.6	33.1	540	515
62.5	15.4	14.3	47.4	59.0	45.4	55.4	32.0	44.7	30.0	41.1	31.9	55.0	28.9	49.0	21.5	32.2	539	514
100.0	19.8	18.1	44.3	56.0	42.3	52.0	24.5	37.9	22.5	33.9	27.8	51.0	24.8	45.0	20.1	31.6	538	513
200.0	29.0	27.3	39.8	52.0	37.8	47.8	10.8	24.7	8.8	20.5	21.8	45.0	18.8	39.0	18.0	29.8	537	512
250.0	32.8	31.1	38.3	50.0	36.3	46.0	5.5	18.9	3.5	14.9	19.8	43.0	16.8	37.0	17.3	28.7	536	511
300.0	36.4	35.0	37.1	49.0	35.1	45.0	0.7	14.0	-1.3	10.0	18.3	38.0	15.3	35.0	16.8	28.0	536	511
400.0	43.0	40.0	35.3	47.0	33.3	43.0	-7.7	7.0	-9.7	3.0	15.8	36.0	12.8	33.0	15.9	27.1	536	511
500.0	48.9	42.0	33.8	47.0	31.8	42.0	-15.1	5.0	-17.1	0.0	13.8	34.0	10.8	32.0	15.2	26.0	536	510
550.0*	51.8	43.0	33.2	46.0	31.2	42.0	-18.6	3.0	-20.6	-1.0	13.0	33.0	10.0	31.0	14.9	26.0	536	510
625.0*	55.8	44.9	32.4	46.0	30.4	41.0	-23.5	1.1	-25.5	-3.9	11.9	33.0	8.9	29.0	14.5	25.0	535	505
750.0*	62.3	49.0	31.2	45.0	29.2	41.0	-31.1	-4.0	-33.1	-8.0	10.3	32.0	7.3	27.0	14.0	25.0	535	504

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

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

Please see **www.siemon.com/e-catalog** for more global cable options

Siemon Category 6A F/UTP 4-Pair Cable (South/Central America)

CABLE CONSTRUCTION

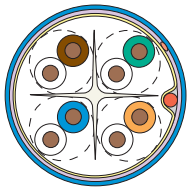
- F/UTP
- 0.57mm (0.023 in.) (23 AWG) solid bare copper
- 7.4mm (0.29 in.) nom. jacket diameter
- Central isolation member
- Shield is an aluminum foil tape enclosing a 0.51mm (0.20 in.) (24 AWG) tinned copper drain wire

COMPLIANCE

- ISO/IEC 11801
- ANSI/TIA-568-C.2
- UL CM and IEC 60332-1
- UL CMR and CSA FT4
- LS0H IEC 60332-1, IEC 60754, IEC 61034

PHYSICAL PROPERTIES

	LSOH	CM/CMR
Pulling Tension (max)	110N (25 lbf)	110N (25 lbf)
Bend Radius (min)	50mm (2.0 in.)	50mm (2.0 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)

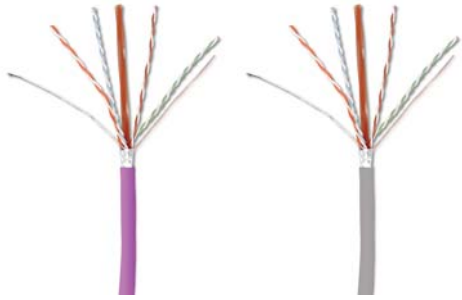


Ordering Information:

9A6(X)4-A5 . . . . . 305m (1000 ft.) Reel (South/Central America Only)

Jacket Material

M = PVC (CM, IEC 60332-1), Gray Jacket
R = Riser (CMR, CSA FT4), Blue Jacket
L = LSOH (IEC 60332-1), Violet Jacket



TRANSMISSION PERFORMANCE

ANSI/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)	
1.0*	2.0	1.8	74.3	86.0	72.3	82.3	72.3	84.2	70.3	80.5	67.8	91.0	64.8	85.0	20.0	33.0	570	545
4.0	3.8	3.4	65.3	77.0	63.3	73.3	61.5	73.6	59.5	69.9	55.8	79.0	52.8	73.0	23.0	35.5	552	527
10.0	6.0	5.4	59.3	71.0	57.3	67.3	53.3	65.6	51.3	61.9	47.8	71.0	44.8	65.0	25.0	38.0	545	520
16.0	7.6	6.9	56.2	68.0	54.2	64.2	46.7	61.1	46.7	57.3	43.7	67.0	40.7	61.0	25.0	35.2	543	518
20.0	8.5	7.7	54.8	67.0	52.8	62.8	46.3	59.3	44.3	55.1	41.8	65.0	38.8	59.0	25.0	35.0	542	517
31.25	10.7	9.9	51.9	64.0	49.9	59.9	41.2	54.1	39.2	50.0	37.9	61.0	34.9	55.0	23.6	33.1	540	515
62.5	15.4	14.3	47.4	59.0	45.4	55.4	32.0	44.7	30.0	41.1	31.9	55.0	28.9	49.0	21.5	32.2	539	514
100.0	19.8	18.1	44.3	56.0	42.3	52.0	24.5	37.9	22.5	33.9	27.8	51.0	24.8	45.0	20.1	31.6	538	513
200.0	29.0	27.3	39.8	52.0	37.8	47.8	10.8	24.7	8.8	20.5	21.8	45.0	18.8	39.0	18.0	29.8	537	512
250.0	32.8	31.1	38.3	50.0	36.3	46.0	5.5	18.9	3.5	14.9	19.8	43.0	16.8	37.0	17.3	28.7	536	511
300.0	36.4	35.0	37.1	49.0	35.1	45.0	0.7	14.0	-1.3	10.0	18.3	38.0	15.3	35.0	16.8	28.0	536	511
400.0	43.0	40.0	35.3	47.0	33.3	43.0	-7.7	7.0	-9.7	3.0	15.8	36.0	12.8	33.0	15.9	27.1	536	511
500.0	48.9	42.0	33.8	47.0	31.8	42.0	-15.1	5.0	-17.1	0.0	13.8	34.0	10.8	32.0	15.2	26.0	536	510
550.0*	51.8	43.0	33.2	46.0	31.2	42.0	-18.6	3.0	-20.6	-1.0	13.0	33.0	10.0	31.0	14.9	26.0	536	510
625.0*	55.8	44.9	32.4	46.0	30.4	41.0	-23.5	1.1	-25.5	-3.9	11.9	33.0	8.9	29.0	14.5	25.0	535	505
750.0*	62.3	49.0	31.2	45.0	29.2	41.0	-31.1	-4.0	-33.1	-8.0	10.3	32.0	7.3	27.0	14.0	25.0	535	504

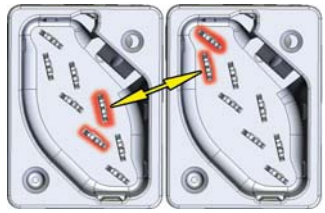
**Values for frequencies above industry requirements are for information only.*

All performance based on 100 meters (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, optimized outlets and high-density patch panels, the Z-MAX 6A UTP system provides outstanding margin on all TIA and ISO 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.



Optimized For Alien Crosstalk Elimination
Diagonal IDC alignment maximizes 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 maximize overall system performance

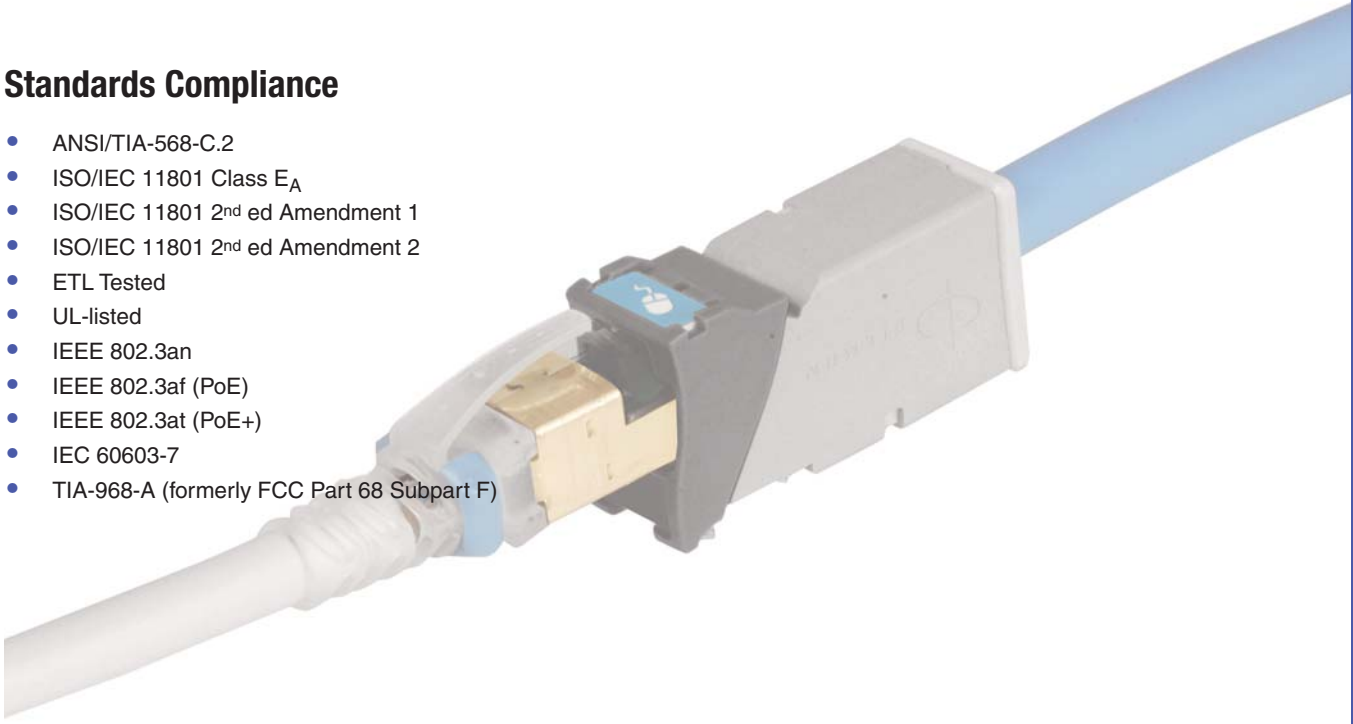
Features and Benefits

- High density 48 port, 1U panels provide the flexibility to maximize rack/cabine 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 color-coding provides the capability to code and customize your cabling system

System Performance Overview

Standards Compliance

- ANSI/TIA-568-C.2
- ISO/IEC 11801 Class E_A
- ISO/IEC 11801 2nd ed Amendment 1
- ISO/IEC 11801 2nd ed Amendment 2
- ETL Tested
- UL-listed
- IEEE 802.3an
- IEEE 802.3af (PoE)
- IEEE 802.3at (PoE+)
- IEC 60603-7
- TIA-968-A (formerly FCC Part 68 Subpart F)



Z-MAX 6A UTP Performance

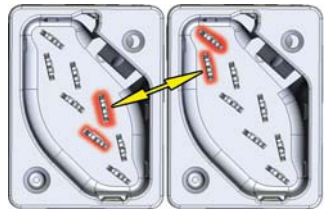
GUARANTEED 4-CONNECTOR CHANNEL MARGINS TO ISO / IEC 11801 2.1 (1 - 500 MHz)

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 24port/1U density.
Because we continually improve our product, Siemon reserves the right to change specifications and availability without prior notice.

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!



Optimized For Alien Crosstalk Isolation
Diagonal IDC alignment maximizes 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 color-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 color 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:

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

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

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

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

Spring Door Option
Minimizes exposure to dust and other contaminants.

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).

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

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

Front
1 - Red Data
1 - Blue Data
1 - Bezel Color-matching Data
1 - White Blank

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

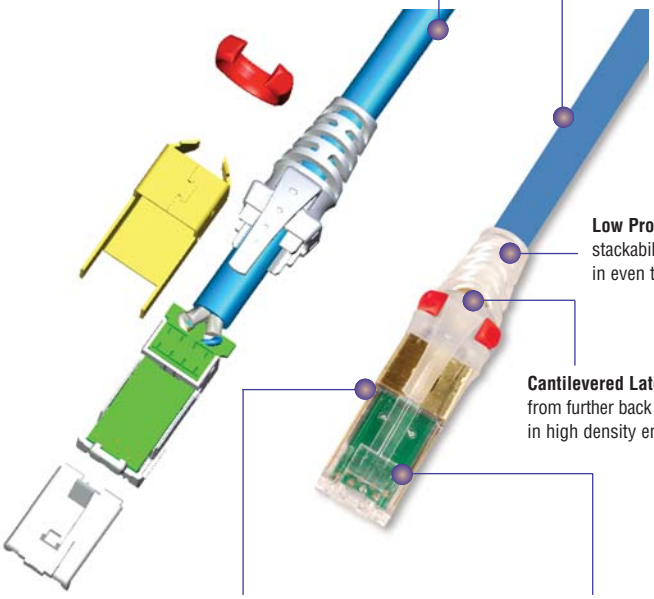
For more Z-MAX icon colors and options see page 9.5.

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



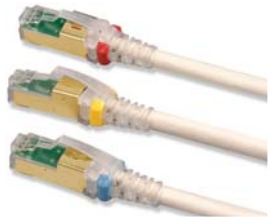
Low Profile Boot Design — Optimizes side-stackability of modular cords and allows use in even the most dense equipment

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

Superior Performance Consistency — Precision PCB-based conductor terminations eliminate the performance variability of traditional direct wire to contacts

Integrated PCB — PCB equipped Smart Plugs optimize signal tuning for exceptional transmission

100% Factory-Tested
Cords are 100% transmission tested to ensure compliance with applicable standards requirements



Colored Clips
Removable clips allow field color coding even when cords are connected

Excellent Bend Relief
Boot ensures proper bend relief, critical for category 6A performance

Ordering Information:

ZM6A-(XX)(XX) . . . . . Z-MAX 6A UTP, double-ended, stranded modular cord, clear boot, T568A/B, CMG

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.)

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

ZC6A-(XX)(X)(X)(X) . . . . . Z-MAX 6A UTP, solid modular cord, blue jacket, clear boot

Length
10 = 3.1m (10 ft.)
20 = 6.1m (20 ft.)
30 = 9.1m (30 ft.)
40 = 12.2m (40 ft.)
50 = 15.2m (50 ft.)
60 = 18.3m (60 ft.)

Wiring
A = T568B
T = T568A

Jacket
R = CMR
P = CMP

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

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

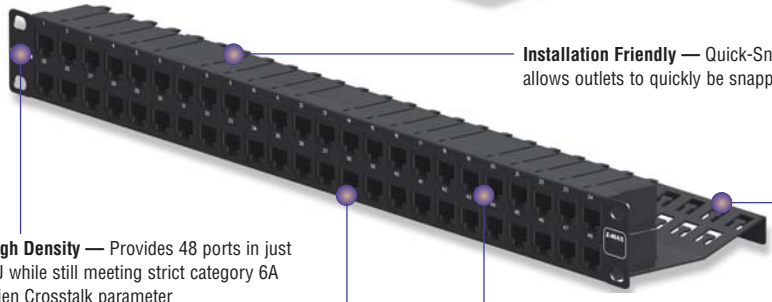
CLIP-(XX) . . . . . Color coding clip, bag of 25

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

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.



Installation Friendly — Quick-Snap feature allows outlets to quickly be snapped into place

High Density — Provides 48 ports in just 1U while still meeting strict category 6A Alien Crosstalk parameter

Durable — High strength steel with black finish and scratch/fade resistant port marking

Port Identification — High visibility magnifying labeling system enables quick identification of outlets

Aesthetics — The Z-MAX panel provides a clean front surface to improve the installation appearance

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 center deployment

Integrated Cable Management
Ensures proper cable management practices for all installations, critical to category 6A performance

Ordering Information:

Z6A-PNL(X)-24K .....Z-MAX 24-Port, CAT 6A UTP Patch Panel, Kit, 1 RMS, Black, with Jacks

Z6A-PNL(X)-U48K.....Z-MAX 48-Port, CAT 6A UTP Patch Panel Kit, 1 RMS, Black, with Jacks

Z-PNL(X)-24E.....Z-MAX 24-Port UTP Patch Panel, 1RMS, Black, Empty

Z-PNL(X)-U48E.....Z-MAX 48-Port UTP Patch Panel, 1RMS, Black, Empty

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

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

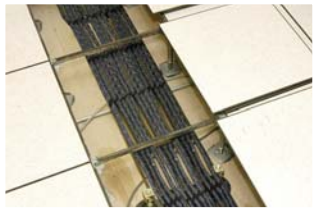
Panel Accessories:

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-PS	Patch panel label holder, bag of 25
Z6A-P	Z-MAX 6A UTP panel outlet

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

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 centers and other high-density high-performance environments.



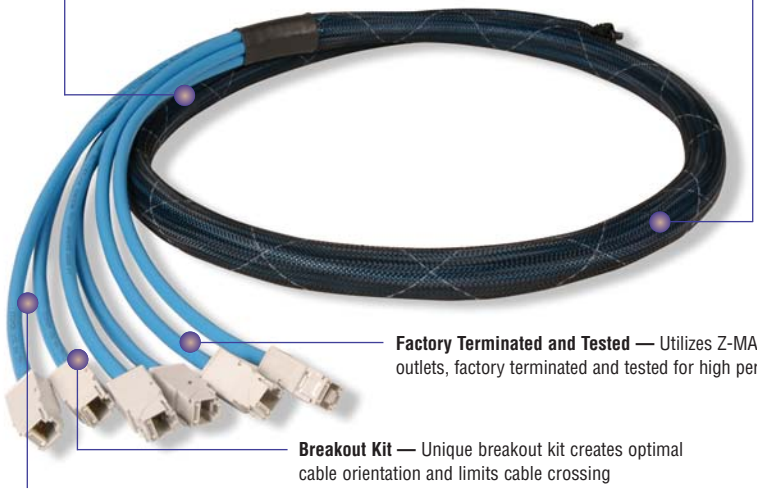
Data Centers
Ideal for Data Centers, raised floor and ladder rack environments enabling up to 75% faster deployment time

Simple Installation
Pre-terminated Z-MAX panel outlets utilize the Quick-Snap feature for easy installation and removal from Z-MAX panels

Protective Packaging
Each assembly is packaged individually to protect factory terminations

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

Siemon Category 6A UTP Cable — Utilizes high quality Siemon category 6A UTP cable



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

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

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

Ordering Information:

TD(X)D6E-(XXXX)(XXX)F . . . . . 6 Leg Solid Cable Double-Ended Trunking Cable Assembly

Cable Jacket

R = Riser rated (CMR, CSA FT6), blue jacket

P = Plenum rated (CMP, CSA FT4), blue jacket

Connector Types

P0P0 = Z-MAX panel outlets for use with Z-MAX panels

H1H1 = Z-MAX hybrid flat/angled outlet

P0J0 = Z-MAX panel outlets to Z-MAX plugs

H1J0 = Z-MAX hybrid flat/angled outlet to Z-MAX plugs

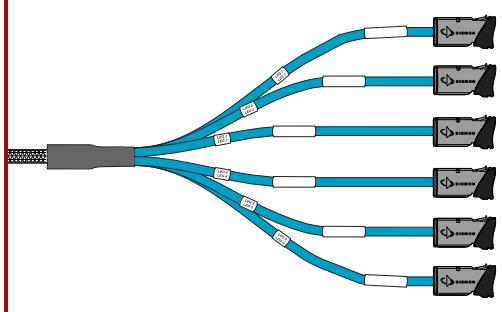
Length

009-295 = Indicate length in feet (increments of 3 feet)

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

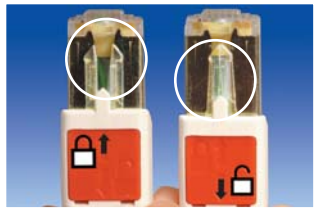


Category 6A UTP BladePatch® Modular Cords

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.

Universal Compatibility
Fits within any standard RJ-45 outlet.



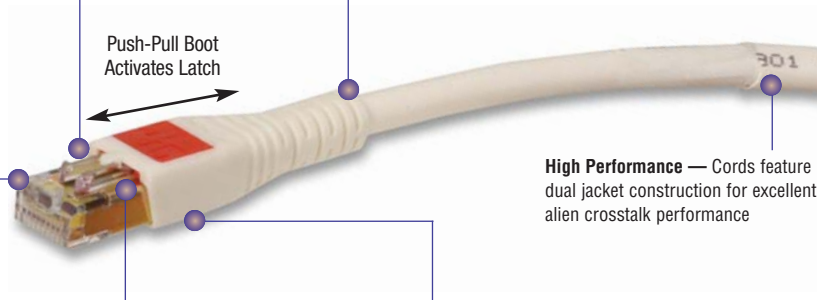
Revolutionary Latch
Simply push the boot forward to latch into the outlet and pull back to release.

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

Universal Wiring — Compatible with T568A/B wiring schemes

Snagless — Push-pull design eliminates external thumb latch which can snag and break

Optimized Bend Radius — Patent pending design removes second outer jacket layer at plug ends to reduce bend radius and improve flexibility when entering and exiting switches and patch panels



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

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

Low Profile Boot Design — Optimizes side-stackability of patch cords and facilitates use in equipment with extremely high port density

Ordering Information:

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

BP6A-(XX)(XX)

Cord Length:	Cord Color		
03 = 0.9m (3 ft.)	**01** = Black	**04** = Gray	**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.)			

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 (Americas)

CABLE CONSTRUCTION

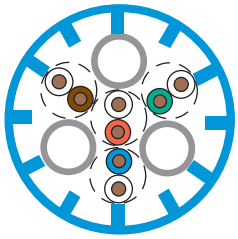
- UTP
- 0.58mm (0.022 in.) (23 AWG) solid bare copper
- 7.6mm (0.30 in.) CMP nom. jacket diameter
- Round jacket with Internal Longitudinal Striations (ILS)

COMPLIANCE

- ISO/IEC 11801
- ANSI/TIA-568-C.2
- UL CMR and CSA FT4
- UL CMP and CSA FT6

PHYSICAL PROPERTIES

	CMP	CMR
Pulling Tension (max)	110N (25 lbf)	110N (25 lbf)
Bend Radius (min)	34mm (1.3 in.)	34mm (1.3 in.)
Installation Temperature	0 to 50°C (+32 to 122°F)	0 to 50°C (+32 to 122°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)



Ordering Information:

9C6(X)4-A5-(XX)-R1A . . . . . 305m (1000 ft.) Reel

Jacket Material
P = Plenum (CMP, CSA FT6)
R = Riser (CMR, CSA FT4)

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

TRANSMISSION PERFORMANCE

GUARANTEED WORSE CASE

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	74.3	72.3	72.2	70.2	67.8	64.8	20.0	570
4.0	3.8	65.3	63.3	61.5	59.5	55.7	52.7	23.0	552
10.0	5.9	59.3	57.3	53.4	51.4	47.8	44.8	25.0	545
16.0	7.5	56.2	54.2	48.8	46.8	43.7	40.7	25.0	543
20.0	8.4	54.8	52.8	46.4	44.4	41.7	38.7	25.0	542
31.25	10.5	51.9	49.9	41.4	39.4	37.9	34.9	23.6	540
62.5	15.0	47.4	45.4	32.4	30.4	31.8	28.8	21.5	539
100.0	19.1	44.3	42.3	25.2	23.2	27.8	24.8	20.1	538
200.0	27.6	39.8	37.8	12.2	10.2	21.7	18.7	18.0	537
250.0	31.1	38.3	36.3	7.3	5.3	19.8	16.8	17.3	536
300.0	34.3	37.1	35.1	2.9	0.9	18.2	15.2	16.8	536
350.0	37.2	36.1	34.1	-1.1	-3.1	16.9	13.9	16.3	535
400.0	40.1	35.3	33.3	-4.8	-6.8	15.7	12.7	15.9	535
500.0*	45.3	33.8	31.8	-11.4	-13.4	13.8	10.8	15.2	536
625.0*	51.2	32.4	30.4	-18.8	-20.8	11.8	8.8	14.5	535
750.0*	56.7	31.2	29.2	-25.5	-27.5	10.3	7.3	14.0	535

**Performance for frequencies beyond TIA requirements are for information only.*

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

Please see **www.siemon.com/e-catalog** for more global cable options

Category 6 UTP

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

- **Paired with Siemon Premium 6™ UTP cable, our connectivity provides a warranted, end-to-end Premium 6 UTP cabling solution. Premium 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 TIA and ISO/IEC**
- **With the use of Siemon's Z-MAX® 6 UTP outlets, Siemon's Z-MAX Premium 6 System provides margins beyond those of Premium 6, offering industry leading category 6 system performance**
- **Utilized with Siemon System 6™ UTP cable, Siemon category 6 connectivity offers excellent performance/price value in an end-to-end system that meets or exceed all category 6 parameters**
- **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 Premium 6 and System 6 is not required**

Section Contents

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 ⋆passes during field testing.

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 color-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 color 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

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

Spring Door Option
Minimizes exposure to dust and other contaminants.

Ordering Information:

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

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

Bezel Color

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

Hybrid

Door Option

Keystone

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 utilize the Z-TOOL termination tool. Included with each standard pack of Z-MAX outlets.

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

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

Front **Rear**

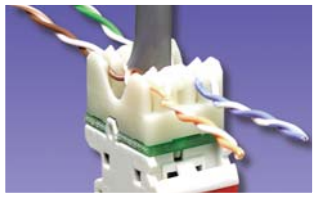
Front	Rear
1 - Red Data	1 - Red Voice
1 - Blue Data	1 - Blue Voice
1 - Bezel Color-matching Data	1 - Bezel Color-Matching Voice
1 - White Blank	1 - Bezel Color-Matching Blank

For more Z-MAX icon colors and options see page 9.5.

MAX® 6 UTP Modules

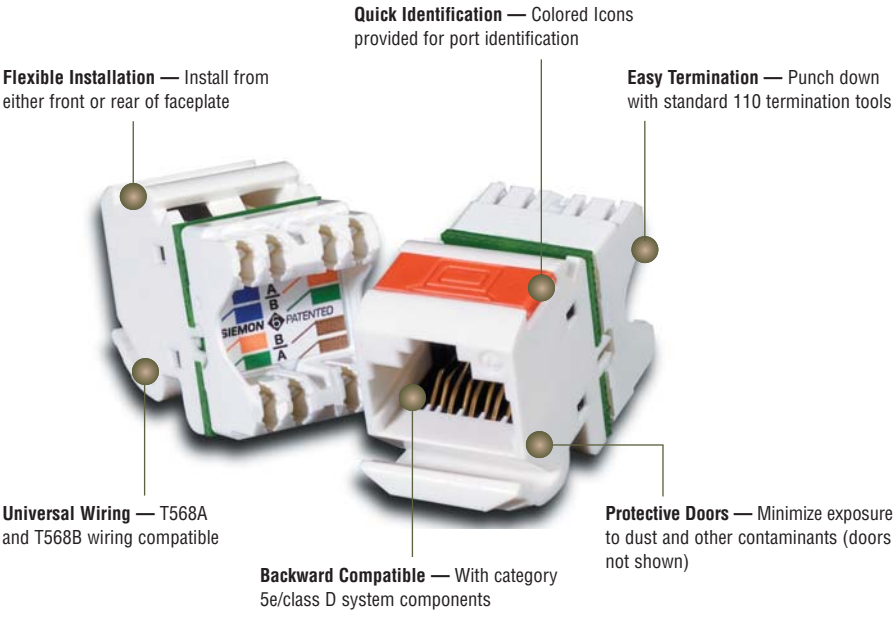
Part of Siemon's category 6 UTP end-to-end Cabling Solution, the MAX 6 module exceeds category 6 connecting hardware performance specifications.

It's compact design is ideal for high density applications. Up to six modules can be utilized in a single gang faceplate and twelve modules 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.

Termination
Siemon's Palm Guard with MAX insert (p/n: PG-MX6) assists in securing module during termination.



MAX 6 UTP Modules

MX6-(XX) . . . . . .

Category 6 Angled MAX module, T568A/B, rear strain relief cap and protective color-matching rubber door*

MX6-F(XX) . . . . . .

Category 6 Flat MAX module, T568A/B, rear strain relief cap

MX6-K(XX) . . . . . .

Category 6 Keystone MAX module, T568A/B, rear strain relief cap

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

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

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

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

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

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

CT® 6 UTP Couplers

Angled CT 6 Couplers

Siemon's patented gravity-feed jack controls the bend radius of the mated modular cords to ensure the integrity of the transmission channel, while physically protecting the connection from incidental contact at the work area. The angled shroud creates a slim profile, perfect for installations in shallow raceways and modular furniture.

CT-C6-C6-(XX) . . . . . .
Angled, double coupler,
T568A/B

CT-C6-(XX) . . . . . .
Angled, single coupler,
T568A/B

Technical Tip!
Angled couplers are recommended for work area applications.

Use (XX) to specify color: 01 = black, 02 = white, 04 = gray, 20 = ivory, 80 = light ivory, 82 = alpine white
Add "-D" for spring door option.
Ⓑ Add "B" to end of part number for bulk project pack of 100 couplers.
(Bulk option includes couplers, icons, and termination caps. Cable ties are available separately, see page 1.21).
Couplers include one color-matching icon (clear for black) and one termination cap per port, plus one red and one blue icon.

Flat CT 6 Couplers

Flat CT 6 couplers are designed for use in flush mount applications and are also recommended for use with CT patch panels.

CT-F-C6-C6-(XX) . . . . . .
Flat, double coupler,
T568A/B

CT-F-C6-(XX). . . . . .
Flat, single coupler,
T568A/B

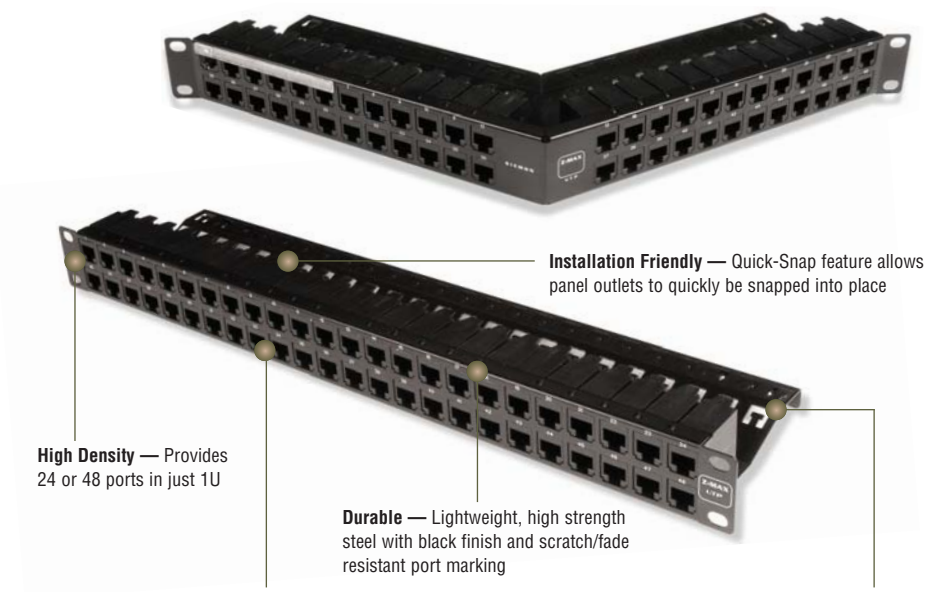
Technical Tip!
Flat couplers are recommended for patch panel applications.

Use (XX) to specify color: 01 = black, 02 = white, 04 = gray, 20 = ivory, 80 = light ivory,
Ⓑ Add "B" to end of part number for bulk project pack of 100 couplers.
(Bulk option includes couplers, icons, and termination caps. Cable ties are available separately.)
Couplers include one color-matching icon (clear for black) and one termination cap per port, plus one red and one blue icon.

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 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 for ultra high density installations.



Installation Friendly — Quick-Snap feature allows panel outlets to quickly be snapped into place

High Density — Provides 24 or 48 ports in just 1U

Durable — Lightweight, high strength steel with black finish and scratch/fade resistant port marking

Port Identification — High visibility magnifying labeling system enables quick identification of outlets

Aesthetics — The Z-MAX panel provides a clean front surface to improve the installation appearance

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 center deployment

Integrated Cable Management
Ensures proper cable management practices for all installations

Ordering Information:

Z6-PNL(X)-24K.....Z-MAX 24-Port, CAT 6 UTP Patch Panel, Kit, 1 RMS, Black, with Jacks

Z6-PNL(X)-U48K.....Z-MAX 48-Port, CAT 6 UTP Patch Panel Kit, 1 RMS, Black, with Jacks

Z-PNL(X)-24E.....Z-MAX 24-Port UTP Patch Panel, 1RMS, Black, Empty

Z-PNL(X)-U48E.....Z-MAX 48-Port UTP Patch Panel, 1RMS, Black, Empty

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

Panels include Z-Tool, label / icon holders, designation labels, cable ties, and mounting hardware.*
Note: 1U = 44.5mm (1.75 in.)
** included in kit only*

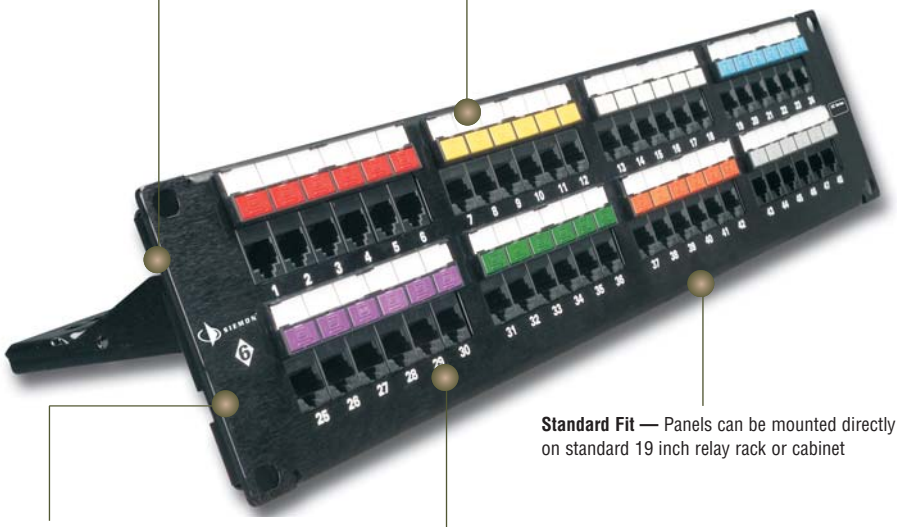
Panel Accessories:

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-PS	Patch panel label holder, (6 port ea.) bag of 25
Z6-P	Z-MAX 6 UTP panel outlet

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

HD® 6 UTP Patch Panels

Siemon'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, labeling, and cable management features with Siemon's popular category 6 patch panel.



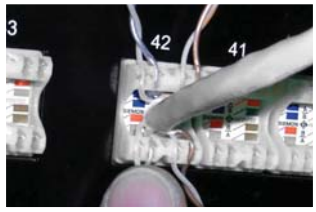
Universal Wiring — HD 6 patch panels feature universal wiring for both T568A/B compatible with standard 110 style single position punch tool.

Installer Friendly — Icon label holders and designation labels included

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

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

Port Identification — Bold port numbering enables quick identification of outlets



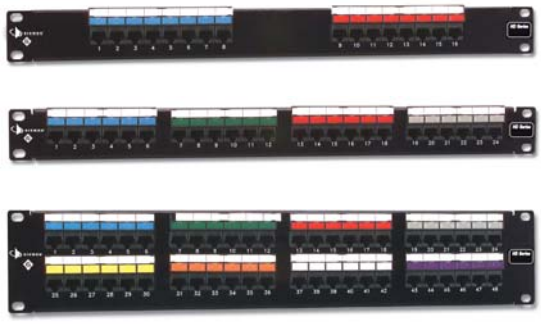
Pyramid™ Wire Entry System
Pyramid wire entry system on S310 blocks separates paired conductors when lacing cables to reduce installation time.

Circuit Protection
Rear metal enclosure protects printed circuitry.

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

Ordering Information:

Part #	Description
HD6-16	16-port category 6 UTP HD patch panel, 1U
HD6-24	24-port category 6 UTP HD patch panel, 1U
HD6-48	48-port category 6 UTP HD patch panel, 2U
HD6-96	96-port category 6 UTP HD patch panel, 4U



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 (1.75 in.)
S310 termination blocks are not compatible with S110® multi-pair termination tools.

12-Port HD® 6 Mounted on S89D Bracket

The HD6-89 offers an economical solution for small applications and is ideal for retrofitting S66™ punch down blocks to a high performance modular design.

Part #	Description
HD6-89D-12	12-port HD 6 panel, T568A/B, mounted on S89D bracket
	height: 254.0mm (10.0 in), *width: 85.9mm (3.38 in),* *depth: 60.2mm (2.37 in)*

HD Panel Accessories

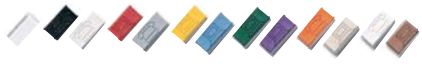
Part #	Description
HD-RWM	Rear cable management bracket for HD patch panels (not compatible with HD5-S-24)
HD5-ICON6-LBL	10 sheets of labels for HD5-ICON6 for laser printing (48 labels per sheet)*
HD5-LBL-480	Adhesive strips for sequentially numbering panel ports 1 through 480 for 24-, 48-, or 96-port 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 color-coding and port designation for 24-, 48-, or 96-port panels (icons not included)
CT-ICON-(XX)	25 colored icon tabs (phone on one side, computer on reverse)

HD-RWM

HD5-LBL-480

HD5-LBL6-2

HD5-ICON6



CT-ICON

Use (XX) to specify color: 00 = clear (TAB-XX only), 01 = black, 02 = white, 03 = red, 04 = gray, 05 = yellow, 06 = blue, 07 = green, 08 = violet, 09 = orange, 20 = ivory, 25 = bright white, 60 = brown, 80 = light ivory

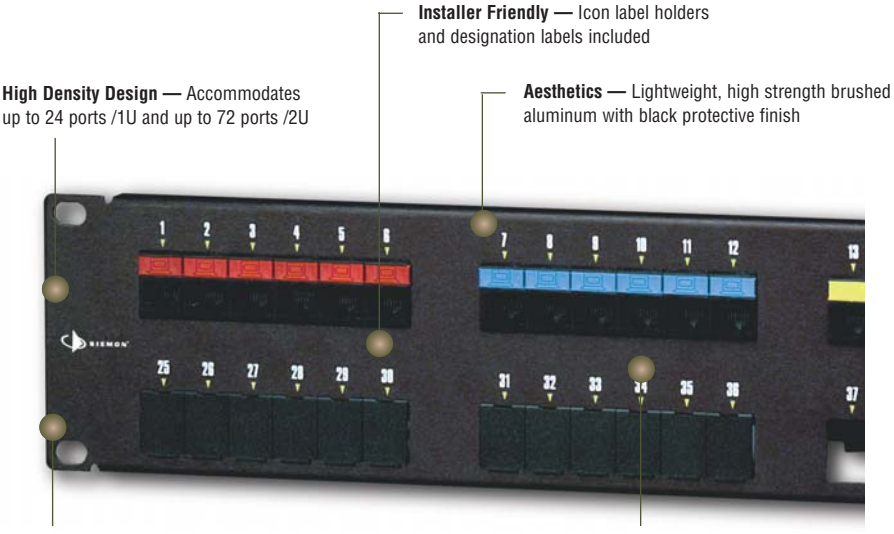
Ⓑ *Add "B" for bulk pack of 100 icons.*

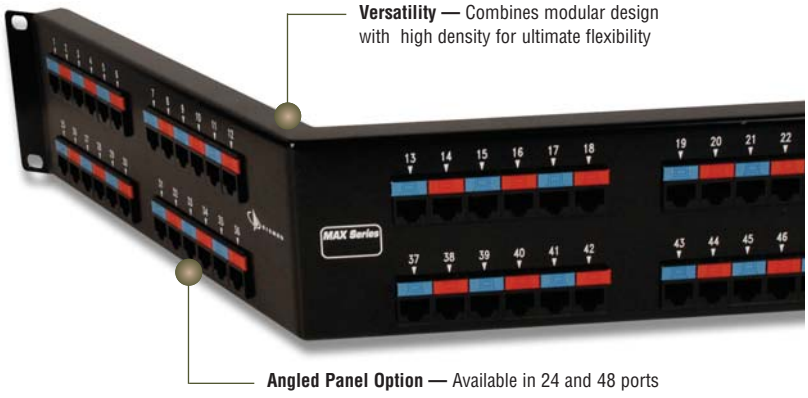
*Visit our web site or contact our Technical Support Department for labeling software.

MAX® Patch Panels

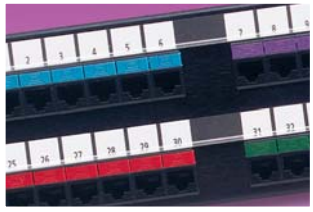
MAX patch panels provide a flexible, high density termination solution for the telecommunications room. Using the full line of Z-MAX® or MAX modules (available separately), the panel can be configured for a variety of multimedia applications. Blank modules can be used to reserve ports for future capacity.

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

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

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

Part #	Description
MX-PNL-72	72-port MAX patch panel, 2U

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

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

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.)

12-Port MAX® Panel Mounted on S89D Bracket

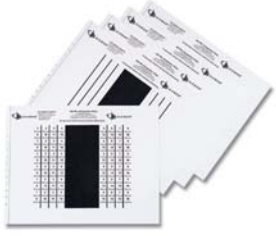
The MAX S89D offers an economical solution for smaller applications while allowing for a range of different media using the full line of MAX modules.

Part #	Description
MX-89D-12	12-port MAX panel mounted on an 89D bracket *height: 254.0mm (10.0 in.),* *width: 85.9mm (3.38 in.),* *depth: 47.8mm (1.88 in.)*

MAX Panel Accessories

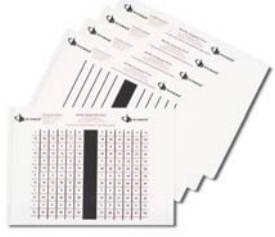
MX-PNL-LBL4*

10 sheets of laser printable labels for 16-port MAX panels



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.

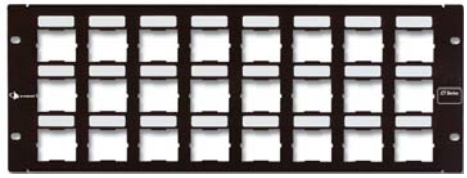
CT® Patch Panels

Oversized CT Panels

Oversized CT panels are available for applications that require additional labeling space. They provide the same flexibility as our standard CT panels and feature a write-on designation surface above each coupler opening that may also be used as a space for adhering your own label. Siemon offers adhesive-backed label holders with replaceable write-on labels that mount above the entire row of CT couplers.

Part #	Description*	RMS	Maximum Quantity of CT Couplers
CT-PNL-24-ID	24-port panel	3	12

Part #	Description*	RMS	Maximum Quantity of CT Couplers
CT-PNL-48-ID	48-port panel	4	24



**Number of ports when configured with two-port CT couplers.*
Note: 1 RMS = 44.5mm (1.75 in.)

CT Patch Panels

Part #	Description*	RMS	Maximum Quantity of CT Couplers
CT-PNL-16	16-port panel	1	8

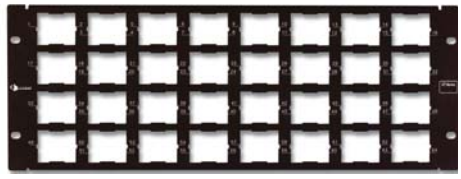
Part #	Description*	RMS	Maximum Quantity of CT Couplers
CT-PNL-24	24-port panel	2	12

Part #	Description*	RMS	Maximum Quantity of CT Couplers
CT-PNL-32	32-port panel	2	16

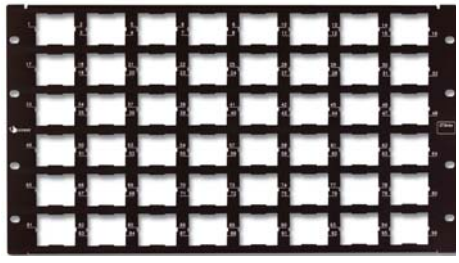
Part #	Description*	RMS	Maximum Quantity of CT Couplers
CT-PNL-48	48-port panel	3	24

**Number of ports when configured with two-port CT couplers.*
Note: 1 RMS = 44.5mm (1.75 in.)

Part #	Description*	RMS	Maximum Quantity of CT Couplers
CT-PNL-64	64-port panel	4	32



Part #	Description*	RMS	Maximum Quantity of CT Couplers
CT-PNL-96	96-port panel	6	48

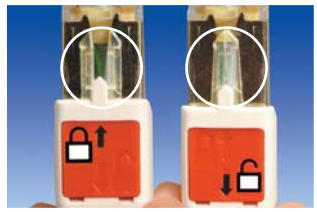


Technical Tip!
Flat couplers are recommended for patch panel applications.

BladePatch® 6 UTP Modular Cords

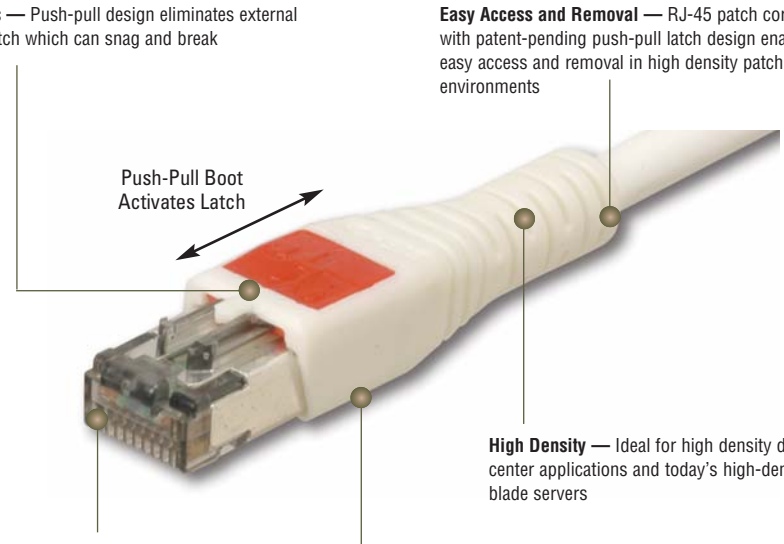
Siemon's BladePatch 6 offers a unique category 6 solution for high-density patching environments. It features an innovative push-pull boot design to control the latch, enabling easy access and removal of the cord in tight-fitting areas. The BladePatch cord is ideal for patching blade servers, patch panels,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

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.



Snagless — Push-pull design eliminates external thumb latch 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 center applications and today's high-density blade servers

Revolutionary Design — Push-pull latch design eliminates need to defeat thumb latch used in standard modular plug designs

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

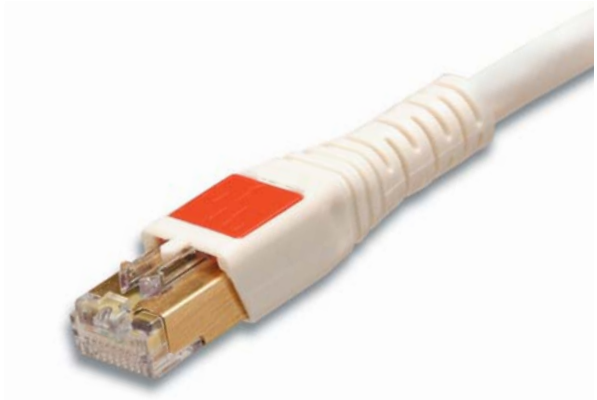
BladePatch 6 UTP

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

BP6-(XX)-(XX)

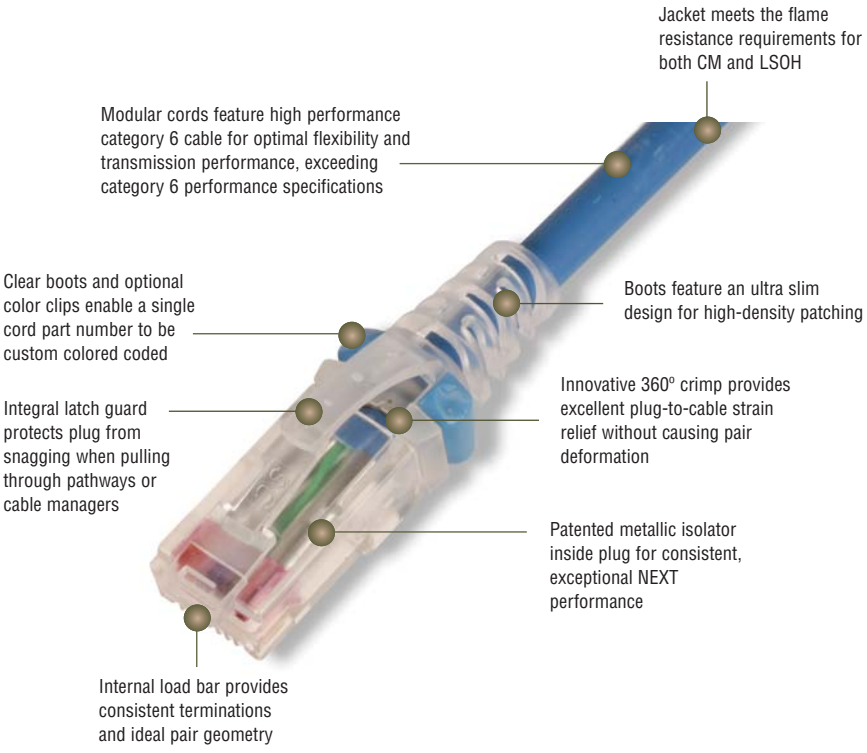
Cord Length:	Cord Color:
03 = 0.9m (3 ft.)	**01** = Black
05 = 1.5m (5 ft.)	**02** = White
07 = 2.1m (7 ft.)	**03** = Red
10 = 3.1m (10 ft.)	**04** = Gray
15 = 4.6m (15 ft.)	**05** = Yellow
20 = 6.1m (20 ft.)	**06** = Blue
	07 = Green
	08 = Violet
	09 = Orange

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



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. The cable used to manufacture the category 6 patch cords exceeds the specifications set forth by both ANSI/TIA-568-C.2 and ISO/IEC 11801:2002.



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

Color Coding
Optional colored clips enable field color coding and can easily be snapped into place without having to disconnect cords

STANDARDS COMPLIANCE
- ANSI/TIA-568-C.2
- ISO/IEC 11801
- IEEE 802.3af (PoE)
- IEEE 802.3at (PoE+)
- IEC 60603-7
- cUL US Listed
- TIA-968-A (formerly FCC Part 68 Subpart F)

MC 6 UTP Modular Cords

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

MC6-(XX)-(XX)

Cord 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.)

Cord Color:

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

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

Clip Color

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

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

IC® 6 Solid Single-Ended Cords

Siemon's category 6 IC solid single-ended modular cords are designed for use in category 6 applications requiring a consolidation point (CP) or cross-connect (as an equipment cord). 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. These cords are available in CMP and CMR versions and are single-ended for direct termination.

Premium 6 IC Modular Cords

Part #	Description
IC6E-8A-(XX)-B(XX)R	Premium 6 IC, single-ended, non-plenum, 4-pair UTP solid modular cord, blue jacket with colored boot, T568B, CMR
IC6E-8T-(XX)-B(XX)R	Premium 6 IC, single-ended, non-plenum, 4-pair UTP solid modular cord, blue jacket with colored boot, T568A, CMR
IC6E-8A-(XX)-B(XX)P	Premium 6 IC, single-ended, plenum, 4-pair UTP solid modular cord, blue jacket with colored boot T568B, CMP
IC6E-8T-(XX)-B(XX)P	Premium 6 IC, single-ended, plenum, 4-pair UTP solid modular cord, blue jacket with colored boot, T568A, CMP

System 6 IC Modular Cords

Part #	Description
IC6-8A-(XX)-B(XX)R	System 6 IC, single-ended, non-plenum, 4-pair UTP solid modular cord, blue jacket with colored boot, T568B, CMR
IC6-8T-(XX)-B(XX)R	System 6 IC, single-ended, non-plenum, 4-pair UTP solid modular cord, blue jacket with colored boot, T568A, CMR
IC6-8A-(XX)-B(XX)P	System 6 IC, single-ended, plenum, 4-pair UTP solid modular cord, blue jacket with colored boot T568B, CMP
IC6-8T-(XX)-B(XX)P	System 6 IC, single-ended, plenum, 4-pair UTP solid modular cord, blue jacket with colored boot, T568A, CMP

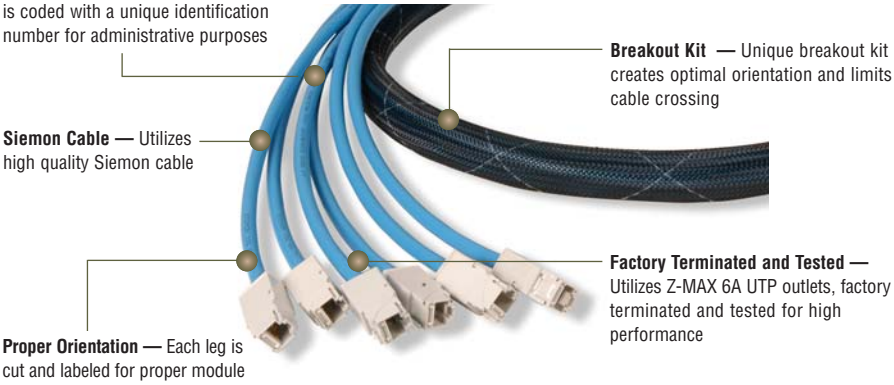
Use 1st (XX) to specify cord length: 10 = 3.1m (10 ft.), 20 = 6.1m (20 ft.), 30 = 9.1m (30 ft.), 40 = 12.2m (40 ft.), 50 = 15.2m (50 ft.), 60 = 18.3m (60 ft.)

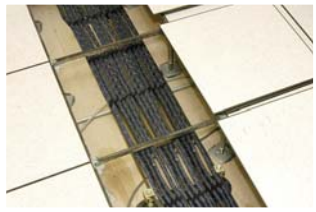
Use 2nd (XX) to specify color of boot: 01 = black, 02 = white, 03 = red, 04 = gray, 05 = yellow, 06 = blue, 07 = green

Add "D" to denote double-ended.

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 Premium™ or System 6™ cable, Siemon copper trunking cable assemblies were designed with data center 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.





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

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

Protective Packaging
Each assembly is packaged individually to protect factory terminations.

MAX Premium 6 Double-Ended Trunking Cable Assemblies

Part #	Description
TPRD6E-A1A1(XXX)F	6 Leg Solid Cable Trunking Cable Assembly, blue jacket, CMR
TPPD6E-A1A1(XXX)F	6 Leg Solid Cable Trunking Cable Assembly, blue jacket, CMP

MAX System 6 Double-Ended Trunking Cable Assemblies

Part #	Description
TCRD6E-A1A1(XXX)F	6 Leg Solid Cable Trunking Cable Assembly, blue jacket, CMR
TCPD6E-A1A1(XXX)F	6 Leg Solid Cable Trunking Cable Assembly, blue jacket, CMP

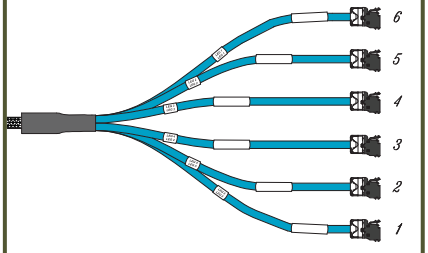
Z-MAX Premium 6 Double-Ended Trunking Cable Assemblies w/Panel Outlets

Part #	Description
TPRD6E-P0P0(XXX)F	6 Leg Solid Cable Trunking Cable Assembly, blue jacket, CMR
TPPD6E-P0P0(XXX)F	6 Leg Solid Cable Trunking Cable Assembly, blue jacket, CMP

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

Part #	Description
TCRD6E-P0P0(XXX)F	6 Leg Solid Cable Trunking Cable Assembly, blue jacket, CMR
TCPD6E-P0P0(XXX)F	6 Leg Solid Cable Trunking Cable Assembly, blue jacket, CMP

STRAIGHT CUT



Use (XXX) to specify length: 009-295 ft. in increments of 3 feet
Standard wiring is T568B. Other lengths and configurations available upon request.

Premium 6™ UTP 4-Pair Cable (US)

COMPLIANCE

- ISO/IEC 11801:2002 (Category 6)
- TIA-568-C.2 (Category 6)
- IEC 61156-5:2002 (Category 6)
- UL CMP and CSA FT6
- UL CMR and CSA FT4

CABLE CONSTRUCTION

- UTP
- 0.57mm (0.023 in.) (23 AWG) solid bare copper
- 6 mm (0.24 in.) max jacket diameter
- Central isolation member

Part #	Description
9C6P4-E4-(XX)-RBA	Plenum (CMP, CSA FT6) 305m (1000 ft.) Reel-in-Box
9C6R4-E4-(XX)-RBA	Riser (CMR. CSA FT4) 305m (1000 ft.) Reel-in-Box

Use (XX) to specify jacket color:
02 = white, 03 = red, 04 = gray, 05 = yellow, 06 = blue, 07 = green

ELECTRICAL SPECIFICATIONS

DC Resistance	<9.38Ω/100m
DC Resistance Unbalance	3%
Mutual Capacitance	5.6 nF/100m
Capacitance Unbalance	<330 pF/100m
Characteristic Impedance (ohms)	1-100 MHz: 100 ± 15% 100-250 MHz: 100 ± 20%
NVP	CMP-70% CMR-68%
TCL	30-10 log(*f*/100) dB
Delay Screw	≤25ns

PHYSICAL PROPERTIES

	CMP	CMR
Pulling Tension (max)	110N (25 lbf)	110N (25 lbf)
Bend Radius (min)	35.6mm (1.4 in.)	35.6mm (1.4 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 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	2.0	1.8	81.3	96.0	79.3	92.2	79.3	94.2	77.3	90.2	74.8	84.8	71.8	79.8	20.0	29.0	570	540
4.0	3.7	3.3	72.3	89.0	70.3	83.0	68.5	85.7	66.5	79.7	62.7	72.8	59.7	67.8	23.0	32.0	552	522
10.0	5.9	5.2	66.3	83.0	64.3	77.0	60.4	77.8	58.4	71.8	54.8	64.8	51.8	59.8	25.0	36.0	545	515
16.0	7.4	6.7	63.2	80.0	61.2	74.0	55.8	73.3	53.8	67.3	50.7	60.7	47.7	55.7	25.0	36.0	543	513
20.0	8.3	7.5	61.8	79.0	59.8	73.0	53.5	71.5	51.5	65.5	48.7	58.8	45.7	53.8	25.0	36.0	542	512
31.25	10.34	9.4	58.9	76.0	56.9	70.0	48.5	66.6	46.5	60.6	44.9	54.9	41.9	49.9	23.6	34.0	540	510
62.5	14.9	13.7	54.4	71.0	52.4	65.0	39.5	57.3	37.5	51.3	38.8	48.9	35.8	43.9	21.5	34.0	539	509
100.0	19.0	17.8	51.3	68.0	49.3	62.0	32.3	50.2	30.3	44.2	34.8	44.8	31.8	39.8	20.1	33.0	538	507
160.0	24.4	22.7	48.2	65.0	46.2	59.0	23.9	42.3	21.9	36.3	30.7	40.7	27.7	35.7	18.7	32.0	537	506
200.0	27.5	25.8	46.8	64.0	44.8	58.0	19.3	38.2	17.3	32.2	28.7	38.8	25.7	33.8	18.0	31.0	537	506
250.0	31.0	29.2	45.3	62.0	43.3	56.0	14.4	32.8	12.4	26.8	26.8	37.0	23.8	31.8	17.3	31.0	536	506
300.0*	34.2	31.5	44.1	61.0	42.1	55.0	10.0	29.5	8.0	23.5	25.2	36.0	22.2	30.0	16.8	29.0	536	505
400.0*	40.0	37.9	42.3	59.0	40.3	53.0	2.3	21.1	0.3	15.1	22.7	32.0	19.7	27.0	15.9	27.0	536	505
500.0*	45.3	39.9	40.8	48.0	38.8	52.0	-1.2	15.4	-6.4	11.9	20.8	31.0	17.8	26.0	15.2	26.0	536	505
550.0*	47.7	42.1	40.2	47.0	38.2	51.0	-7.5	14.9	-9.5	8.9	19.9	30.0	16.9	26.0	14.9	25.0	536	505

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

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

System 6™ UTP 4-Pair Cable (US)

COMPLIANCE

- ISO/IEC 11801:2002 (Category 6)
- TIA-568-C.2 (Category 6)
- IEC 61156-5:2002 (Category 6)
- UL CMP and CSA FT6
- UL CMR and CSA FT4

CABLE CONSTRUCTION

- UTP
- 0.54 mm (0.021 in.) (23 AWG) solid bare copper
- 5.3 mm (0.208 in.) Nom. jacket diameter - plenum
- 5.6 mm (0.22 in.) Nom. jacket diameter - riser
- Central isolation member

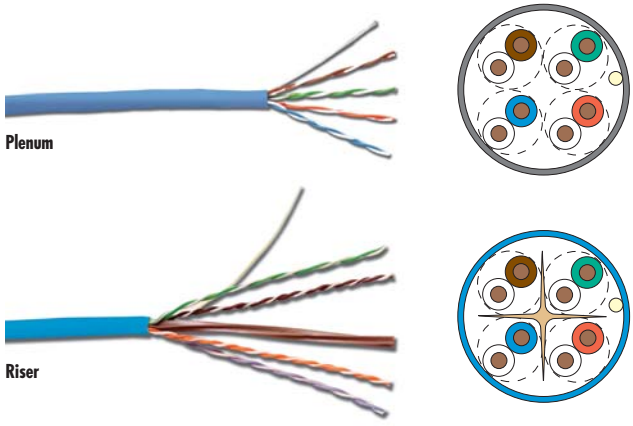
Part # **Description**

9C6P4-E3-(XX)-RXA . . . . . Plenum (CMP, CSA FT6) 305m (1000 ft.) Reelex

9C6R4-E3-(XX)-RXA . . . . . Riser (CMR. CSA FT4) 305m (1000 ft.) Reelex

Use (XX) to specify jacket color:

02 = white, 03 = red, 04 = gray, 05 = yellow, 06 = blue, 07 = green



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% 100-550 MHz: 100 ± 22%
NVP	CMP-70% CMR-68%
TCL	30-10 log(*f*/100) dB
Delay Screw	≤35ns

PHYSICAL PROPERTIES

	CMP	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)	-36 to 60°C (-32 to 140°F)
Storage Temperature	-20 to 75°C (-4 to 167°F)	-34 to 75°C (-30 to 167°F)
Operating Temperature	-20 to 60°C (-4 to 140°F)	-34 to 60°C (-30 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	2.0	1.8	77.3	87.3	75.3	82.3	75.3	85.5	73.3	80.5	70.8	84.8	68.8	79.8	20.0	29.0	550	545
4.0	3.8	3.5	68.3	78.3	66.3	73.3	64.5	74.8	62.5	69.8	58.8	72.8	56.8	67.8	23.6	32.0	532	527
10.0	5.9	5.6	62.3	72.3	60.3	67.3	56.4	66.7	54.4	61.7	50.8	64.8	48.8	59.8	26.0	38.0	525	520
16.0	7.5	7.1	59.2	69.2	57.2	64.2	51.8	62.1	49.8	57.1	46.7	60.7	44.7	55.7	26.0	34.0	523	518
20.0	8.4	7.9	57.8	67.8	55.8	62.8	49.4	59.9	47.4	54.9	44.8	58.8	42.8	53.8	26.0	34.0	522	517
31.25	10.6	10.0	54.9	64.9	52.9	59.9	44.3	54.9	42.3	49.9	40.9	54.9	38.9	49.9	23.6	32.0	520	515
62.5	15.2	14.4	50.4	60.4	48.4	55.4	35.1	46.0	33.1	41.0	34.9	48.9	32.9	43.9	21.5	32.0	519	514
100.0	19.6	18.6	47.3	57.3	45.3	52.3	27.7	38.7	25.7	33.7	30.8	44.8	28.8	39.8	20.1	32.0	518	513
160.0	25.4	24.1	44.2	54.2	42.2	49.2	18.9	30.1	16.9	25.1	26.7	40.7	24.7	35.7	18.7	31.0	517	512
200.0	28.7	26.8	42.8	52.8	40.8	47.8	14.1	26.0	12.1	21.0	24.8	38.8	22.8	33.8	18.0	29.0	517	512
250.0	32.6	30.5	41.3	51.3	39.3	46.3	8.8	20.8	6.8	15.8	22.8	37.0	20.8	31.8	17.3	29.0	516	511
300.0*	36.1	33.7	40.1	50.0	38.1	45.0	4.0	16.3	2.0	11.3	21.3	36.0	19.3	30.0	16.8	27.0	516	511
400.0*	42.6	40.3	38.3	48.0	36.3	43.0	-4.3	7.7	-6.3	2.7	18.8	32.0	16.8	27.0	15.9	26.0	516	511
500.0*	48.5	39.9	36.8	48.0	34.8	42.0	-11.7	8.1	-13.7	2.1	16.8	31.0	14.8	26.0	15.2	25.0	516	511
550.0*	51.3	39.7	39.7	46.0	34.2	42.0	-15.1	6.3	-17.1	2.3	16.0	30.0	14.0	26.0	14.9	24.0	516	510

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

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

Solution 6™ UTP Cable- Plenum (US)

COMPLIANCE

- ISO/IEC 11801:2002 (Category 6)
- TIA/EIA-568-C.2
- UL CMP and CSA FT6
- RoHS Compliant

CABLE CONSTRUCTION

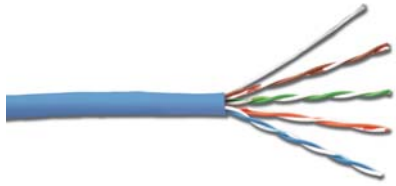
- UTP
- 0.57mm (0.023 in.) (23 AWG) solid bare copper
- 5 mm (0.192 in.) max jacket diameter

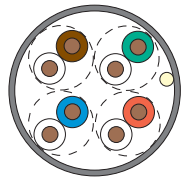
Part # **Description**

9C6P4-E2-(XX)-RXA .....Plenum (CMP, CSA FT6) 305m (1000 ft.) Reelex

Use (XX) to specify jacket color:

01 = black, 02 = white, 03 = red, 04 = gray, 05 = yellow, 06 = blue, 07 = green, 08 = violet, 09 = orange





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% 100-520 MHz: 100 ± 22%
NVP	CMP-70%
LCL	30-10 log(*f*/100) dB
Delay Screw	≤45ns

PHYSICAL PROPERTIES

	CMP
Pulling Tension (max)	110N (25 lbf)
Bend Radius (min)	25mm (1 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-N (dB)**		**PS ACR -N (dB)**		**ACR-F (dB)**		**PS ACR-F (dB)**		**Return Loss (dB)**		**Propagation Delay (ns)**	
1.0	2.0	1.8	74.3	98.8	72.3	96.3	72.3	97.1	70.3	94.6	67.8	88.8	64.8	86.2	20.0	27.1	570	493
4.0	3.8	3.5	65.3	85.4	63.3	83.6	61.3	81.8	59.5	80.1	55.8	77.4	52.8	75.3	23.0	35.2	552	491
10.0	6.0	5.6	59.3	75.6	57.3	74.3	53.3	70.0	51.3	68.7	47.8	71.0	44.8	67.8	25.0	34.2	545	487
16.0	7.6	7.1	56.2	74.9	54.2	73.8	48.7	67.8	46.7	66.6	43.7	66.6	40.7	64.3	25.0	34.1	543	485
20.0	8.5	8.0	54.8	71.4	52.8	69.3	46.3	63.4	44.3	61.3	41.8	65.4	38.8	62.2	25.0	37.6	542	485
31.25	10.7	10.0	51.9	70.8	49.9	68.6	41.2	60.8	39.2	58.6	37.9	62.7	34.9	58.7	23.6	35.0	540	484
62.5	15.4	14.4	47.4	62.7	45.4	62.3	32.0	48.3	30.0	47.9	31.9	55.4	28.9	52.5	21.5	27.6	539	482
100.0	19.8	18.5	44.3	58.7	42.3	58.4	24.5	40.2	22.5	39.8	27.8	50.6	24.8	47.9	20.1	27.4	538	482
160.0	25.6	24.0	41.2	62.1	39.2	59.2	15.6	38.1	13.6	35.2	23.7	46.7	20.7	43.5	18.7	25.7	537	481
200.0	29.0	27.0	39.8	54.6	37.8	54.2	10.8	27.6	8.8	27.2	21.8	44.4	18.8	41.4	18.0	22.2	537	481
250.0	32.8	30.5	38.3	53.0	36.3	52.1	5.5	22.5	3.5	21.6	19.8	41.7	16.8	39.7	17.3	25.3	536	481
300.0*	-	33.8	-	53.5	-	52.3	-	19.7	-	18.5	-	39.9	-	37.5	-	20.1	-	481
400.0*	-	39.9	-	49.9	-	49.0	-	10.1	-	9.2	-	34.1	-	33.0	-	18.2	-	481
500.0*	-	45.2	-	55.3	-	52.7	-	10.0	-	7.4	-	34.4	-	31.2	-	17.7	-	480
550.0*	-	48.2	-	46.2	-	44.5	-	-2.0	-	-3.8	-	33.1	-	30.2	-	19.6	-	480

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

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

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 category 6 channel.

Colored Labels — Designation strip with interchangeable colored labels can be mounted between each row of connecting blocks

Easy Termination — Utilizes 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 — Utilizes 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 (3.60 in.), width: 272mm (10.71 in.), depth: 82.8mm (3.26 in.)
S210AB2-128FT	128-pair, S210 field termination kit height: 182.9mm (7.20 in.), width: 272mm (10.71 in.), depth: 82.8mm (3.26 in.)
S210AB2-192FT	192-pair, S210 field termination kit height: 275mm (10.81 in.), width: 272mm (10.71 in.), depth: 82.8mm (3.26 in.)

**Legs detachable on 64-pair version only.*

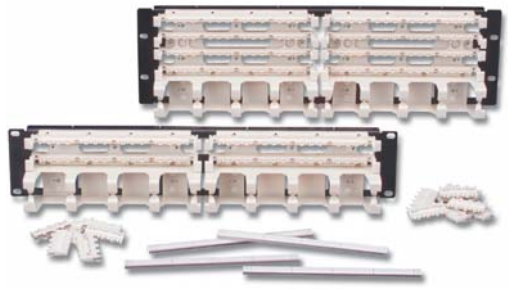
S210® Field Terminated 19 Inch Panels

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 (8.50 in.), depth: 152mm (6 in.)
S210MB2-256FT	256-pair, S210 Tower field termination kit height: 541mm (21.31 in.), width: 216mm (8.50 in.), depth: 152mm (6 in.)
S210MB2-320FT	320-pair, S210 Tower field termination kit height: 676mm (26.62 in.), width: 216mm (8.50 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 (8.50 in.), depth: 152mm (6 in.)
S188-400	Large-scale vertical cable manager for use with 256-pair S210 Tower height: 541mm (21.31 in.), width: 216mm (8.50 in.), depth: 152mm (6 in.)
S188-500	Large-scale vertical cable manager for use with 320-pair S210 Tower height: 676mm (26.62 in.), width: 216mm (8.50 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 (3.0 in.), depth: 152mm (6 in.)
S110M-WM-400	Small-scale vertical cable manager, for use with 256-pair S210 Tower height: 541mm (21.31 in.), width: 76.2mm (3.0 in.), depth: 152mm (6 in.)
S110M-WM-500	Small-scale vertical cable manager, for use with 320-pair S210 Tower height: 676mm (26.62 in.), width: 76.2mm (3.0 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 (4.50 in.), width: 215.9mm (8.50 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.)

S188-WD

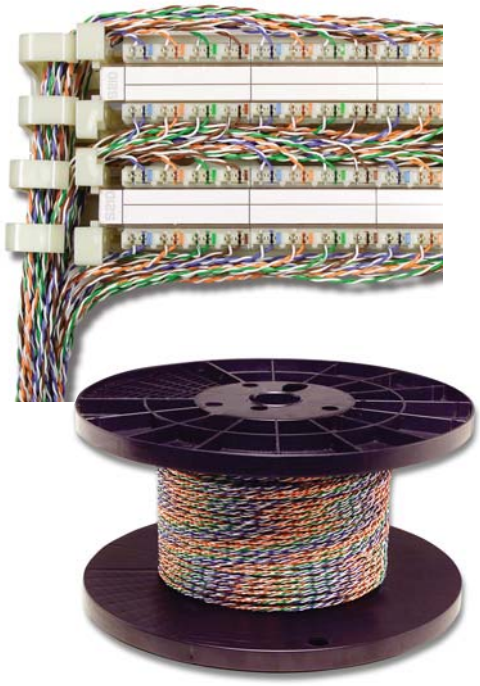
S188-GND

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, color-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 meters (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 colors blue/orange/green/brown, 305mm (1000 ft.) spool

COMPLIANCE

- ISO/IEC 11801:2002 2nd Edition (category 6)
- TIA-568-C.2 (Category 6)
- IEC 61156-5:2002 (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 color-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 color: 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. Siemon S110/S210 covers can be snapped on to provide color-coding and keep cables hidden.

Cable Managers Without Legs

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

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

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

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

Cable Managers With Legs

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

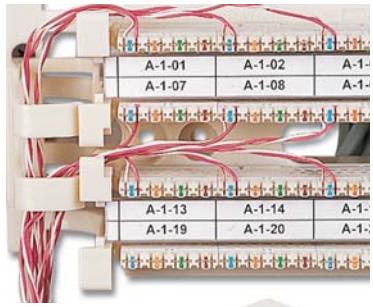
S110A2RMS . . . . . .
2 RMS white cable manager with legs

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

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

Note: 1 RMS = 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

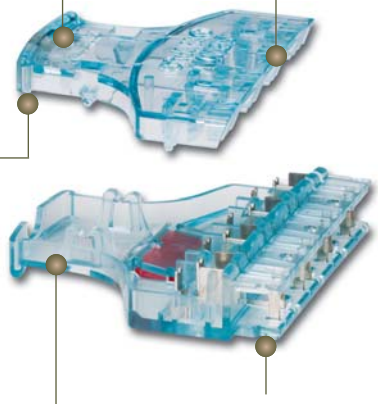
S210® Patch Plugs

The S210 patch plug utilizes 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 colors/positions visible to aid matching termination positions on the other end.

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

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

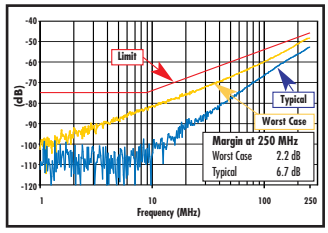
Tapered Lacing — Enable easy lacing of pairs for quick field termination



Ergonomic Handle — Aids insertion and removal of patch plug

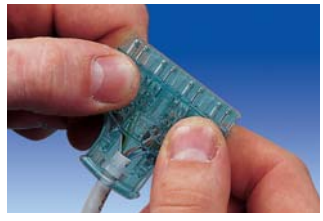
Clear Housing — Durable, flame-retardant, clear thermoplastic housing keeps conductors visible during and after termination

Polarization — Each plug housing includes polarization features to ensure proper orientation of the plug when connecting to the S210 block



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.

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.

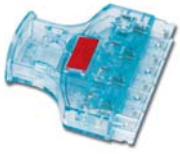


Easy Field Termination
Simply snap the base and cover together to mass terminate all conductors.

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

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 utilize 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. Colored icons are available for color-coding S210 plugs.

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

Use (XX) to specify cord 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.)

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)-(XX)	4-pair, S210P4 to MC 6 stranded cable assembly, color matching jacket/boot, T568B, CMG
S210P4T4-(XX)-(XX)	4-pair, S210P4 to MC 6 stranded cable assembly, color matching jacket/boot, T568A, CMG
S210P2E2-(XX)-B(XX)	2-pair, S210P2 to MC 6 stranded cable assembly, white jacket with colored boot, 10/100BASE-T, CMG

Use 1st (XX) to specify cord 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.)
Use 2nd (XX) to specify color:
01 = black, 02 = white, 03 = red, 04 = gray, 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 color-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 color: 2 = white, 3 = red, 4 = gray, 5 = yellow, 6 = blue, 7 = green, 8 = violet, 9 = orange, 60 = brown

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

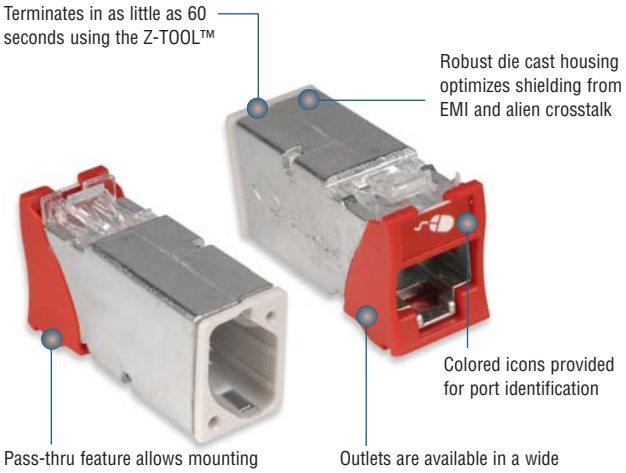
Category 5e Shielded

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 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

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 industry standards, including ANSI/TIA-568-C.2 and Amendments 1 and 2 of ISO/IEC 11801 2nd ed.



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

STANDARDS COMPLIANCE

- ANSI/TIA-568-C.2
- ISO/IEC 11801 2nd ed Amendment 1
- ISO/IEC 11801 2nd ed Amendment 2
- IEEE 802.3an
- IEEE 802.3af (PoE)
- IEEE 802.3at (PoE+)
- IEC 60603-7
- TIA-968-A (formerly FCC Part 68 Subpart F)

Ordering Information:

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

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

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

Bezel Color

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

Hybrid Keystone Door

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.).

Front Rear

1 - Red Data	1 - Red Voice
1 - Blue Data	1 - Blue Voice
1 - Bezel Color-matching Data	1 - Bezel Color–Matching Voice
1 - White Blank	1 - Bezel Color–Matching Blank

For more Z-MAX icon colors and options see page 9.5.

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:

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

Use (X) to specify Mounting Style.
(Blank) = Flat
(A) = Angled

Panel Accessories

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

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

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

TERA®-MAX® Patch Panels

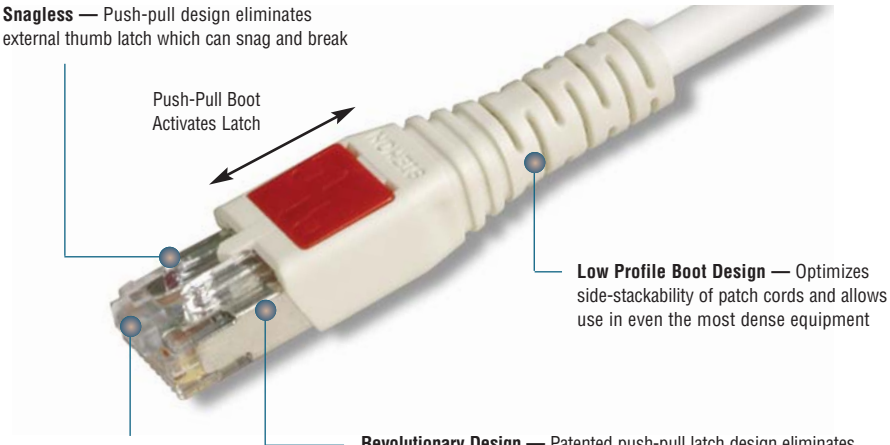
Part #	Description
TM-PNLZ-24-01	24-port TERA-MAX panel, black, 1U
TM-PNLZ-24	24-port TERA-MAX panel, metallic, 1U
TM-PNLZA-24-01	24-port Angled TERA-MAX panel, black, 1U
TM-PNLZA-24	24-port Angled TERA-MAX panel, metallic, 1U

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

Panels include designation labels, cable ties, grounding lug and mounting hardware.
Note: 1U = 44.5mm

BladePatch™ 5e Shielded Modular Cords

Siemon's category 5e BladePatch patch 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.



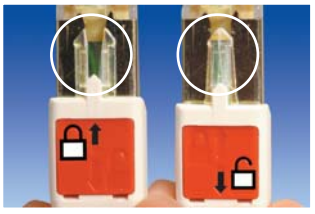
Snagless — Push-pull design eliminates external thumb latch which can snag and break

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

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, color matching cord/boot, T568A/B, LSOH

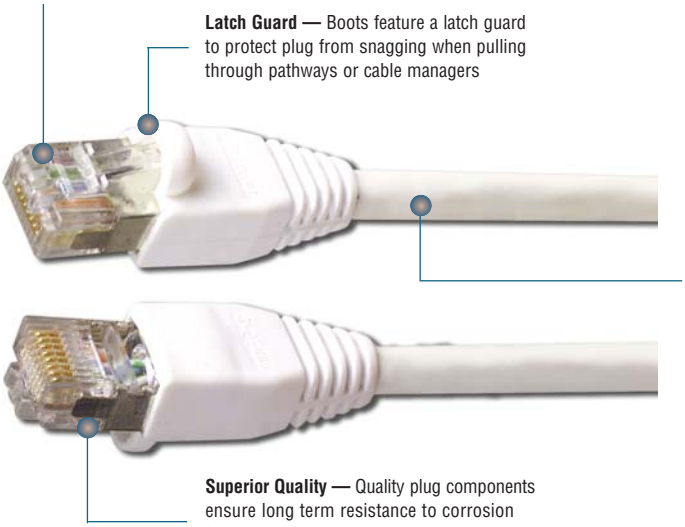
BP5S-(XX)M-(XX)

Cord Length:	Cord Color:		
03 = 0.9m (3 ft.)	**01** = Black	**04** = Gray	**07** = Green
05 = 1.5m (5 ft.)	**02** = White	**05** = Yellow	**08** = Violet
07 = 2.1m (7 ft.)	**03** = Red	**06** = Blue	**07** = 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 TIA-968-A and IEC 60603-7 specifications. T568A/B wired assemblies include colored 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

Color Options — Variety of color 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 TIA-968-A and IEC 60603-7 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, color matching jacket/boot, T568A/B, LSOH

MC5S-(XX)M-(XX)L

Cord 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.)

Cord Color:

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

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

Solution 5e F/UTP 4-Pair Cable (US)

COMPLIANCE

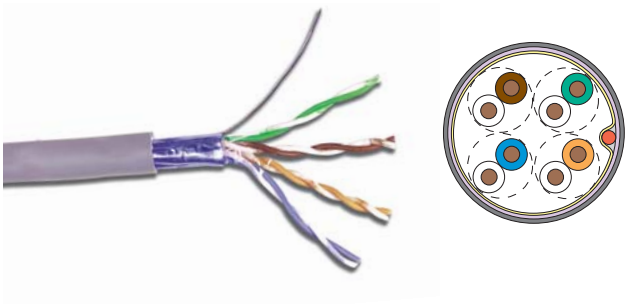
- ISO/IEC 11801:2002 (Category 5e)
- TIA-568-C.2 (Category 5e)
- IEC 61156-5:2002 (Category 5e)
- UL CMR and CSA FT4

CABLE CONSTRUCTION

- F/UTP
- 0.5mm (0.02 in.) (24 AWG) solid bare copper
- 7.4mm (0.29 in.) max jacket diameter
- Shield is an aluminum foil enclosing a 0.5mm (0.02 in.) (24 AWG) tinned copper drain wire

Part #	Description
9A5R4-E1-(XX)-R1A	Riser (CMR, CSA FT4) 305m (1000 ft.), Reel

Use (XX) to specify jacket color: 01 = black, 02 = white, 03 = red, 04 = gray, 05 = yellow, 06 = blue, 07 = green, 08 = violet, 09 = orange



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 - 160 MHz: 100 ± 20% 160-350 MHz: 100 ± 22%
NVP	CMP - 70% CMR - 68%
TCL	40-10 log(*f*) dB
Delay Screw	≤40ns

PHYSICAL PROPERTIES

	CMR
Pulling Tension (max)	110N (25 lbf)
Bend Radius (min)	25mm (1.0 in.)
Installation Temperature	0 to 60°C (+32 to 140°F)
Storage Temperature	-20 to 60°C (-4 to 140°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	2.1	65.3	68.3	62.3	66.3	63.2	66.2	60.2	64.2	63.8	67.8	60.8	65.8	20.0	20.0	570	550
4.0	4.1	4.1	59.3	56.3	53.3	57.3	52.2	55.2	49.2	53.2	51.8	55.7	48.8	53.7	23.0	23.3	552	532
10.0	6.5	6.5	53.3	50.3	47.3	51.3	43.8	46.9	40.8	44.9	43.8	47.8	40.8	45.8	25.0	25.5	545	525
16.0	8.3	8.2	50.3	47.2	44.2	48.3	39.0	42.1	36.0	40.1	39.7	43.7	36.7	41.7	25.0	25.5	543	523
20.0	9.3	9.2	48.8	45.8	42.8	46.8	36.5	39.6	33.5	37.6	37.8	41.7	34.8	39.7	25.0	25.5	542	522
31.25	11.7	11.5	45.9	42.9	39.9	43.9	31.1	34.4	28.1	32.4	33.9	37.9	30.9	35.9	23.6	24.4	540	520
62.5	17.0	16.4	41.4	38.4	35.4	39.4	21.4	24.9	18.4	22.9	27.9	31.8	24.9	29.8	21.5	22.7	539	519
100.0	22.0	21.0	38.3	35.3	32.3	36.3	13.3	17.3	10.3	15.3	23.8	44.8	20.8	25.8	20.1	21.5	538	518
160.0*	28.6	26.8	35.3	32.2	29.2	33.3	3.7	8.4	0.7	6.4	19.7	23.7	16.7	21.7	18.7	20.4	537	517
200.0*	32.4	30.2	33.8	30.8	27.8	31.8	-1.6	3.6	-4.6	1.6	17.8	21.7	14.8	19.7	18.0	19.8	536	517
250.0*	36.9	34.0	32.3	29.3	26.3	30.3	-7.5	-1.6	-10.5	-3.6	15.8	19.8	12.8	17.8	17.3	19.2	536	516
300.0*	41.0	37.4	31.2	28.1	25.1	29.2	-12.8	-6.3	-15.8	-8.3	14.3	18.2	11.3	16.2	16.8	18.8	536	516
350.0*	44.9	40.7	30.2	27.1	24.1	28.2	-17.7	-10.5	-20.7	-12.5	12.9	16.9	9.9	14.9	16.3	18.4	536	516

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

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

Premium 5e® UTP 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.

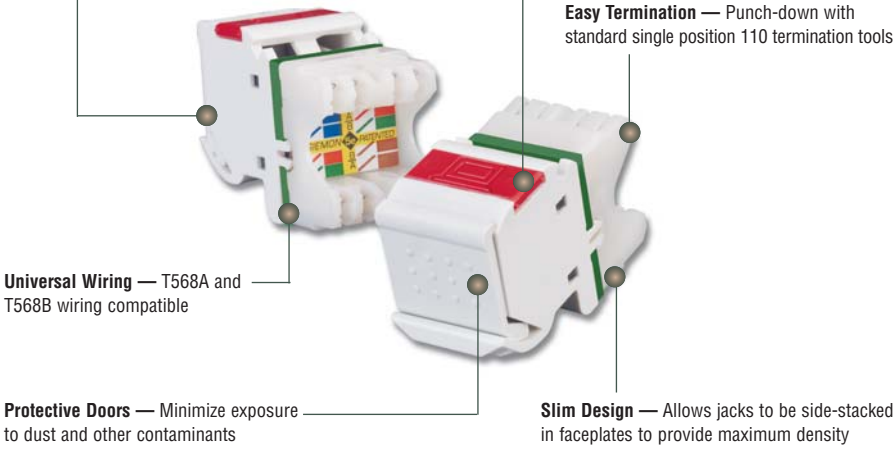
Siemon's Solution 5e UTP solution is designed for 100 MHz category 5e/class D installations in which additional performance margins provided by the Premium 5e solution are not required.

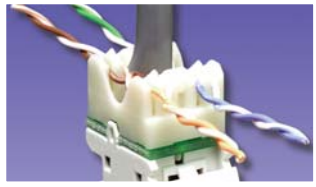
Components specifically designed for use in a Solution 5e channels are indicated by product title. Both Solution 5e and Premium 5e components are eligible for use in a Solution 5e channel.

Section Contents

MAX® 5e UTP 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 color options. All modules utilize our S310 punch-down block — making termination quick and easy.





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.

MX5-(XX). . . . . .
Angled MAX module, T568A/B, rear strain relief cap and protective color-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 color: 01 = black, 02 = white, 03 = red, 04 = gray, 05 = yellow, 06 = blue, 07 = green, 09 = orange, 20 = ivory, 25 = bright white, 80 = light ivory

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

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

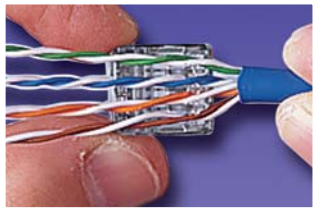
Ⓑ *Add "B" to end of part number for bulk project pack of 100 modules (angled and flat modules include icons).*

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

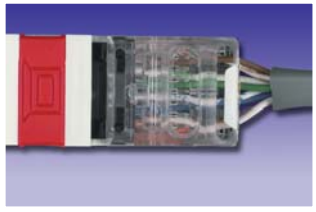
Solution 5e™ UTP Tool-Less MAX® Modules

The tool-less MAX module provides category 5e system performance and user-friendly installation features. Our tool-less termination allows all eight conductors to be terminated simultaneously when the termination cap is pressed into place. The compact size provides high-density connectivity in the work area and telecommunications room.

Press-Fit Termination
Mass terminate all eight conductors by hand or use a single-position S110® termination tool in the MAX termination cap.



Quick-Pair Placement
Conductors can be sequentially placed into termination cap, minimizing cable pair untwist and simplifying termination.



Verify Proper Wiring
The termination cap has a large window for viewing terminations.

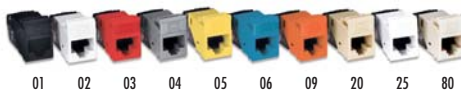
MX-C5-(XX) . . . . . .
Angled module, T568A/B

MX-F-C5-(XX) . . . . . .
Flat module, T568A/B

MX-K-C5-(XX) . . . . . .
Keystone module, T568A/B

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

Use (XX) to specify color: 01 = black, 02 = white, 03 = red, 04 = gray, 05 = yellow, 06 = blue, 09 = orange, 20 = ivory, 25 = bright white, 80 = light ivory
Add "-D" for optional door for angled and flat versions.
Door color is white for red, yellow, blue, and orange flat modules; clear for angled.
Ⓑ *Add "B" to end of part number for bulk project pack of 100 modules.*
Flat and Keystone modules include one color-matching, one red, and one blue icon.



SIEMON™

CT® 5e UTP Couplers

Angled Couplers

CT-C5-C5-(XX) . . . . . .
Angled, double coupler,
universal T568A/B

CT-C5-(XX) . . . . . .
Angled, single coupler,
universal T568A/B

Use (XX) to specify color: 01 = black, 02 = white, 04 = gray, 20 = ivory, 80 = light ivory
Add "-D" for spring door option.

Flat Couplers

CT-F-C5-C5-(XX) . . . . . .
Flat, double coupler,
universal T568A/B

CT-F-C5-(XX) . . . . . .
Flat, single coupler,
universal T568A/B

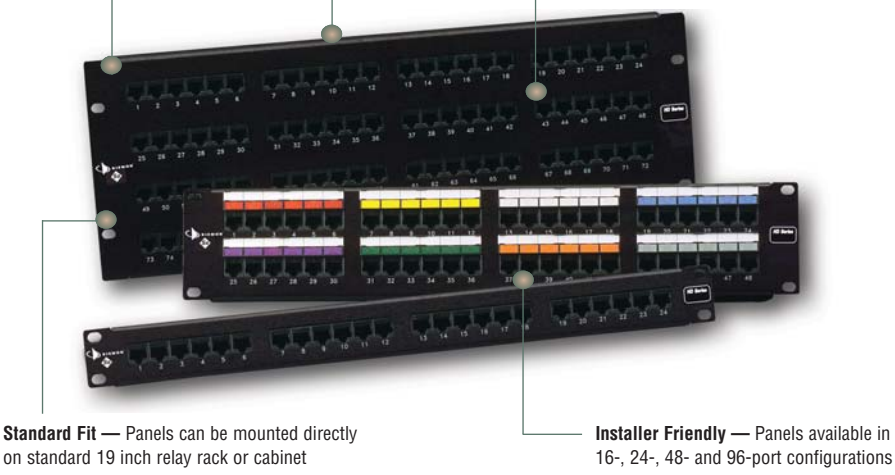
Use (XX) to specify color: 01 = black, 02 = white, 04 = gray, 20 = ivory, 80 = light ivory

Technical Tip!
Angled couplers are recommended for work area applications and flat couplers are recommended for patch panel applications.

Ⓑ *Add "B" to end of part number for bulk project pack of 100 couplers.*
(Bulk option includes couplers and icons only — termination caps and cable ties are available separately.)
Couplers include one color-matching icon (clear for black), 2 termination caps, and one cable tie per port, plus one red and one blue icon.

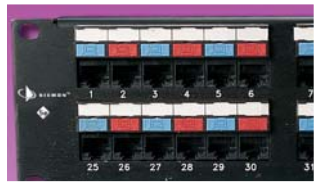
HD® 5e UTP Patch Panels

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.

Ordering Information:

HD 5e UTP Patch Panels

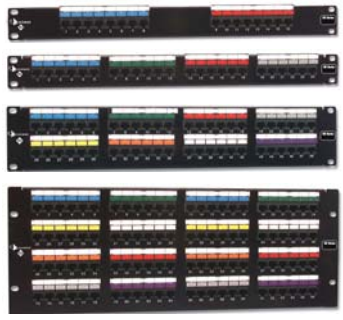
Part #	Description
HD5-16	16-port category 5e UTP HD patch panel, T568A/B, 1U
HD5-24	24-port category 5e UTP HD patch panel, T568A/B, 1U
HD5-32	32-port category 5e UTP HD patch panel, T568A/B, 2U
HD5-48	48-port category 5e UTP HD patch panel, T568A/B, 2U
HD5-96	96-port category 5e UTP HD patch panel, 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 (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 Patch Panel on S89D Bracket

Part #	Description
HD5-89D-12	12-port category 5e UTP panel, T568A/B, mounted on S89D bracket *height: 254.0mm (10.0 in.),* *width: 85.9mm (3.38 in.),* *depth: 47.8mm (1.88 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 anodized 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), 2 RMS

Panel includes icon/label holders, designation labels, and mounting hardware.
Note: 1 RMS = 44.5mm (1.75 in.)
**Not eligible for Premium 5e or Solution 5e warranty*

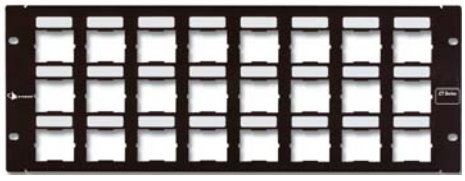
CT® Patch Panels

Oversized CT Panels

Oversized CT panels are available for applications that require additional labeling space. They provide the same flexibility as our standard CT panels and feature a write-on designation surface above each coupler opening that may also be used as a space for adhering your own label. Siemon offers adhesive-backed label holders with replaceable write-on labels that mount above the entire row of CT couplers.

Part #	Description*	RMS	Maximum Quantity of CT Couplers
CT-PNL-24-ID	24-port panel	3	12

Part #	Description*	RMS	Maximum Quantity of CT Couplers
CT-PNL-48-ID	48-port panel	4	24



**Number of ports when configured with two-port CT couplers.*
Note: 1 RMS = 44.5mm (1.75 in.)

CT Patch Panels

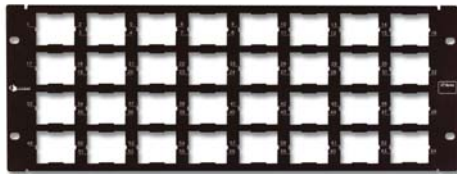
Part #	Description*	RMS	Maximum Quantity of CT Couplers
CT-PNL-16	16-port panel	1	8

Part #	Description*	RMS	Maximum Quantity of CT Couplers
CT-PNL-24	24-port panel	2	12

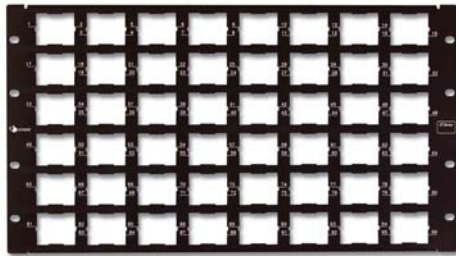
Part #	Description*	RMS	Maximum Quantity of CT Couplers
CT-PNL-32	32-port panel	2	16

Part #	Description*	RMS	Maximum Quantity of CT Couplers
CT-PNL-48	48-port panel	3	24

Part #	Description*	RMS	Maximum Quantity of CT Couplers
CT-PNL-64	64-port panel	4	32



Part #	Description*	RMS	Maximum Quantity of CT Couplers
CT-PNL-96	96-port panel	6	48



**Number of ports when configured with two-port CT couplers.*
Note: 1 RMS = 44.5mm (1.75 in.)

MAX® UTP Patch Panels

MAX UTP Patch Panels

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

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

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

Part #	Description
MX-PNL-72	72-port MAX patch panel, 2U

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

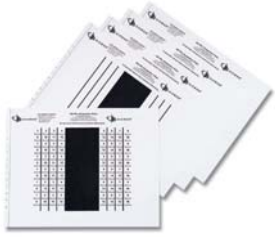
Part #	Description
MX-PNLA-48	48-port angled MAX UTP patch panel, 2U

Angled MAX panels are not compatible with shielded Z-MAX or TERA 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.
Panels include mounting hardware. Rear cable manager not included.
Note: 1U = 44.5mm (1.75 in.)

Optional Accessories

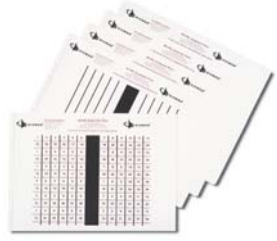
MX-PNL-LBL4* . . . . . .

10 sheets of laser printable labels for 16-port MAX panels



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® 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.

Bend Fatigue — 24 AWG (7 strands @ 0.20mm) stranded wire for longer bend fatigue life

High Performance — MC 5e cords are constructed using high performance Siemon category 5e cable

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

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.

Ordering Information:

MC5-8T-(XX)-B(XX)C . . . . . .Category 5e UTP MC double-ended, 4-pair stranded modular cord, color matching jacket/boot, T568A/B, CMG

Cord 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.)

Cord Color:
01 = Black
02 = White
03 = Red
04 = Gray
05 = Yellow
06 = Blue
07 = Green

MC5-8-T-(XX)-(XX) . . . . . .Category 5e UTP MC double-ended, 4-pair stranded modular cord, no boot, T568A/B, CMG

Cord 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.)

Cord Color:
01 = Black
02 = White
03 = Red
04 = Gray
05 = Yellow
06 = Blue
07 = Green

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

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 (CMP) or as equipment cords in cross-connect applications (CMR). These assemblies are constructed using cable that exceeds all category 5e specifications.

IC5-8(X)-(XX)(X) . . . . . .Category 5e IC, single-ended UTP solid cord blue jacket, no boot

Wiring:
A = T568B
T = T568A

Jacket Rating
R = Riser
P = Plenum

Length
10 = 3.1m (10 ft.)
20 = 6.1m (20 ft.)
30 = 9.1m (30 ft.)
40 = 12.2m (40 ft.)
50 = 15.2m (50 ft.)
60 = 18.3m (60 ft.)

IC5-8(X)-(XX)-B(XX)(X) . . . . . .Category 5e IC, single-ended UTP solid cord blue jacket with colored boot

Wiring:
A = T568B
T = T568A

Jacket Rating
R = Riser
P = Plenum

Length
10 = 3.1m (10 ft.)
20 = 6.1m (20 ft.)
30 = 9.1m (30 ft.)
40 = 12.2m (40 ft.)
50 = 15.2m (50 ft.)
60 = 18.3m (60 ft.)

Boot Coloring
01 = Black
02 = White
03 = Red
04 = Gray
05 = Yellow
06 = Blue
07 = Green

Premium 5e® UTP 4-Pair Cable (US)

COMPLIANCE

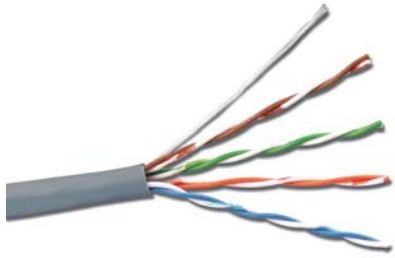
- ISO/IEC 11801:2002 (Category 5e)
- TIA568-C.2 (Category 5e)
- IEC 61156-5 (Category 5e)
- UL CMP and CSA FT6
- UL CMR and CSA FT4

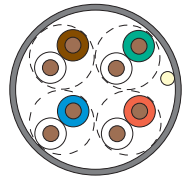
CABLE CONSTRUCTION

- UTP
- 0.51mm (0.020 in.) (24 AWG) solid bare copper
- 4.9mm (0.194 in.) max jacket diameter

Part #	Description
9C5P4-E2-(XX)-RXA	Plenum (CMP, CSA FT6) 305m (1000 ft.), Reelex
9C5R4-E2-(XX)-RXA	Riser (CMR, CSA FT4) 305m (1000 ft.), Reelex

Use (XX) to specify jacket color: 02 = white, 03 = red, 04 = gray, 05 = yellow, 06 = blue, 07 = green





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	CMP - 70% CMR - 68%
TCL	40-10 x log(*f*) dB
Delay Screw	≤35ns

PHYSICAL PROPERTIES

	CMP	CMR
Pulling Tension (max)	110N (25 lbf)	110N (25 lbf)
Bend Radius (min)	20 mm (0.8 in.)	20mm (0.8 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	68.3	79.3	66.3	72.3	66.2	77.4	64.2	70.4	67.8	84.8	65.8	78.8	20.0	27.0	550	545
4.0	4.1	3.7	59.3	70.3	57.3	63.3	55.2	66.6	53.2	59.6	55.7	72.8	53.7	66.8	23.3	32.0	532	527
10.0	6.5	5.8	53.3	64.3	51.3	57.3	46.9	58.5	44.9	51.5	47.8	64.8	45.8	58.8	25.5	32.0	525	520
16.0	8.2	7.4	50.3	61.2	48.3	54.2	42.1	53.8	40.1	46.8	43.7	60.7	41.7	54.7	25.5	32.0	523	518
20.0	9.2	8.3	48.8	59.8	46.8	52.8	39.6	51.5	37.6	44.5	41.7	58.8	39.7	52.8	25.5	32.0	522	517
31.25	11.5	10.5	45.9	56.9	43.9	49.9	34.4	46.4	32.4	39.4	37.9	54.9	35.9	48.9	24.4	30.0	520	515
62.5	16.4	15.0	41.4	52.4	39.4	45.4	24.9	37.4	22.9	30.4	31.8	48.9	29.8	42.9	22.7	30.0	519	514
100.0	21.0	19.3	38.3	49.3	36.3	42.3	17.3	30.0	15.3	23.0	27.8	44.8	25.8	38.8	21.5	30.0	518	513
160.0*	26.8	25.1	35.3	46.2	33.3	39.2	8.4	21.1	6.4	14.1	23.7	40.7	21.7	34.7	20.4	28.0	517	512
200.0*	30.2	28.1	33.8	44.8	31.8	37.8	3.6	16.7	1.6	9.7	21.7	38.8	19.7	32.8	19.8	27.0	517	512
250.0*	34.0	31.4	32.3	43.3	30.3	36.3	-1.6	11.9	-3.6	4.9	19.8	36.8	17.8	30.8	19.2	26.0	516	511
300.0*	37.4	34.5	31.2	42.1	29.2	35.1	-6.3	7.6	-8.3	0.6	18.2	35.3	16.2	29.3	18.8	25.0	516	511
350.0*	40.7	39.4	30.2	41.1	28.2	34.1	-10.5	1.7	-12.5	-5.3	16.9	33.9	14.9	27.9	18.4	24.0	516	511

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

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

Solution 5e™ UTP 4-Pair Cable (US)

COMPLIANCE

- ISO/IEC 11801:2002 (Category 5e)
- TIA568-C.2 (Category 5e)
- IEC 61156-5 (Category 5e)
- UL CMP and CSA FT6

CABLE CONSTRUCTION

- UTP
- 0.51mm (0.020 in.) (24 AWG) solid bare copper
- 4.6mm (0.180 in.) max jacket diameter

Part # **Description**

9C5P4-E1-(XX)-RXA . . . . . Plenum (1000 ft.), Reelex

Use (XX) to specify jacket color: 02 = white, 03 = red, 04 = gray, 05 = yellow, 06 = blue, 07 = green

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	CMP - 70% CMR - 68%
Delay Screw	≤45ns

PHYSICAL PROPERTIES

	CMP	CMR
Pulling Tension (max)	110N (25 lbf)	110N (25 lbf)
Bend Radius (min)	25 mm (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/100m)		NEXT (dB)		PS NEXT (dB)		ACR-N (dB)		PS ACR-N (dB)		ACR-F (dB)		PS ACR-F (dB)		Return Loss (dB)		Propagation Delay (ns)	
1.0	2.0	2.0	65.3	79.8	62.3	78.2	63.3	77.8	64.2	76.2	63.8	69.4	60.8	69.0	20.0	27.4	570	545
4.0	4.1	3.9	56.3	78.0	53.3	74.5	52.2	74.1	53.2	70.5	51.8	57.8	48.8	57.5	23.0	32.9	552	527
10.0	6.5	6.2	50.3	68.7	47.3	65.4	43.8	62.4	44.9	59.5	43.8	50.1	40.8	49.7	25.0	31.6	545	520
16.0	8.2	7.9	47.2	64.5	44.2	62.9	39.0	56.5	40.1	55.0	39.7	46.0	36.7	45.4	25.0	31.7	543	518
20.0	9.3	8.9	45.8	63.3	42.8	60.9	36.5	54.4	37.6	52.0	37.8	44.1	34.8	43.,4	25.0	32.2	542	517
31.25	11.7	11.2	42.9	59.4	39.9	57.5	31.2	48.2	32.4	46.4	33.9	40.4	30.9	39.5	23.6	33.3	540	515
62.5	17.0	16.0	38.4	50.6	35.4	49.4	21.4	34.6	22.9	33.4	27.9	34.6	24.9	33.7	21.5	28.1	539	514
100.0	22.0	20.5	35.3	48.0	32.3	46.8	13.3	27.5	15.3	26.3	23.8	31.8	20.8	31.3	20.1	25.0	538	513
160.0*	-	26.4	-	48.5	-	46.6	-	22.1	-	20.2	-	30.0	-	29.5	-	22.3	-	512
200.0*	-	29.6	-	42.9	-	41.8	-	13.3	-	12.2	-	29.6	-	29.2	-	19.8	-	512
250.0*	-	33.4	-	44.8	-	43.1	-	11.4	-	9.7	-	31.2	-	30.9	-	20.8	-	511
300.0*	-	36.9	-	38.9	-	38.7	-	2.0	-	1.8	-	33.7	-	31.1	-	18.5	-	511
350.0*	-	40.2	-	41.8	-	40.7	-	1.6	-	0.5	-	34.7	-	31.3	-	20.2	-	511

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

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

Category 5e Cross-Connect Wire

Siemon's cross-connect wire utilizes a unique "webbing" manufacturing process which binds conductors of a twisted-pair together to maintain consistent conductor spacing and pair twists that will not loosen during cross-connect installation. This high performance product exceeds category 5e specifications and is ideal for use with our S66™and S110® wiring blocks.

Part #	Description
CJ5-W2-1000	Category 5e, 2-pair 24 AWG (0.51mm) webbed cross-connect wire, pair colors blue/orange, 305m (1,000 ft.) spool
CJ5-W2-1000-07	Category 5e, 2-pair 24 AWG (0.51mm) webbed cross-connect wire, pair colors orange/green, 305m (1,000 ft.) spool
CJ5-W1-1000-03	Category 5e, 1-pair 24 AWG (0.51mm) webbed cross-connect wire with red/white conductors, 305m (1,000 ft.) spool
CJ5-W1-1000-06	Category 5e, 1-pair 24 AWG (0.51mm) webbed cross-connect wire with blue/white conductors, 305m (1,000 ft.) spool

S110® Connecting Block System

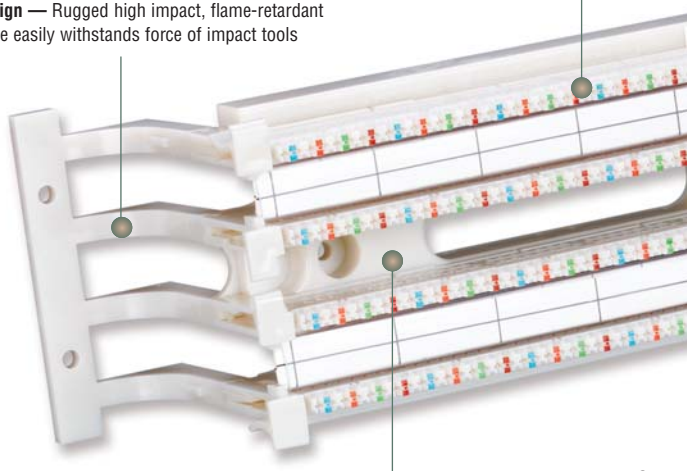
Siemon's S110 connecting block systems and accessories combine category 5e performance with user-friendly installation features.

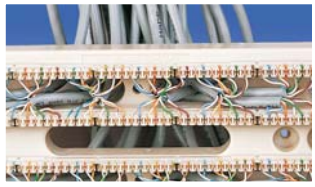
- **Multi-application support — Ideal for use in cross-connect and consolidation point applications**
- **Durable design — Rugged high impact, flame-retardant polycarbonate easily withstands force of impact tools**
- **Full line — Complete system includes field terminated and pre-wired blocks, connecting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

Section Contents

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.

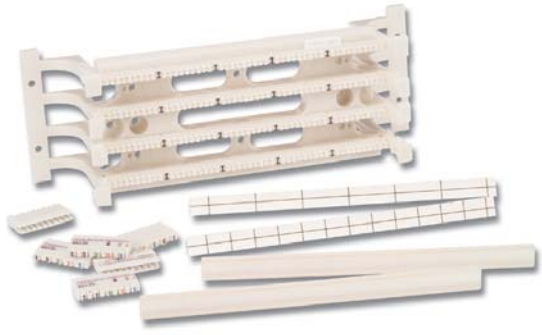
Detachable Blocks
Another patented Siemon innovation allows 50- and 100-pair wiring blocks to be detached from their mounting legs providing easy access to cables.

Labeling
Designation strips with interchangeable colored labels can be mounted in the center 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 (1.80 in.),* *width: 272mm (10.71 in.),* *depth: 82.8mm (3.26 in.)*
S110A(X)2-100FT	100-pair S110 field termination kit *height: 91.4mm (3.60 in.),* *width: 272mm (10.71 in.),* *depth: 82.8mm (3.26 in.)*
S110A(X)2-300FT*	300-pair S110 field termination kit *height: 274mm (10.80 in.),* *width: 272mm (10.71 in.),* *depth: 82.8mm (3.26 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 color-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 (1.80 in.),
width: 272mm (10.71 in.),
depth: 82.8mm (3.26 in.)

S110AW2-100 . . . . . .
100-pair, 110 wiring block with legs
height: 91.4mm (3.60 in.),
width: 272mm (10.71 in.),
depth: 82.8mm (3.26 in.)

S110AW2-200 . . . . . .
200-pair, 110 wiring block with legs
height: 182.9mm (7.20 in.),
width: 272mm (10.71 in.),
depth: 82.8mm (3.26 in.)

S110AW2-300 . . . . . .
300-pair, 110 wiring block with legs
height: 274.3mm (10.80 in.),
width: 272mm (10.71 in.),
depth: 82.8mm (3.26 in.)

Wiring Blocks Without Legs

S110DW1-25 . . . . . .
25-pair, 110 wiring block without legs
height: 16.0mm (0.63 in.),
width: 216mm (8.50 in.),
depth: 35.8mm (1.41 in.)

S110DW1-50 . . . . . .
50-pair, 110 wiring block without legs
height: 42.4mm (1.67 in.),
width: 216mm (8.50 in.),
depth: 35.8mm (1.41 in.)

S110DW2-100 . . . . . .
100-pair, 110 wiring block without legs
height: 88.1mm (3.47 in.),
width: 216mm (8.50 in.),
depth: 35.8mm (1.41 in.)

Vertically Mounted S110 Blocks

This 50-pair S110 block can be mounted on the same S89B or S89D brackets that hold 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 *height: 254.0mm (10.0 in.),* *width: 85.9mm (3.4 in.),* *depth: 86.6mm (3.4 in.)* *(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 *height: 254.0mm (10.0 in.),* *width: 85.9mm (3.4 in.),* *depth: 86.6mm (3.4 in.)* *(dimensions include S89 bracket)*

Shown with optional
S89D bracket

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

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

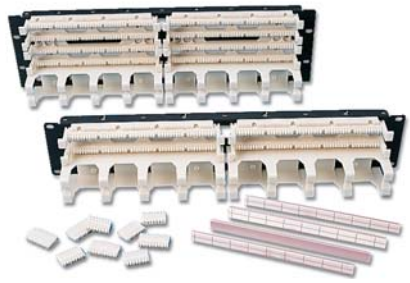
S110® 19 Inch Field Termination Panels

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.)

Field Terminated S110 19 Inch Panels with Cable Managers



Part #	Description	RMS
S110D(X)2-100RWM	100-pair, 19 inch panel, S110 field termination kit with cable managers and covers	2
S110D(X)2-200RWM	200-pair, 19 inch panel, S110 field termination kit with cable managers and covers	3

Use (X) to specify the connecting blocks: A = 5-pair, B = 4-pair
Note: 1 RMS = 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 color-coding services in accordance with TIA/EIA-606-A.

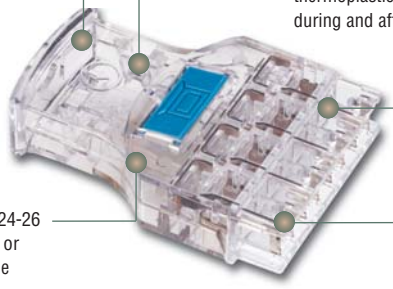
Part #	Description
S110-HLDR	Transparent plastic label holders, bag of 6
S110-LBL-(X)	2-, 3-, 4-, and 5-pair marked colored labels, bag of 6

Use (X) to specify color: 2 = white, 3 = red, 4 = gray, 5 = yellow, 6 = blue, 7 = green, 8 = violet, 9 = orange, 60 = brown

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

Polarization — Each plug housing includes polarization 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.*
Colored icons are available for color-coding 4-pair S110 plugs (sold separately)

S110 Cable Assemblies

The S110 cable assemblies utilize 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. Colored icons are available for color-coding 4-pair S110 plugs.

Part #	Description
S110P4-P4-(XX)	4-pair, double-ended stranded S110 cord, CMG
S110P2-P2-(XX)	2-pair, double-ended stranded S110 cord, CMG
S110P1-P1-(XX)	1-pair, double-ended stranded S110 cord, CMG

Use (XX) to specify length: 03 = 0.91m (3 ft.), 05 = 1.5m (5 ft.), 07 = 2.13m (7 ft.), 10 = 3.05m (10 ft.), 15 = 4.57m (15 ft.), 20 = 6.10m (20 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)	Category 5e, 4-pair, S110-to-modular plug, T568B, standard cable assembly, CMG
S110P4-T4-(XX)	Category 5e, 4-pair, S110-to-modular plug, T568A, standard cable assembly, CMG
S110P2-UT-(XX)	Category 5e, 2-pair, S110-to-modular 8-position plug, Token Ring, T568A, standard cable assembly, CMG
S110P2-E2-(XX)	Category 5e, 2-pair, S110-to-modular 8-position plug, 10/100BASE-T, T568B, standard cable assembly, CMG
S110P1-U1-(XX)	Category 5e, 1-pair, S110-to-modular 6-position plug, USOC, standard cable assembly, CMG
S110P1-U4-(XX)	Category 5e, 1-pair, S110-to-modular 8-position plug, USOC, standard cable assembly, CMG

Use 1st (XX) to specify length: 03 = 0.91m (3 ft.), 05 = 1.5m (5 ft.), 07 = 2.13m (7 ft.), 10 = 3.05m (10 ft.), 15 = 4.57m (15 ft.), 20 = 6.10m (20 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 in.), width: 215.9mm (8.5 in.), depth: 152.6mm (6 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 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 in.)

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

S110 Tower Optional Accessories

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.)

Tower with S188

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

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

S110M-WM

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.)

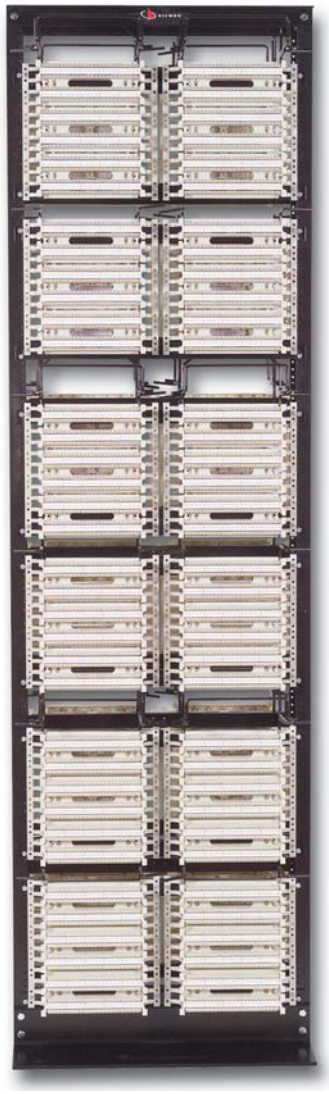
S188-GND

Ground kit consists of one, 3-position grounding busbar
height: 9.0mm (0.4 in.),
width: 50.8mm (2.0 in.),
depth: 12.3mm (.5 in.)

S188-GND

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 (VPC-6) 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 (84.00 in.),* *width: 617.5mm (24.31 in.),* *depth: 406.4mm (16.00 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

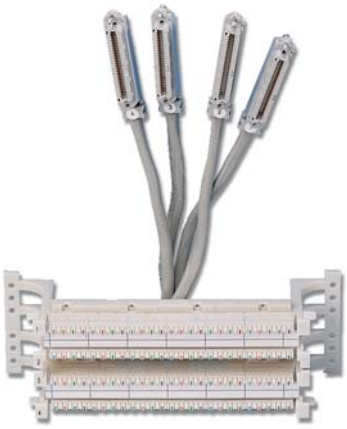
Optional Accessories

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
XL-K23	23 in. (.58m) rack conversion kit. Converts one side of a standard 23 inch rack to an XLBET frame. Two kits are required to utilize both sides of a 23 inch rack. Includes wire managers, mounting bars and mounting hardware. Rack, S110 wiring blocks, clear designation holders and labels not included

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

Pre-Wired S110® Blocks

For quick, simple connection to phone equipment, the pre-wired S110 blocks provide connectorized 25-pair tails wired to 100- or 300-pair bases. The standard 6 in. (152mm) tails can be ordered extending from the top or bottom of the block with male or female connectors.



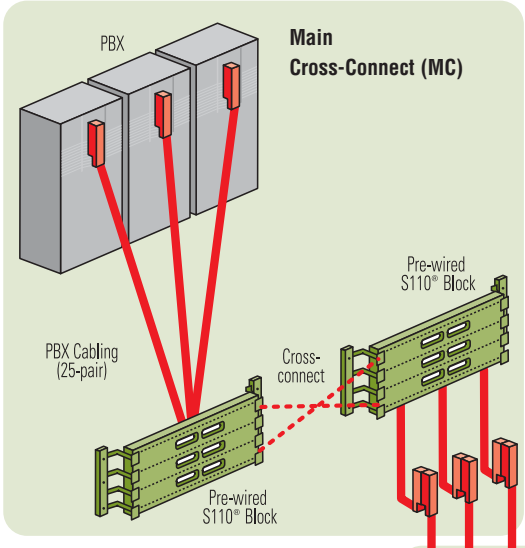
S110A(X)-100(XXX)-(X) . . . . . .
100-pair S110 pre-wired block

S110A(X)-300(XXX)-(X) . . . . . .
300-pair S110 pre-wired block

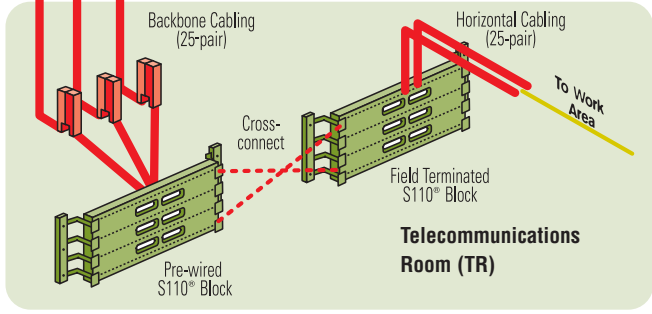
Use 1st (X) to specify connecting block subassembly: A = 5-pair, B = 4-pair

Use (XXX) to specify connector type: CT = connectorized top (female), CTM = connectorized top (male), CB = connectorized bottom (female), CBM = connectorized bottom (male)

Use 2nd (X) to specify cable length: Blank = standard 152mm (6 in.) tail, (X) = custom length, in feet



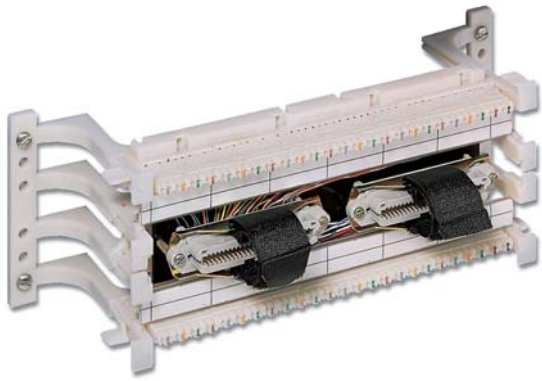
The pre-wired S110 block is ideal for use with phone systems due to its ability to easily accommodate connectorized 25-pair cables for fast and simple setup. In addition, the use of 25-pair cable for backbone cabling allows the pre-wired S110 block to provide an easy interface with your phone system all the way to the telecommunications room where connections can be made to the work area.



SIEMON

Pre-Wired S110® Blocks

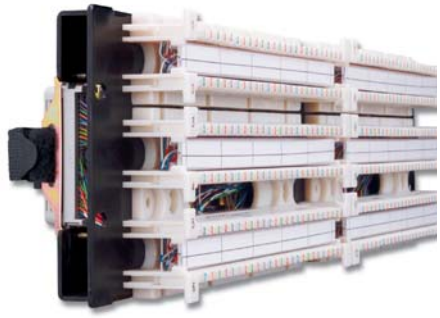
Siemon's S700 series blocks provide a simple interface method between 25-pair assemblies and punchdown fields using easily accessible connections. The blocks feature both fields on the face of the block eliminating the need to trace cables or access the rear of the block when making connections. Each block comes with label holders and white designation labels as well as hook and loop hold-downs to secure the 25-pair connectors.



Part #	Description
S700A110-B1-50	50-pair pre-wired S110 block with legs *height: 91.4mm (3.60 in.),* *width: 272mm (10.71 in.),* *depth: 82.8mm (3.26 in.)*

Pre-Wired S110 Panels

S110 pre-wired panels mount directly to a 19 inch EIA rack. The panels are available in either 100-, 200-, or 300-pair configurations pre-wired to female 25-pair connectors with black universal connector hold-downs. For optimum transmission performance, pre-wired blocks may be ordered with the pair twisting maintained between the wiring block and the connector. Each panel comes complete with mounting hardware, label holders, and white designation labels.



Part #	Description	RMS
S110D(X)(Y)-100RCT	100-pair pre-wired S110 panel, with 25-pair connectors	1
S110D(X)(Y)-200RCT	200-pair pre-wired S110 panel, with 25-pair connectors	2
S110D(X)(Y)-300RCT	300-pair pre-wired S110 panel, with 25-pair connectors	3

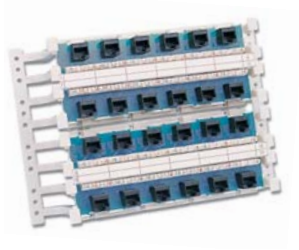
Use (X) to specify the connecting blocks: A = 5-pair, B = 4-pair
Use (Y) to specify twisted-pair option: 1 = without twisted-pairs, T = twisted-pairs
Note: 1 RMS = 44.5mm (1.75 in.)

S110® Modular Jack Blocks and Panels

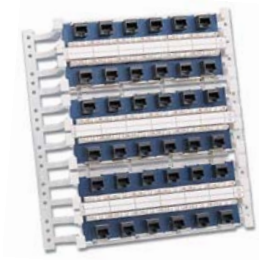
S110 Modular Jack Wall Mount Blocks

Part #	Description
S110AB5-50JP	6-port, T568A/B, with detachable legs *height: 45.7mm (1.80 in.),* *width: 272mm (10.71 in.),* *depth: 82.8mm (3.26 in.)*

Part #	Description
S110AB5-100JP	12-port, T568A/B,with detachable legs *height: 91.4mm (3.60 in.),* *width: 272mm (10.71 in.),* *depth: 82.8mm (3.26 in.)*



Part #	Description
S110AB5-200JP	24-port, T568A/B, with permanent legs *height: 183mm (7.20 in.),* *width: 272mm (10.71 in.),* *depth: 82.8mm (3.26 in.)*



Part #	Description
S110AB5-300JP	36-port, T568A/B, with permanent legs *height: 274.3mm (10.8 in.),* *width: 272mm (10.71 in.),* *depth: 82.8mm (3.26 in.)*

Rack Mount Panels

Part #	Description
S110DB5-24RJP	24-port jack panel, on a 19 inch panel, T568A/B, 2 RMS

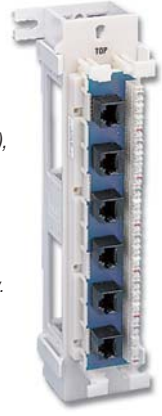
Note: 1 RMS = 44.5mm (1.75 in.)

Vertical Mount Panels

Part #	Description
S110DB5-50JP89	6-port, T568A/B for mounting on S89 bracket *height: 254.0mm (10.00 in.),* *width: 85.9mm (3.38 in.),* *depth: 86.6mm (3.41 in.)*

(dimensions include S89 bracket)

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



S110 Tower Modular Jack Panels

Part #	Description
S110MB5-(XXX)JP	S110 Tower modular jack panel kit, T568A/B

Use (XXX) to specify port counts:
300 = 36 ports, height: 406.4mm (16.0 in.), width: 215.9mm (8.5 in.), depth: 152.6mm (6.0 in.)
400 = 48 ports, height: 541.3mm (21.3 in.), width: 215.9mm (8.5 in.), depth: 152.6mm (6.0 in.)
500 = 60 ports, height: 676.1mm (26.6 in.), width: 215.9mm (8.5 in.), depth: 152.6mm (6.0 in.)

S66™ Connecting Block System

The Siemon S66 connecting block system is a proven, economical connecting block solution supporting up to category 5e performance levels. It's familiar, user-friendly termination features, reliable performance and wide range of styles and configurations make the 66 block an ideal choice for supporting technologies such as analog voice, Voice over IP (VoIP) and Gigabit ethernet. The Siemon S66 block system is supported by a full range of mounting, cable management, labeling and over voltage protection accessories

Section Contents

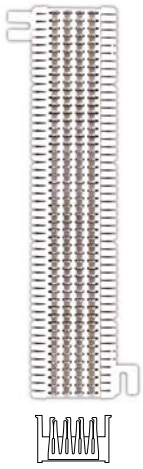
S66™ Connecting Block System

Field-Terminated M Series S66 Blocks

4 x 50 Blocks

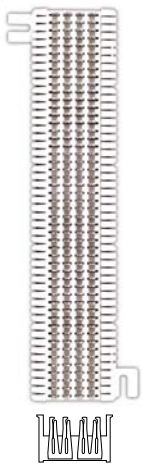
S66M1-50 . . . . . .
Pair Capacity: 50,
Quick Clip: 500

height: 254mm (10 in.),
width: 86.4mm (3.4 in.),
depth: 30.5mm (1.2 in.)



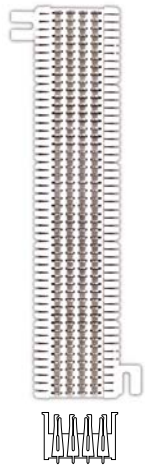
S66M1-25 . . . . . .
Pair Capacity: 25,
Quick Clip: 569

height: 254mm (10 in.),
width: 86.4mm (3.4 in.),
depth: 24.6mm (1.0 in.)



S66M1-100 . . . . . .
Pair Capacity: 100,
Quick Clip: 279MS*

height: 254mm (10 in.),
width: 86.4mm (3.4 in.),
depth: 30.5mm (1.2 in.)



4 x 25 Blocks

S66M4-12 . . . . . .
Pair Capacity: 12,
Quick Clip: 569

height: 127mm (5 in.),
width: 53.3mm (2.1 in.),
depth: 30.5mm (1.2 in.)

S66M4-24 . . . . . .
Pair Capacity: 24,
Quick Clip: 571

height: 127mm (5 in.),
width: 53.3mm (2.1 in.),
depth: 30.5mm (1.2 in.)

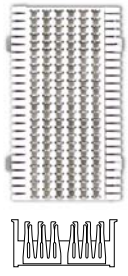
S66M4-50 . . . . . .
Pair Capacity: 50,
Quick Clip: 279MS*

height: 127mm (5 in.),
width: 53.3mm (2.1 in.),
depth: 30.5mm (1.2 in.)

6 x 25 Blocks

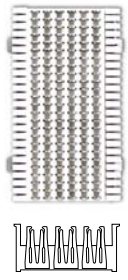
S66M6-24 . . . . . .
Pair Capacity: 24,
Quick Clip: 843

height: 127mm (5 in.),
width: 71.1mm (2.8 in.),
depth: 30.5mm (1.2 in.)



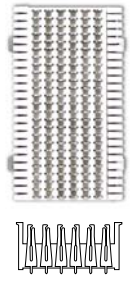
S66M6-36 . . . . . .
Pair Capacity: 36,
Quick Clip: 842

height: 127mm (5 in.),
width: 71.1mm (2.8 in.),
depth: 30.5mm (1.2 in.)



S66M6-75 . . . . . .
Pair Capacity: 75,
Quick Clip: 279MS*

height: 127mm (5 in.),
width: 71.1mm (2.8 in.),
depth: 30.5mm (1.2 in.)



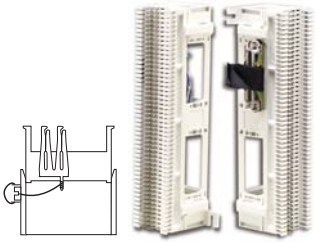
**All connecting blocks that use the 279MS quick clip have a tail pin that protrudes 3.3mm (0.13 in.) below the retainer base.*

Note: Center-to-center vertical spacing between rows of clips is 6.4mm (0.25 in.).

Pre-Wired M2 Series

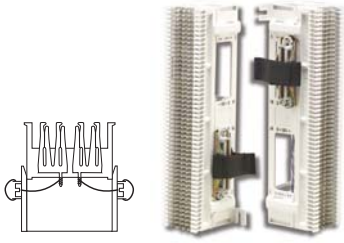
S66M2-3W . . . . . .

Pair Capacity: 25
One female 25-pair connector



S66M2-5W . . . . . .

Pair Capacity: 50
Two female 25-pair connectors



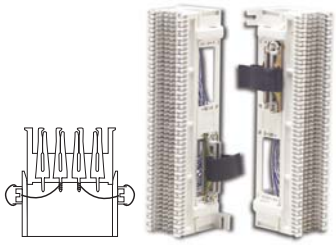
Add "B" for back mounted connector (not shown), add "M" for male connector. Please call for connector/block compatibility.

Note: all connector options not available for all blocks.

Pre-Wired M4 Series

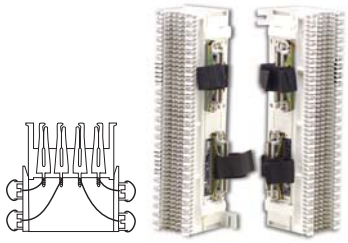
S66M4-2W . . . . . .

Pair Capacity: 50 (bridged)
Two female 25-pair connectors



S66M4-4W . . . . . .

Pair Capacity: 100 (unbridged)
Four female 25-pair connectors



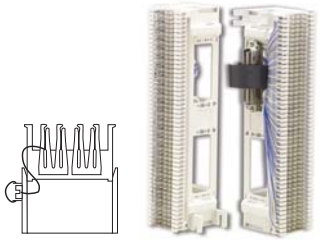
Add "B" for back mounted connector (not shown), add "M" for male connector. Please call for connector/block compatibility.

Note: all connector options not available for all blocks.

Pre-Wired 157 Series

157A. . . . . .

Pair Capacity: 25
One male 25-pair connector

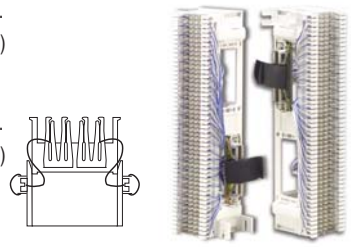


157B . . . . . .

Pair Capacity: 50 (unbridged)
Two male 25-pair connectors

157C . . . . . .

Pair Capacity: 50 (unbridged)
Two female 25-pair connectors



Modular Jack Blocks

S66M2-5T-68L . . . . . .

Six 8-position, 4-pair modular jacks, T568B

S66M2-5T-84L . . . . . .

Eight 6-position, 2-pair modular jacks, USOC

S66M2-5T-86L . . . . . .

Eight 6-position, 3-pair modular jacks, USOC

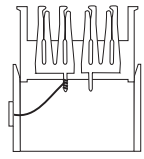
S66M2-5T-124LR. . . . . .

Twelve 6-position, 2-pair modular jacks, USOC

S66M2-5T-128LR. . . . . .

Twelve 8-position, 4-pair modular jacks, T568B

End view of blocks with modular jacks



Pre-Wired Modular Jack Blocks

S66M2-5T-68L-125R . . . . . .

Six 4-pair modular jacks, one 25-pair female connector, T568B

S66M2-5T-84L-125R . . . . . .

Eight 6-position, 2-pair modular jacks, one 25-pair female connector, USOC

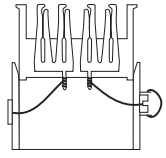
S66M2-5T-86L-125R . . . . . .

Eight 6-position, 3-pair modular jacks, one 25-pair female connector, USOC

S66M25T-124LR-125R . . . . . .

Twelve 6-position, 2-pair modular jacks, one 25-pair female connector, USOC

End view of blocks with modular jacks and a 25-pair connector



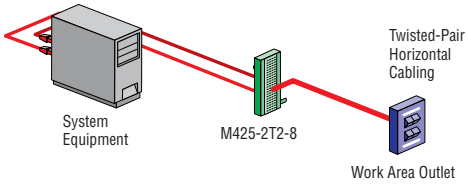
Modular Patch Blocks®

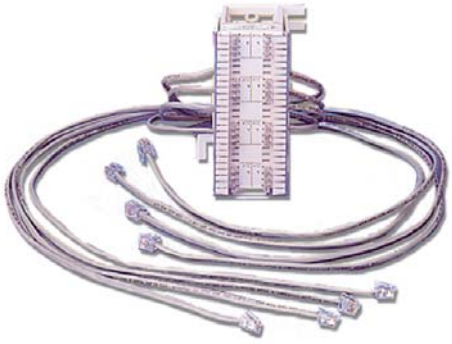
Our economical Modular Patch Blocks provide a convenient 24-port modular cross-connect field for equipment with 25-pair female connector input. They are excellent for use with voice, broadcast, or alarm systems. The blocks fit a standard 66M block footprint for backboard or rack mounting applications.

Part #	Description
SPB-V1	One, 25-pair connector wired to 24, 1-pair 6-position modular jacks, USOC. Black universal hold-down
SPB-V2	Two, 25-pair connectors, each wired to 24, 2-pair 6-position modular jacks, USOC. One black, one blue universal hold-down
SPB-V4	Four, 25-pair connectors, each wired to 24, 4-pair modular jacks, USOC. Black, blue, red, and green universal hold-downs
SPB-V4-ATT	Four, 25-pair connectors, each wired to 24, 4-pair modular jacks, T568B. Black, blue, red, and green universal hold-downs

S66M425-2T2-8

This block is pre-wired to eight 6-position, 2-pair modular cords, each 0.61m (2 ft) long, and it is also equipped with an S89E bracket, clear plastic cover, and designation labels. It is ideal for use with 2-pair key systems that have modular jacks. Two-pair station cables are punched down on the face of the block and the modular cords are plugged into the ports of the key service unit.

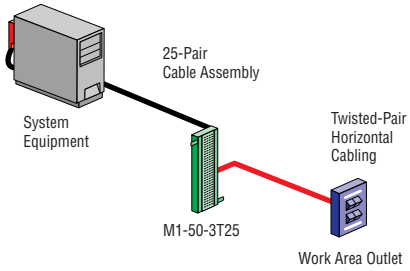


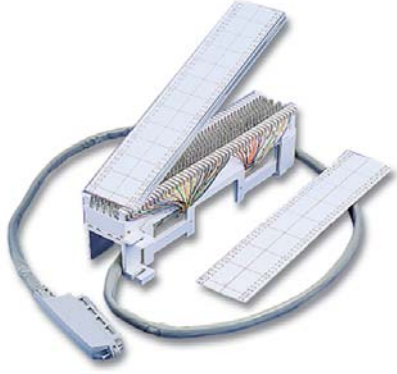


S66M1-50-3T25

Designed for use with key systems that have a 25-pair male connector, this block is also ideal for 10BASE-T hubs that have a 25-pair male connector. It provides a 0.91m (3 ft) long, high-performance 25-pair cable (female) that is category 3 compliant, punched down to Row D. Also comes with a protective cover and labels for 2- and 3-pair systems.

Add "M" for male connector.

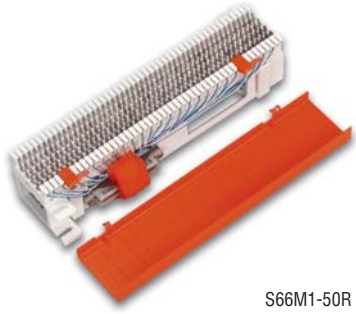




Network Interface Block - S66M1-50R

The M1-50 block with one female 25-pair connector is oriented for bottom cable entry and pre-wired to Row D. Uses S89D bracket (included) and blue/white wiring between 25-pair connector and S66 quick clip. Orange hinged cover included.

Add "M" for male connector.

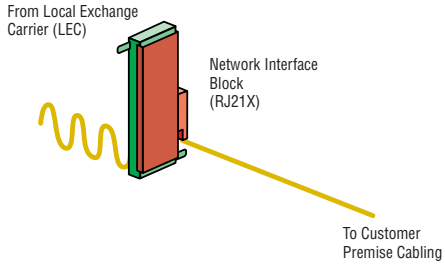


S66M1-50R

Network Interface Block - 700A-66-B1-25

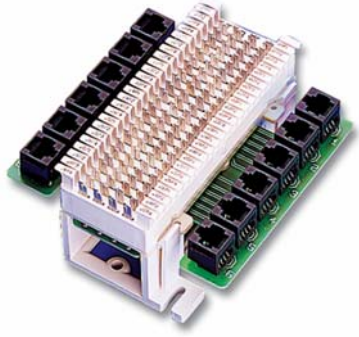
Same as S66M1-50R except it uses S89B bracket and color-coded 25-pair cable between 25-pair connector and S66™ quick clips.

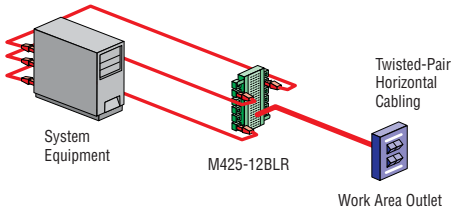
700A-66-B1-25



S66M425-128LR

Designed for use with 4-pair key systems with modular jack connectors on the equipment. This block has twelve, 4-pair modular jacks wired to T568B specifications. It is also useful for 10BASE-T systems that use modular jack outputs. Jacks and the S66 block are mounted on a printed circuit board and are clearly labeled. The block is mounted on an S89E bracket and can be removed for cable management.

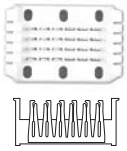




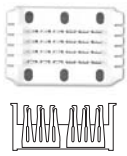
Field-Terminated B Series S66™ Blocks

6 x 4 Blocks

S66B4-2 . . . . . .
Pair Capacity: 2,
Quick Clip: 848



S66B3-4 . . . . . .
Pair Capacity: 4,
Quick Clip: 843

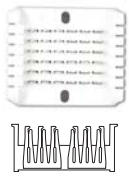


height: 48.3mm (1.9 in.),
width: 71.1mm (2.8 in.),
depth: 30.5mm (1.2 in.)

6 x 6 Blocks

S66B4-3 . . . . . .
Pair Capacity: 3,
Quick Clip: 848

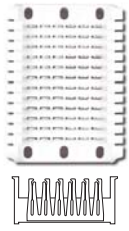
S66B3-6 . . . . . .
Pair Capacity: 6,
Quick Clip: 843 Includes
CV-6 cover
(see page 11.13)



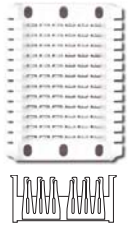
height: 61.0mm (2.4 in.),
width: 71.1mm (2.8 in.),
depth: 30.5mm (1.2 in.)

6 x 12 Blocks

S66B1-6 . . . . . .
Pair Capacity: 6,
Quick Clip: 848



S66B1-12 . . . . . .
Pair Capacity: 12,
Quick Clip: 843



height: 99.1mm (3.9 in.),
width: 71.1mm (2.8 in.),
depth: 30.5mm (1.2 in.)

6 x 50 Blocks

height: 340.0mm (13.4 in.),
width: 71.1mm (2.8 in.),
depth: 30.5mm (1.2 in.)

S66B4-25 . . . . . .
Pair Capacity: 25,
Quick Clip: 848

S66B3-50 . . . . . .
Pair Capacity: 50,
Quick Clip: 843

S66B3-75 . . . . . .
Pair Capacity: 75,
Quick Clip: 842

Note: Center-to-center vertical spacing between rows of clips is 6.4mm (0.25 in.).

Stand-Off Brackets for S66™ Blocks

All of our brackets are designed to create clean, efficient, and space-saving installations when used with S66 connecting blocks. They are open-ended to enable installers to lay in cable before snapping a block into place. 25-pair connectors and/or modular components can be mounted on the sides or back of the brackets. The brackets are molded from flame retardant thermoplastic.

Which bracket do you need?

It depends on the block you're ordering …

Block Type	Bracket
M4 X 50*	S89B or S89D
M4 X 25	S89E
M6 X 25	S89F
B6 X 50	SB6
All other B-type	SB8-10

**The M1-100 can only be used with the S89D bracket.*

The stand-off brackets (S89D shown) allow cables to be routed behind blocks and provide a means to route cables to the front of the block for termination.

S89D . . . . . .

Use with all M4 X 50 blocks. Can mount two 25-pair connectors on each side and four on the back

S89B . . . . . .

Use with M1-25 or M1-50 blocks. Can mount one 25-pair connector on each side

S89E . . . . . .

Use with all M4 X 25 blocks. Can mount one 25-pair connector on each side and two on the back

S89F . . . . . .

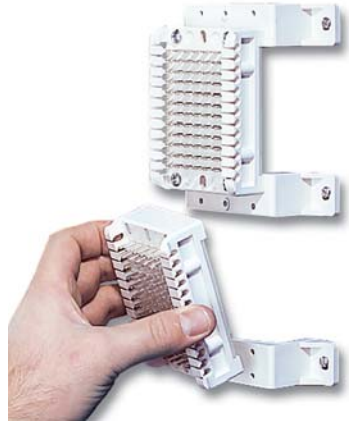
Use with all M6 X 25 blocks. Can mount one 25-pair connector on each side and three on the back

SB6 . . . . . .

Use with all B6 X 50 series blocks. Can mount three 25-pair connectors on each side and six on the back

SB8-10 . . . . . .

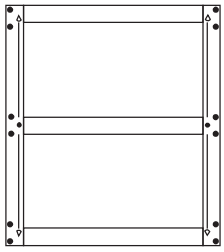
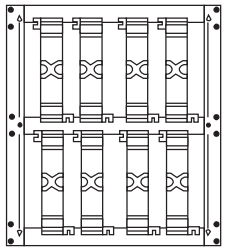
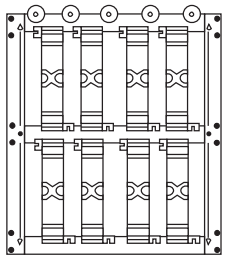
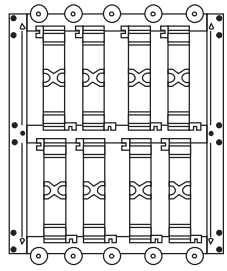
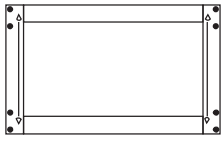
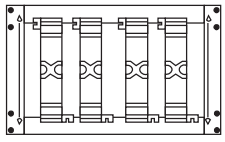
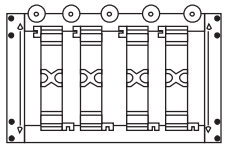
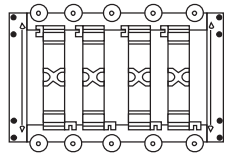
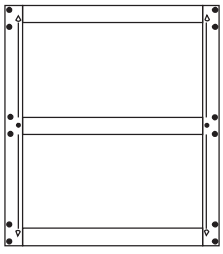
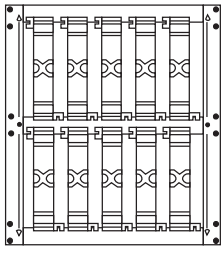
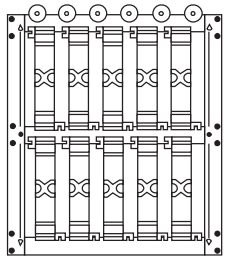
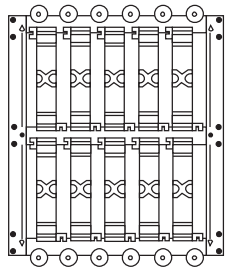
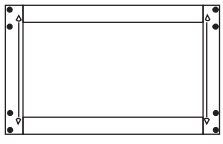
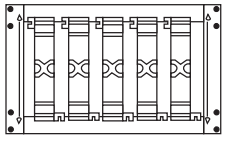
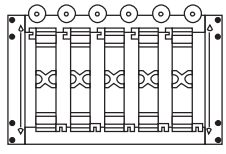
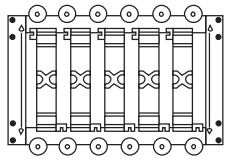
Use for mounting all sizes of S66B blocks



Technical Tip!

When mounting blocks end-to-end using SB8-10 brackets, use three brackets for two blocks, four brackets for three blocks and so on.

Cross-Connect (CC) Frames

Frames Only	Frames with Brackets	Frames with Brackets and Top Spools	Frames with Brackets and Top and Bottom Spools
			
CC-2024-NS-NB.	CC-2024-NS-DC.	CC-2024-TS-DC	CC-2024-TB-DC . . . . .
Full size frame (8 bracket capacity)	Full size frame, S89D Brackets (8)	Full size frame, S89D Brackets (8), top spool	Full size frame, S89D Brackets (8), top & bottom spools
			
CC-2014-NS-NB.	CC-2014-NS-DC.	CC-2014-TS-DC	CC-2014-TB-DC . . . . .
Half size frame (4 bracket capacity)	Half size frame, S89D Brackets (4)	Half size frame, S89D Brackets (4), top spool	Half size frame, S89D Brackets (4), top & bottom spools
			
CC-2025-NS-NB.	CC-2025-NS-DC.	CC-2025-TS-DC	CC-2025-TB-DC . . . . .
Full size frame (10 bracket capacity)	Full size frame, S89D Brackets (10)	Full size frame, S89D Brackets (10), top spool	Full size frame, S89D Brackets (10), top & bottom spools
			
CC-2015-NS-NB.	CC-2015-NS-DC.	CC-2015-TS-DC	CC-2015-TB-DC . . . . .
Half size frame (5 bracket capacity)	Half size frame, S89D Brackets (5)	Half size frame, S89D Brackets (5), top spool	Half size frame, S89D Brackets (5), top & bottom spools

CC Frame Cable Manager Assemblies

For mid-to-large cross-connect installations these cable manager assemblies provide efficient and effective wire management on the CC Frames. They may be mounted either flush to a wall or on a relay rack.

Part #	Description	RMS
CC-2005-144	Cable manager with five S144 managers	2
CC-2005-145	Cable manager with five S145 managers	2
CC-2005-146	Cable manager with five S146 managers	2

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

Metal Housings

Metal housings protect blocks and connections from damage when installed in "high risk" areas such as on a wall in a warehouse or factory. Our housings are manufactured from durable 18 gauge steel with a gray or beige finish. We provide two options — you can purchase housings with the blocks already assembled or just the housings to install your own blocks. These metal housing are not weatherproof and are recommended for indoor use only.

Part #	Description
MH-25-49	Housing for one 6 X 50 B block or one 4 X 50 M block, gray *height: 442mm (17.40 in.),* *width: 137mm (5.40 in.),* *depth: 45.7mm (1.80 in.)*
MH-50-49	Housing for two 6 X 50 B blocks or two 4 X 50 M blocks, gray *height: 442mm (17.40 in.),* *width: 229mm (9.03 in.),* *depth: 45.7mm (1.80 in.)*

Housing with Blocks

Part #	Description
S66M1-25MH-49	One S66M1-25 block in a MH-25 gray metal housing
S66M1-50MH-49	One S66M1-50 block in a MH-25 gray metal housing
S66M1-100MH-49	Two S66M1-50 blocks in a MH-50 gray metal housing
S66B4-25MH-49	One S66B4-25 block in a MH-25 gray metal housing
S66B4-50MH-49	Two S66B4-25 blocks in a MH-50 gray metal housing
S66B3-50MH-49	One S66B3-50 block in a MH-25 gray metal housing
S66B3-100MH-49	Two S66B3-50 blocks in a MH-50 gray metal housing

Snap-on Covers

These economical snap-on covers protect S66™ quick clips while providing a clear view of the wiring terminations. Made of flame-retardant plastic.

Part #	For Use With
MC4	M4 X 50

Part #	For Use With
MC425	M4 X 25

Part #	For Use With
BC612	B6 X 12

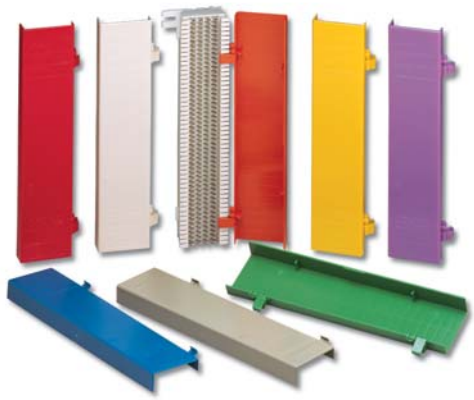
Part #	For Use With
BC6	B6 X 50

Lasting Hinge Covers

Use these lasting hinge covers and you'll save up to 90% of the cost of a colored backboard system — and with colored covers, the planner or installer can color-code individual blocks instead of working in groups of four or eight.

Made from flame-retardant thermoplastic, the covers protect the quick clips and provide a convenient surface for marking circuit designations.

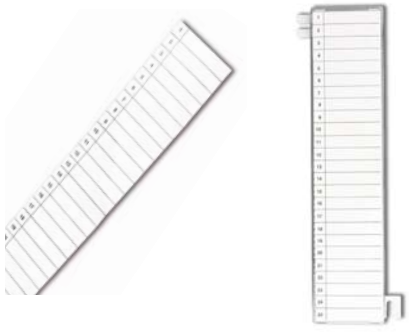
Each cover is hinged and can be easily removed and replaced. There are two depths for the covers; the standard-profile allows for standard plug-on accessories, and the high-profile cover allows for larger accessories such as the Colored Bridging Clips.



Part #	Description
MC425LH-(X)	Cover for M425-type block
Use (X) to specify color: 6 = blue, 9 = orange	
MC4LH-(X)	Cover for M450-type block
Use (X) to specify color: 2 = white, 3 = red, 4 = gray, 5 = yellow, 6 = blue, 7 = green, 8 = violet, 9 = orange	
MC4LH-HP-9	High-profile orange cover for M450-type block

Labels

These adhesive backed, lined labels allow technicians to write and maintain circuit information on the MC4 plastic snap-on cover.



Part #	Description
MC4-LBL-25	Label for MC4 cover, numbered 1-25

Designation Strips

Designation strips mount quickly and easily on the fanning strips of both M and B series S66 blocks. The strips provide a convenient labeling surface for circuit identification.

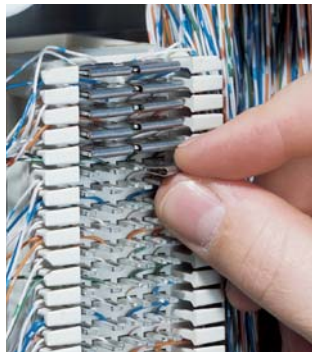
For M Blocks

D10-10 . . . . . White lined designation strip

For B Blocks

D13-10 . . . . . White lined designation strip

Bridging Clips



These industry standard bridging clips are used to connect adjacent quick clips on S66™ blocks. The clips are easy to remove for isolating and testing incoming pairs from outgoing pairs and are reusable. Available in either tin-plated grade A copper alloy (voice and data) or stainless steel (voice only).

Tin-plated Copper Alloy Clips		Stainless Steel Clips*	
SA1-(XXXX)	2-position clip	SA1-SS-(XXXX)	2-position clip, stainless steel

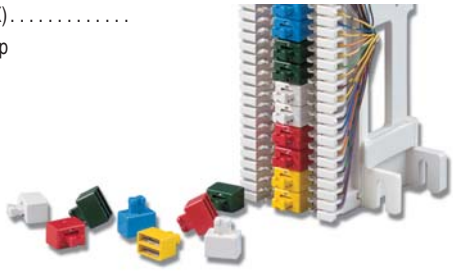
Use (XXXX) to specify quantity: 100 = 100/bag, 1000 = 1000/bag

**Not recommended for use with data applications.*

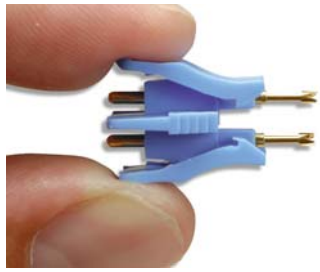
Colored Bridging Clips

Designed to fit the 66M type connecting block, each of these plug-on adapters contain two standard SA-1 bridging clips, so they actually bridge a complete pair when installed, not just a single wire. The plastic housings are color-coded and serve to protect the quick clip. Technicians can test lines with the clips in place by using our TPE in-line test probe.

SMBC-2-(X)
Bridging clip

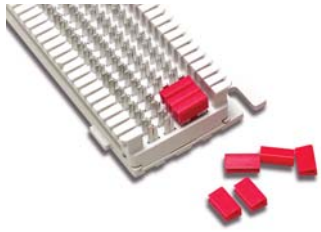


TPE
Test probe/extractor



Use (X) to specify color: 2 = white, 3 = red, 5 = yellow, 6 = blue, 7 = green, 8 = violet

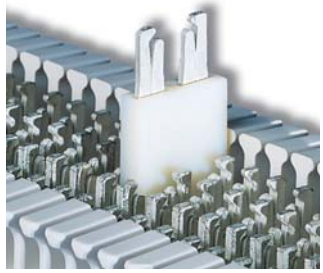
Special Service Markers



These red plastic markers slide over S66 quick clips and terminated wires and are ideal for marking special circuits on blocks.

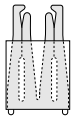
Part #	Description
S-857-916	2-position red marker

Capacity Expanding Adapters

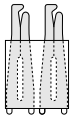


These adapters create additional capacity on S66 blocks by plugging directly onto the S66 quick clips — with or without wires punched down. The adapters come with either one or two additional quick clips. Use a high-profile lasting hinge cover to fit over the adapters . The adapters are top and bottom stackable, but not side-by-side stackable. Not designed for use on category 5e S66M1-50 blocks.

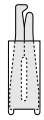
SA2
Adapter with 1 double quick clip



SA2-1
Adapter with 2 single quick clips



SA3
Adapter with 1 single quick clip



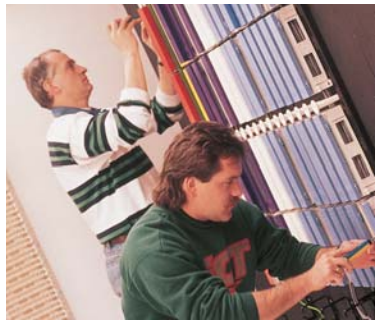
Organizer Rings

These plastic rings snap directly onto the side of an S89-type mounting bracket to organize, position, and retain cable and cross-connect wire. They also work well as a patch cord manager when used with our Modular Patch Blocks.

Part #	Description
S606P	Organizer ring

Wire Distribution Spools

All of these high-impact plastic spools are used to neatly guide and retain cable or jumper wires. Cabling is held in place by the spool's rim to allow easy access for changes or modifications. The S20A and S20B are white and can be used with either a main cross-connect frame or backboard. The S20C is black to match our CC frames and modular patch panels, and screws directly into the mounting holes of a standard 19 or 23 inch relay rack.



S20A
White spool without screw
height: 42.7mm (1.68 in.), width: 42.7mm (1.68 in.), depth: 74.9mm (2.95 in.)

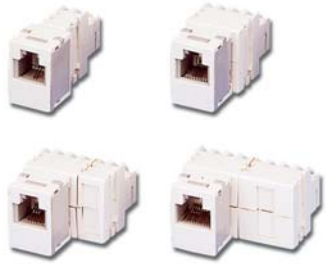
S20B
White spool with captive (#10) wood screw
height: 42.7mm (1.68 in.), width: 42.7mm (1.68 in.), depth: 74.9mm (2.95 in.)

S20C
Black spool with captive (#12-24) machine screw
height: 42.7mm (1.68 in.), width: 42.7mm (1.68 in.), depth: 74.9mm (2.95 in.)

Technical Tip!
We recommend a (#10) wood screw for wall mount applications and a (#12-24) machine screw for rack mount applications.

Tap® Adapters

The TAP is a flexible modular connecting adapter designed to access 66M connecting blocks. When installed, the TAP permits customer administration of moves and changes using modular cords, and provides test access. The TAP is designed in 1-, 2-, 3-, and 4-pair configurations and can be end-stacked (except TAP-2) or mounted side by side on a 66M block.



Part #	Description
TAP-2	1-pair, 6-position adapter, USOC
TAP-4	2-pair, 6-position adapter, USOC
TAP-6	3-pair, 6-position adapter, USOC
TAP-8	4-pair, 8-position adapter, T568B

SMAK® Kit

Our SMAK Kits allow you to add modular components to a S66™ block in the field. Designed to mount on the sides of S66 stand-off brackets, each kit contains a one-piece plastic yoke, two self-tapping screws, and three or four modular components.

Part #	Description
SMAK-2	Four, 1-pair 6-position modular jacks and 1 yoke
SMAK-4	Four, 2-pair 6-position modular jacks and 1 yoke
SMAK-6	Four, 3-pair 6-position modular jacks and 1 yoke
SMAK-8	Three, 4-pair modular jacks and 1 yoke

Pico® Protector Module

Designed for use a secondary protection (to supplement primary protection). Each Pico module provides both overvoltage and "sneak current" protection on 66M blocks in one pair increments. The Pico uses very high-speed, solid-stated technology for voltage protection and fuses for current protection. The Pico Protector provides and effective and economical way to protect expensive equipment and sensitive electron equipment.

The system consists of two components: a protector module and a ground kit. Ground kits are available and consist on a snap-on ground plate or "bus bar" and jumpers to safely divert surge energy to ground.

Guidelines for choosing the correct voltage level for Pico Protectors

1

Measure the operating DC signal voltage of your equipment.
For example: 48Vdc

2

Measure the peak AC voltage of your equipment, (RMS voltage x 1.41).
For example:
90Vac x 1.41 = 127Vpeak

3

Add together the voltage values determined by steps 1 and 2 above:
48Vdc + 127V = 175Vpeak

4

Select the Pico module rated for the stand-off voltage nearest to, but not below, the value determined by step 3. For this example: the PM-230 module is the best selection since its stand-off voltage is 180V

Pico Protector Module

Part #	DC Breakover Voltage (±15%)	Stand-off Voltage (Vso)
PM-027	27.0 volts	19.0 volts
PM-068	68.0 volts	50.0 volts
PM-140	140.0 volts	102.0 volts
PM-180	180.0 volts	131.0 volts
PM-230*	230.0 volts	180.0 volts

**For protecting equipment that is connected to Central Office (voice, fax, modem, etc.) lines, the PM-230 module is always recommended.*

Technical Tip!
You can retrofit Pico Protectors on an installed M1-50 block. The ground bar mounts inside the fanning strip (as shown here) allowing the Pico module to be plugged into the center rows of an M1-50 block.

Definitions

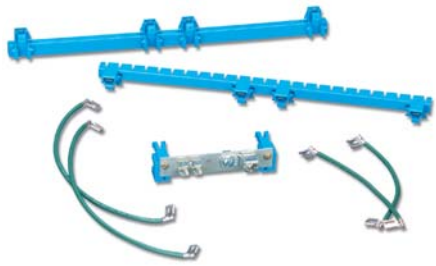
DC breakover voltage: The voltage range at which a given module will activate to divert surge energy to ground.

Stand-off voltage: The maximum voltage level of the Pico module under no-surge conditions that will keep it from interfering with normal operation of the circuit.

Note: Frequency bandwidth limitations may apply. Contact our Technical Support Department.

Ground Kits

Part #	Description
PG-06	6-pair kit includes snap-on ground plate and six 203mm (8 in.), female-ended, quick-connect jumpers
PG-25	25-pair retrofit kit for a pre-installed M1-50 block includes bus bar assembly, snap-on ground plate, and two 102mm (4 in.), female-ended, quick-connect jumpers
PG-50	50-pair retrofit kit for a pre-installed M1-100 block includes two bus bar assemblies, snap-on ground plate, two 102mm (4 in.) and two 203mm (8 in.) female-ended, quick-connect jumpers
PK-25	25-pair kit includes M1-50 block, S89D bracket, snap-on ground plate, two 102mm (4 in.) female-ended, quick-connect jumpers, and one bus bar assembly
PK-50	50-pair kit includes M1-100 block, S89D bracket, snap-on ground plate, two 102mm (4 in.) female-ended, quick-connect jumpers, two 203mm (8 in.) quick-connect jumpers, and two bus bar assemblies



Current Protection Module

Our CPM-2PLUS® prevents cable and equipment damage due to “sneak currents” (continuous foreign current levels exceeding 0.350 amperes). Sneak currents are not high enough to trigger overvoltage protectors but can pose fire hazards and cause damage to sensitive electronic equipment. They may be caused by direct or indirect contact with power lines, a low impedance connection to earth ground, or by a short circuit somewhere on the line.

Each Current Protection Module contains two fuses in a clear plastic carrier. They are installed across two adjacent pairs of 66 quick clips, establishing solid contact with the clips. When the module is activated, the fuse opens, cutting off the flow of excessive current, preventing fire risk and shock hazards on data and voice transmission lines.

The modules are side- and end-stackable, allowing up to 50-pair protection on a standard M1-100 block or 25-pair protection in a standard M1-50 block. Red plastic caps are available to designate priority circuits.

Part #	Description
CPM-2PLUS	Current protection module with two replaceable fuses

Fiber Connectivity and Cable

Siemon's end-to-end line of high-performance fiber 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**
- **High-performance, factory tested jumpers and pigtails**
- **Innovative XLR8™ mechanical splice termination system for LC and SC field terminations**
- **Epoxy-polish field-terminated connectivity — multiple LC, SC and ST configurations**
- **Preterminated trunking cable assemblies available in custom lengths, fiber counts and configurations**
- **Fiber Cable — Multimode, 50/125, 62.5/125 and Singlemode**

Section Contents

Plug and Play Modules and Adapter Plates

Siemon Plug and Play Modules

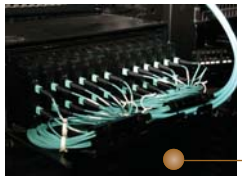
Siemon LC to MTP® and SC to MTP Plug and Play modules provide a quick and efficient way to deploy up to 24 LC or 12 SC fibers in a single module. These factory terminated and tested ports are protected within the housing for reliable high performance and simply connected via 12-strand MTP ports. Modules are available in multimode (62.5/125, standard 50/125 and XGLO laser optimized 50/125 OM3/OM4) and singlemode cable.

Compact Housing — Reduces mounting depth for greater cable management space within enclosures

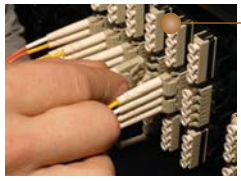
Optimized Adapter Spacing — Enables easy finger access to fiber jumper connector latches in high density patching environments

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 fiber enclosures and VersaPOD vertical patch panels

PP2-12-(XX)(X)-01(X) . . . . . 12 Fiber P&P Module with 1 MTP port, black

Interface
LC = LC
SC = SC

Fiber Type
5 = 50/125 Multimode
6 = 62.5 Multimode
5L = XGLO 300 50/125 Multimode/OM3
5V = XGLO 550 50/125 Multimode/OM4
SM = Singlemode

Configuration
L = Low Loss
Blank = Standard Loss

PP2-24-LC(X)-01(X) . . . . . 24 Fiber LC P&P Module with 2 MTP ports, black

Fiber Type
5 = 50/125 Multimode
6 = 62.5 Multimode
5L = XGLO 300 50/125 Multimode/OM3
5V = XGLO 550 50/125 Multimode/OM4
SM = Singlemode

Configuration
L = Low Loss
Blank = Standard Loss

MTP to MTP Adapter Plates

Siemon MTP Adapter Plates offer a user friendly "pass-through" option for MTP connectors. Fitting within Siemon's fiber 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 fibers per adapter plate - providing up to 1152 fibers 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 optimized fiber

Popular RIC Adapter Footprint
Fits within RIC, FCP and SWIC Siemon fiber enclosures and VersaPOD vertical patch panels

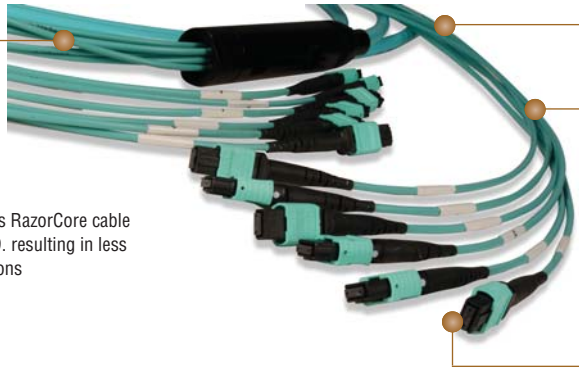
RIC-F-MP(XX)-01 . . . . . MTP Adapter Plate, black

Fiber Count
12 = 12 (1 MTP adapter)
24 = 24 (2 MTP adapters)
48 = 48 (4 MTP adapters)
72 = 72 (6 MTP adapters)
96 = 96 (8 MTP adapters)

Plug and Play Cable Assemblies

MTP® to MTP Reels and Extenders

Combining Siemon's reduced-diameter RazorCore™ cable with 12-fiber 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 fiber 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

Custom Configurations — Available from 12 to 144 fiber counts in increments of 12 fibers

Multiple Fiber Types — Available in multimode (62.5/125, standard 50/125 and laser optimized 50/125 OM3/OM4) and singlemode.

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 optimized fiber

Protective Packaging — Dual shelf reel keeps unprotected connectivity away from harm during payout

Ordering Information: Non-Armored

F(X)(XX)-(XX)(X)(XXX)(X)-(X) .....Fiber Plug & Play Cable Assembly, 12 Fiber MTP Connectors

Configuration
R = Standard Loss
L = Low Loss
E* = Standard Loss Extender
B* = Low Loss Extender

Fiber Count
12 = 12
24 = 24
36 = 36
48 = 48
72 = 72
96 = 96
144 = 144

Fiber Type
5 = 50/125 Multimode
6 = 62.5/125 Multimode
5L = XGLO 300 50/125 Multimode OM3
5V = XGLO 550 50/125 Multimode OM4
SM = Singlemode

Jacket Rating
R = Riser
P = Plenum
L = LSOH

Length**
Length must be 3 digits
Example: 003 = 3m
010 = 10 ft.

Length Unit
F = Feet
M = Meters

Polarity
C = Polarity method C per TIA-568-C.0 for fiber reels (FR and FL) only
Blank = Fiber Extender (FE and FB)

Ordering Information: Armored

F(X)(XX)-(XX)(XX)(XXX)(X)C .....Armored Fiber Plug & Play Cable Reel Assembly, 12 Fiber MTP Female Connectors, Polarity Method C

Configuration
R = Standard Loss
L = Low Loss

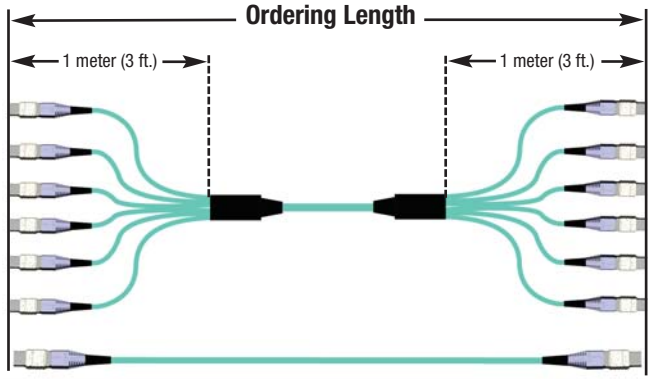
Fiber Count
12 = 12
24 = 24
36 = 36
48 = 48
72 = 72
96 = 96
144 = 144

Jacket Rating
AR = Armored Riser
AP = Armored Plenum

Fiber Type
5 = 50/125 Multimode
6 = 62.5/125 Multimode
5L = XGLO 300 50/125 Multimode OM3
5V = XGLO 550 50/125 Multimode OM4
SM = Singlemode

Length**
Length must be 3 digits
Example: 003 = 3m
010 = 10 ft.

Length Unit
F = Feet
M = Meters



See performance details on page 6.5.

** Fiber Extenders ship with MTP Adapter for quick transition.*

*** Order length is measured connector tip to connector tip. Multi-leg versions offered with standard 1 meter (3.3 ft.) legs. Minimum order length is 1 meter (3 ft.) for 12 strand and 3 meters (9 ft.) for 24 strands or greater (See diagram at right)*

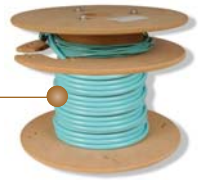
Plug and Play MTP® to LC Trunks

Utilizing high quality Siemon RazorCore™ cable, MTP to LC Trunks offer a connectivity transition from 12-fiber 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 fiber counts in increments of 12 fibers

Multiple Fiber Types — Available in multimode (62.5/125, standard 50/125 and laser optimized 50/125 OM3/OM4) and singlemode.

Protective Packaging — Dual shelf reel keeps connectivity protected during payout



Ordering Information:

T(X)(X)(X)(XX)(X)(XX)LC(XXX)(X). . . . . MTP to LC Trunk (distribution to breakout)

Configuration
L = Low Loss
F = Standard Loss

Fiber 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

Fiber Type
5 = 50/125 Multimode
6 = 62.5/125 Multimode
5L = XGLO 300 50/125 Multimode OM3
5V = XGLO 550 50/125 Multimode OM4
SM = Singlemode

Jacket Rating
R = Riser
P = Plenum
L = LSOH

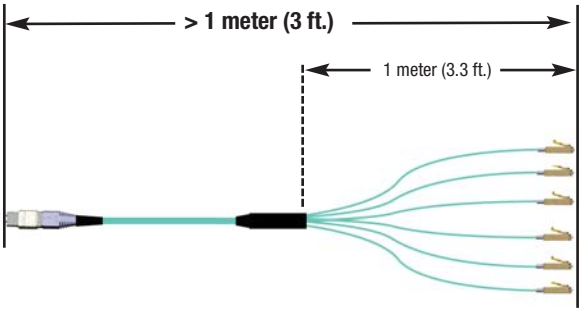
MTP Connector Gender
MM = Male
MF = Female

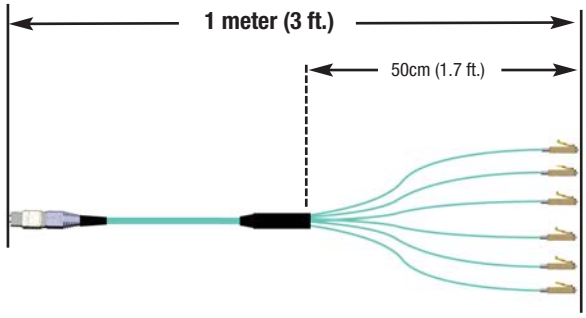
Length*
Length must be 3 digits
Example: 003 = 3m
010 = 10 ft.

Length Unit
F = Feet
M = Meters

See performance details on page 6.5.

** Minimum order length is 1 meter (3 ft.)*
Order length is measured connector tip to connector tip.
Jacketed duplex LC legs offered in standard 1 meter (3 ft.) length for trunk lengths greater than 1 meter (3 ft.)
(See diagram below)





High Density 1U Fiber Connect Panel System

High-Density FCP3 Fiber Connect Panel

Economically connect, protect and manage up to 96 fibers within 1 rack mount space. Designed to integrate with high-density FCP3 fiber plug and play modules (details below).

High Density
Supports up to 96 fibers in just 1 rack-mount space

Enhanced Accessibility
Fiber drawer slides to the front and rear for maximum access to fiber connections

Bend Radius Management
Recessed modules provide a high-capacity jumper management zone that helps maintain proper fiber bend radius

Part #	Description
FCP3-DWR-4	High-density FCP3 Fiber Enclosure, black
PPM-BLNK	High-density FCP3 Blank Panel Filler, black

High-Density FCP3 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 fiber connect panel. Providing 24 LC fibers 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 ultra-high density FCP3 enclosure.

High Density
Modules provide 24 LC fibers per module, supporting up to 96 ports within the 1U FCP3 fiber connect panel

Fast Deployment
Snap-in mounting and multi-fiber MTP connectivity offers ultra-fast deployment of high-performance fiber channels

Compact Housing
Reduces mounting depth for greater cable management space within enclosures

Optimized Adapter Spacing
Enables easy finger access to fiber jumper connector latches in high density patching environments

Multimode and Singlemode Modules
Utilize zirconia ceramic sleeves for optimum performance

Ordering Information:

PPM-(XX)-LC(XX)-01 . . . . . High-density LC to MTP Module, black

Fiber Count
12 = 12 Fiber
24 = 24 Fiber

Fiber Type
5 = 50/125 Multimode
6 = 62.5 Multimode
5L = XGLO 300 50/125 Multimode/OM3
5V = XGLO 550 50/125 Multimode/OM4
SM = Singlemode

PPM-F-LC(X)(XX)-01. . . . . High-density FCP3 LC Adapter plates

Fiber Type
Blank = Biege MM
U = Blue SM

Fiber Count
12 = 12 Fiber
24 = 24 Fiber

Plug and Play Fiber System Optical Performance

STANDARD MODULES AND ASSEMBLIES

Fiber Type		MAX Insertion (dB)		MAX Return Loss (dB)		Performance Class
		MTP	LC	MTP	LC	
5L-MM	50/125 10G (OM3)	0.50	0.25	20	30	XGLO® 300
5V-MM	50/125 10G (OM4)	0.50	0.25	20	30	XGLO 550
SM-LWP	SM (OS2)	0.75	0.40	55	55	XGLO

LOW LOSS MODULE ASSEMBLIES

Fiber Type		MAX Insertion (dB)		MAX 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
SM-LWP	SM (OS2)	0.60	0.25	55	55	XGLO

Fiber Cleaning Tools

Simple to use and highly effective at removing contaminants that can degrade the optical performance of critical fiber connections, these dry cloth cleaning tools are specially designed to clean multi-fiber MTP® connectors as well as LC and SC fiber 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/adapter.

Ordering Information:

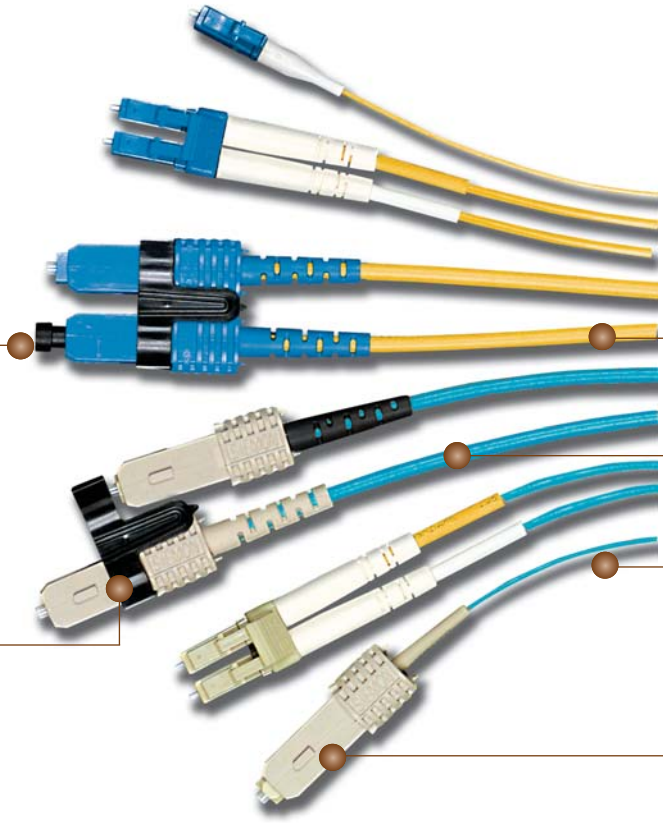
Part #	Description
PP-CT-MP	MTP multi-fiber connector cleaning tool
PP-CT-LC	LC simplex fiber connector cleaning tool
PP-CT-SC	SC simplex fiber connector cleaning tool

XGLO® Jumper & Pigtails

XGLO fiber optic cable assemblies are ideal for supporting 10 Gigabit fiber applications over extended distances and next-generation backbones. XGLO cable assemblies feature premium fiber that meets IEEE 802.3 10 Gigabit Ethernet Standard as well as IEC-60793-2-10 and TIA-492AAAC (OM3), TIA-492AAAD (OM4) specifications for laser bandwidth Differential Mode Delay (DMD) 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.

These precision cable assemblies are warranted for 20 years and ensure optimum applications support for 10 Gigabit Ethernet serial transmission when installed in a qualified XGLO system. 100% factory inspection ensures superior performance and quality.

Supports 10 Gigabit Ethernet



Singlemode assemblies feature blue connectors with a yellow jacket; multimode assemblies feature beige connectors with an aqua jacket

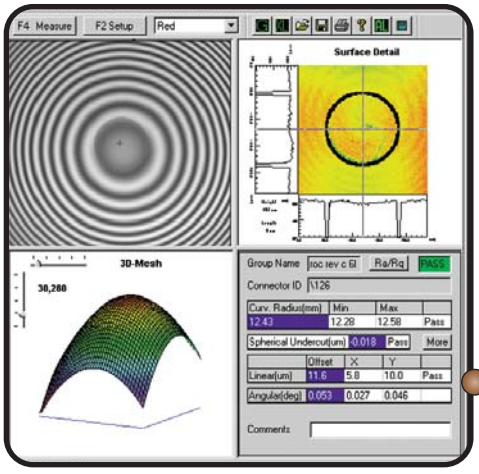
Dust caps included to protect factory polish from dirt and damage

50/125µm multimode and singlemode assemblies available

Laser bandwidth optimized cable reduces impurities in the core of fiber, ensuring robust 10 Gigabit Ethernet transmission

SC duplexing clip allows for polarity correction

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



XGLO fiber 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

Product Information

PERFORMANCE SPECIFICATIONS

	50/125 µm Multimode (OM3)			50/125 µm Multimode (OM4)			Singlemode (OS2)
Wavelength (nm)	850	1300	850*	850	1300	850*	1310/1550nm
Min. Cable Bandwidth (MHz*km)	1500 (OFL)	500 (OFL)	2000 (EMB)	3500 (OFL)	500 (OFL)	4700 (EMB)	N/A
Max. Insertion Loss (dB)	0.25 (0.10 Typical)			0.25 (0.10 Typical)			0.40 (0.10 Typical)
Min. Return Loss (dB)	30 (35 Typical)			30 (35 Typical)			55 (60 Typical)

**Laser Bandwidth*

Ordering Information:

OFNR

XGLO 300 50/125µm Multimode OM3

Duplex Jumpers:

FJ2-SCSC5L-(XX)AQ .....SC to SC aqua duplex jumper
FJ2-LCLC5L-(XX)AQ .....LC to LC aqua duplex jumper
FJ2-LCSC5L-(XX)AQ.....LC to SC aqua duplex jumper
FJ2-SASA5L-(XX)AQ.....ST to ST aqua duplex jumper
FJ2-SASC5L-(XX)AQ .....ST to SC aqua duplex jumper
FJ2-LCSA5L-(XX)AQ.....LC to ST aqua duplex jumper

Simplex Pigtails - 900 micron buffered

FP1B-SC5L-(XX)AQ .....SC simplex pigtail, aqua
FP1B-LC5L-(XX)AQ.....LC simplex pigtail, aqua
FP1B-SA5L-(XX)AQ .....ST simplex pigtail, aqua

XGLO 550 50/125µm Multimode, OM4

Duplex Jumpers:

FJ2-SCSC5V-(XX)AQ .....SC to SC aqua duplex jumper
FJ2-LCLC5V-(XX)AQ.....LC to LC aqua duplex jumper
FJ2-LCSC5V-(XX)AQ .....LC to SC aqua duplex jumper

Simplex Pigtails - 900 micron buffered

FP1B-SC5V-(XX)AQ .....SC simplex pigtail, aqua
FP1B-LC5V-(XX)AQ .....LC simplex pigtail, aqua

XGLO Singlemode OS2 (UPC)

Duplex Jumpers:

FJ2-SCUSCUL-(XX).....SC to SC yellow duplex jumper
FJ2-LCULCUL-(XX).....LC to LC yellow duplex jumper
FJ2-LCUSCUL-(XX) .....LC to SC yellow duplex jumper
FJ2-SAUSAUL-(XX).....ST to ST yellow duplex jumper
FJ2-LCUSAUL-(XX).....LC to ST yellow duplex jumper
FJ2-SAUSCUL-(XX) .....ST to SC yellow duplex jumper

Simplex Pigtails - 900 micron buffered

FP1B-SCUL-(XX).....SC simplex pigtail, yellow
FP1B-LCUL-(XX) .....LC simplex pigtail, yellow
FP1B-SAUL-(XX) .....ST simplex pigtail, yellow

Use (XX) to specify length:
01=1m (3 ft.), 02 = 2m (6 ft.), 03 = 3m (9 ft.), 05 = 5m (15 ft.)

LSOH (IEC 60332-3C)

XGLO 300 50/125µm Multimode OM3

Duplex Jumpers:

FJ2-SCSC5L-(XX)AH .....SC to SC aqua duplex jumper
FJ2-LCLC5L-(XX)AH.....LC to LC aqua duplex jumper
FJ2-LCSC5L-(XX)AH.....LC to SC aqua duplex jumper
FJ2-SASA5L-(XX)AH.....ST to ST aqua duplex jumper
FJ2-SASC5L-(XX)AH .....ST to SC aqua duplex jumper
FJ2-LCSA5L-(XX)AH.....LC to ST aqua duplex jumper

Simplex Pigtails - 900 micron buffered

FP1B-SC5L-(XX)AH .....SC simplex pigtail, aqua
FP1B-LC5L-(XX)AH.....LC simplex pigtail, aqua
FP1B-SA5L-(XX)AH .....ST simplex pigtail, aqua

XGLO 550 50/125µm Multimode, OM4

Duplex Jumpers:

FJ2-SCSC5V-(XX)AH .....SC to SC aqua duplex jumper
FJ2-LCLC5V-(XX)AH.....LC to LC aqua duplex jumper
FJ2-LCSC5V-(XX)AH.....LC to SC aqua duplex jumper

Simplex Pigtails: 900 micron buffered

FP1B-SC5V-(XX)AH .....SC simplex pigtail, aqua
FP1B-LC5V-(XX)AH.....LC simplex pigtail, aqua

XGLO Singlemode OS2 (UPC)

Duplex Jumpers:

FJ2-SCUSCUL-(XX)H .....SC to SC yellow duplex jumper
FJ2-LCULCUL-(XX)H .....LC to LC yellow duplex jumper
FJ2-LCUSCUL-(XX)H.....LC to SC yellow duplex jumper
FJ2-SAUSAUL-(XX)H .....ST to ST yellow duplex jumper
FJ2-LCUSAUL-(XX)H .....LC to ST yellow duplex jumper
FJ2-SAUSCUL-(XX)H.....ST to SC yellow duplex jumper

Simplex Pigtails - 900 micron buffered

FP1B-SCUL-(XX)H.....SC simplex pigtail, yellow
FP1B-LCUL-(XX)H .....LC simplex pigtail, yellow
FP1B-SAUL-(XX)H .....ST simplex pigtail, yellow

Custom lengths and jacket colors are available upon request.
Angled Polish (APC) singlemode options are also available.
Contact our Customer Service Department for more information.

LightSystem® Jumper & Pigtails

Siemon offers a comprehensive line of multimode fiber jumpers and pigtails available in standard lengths of 1m (3 ft.), 2m (6 ft.), 3m (9 ft.), 5m (15 ft.), and custom lengths. Each and every terminated connector is optically tested to assure that 100% of the Siemon-built cable assemblies meet stringent performance specifications.

PERFORMANCE SPECIFICATIONS

	50/125 µm Multimode (OM2)		62.5/125 µm Mulitmode (OM1)	
Wavelength (nm)	850	1300	850	1300
Min. Cable Bandwidth (MHz•km)	500	500	200	500
Max. Insertion Loss (dB)	0.50 (0.15 Typical)			
Min. Return Loss (dB)	25 (30 Typical)			

Ordering Information:

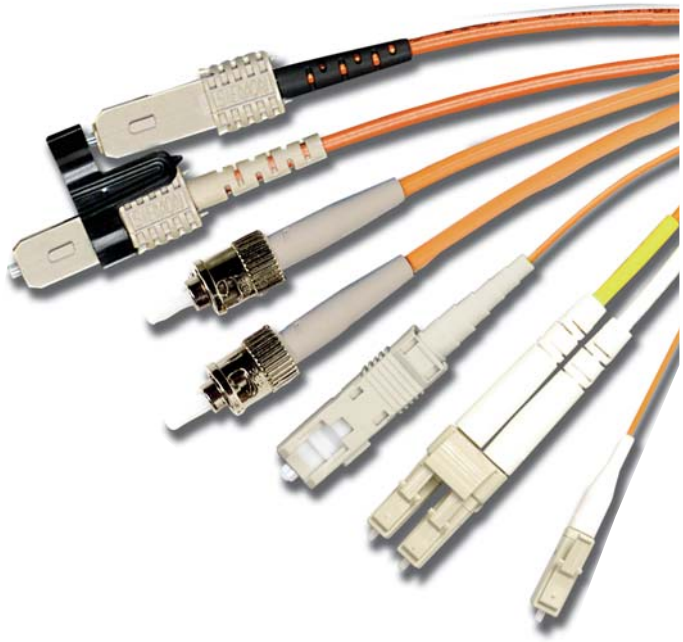
OFNR

LightSystem Multimode Duplex Jumpers

FJ2-SCSC(X)MM-(XX) .....SC to SC orange duplex jumper
FJ2-SASA(X)MM-(XX).....ST to ST orange duplex jumper
FJ2-SASC(X)MM-(XX) .....ST to SC orange duplex jumper
FJ2-LCLC(X)MM-(XX).....LC to LC orange duplex jumper
FJ2-LCSC(X)MM-(XX).....LC to SC orange duplex jumper
FJ2-LCSA(X)MM-(XX).....LC to ST orange duplex jumper

LightSystem Multimode Simplex Pigtails - 900 micron buffered

FP1B-SC(X)MM-(XX) .....SC simplex pigtail, orange
FP1B-SA(X)MM-(XX) .....ST simplex pigtail, orange
FP1B-LC(X)MM-(XX).....LC simplex pigtail, orange



LSOH (IEC 60332-3C)

LightSystem Multimode Duplex Jumpers

FJ2-SCSC(X)MM-(XX)H .....SC to SC orange duplex jumper
FJ2-SASA(X)MM-(XX)H.....ST to ST orange duplex jumper
FJ2-SASC(X)MM-(XX)H.....ST to SC orange duplex jumper
FJ2-LCLC(X)MM-(XX)H .....LC to LC orange duplex jumper
FJ2-LCSC(X)MM-(XX)H.....LC to SC orange duplex jumper
FJ2-LCSA(X)MM-(XX)H.....LC to ST orange duplex jumper

LightSystem Multimode Simplex Pigtails - 900 micron buffered

FP1B-SC(X)MM-(XX)H .....SC simplex pigtail, orange
FP1B-SA(X)MM-(XX)H.....ST simplex pigtail, orange
FP1B-LC(X)MM-(XX)H.....LC simplex pigtail, orange

Use (X) to specify fiber type: 5 = 50/125µm (OM2); 6 = 62.5/125µm (OM1)
Use (XX) to specify length: 01 = 1m (3 ft.), 02 = 2m (6 ft.), 03 = 3m (9 ft.), 05 = 5m (15 ft.)

Custom lengths and jacket colors are available upon request.
Contact our Customer Service Department for more information.

ValuLight™ Jumpers and Pigtails

ValuLight jumpers and pigtails provide exceptional value at a very competitive price. ValuLight fiber cable assemblies meet TIA-568-C.3 and ISO/IEC 11801 specifications for insertion loss and return loss. They are ideal for commercial cabling data applications up to and including 1 Gigabit.

PERFORMANCE SPECIFICATIONS

	50/125 µm Multimode (OM2)		62.5/125 µm Mulitmode (OM1)		Singlemode (OS2)
Wavelength (nm)	850	1300	850	1300	1310/1550
Min. Cable Bandwidth (MHz•km)	500	500	200	500	N/A
Max. Insertion Loss (dB)	0.75 (0.15 Typical)				0.75 (0.25 Typical)
Min. Return Loss (dB)	20 (25 Typical)				50 (55 Typical)

Ordering Information:

Multimode Duplex Jumpers

Part #	Description
J2-SCSC(X)-(XX)	SC to SC orange duplex jumper, OFNR
J2-SASA(X)-(XX)	ST to ST orange duplex jumper, OFNR
J2-SASC(X)-(XX)	ST to SC orange duplex jumper, OFNR
J2-LCLC(X)-(XX)	LC to LC orange duplex jumper, OFNR
J2-LCSC(X)-(XX)	LC to SC orange duplex jumper, OFNR
J2-LCSA(X)-(XX)	LC to ST orange duplex jumper, OFNR

Multimode Pigtails

Part #	Description
P1B-SC(X)-(XX)	SC orange simplex pigtail, 900 micron, buffered
P1B-SA(X)-(XX)	ST orange simplex pigtail, 900 micron, buffered
P1B-LC(X)-(XX)	LC orange simplex pigtail, 900 micron, buffered

Use (X) to specify fiber type: 5 = 50/125µm (OM2); 6 = 62.5/125µm (OM1)

Use (XX) to specify length: 01 = 1m (3 ft.), 02 = 2m (6 ft.), 03 = 3m (9 ft.), 05 = 5m (15 ft.)

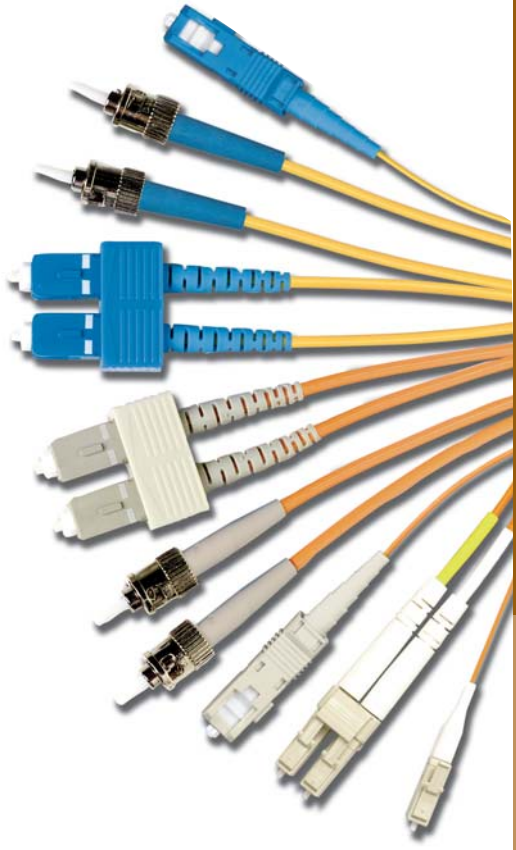
Singlemode OS2 Duplex Jumpers

Part #	Description
J2-SCSCP-(XX)	SC to SC yellow duplex jumper, OFNR
J2-SASAP-(XX)	ST to ST yellow duplex jumper, OFNR
J2-SASCP-(XX)	ST to SC yellow duplex jumper, OFNR
J2-LCLCP-(XX)	LC to LC yellow duplex jumper, OFNR
J2-LCSCP-(XX)	LC to SC yellow duplex jumper, OFNR
J2-LCSAP-(XX)	LC to ST yellow duplex jumper, OFNR

Singlemode OS2 Pigtails

Part #	Description
P1B-SCP-(XX)	SC yellow simplex pigtail, 900 micron, buffered
P1B-SAP-(XX)	ST yellow simplex pigtail, 900 micron, buffered
P1B-LCP-(XX)	LC yellow simplex pigtail, 900 micron, buffered

Use (XX) to specify length: 01 = 1m (3 ft.), 02 = 2m (6 ft.), 03 = 3m (9 ft.), 05 = 5m (15 ft.)



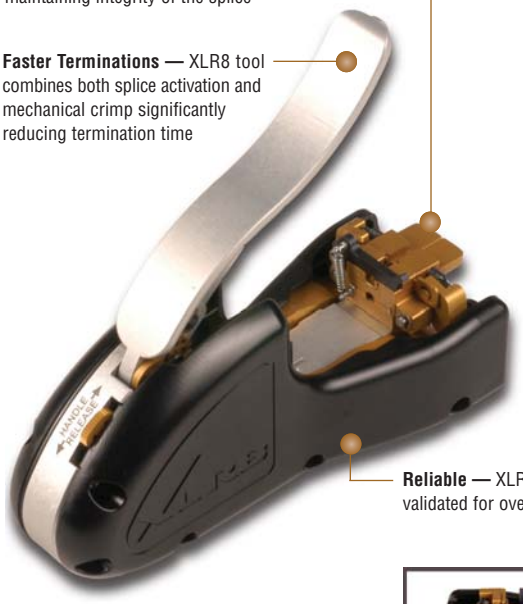
Custom lengths and jacket colors are available upon request. Contact our Customer Service Department for more information.

XLR8™ Fiber Termination Kit

Siemon's XLR8 mechanical splice termination kit incorporates an exclusive dual-process activation tool which dramatically reduces termination time per connector. This process is intended for use with 900µm tight buffered fiber cables.

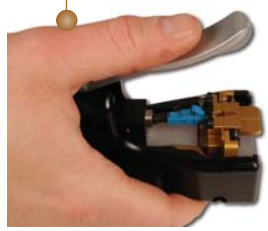
Robust Process — Single-step termination prevents fiber movement by eliminating the need to handle the connector between splice and crimp processes, maintaining integrity of the splice

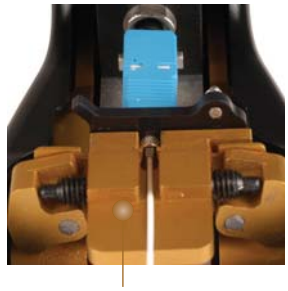
Faster Terminations — XLR8 tool combines both splice activation and mechanical crimp significantly reducing termination time



Reliable — XLR8 tool has been validated for over 500,000 cycles

Flexible Ergonomics — Tool optimized for use in handheld or table-top orientation

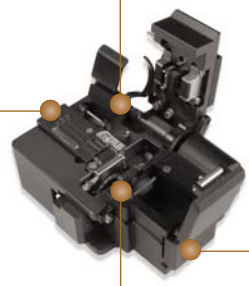




Fiber Alignment Aid — Smooth alignment channel simplifies fiber insertion and avoids damage to fiber end face

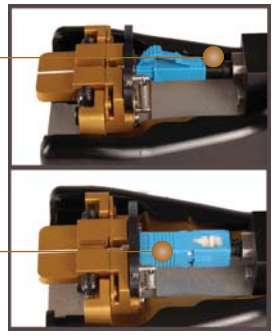
Oil Dampening System — Oil dampening system allows the blade to cleave at a uniform speed eliminating user variance resulting in a consistent high quality cleave

Precision Cleaver — Kit features a user-friendly fiber cleaver designed to provide clean, precise and high performance cleaves on an array of fiber types



Reduced Risk of Polish Contamination — All termination steps completed with connector dust cap in place

Universal LC/SC Compatibility — Tool terminates both LC and SC connectors with no time-consuming changeover required



Cleaver Life Span — Increased blade life span resulting in 48,000 cleaves

Safety — Integrated cleaver fiber collection bin eliminates handling of cleaved fiber

Ordering Information:

Part #	Description
FTERM-XLR8	XLR8 fiber termination kit

Kit Includes:

- Activation tool
- Jacket stripper
- Buffer stripper
- Scissors
- Precision cleaver
- Strip template
- Marker
- Alcohol pads
- Electrical tape
- Convenient carrying case
- DVD instructions

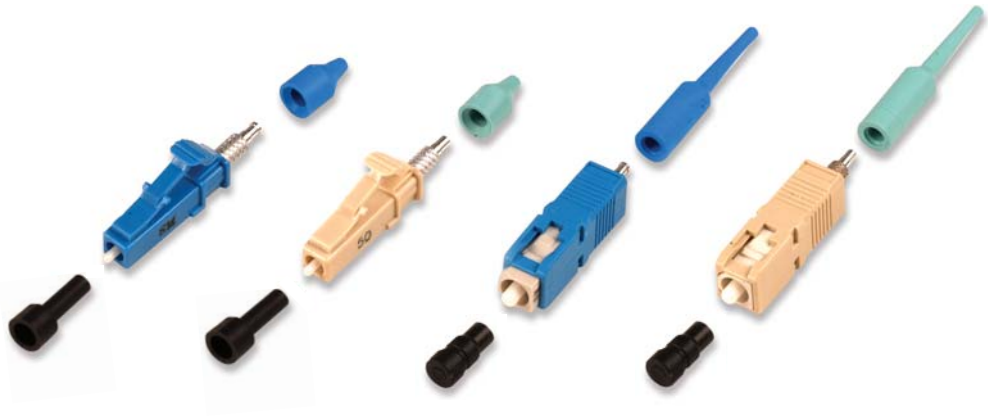
Replacement Parts

Part #	Description
FTERM-XLR8-A	Fiber activation tool, replacement
FTERM-XLR8-C2	Precision fiber cleaver, replacement

Visit www.siemon.com/XLR8 for installation instructions and demonstration

XLR8™ Pre-Polished Connectors

Combined with the patent-pending XLR8 activation tool, Siemon's pre-polished XLR8 mechanical splice connectors can be deployed with unsurpassed termination speed and quality. Available in both LC and SC configurations, these connectors support both the multimode and singlemode versions of Siemon's 10 Gb/s XGLO® and Gigabit LightSystem® solutions.



Optical Performance

Insertion Loss
- SM: 0.20dB Typ
- MM: 0.20dB Typ

Return Loss
- SM: -55dB Typ
- MM: -37dB Typ

Fewer Termination Steps – XLR8 SC connectors ship factory-assembled, eliminating time-consuming field assembly of inner and outer connector bodies

Enhanced Splice Integrity – XLR8 connector termination process combines splicing and crimping in a single step, eliminating connector handling that can impact splice integrity

Robust Polish Protection – Entire connector termination process is completed with dust-cap in place, protecting the critical end face polish from contamination

High Quality Performance – Exceeds TIA standards for optical performance and fiber retention strength

Ordering Information:

LC Multimode

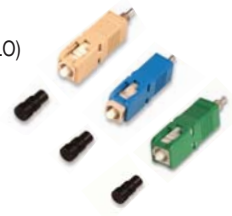
Part #	Description
FC1M-LC-5V-B12	LC Simplex connector, beige, 50/125µm (OM3/OM4) laser optimized, 900µm buffered fiber*, aqua boot (XGLO)
FC1M-LC-6MM-B80	LC Simplex connector, beige, 62.5/125µm multimode, 900µm buffered fiber*, beige boot (LightSystem)
FC1M-LC-5MM-B01	LC Simplex connector, beige, 50/125µm multimode, 900µm buffered fiber*, black boot (LightSystem)

LC Singlemode

Part #	Description
FC1M-LC-SM-B06	LC Simplex connector, blue, singlemode, 900µm buffered fiber*, blue boot (XGLO and LightSystem)
FC1M-LCA-SM-B07	LC Simplex connector, green, angled polished singlemode, 900µm buffered fiber*, green boot (XGLO and LightSystem)

SC Multimode

Part #	Description
FC1M-SC-5V-B12	SC Simplex connector, beige, 50/125µm (OM3/OM4) laser optimized, 900µm buffered fiber*, aqua boot (XGLO)
FC1M-SC-6MM-B80	SC Simplex connector, beige, 62.5/125µm multimode, 900µm buffered fiber*, beige boot (LightSystem)
FC1M-SC-5MM-B01	SC Simplex connector, beige, 50/125µm multimode, 900µm buffered fiber*, black boot (LightSystem)



SC Singlemode

Part #	Description
FC1M-SC-SM-B06	SC Simplex connector, blue, singlemode, 900µm buffered fiber*, blue boot (XGLO and LightSystem)
FC1M-SCA-SM-B07	SC Simplex connector, green, angled polished singlemode, 900µm buffered fiber*, green boot (XGLO and LightSystem)

** For use with 900µm tight buffer terminations only - Fan-out kits to transition from 250µm to 900µm cannot be used with XLR8 connectivity.*

SC and ST Epoxy Polish Connectors

SC Epoxy Polish Connectors

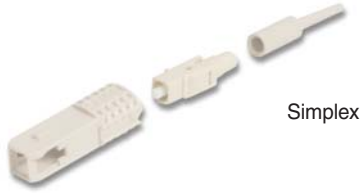
SC duplex connectors have a duplexing clip, which allows each connector to be removed individually. In the event fiber polarity is reversed during termination, there's no need to discard the connector. Simply remove connectors from the clip and switch to correct the mistake, saving valuable installation 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 color-coded in accordance with TIA/EIA-568-B.3 and ISO/IEC 11801 Ed. 2.0 requirements (beige for multimode and blue for singlemode).

Multimode (XGLO® and LightSystem®)

Part #	Description
FC1-SC-MM-J80	SC simplex connector, beige, jacketed fiber, beige boot
FC1-SC-MM-B80	SC simplex connector, beige, buffered fiber, beige boot
FC2-SC-MM-B80	SC duplex connector, beige, buffered fiber, two beige boots

Add "-B" to the end of part number for bulk pack (Simplex: 100/box, Duplex: 50/box).



Simplex

Duplex

Singlemode (XGLO)

Part #	Description
FC1-SC-SM-B06	SC simplex connector, blue, buffered fiber, blue boot
FC1-SC-SM-J06	SC simplex connector, blue, jacketed fiber, blue boot
FC2-SC-SM-B06	SC duplex connector, blue, buffered fiber, two blue boots
FC2-SC-SM-J06	SC duplex connector, blue, jacketed fiber, blue boot

Add "-B" to the end of part number for bulk pack (Simplex: 100/box, Duplex: 50/box).

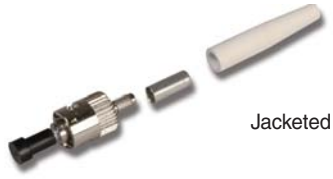
ST Epoxy Polish Connectors

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 fiber, beige boot
FC1-SA-MM-B80	ST simplex connector, buffered fiber, beige boot

Add "-B" to the end of part number for bulk pack (100/box).



Jacketed

Singlemode (XGLO)

Part #	Description
FC1-SA-SM-J06	ST simplex connector, jacketed fiber, blue boot
FC1-SA-SM-B06	ST simplex connector, buffered fiber, blue boot

Add "-B" to the end of part number for bulk pack (100/box).

Buffered

LC Epoxy Polish Connectors (XGLO® & LightSystem®)

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

Part #	Description
FC1-LC-MM-B80	LC simplex connector, beige, multimode, buffered fiber, beige boot
FC2-LC-MM-J80	LC duplex connector, beige, multimode, jacketed fiber, beige boots

Singlemode

Part #	Description
FC1-LC-SM-B02	LC simplex connector, blue, singlemode, buffered fiber, white boot
FC1-LC-SM-J02	LC simplex connector, blue, singlemode, jacketed fiber, white boot

Ⓑ *Add "-B" to the end of part number for bulk pack (Simplex: 100/box, Duplex: 50/box).*

LightSpeed® ST, SC Fiber Termination Kit

Achieve faster fiber terminations and higher performance with Siemon's *LightSpeed* Termination Kit. The Siemon fiber 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	*LightSpeed* Fiber 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 Fiber 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 color-coded LC crimp sleeve tubing).The LC microscope head is included with the FTERM-L2 kit.

Part #	Description
FTERM-LC	LC Fiber 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® Fiber Consumables Kit

Siemon's *LightSpeed* fiber 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 fiber 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, gray
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 40 – 100°F (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.*

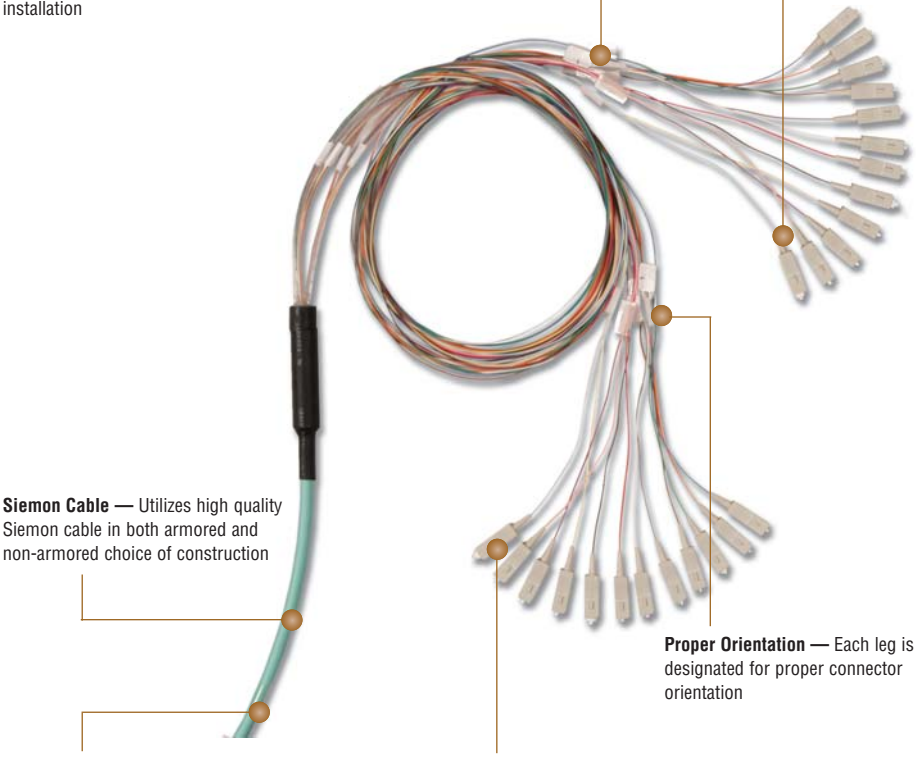
Replacement Tools for Fiber Termination Kits

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 fiber termination kits.

Part #	Description
FT-MS400	400X power microscope
FT-SCRIBE	Double bladed fiber 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-LCPUCK	Duplex LC Polishing Puck
FT-MSLC2HEAD	Duplex LC Scope Adapter

XGLO® & LightSystem® Fiber Trunking Cable Assemblies

Siemon's fiber trunking cable assemblies provide an efficient and cost effective alternative to individual field-terminated components. Combining factory terminated connectors with Siemon cable in a high-performance cable assembly, Siemon fiber trunking cable assemblies were designed with Local Area Networks (LAN), Data Centers and Storage Area Networks (SAN) applications in mind. These assemblies allow up to 75% faster field installation times.



Factory Terminated and Tested — Every fiber cable assembly is factory terminated and tested for premium performance

Custom Assembly — Fiber assemblies can be created to custom lengths and configurations based on a flexible part number scheme for performance options to best suit each installation

Siemon Cable — Utilizes high quality Siemon cable in both armored and non-armored choice of construction

Proper Orientation — Each leg is designated for proper connector orientation

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

Superior Design — Each cable assembly utilizes an epoxy breakout with spiral wrap to protect the fibers when entering an enclosure

Pulling Eye
An optional encapsulated protection sleeve with cable pulling eye protects the factory terminations during installation.

Enclosure Compatibility
Siemon fiber trunking assemblies are compatible with all Siemon fiber enclosures.

Protective Packaging
Dual shelf reel keeps unprotected connectivity from harm during payout

See ordering information next page

Fiber Trunking Cable Assemblies

Ordering Information:

TF-(X)(X)(X)(X)(XX)(XX)(XXX)(X)

Fiber Count
A = 6*
B = 12
C = 24
E = 36*
F = 48*
G = 72*

Pulling Eye
A = Side A
B = Side B
C = None

Fiber Type
A = Singlemode
B = 62.5/125 Multimode
C = 50/125 Multimode
L = XGLO 300 50/125 Multimode OM3
V = XGLO 550 50/125 Multimode OM4

Cable Type
P = Plenum - Indoor Distribution (OFNP)
R = Riser - Indoor Distribution (OFNR)
L = LSOH - Indoor Distribution (IEC 60332-3C)
A = Plenum - Interlocking Armored (OFCP)

Connector (Side A)
LC = LC
SC = SC
SA = ST

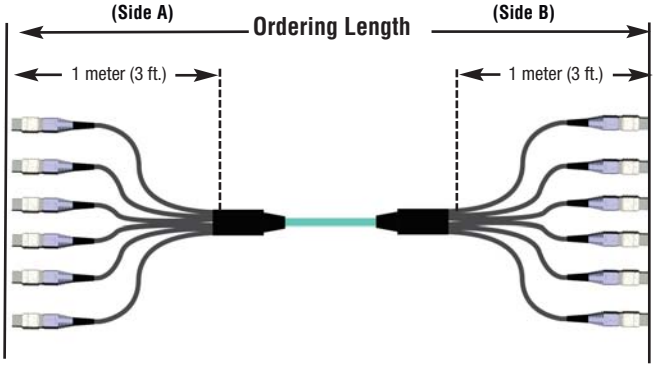
Connector (Side B)
LC = LC
SC = SC
SA = ST
(blank) = Pigtail

Length**
Length must be 3 digits
Example: 004 = 4m
012 = 12 ft.

Length Unit
F = Feet
M = Meters

** Non-armored only*

*** Ordering length is measured connector tip to connector tip. 900 micron, buffered, 1m breakout. Minimum order length is 4 meters (12 ft.).*



Note: These products are made to order. Call for lead time and availability.

Fiber Trunking Cable Assemblies

CABLE — Optical and Physical Specifications

	Mulitmode				Singlemode
Cable Type	**LightSystem® 50/125 µm (OM1) (850/1300nm)**	**Lightsystem 50/125 µm (OM2) (850/1300 nm)**	****XGLO® 50/125 µm (OM3) (850/1300 nm)**	****XGLO 50/125 µm (OM4) (850/1300 nm)**	**XGLO Singlemode (OS1/OS2) (1310/1550 nm)**
Fiber Cable Attenuation, Max (dB/km)	3.5/1.0	3.5/1.0	3.0/1.0	3.0/1.0	0.5/0.5*
OFL Bandwidth, min (MHz•km)	200/500	500/500	1500/500	3500/500	N/A
Effective Modal Bandwidth, min (MHz•km)	N/A	N/A	2000/NS	4700/NS	N/A
Cable Outer Jacket Color	Orange	Orange	Aqua	Aqua	Yellow
Break-Out Colors: Single Fiber Strands**	Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua				
Sub-Unit Colors and/or Markings**	Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua				

*XGLO singlemode fiber meets Low Water Peak specifications per ITU-T G.652.C/D

**XGLO multimode cable premium fiber that meets IEEE 802.3 10 Gigabit Ethernet Standard as well as IEC-60793-2-10 and TIA-492AAAC (OM3) TIA-492AAAD (OM4) specifications for laser bandwidth Different Mode Delay (DMD) specifications.

CONNECTORS — Optical Specifications

Fiber Type	Performance Class	Max Insertion Loss (dB)	Min Return Loss (dB)
62.5/125 µm Multimode (OM1)	LightSystem	0.65 (0.15 Typical)	25 (30 Typical)
50/125 µm Multimode (OM2)	LightSystem	0.65 (0.15 Typical)	25 (30 Typical)
50/125 µm Laser Optimized (OM3, OM4)	XGLO	0.25 (0.10 Typical)	30 (35 Typical)
Singlemode (OS1/OS2)	XGLO	0.40 (0.25 Typical)	55 (57 Typical)

CONNECTORS — Physical Specifications

Connector Type	IEC Intermateability Compliance	TIA Intermateability Compliance	Housing Color		Boot Color	
			SM	MM	SM	MM
SC	IEC 60874-14	TIA/EIA-604-3	Blue	Beige	Blue	Beige
ST	IEC 60874-10	TIA/EIA-604-2	N/A	N/A	Blue	Beige
LC	IEC 61754-20	TIA/EIA-604-10	Blue	Beige	White	White

CABLE DIAMETERS BY FIBER COUNT (ALL VALUES ARE NOMINAL)

Cable Type	Fiber Strand Count	Sleeve Diameter mm (in.)	Cable Diameter mm (in.)	Minimum Bend Radius mm (in.)	Required Duct Diameter mm (in.)	Maximum Pull Force kg (Pounds)
Non-Armored	6	44.5 (1.75)	5.8 (0.23)	15x cable diameter	70 (2.75)	45.4 (100)
	12	44.5 (1.75)	5.8 (0.23)	15x cable diameter	70 (2.75)	45.4 (100)
	24	44.5 (1.75)	8.8 (0.40)	15x cable diameter	70 (2.75)	45.4 (100)
	36	63.5 (2.5)	16.5 (0.65)	20x cable diameter	90 (3.5)	45.4 (100)
	48	63.5 (2.5)	16.0 (0.63)	20x cable diameter	90 (3.5)	45.4 (100)
	72	63.5 (2.5)	19.5 (0.77)	20x cable diameter	90 (3.5)	45.4 (100)
Armored	12	44.5 (1.75)	13.0 (0.51)	15x cable diameter	90 (3.5)	45.4 (100)
	24	44.5 (1.75)	14.8 (0.584)	15x cable diameter	90 (3.5)	45.4 (100)

XGLO® & LightSystem® Indoor Tight Buffer Distribution(US)

Siemon indoor tight buffer cables are ideal for data centers, campus and building backbones. Siemon fiber optic cables are offered in XGLO and LightSystem configurations supporting high-speed, applications such as Gigabit Ethernet, 10 Gigabit Ethernet, Gigabit ATM and Fiber Channel.

Ordering Information

XGLO Multimode Laser Optimized 50/125 OM3, OM4 (Aqua Jacket), Singlemode OS1/OS2 (Yellow Jacket), LightSystem Multimode 62.5/125 OM1, 50/125 OM2 (Orange Jacket)

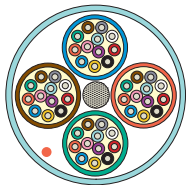
Part #	Fiber Count	Construction
9BB(X)(X)002B-(XXXX)A	2	1 tube of 2 fibers
9BB(X)(X)004C-(XXXX)A	4	1 tube of 4 fibers
9BB(X)(X)006D-(XXXX)A	6	1 tube of 6 fibers
9BB(X)(X)008E-(XXXX)A	8	1 tube of 8 fibers
9BB(X)(X)012G-(XXXX)A	12	1 tube of 12 fibers

Part #	Fiber Count	Construction
9BB(X)(X)016C-(XXXX)A	16	4 tubes of 4 fibers
9BB(X)(X)024L-(XXXX)A	24	1 tube of 24 fibers
9BB(X)(X)036D-(XXXX)A	36	6 tubes of 6 fibers
9BB(X)(X)048G-(XXXX)A	48	4 tubes of 12 fibers
9BB(X)(X)072G-(XXXX)A	72	6 tubes of 12 fibers

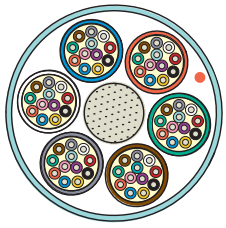
Use 1st (X) to specify fiber type: 5 = 50/125µm, 6 = 62.5/125µm, 5 = 50/125µm Laser Optimized, 8 = Singlemode
Use 2nd (X) to specify fiber jacket type: R=Riser OFNR, P= Plenum OFNP
Use (XXXX) to specify class performance: G109 = OM1 62.5µm, T109 = OM2 50µm, T312 = OM3 50µm Laser Optimized, T512 = OM4 50µm Laser Optimized, E205 = OS1/OS2 Singlemode
Fiber cable is ordered in custom lengths on a reel (unit of measure = feet)

Contact Customer Service for information on Standard Focus cables in 1000 ft. fixed reels.

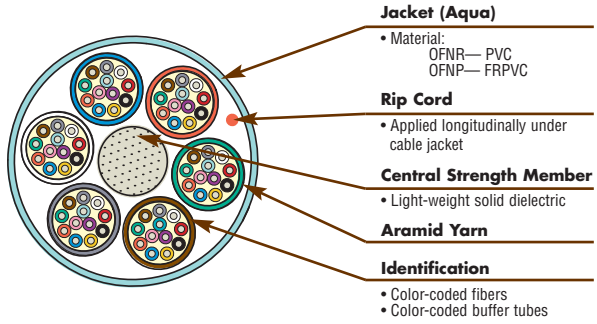
2,4,6,8,12,24 Fiber



16, 48 Fiber



72 Fiber



XGLO Singlemode, OS1/OS2

STANDARDS COMPLIANCE

- ISO/IEC 11801:Ed 2.0 Amendment:1:2008
- ANSI/TIA/EIA-568-C.3
- ANSI/TIA-598-C
- Telcordia GR-409-CORE
- ITU-T G.652 C/D
- OFNR: Communications Type OFNR (UL) and CSA FT4 c(UL)
- OFNP: Communications Type OFNP (UL) and CSA FT6 c(UL)

APPLICATIONS SUPPORT

APPLICATION	DISTANCE (m)
10GBASE-L (1310 nm)	8,000
10GBASE-E (1550 nm)	30,000
10G Fiber Channel (Serial-1310 nm)	10,000
10G Fiber Channel (WDM-1310 nm)	10,000
1000BASE-LX (1300 nm)	5,000
Fiber Channel 266/1062 (1300 nm)	10,000
ATM 52/155/622 (1300 nm)	15,000

XGLO (550) Multimode, 50/125, OM4

STANDARDS COMPLIANCE

- ISO/IEC 11801:2002 OM3
- ISO/IEC 11801:2002 Ammendment 2 OM4
- ANSI/TIA/EIA-568-C.3
- ANSI/TIA-598-C
- ANSI/TIA-492 AAAD
- IEC 60793-2-10 Fiber Type A1a.3
- Telcordia GR-409-CORE
- OFNR: Communications Type OFNR (UL) and CSA FT4 c(UL)
- OFNP: Communications Type OFNP (UL) and CSA FT6 c(UL)

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
Fiber 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/EIA-568-C.3
- ANSI/TIA-598-C
- ANSI/TIA-492 AAAC
- Telcordia GR-409-CORE
- OFNR: Communications Type OFNR (UL) and CSA FT4 c(UL)
- OFNP: Communications Type OFNP (UL) and CSA FT6 c(UL)

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
Fiber 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

LIGHTSYSTEM Multimode 50/125,OM2; 62.5 OM1

STANDARDS COMPLIANCE

- ISO/IEC 11801:2002 OM1 (62.5/125)
- ISO/IEC 11801:2002 OM2 (50/125)
- ANSI/TIA/EIA-568-C.3
- ANSI/TIA-598-C
- ANSI/TIA-492 AAAB
- Telcordia GR-409-CORE
- OFNR: Communications Type OFNR (UL) and CSA FT4 c(UL)
- OFNP: Communications Type OFNP (UL) and CSA FT6 c(UL)

APPLICATIONS SUPPORT

APPLICATION	DISTANCE (m)
10GBASE-SX (850 nm)	N/A
50/125µm	82
62.5/125µm	26
1000BASE-SX (850 nm)	N/A
50/125µm	550
62.5/125µm	275
1000BASE-LX (1300 nm)	550
Fiber 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® 10 Gigabit Ethernet Fiber Optic Cable

Minimum Performance Parameters for XGLO 50/125µm Multimode Fiber

Fiber 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 Parameters for XGLO Singlemode Fiber

Fiber Type	Wavelength (nm)	Maximum Attenuation (dB/km)	Zero Dispersion Wavelength (nm)	Zero Dispersion Slope (nm^2-km)	Index of Refraction
Singlemode (OS1/OS2)	1310	0.50	1312 ± 10	≤0.093	1.468
	1550	0.50	1312 ± 10	≤0.093	1.468
	1300-1324	<0.40	1312 ± 10	≤0.093	1.468

LightSystem® Gigabit Ethernet Fiber Optic Distribution Cable

Minimum Performance Parameters for LightSystem 50/125µm & 62.5/125µm Multimode Fiber

Fiber Type	Wavelength nm	Maximum Attenuation (dB/km)	Minimum Modal Bandwidth (MHz•km)	Guaranteed Gigabit Transmission Distance (Meters)	Index of Refraction
50/125 µm (OM2)	850	3.5	500	550	1.483
	1300	1.0	500	550	1.479
62.5/125 µm (OM1)	850	3.5	200	275	1.495
	1300	1.0	500	550	1.490

**The protocol pertinent to the transmission distance as noted is Gigabit Ethernet per IEEE 802.3:2005.*

XGLO and LightSystem Physical Specifications

PHYSICAL SPECIFICATIONS (All Values Are Nominal)

Fiber Count	Nominal Cable Diameter mm (in.)	Maximum Pulling Tension Newtons (lbs)				Nominal Net Weight kg/km (lbs/1000 ft.)	
		Installation		Long Term			
	OFNR/OFNP	OFNR	OFNP	OPNR	OFNP	OFNR	OFNP
2	4.8 (0.19)	400 (90)	400 (90)	120 (27)	120 (27)	17 (12)	20 (13.1)
4	4.8 (0.19)	660 (148)	440 (99)	198 (45)	132 (30)	19 (13)	22 (15)
6	4.8 (0.19)	660 (148)	440 (99)	198 (45)	132 (30)	22 (15)	25 (16.5)
8	5.8 (0.23)	900 (202)	560 (126)	270 (61)	168 (38)	28 (19)	31 (21)
12	5.8 (0.23)	900 (202)	560 (126)	270 (61)	168 (38)	32 (22)	36 (24.4)
16	13.7 (0.54)	1320 (297)	660 (148)	396 (89)	198 (45)	139 (93)	209 (140)
24	8.8 (0.35)	1282 (288)	1282 (288)	641 (144)	641 (144)	78 (52.4)	78 (52.4)
36	16.5 (0.65)	1320 (297)	660 (148)	396 (89)	198 (45)	213 (143)	221 (148)
48	16.0 (0.63)	2700 (607)	1000 (225)	810 (182)	300 (67)	200 (134)	207 (139)
72	19.6 (0.77)	2700 (607)	1000 (225)	810 (182)	300 (67)	310 (208)	322 (216)

Fiber Count	Minimum Crush Resistance (N/mm)	Minimum Flex Resistance Cycles	Operating Temperature °F (°C)	Installation Temperature °F (°C)	Storage Temperature °F (°C)	Minimum Bend Radius	
						Installation	Long Term
2-24	22	25/100	-4 to 122 (-20 to 50)	32 to 140 (0 to 60)	-40 to 140 (-40 to 60)	15 x DIA.	10 x DIA.
36-144	22	25/100	-4 to 122 (-20 to 50)	32 to 140 (0 to 60)	-40 to 140 (-40 to 60)	20 x DIA.	10 x DIA.

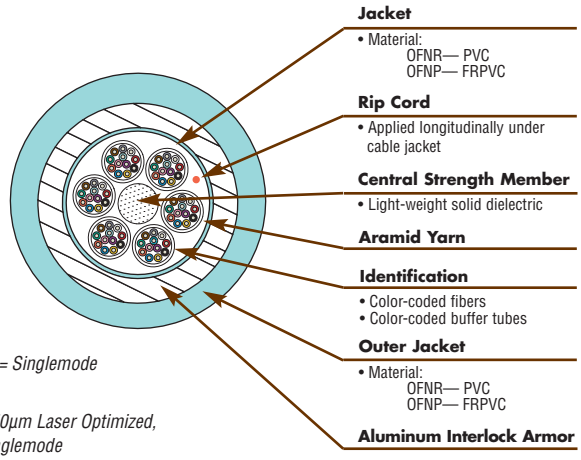
XGLO® & LightSystem® Interlocking Aluminum Armor Indoor Tight Buffer Fiber Cable

Siemon interlocking aluminum armor indoor tight buffer fiber cables are ideal for data centers, campus and building backbones as well as industrial applications. The interlocking armor cable is a robust aluminum armored design that provides higher compression crush strength, rodent resistance and increased security. Siemon interlocking armor fiber cables may be installed as an alternative to traditional fiber 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 fiber optic cables are offered in LightSystem and XGLO configurations supporting high-speed applications such as Gigabit Ethernet, 10 Gigabit Ethernet, Gigabit ATM and Fiber Channel.

Ordering Information

XGLO Multimode Laser Optimized 50/125 OM3, OM4 (Aqua Jacket), Singlemode OS1/OS2 (Yellow Jacket), LightSystem Multimode 62.5/125 OM1, 50/125 OM2 (Orange Jacket)

Part #	Fiber Count	Construction
9BC(X)(X)006D-(XXXX)A	6	1 tube of 6 fibers
9BC(X)(X)012G-(XXXX)A	12	1 tube of 12 fibers
9BC(X)(X)024L-(XXXX)A	24	1 tube of 24 fibers
9BC(X)(X)036G-(XXXX)A	36	3 tubes of 12 fibers
9BC(X)(X)048G-(XXXX)A	48	4 tubes of 12 fibers
9BC(X)(X)072G-(XXXX)A	72	6 tubes of 12 fibers
9BC(X)(X)096G-(XXXX)A	96	8 tubes of 12 fibers
9BC(X)(X)144G-(XXXX)A	144	12 tubes of 12 fibers



Use 1st (X) to specify fiber type: 5 = 50/125µm, 6 = 62.5/125µm, 5 = 50/125µm Laser Optimized, 8 = Singlemode

Use 2nd (X) to specify cable rating: R = OFCR, P = OFCP

Use (XXXX) to specify class performance: G109 = OM1 62.5µm, T109 = OM2 50µm, T312 = OM3 50µm Laser Optimized, T512 = OM4 50µm Laser Optimized, E205 = OS1/OS2 Singlemode

Fiber cable is ordered in custom lengths on a reel (unit of measure = feet)

XGLO Singlemode, OS1/OS2

STANDARDS COMPLIANCE

- ISO/IEC 11801:Ed 2.0 Amendment:1:2008
- ANSI/TIA/EIA-568-C.3
- ANSI/TIA-598-C
- Telcordia GR-409-CORE
- ITU-T G.652.C/D
- OFNR: Communications Type OFNR (UL) and CSA FT4 c(UL)
- OFNP: Communications Type OFNP (UL) and CSA FT6 c(UL)

APPLICATIONS SUPPORT

APPLICATION	DISTANCE (m)
10GBASE-L (1310 nm)	8,000
10GBASE-E (1550 nm)	30,000
10G Fiber Channel (Serial-1310 nm)	10,000
10G Fiber Channel (WDM-1310 nm)	10,000
1000BASE-LX (1300 nm)	5,000
Fiber Channel 266/1062 (1300 nm)	10,000
ATM 52/155/622 (1300 nm)	15,000

XGLO (550) Multimode, 50/125, OM4

STANDARDS COMPLIANCE

- ISO/IEC 11801:2002 OM3
- ISO/IEC 11801:2002 Ammendment 2 OM4
- ANSI/TIA/EIA-568-C.3
- ANSI/TIA-598-C
- ANSI/TIA-492 AAAD
- IEC 60793-2-10 Fiber Type A1a.3
- Telcordia GR-409-CORE
- OFNR: Communications Type OFNR (UL) and CSA FT4 c(UL)
- OFNP: Communications Type OFNP (UL) and CSA FT6 c(UL)

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
Fiber 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/EIA-568-C.3
- ANSI/TIA-598-C
- ANSI/TIA-492AAAC
- Telcordia GR-409-CORE
- OFNR: Communications Type OFNR (UL) and CSA FT4 c(UL)
- OFNP: Communications Type OFNP (UL) and CSA FT6 c(UL)

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
Fiber 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

LIGHTSYSTEM Multimode 50/125,OM2; 62.5 OM1

STANDARDS COMPLIANCE

- ISO/IEC 11801:2002 OM1 (62.5/125)
- ISO/IEC 11801:2002 OM2 (50/125)
- ANSI/TIA/EIA-568-C.3
- ANSI/TIA-598-C
- ANSI/TIA-492AAAB
- Telcordia GR-409-CORE
- OFNR: Communications Type OFNR (UL) and CSA FT4 c(UL)
- OFNP: Communications Type OFNP (UL) and CSA FT6 c(UL)

APPLICATIONS SUPPORT

APPLICATION	DISTANCE (m)
10GBASE-SX (850 nm)	N/A
50/125µm	82
62.5/125µm	26
1000BASE-SX (850 nm)	N/A
50/125µm	550
62.5/125µm	275
1000BASE-LX (1300 nm)	550
Fiber 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® 10 Gigabit Ethernet Fiber Optic Cable

Minimum Performance Parameters for XGLO 50/125µm Multimode Fiber

Fiber 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 Parameters for XGLO Singlemode Fiber

Fiber Type	Wavelength (nm)	Maximum Attenuation (dB/km)	Zero Dispersion Wavelength (nm)	Zero Dispersion Slope (nm^2-km)	Index of Refraction
Singlemode (OS1/OS2)	1310	0.50	1312 ± 10	≤0.093	1.468
	1550	0.50	1312 ± 10	≤0.093	1.468
	1300-1324	<0.40	1312 ± 10	≤0.093	1.468

LightSystem® Gigabit Ethernet Fiber Optic Distribution Cable

Minimum Performance Parameters for LightSystem 50/125µm & 62.5/125µm Multimode Fiber

Fiber Type	Wavelength nm	Maximum Attenuation (dB/km)	Minimum Modal Bandwidth (MHz•km)	Guaranteed Gigabit Transmission Distance (Meters)	Index of Refraction
50/125 µm (OM2)	850	3.5	500	550	1.483
	1300	1.0	500	550	1.479
62.5/125 µm (OM1)	850	3.5	200	275	1.495
	1300	1.0	500	550	1.490

**The protocol pertinent to the transmission distance as noted is Gigabit Ethernet per IEEE 802.3:2005.*

XGLO and LightSystem Physical Specifications

PHYSICAL SPECIFICATIONS (All Values Are Nominal)

Fiber Count	Nominal Cable Diameter mm (in.)		Maximum Pulling Tension Newtons (lbs)		Maximum =Net Weight kg/km (lbs/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)	228 (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)	4445 (300)	802 (539)	756 (508)

Fiber Type	Minimum Crush Resistance (N/cm)	Minimum Flex Resistance Cycles	Operating Temperature °F (°C)		Storage Temperature °F (°C)		Minimum Bend Radius	
			OFCR	OFCP	OFCR	OFCP	Installation	Long Term
6 - 144	440 N/cm	100 Cycles	-40 to 167 (-40 to 75)	-4 to 167 (-20 to 75)	-40 to 185 (-40 to 85)	-4 to 167 (-20 to 75)	15 x DIA.	10 x DIA.

Fiber Enclosures and Splicing

Siemon's fiber enclosures provide feature-rich and easily implemented options for managing critical fiber connectivity. With versions supporting up to 1152 fiber ports, Siemon's Rack Mount Interconnect Centers (RIC3) offer superior density, accessibility, slack management, security and port identification.

Wall mount versions, which share many of the RIC3's user-friendly features, are also available.

Section Contents

Rack Mount Interconnect Center (RIC3)

The RIC3 provides the best overall value for exceptional fiber management. The RIC3 enclosure offers superior fiber density without sacrificing fiber 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, fiber accessibility and security, the RIC3 is the best way to protect mission critical fiber connections.

Superior Design — Top and bottom access holes located at the rear of the enclosure allow fibers to be routed between tandem enclosures without having to run fibers 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 fiber 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

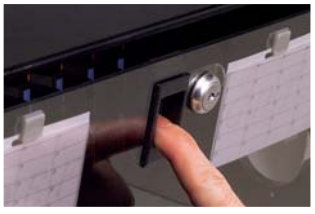
Rotating Grommets — Patented rotating grommets facilitate loading and retention of jumpers and fiber while minimizing microbending stress when using the sliding tray

Quick-Release Hinges — Spring loaded quick-release hinges enable easy opening and removal of front and rear doors for complete access to fiber connections

Maximum Capacity — The RIC3 enables a maximum amount of fibers to be patched or patched and spliced in a 2, 3, and 4U enclosure without compromising accessibility. This allows more efficient utilization 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 fiber connections.

Rack Mount Interconnect Center (RIC3)

Siemon RIC3 enclosures are designed for enhanced fiber management and ease of use. They are compatible with an array of Siemon fiber Quick-Pack® and MTP adapter plates for your choice of fiber adapters and port density.

Part # RIC3-24-01 ..... **Description** 24- to 96-fiber (384 fiber with MTP adapter plates) Rack Mount Interconnect Center, accepts (4) Quick-Pack adapter plates, 2U, black
height: 86.6mm (3.4 in.),
width: 432mm (17 in.),
depth: 380mm (15 in.)

Part # RIC3-36-01 ..... **Description** 36- to 144-fiber (up to 576 fiber with MTP adapter plates) Rack Mount Interconnect Center, accepts (6) Quick-Pack adapter plates, 2U, black
height: 86.6mm (3.4 in.),
width: 432mm (17 in.),
depth: 380mm (15 in.)

RIC3-48-01 ..... 48- to 192-fiber (up to 768 fiber with MTP adapter plates) Rack Mount Interconnect Center, accepts (8) Quick-Pack adapter plates, 3U, black
height: 133mm (5.2 in.),
width: 432mm (17 in.),
depth: 380mm (15 in.)

RIC3-72-01..... 72- to 288-fiber (up to 1152 fiber with MTP adapter plates) Rack Mount Interconnect Center, accepts (12) Quick-Pack adapter plates, 4U, black
height: 178mm (7 in.),
width: 432mm (17 in.),
depth: 380mm (15 in.)

Note: 1U = 44.5mm

Note: All RIC products include laser-printable labels, cable ties, rack-mounting hardware, and pre-installed fiber management clips.*

*Visit www.siemon.com for labeling software.

MAXIMUM RIC3 FIBER CAPACITY

# Fibers 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

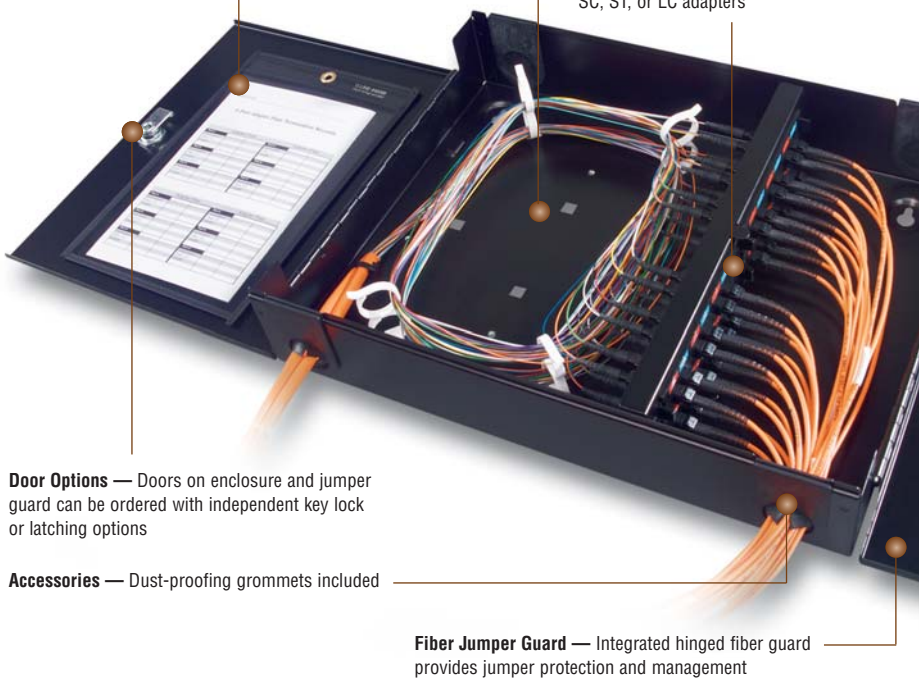
MAXIMUM SPLICING CAPACITY

Splice Type	RIC24	RIC36	RIC48	RIC72
Fusion	96	96	96	144

***For more MTP adapter options, see page 6.1*

Wall Mount Interconnect Center (SWIC3)

The Wall Mount Interconnect Center (SWIC3) is a cost-effective fiber enclosure designed to manage and protect up to 96 fibers (up to 384 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 standardized on the same snap-in Quick-Pack® adapter plates used in our family of Rack Mount Interconnect Centers (RIC3).



Convenient Labeling — Convenient labeling system includes removable clear label holders for storing and protecting fiber documentation

Optional Splice Tray Bracket — Optional bracket available for mounting multiple splice trays (not shown)

Available with Quick-Pack Adapter Plates — Quick-Pack adapter plates are available with SC, ST, or LC adapters

Door Options — Doors on enclosure and jumper guard can be ordered with independent key lock or latching options

Accessories — Dust-proofing grommets included

Fiber Jumper Guard — Integrated hinged fiber guard provides jumper protection and management

Easy Access
Doors on enclosures and jumper guard swing open a full 180° to provide complete front and side access.

Dual-Level Fiber Managers
Incorporates two independent levels of storage to enable the fiber to be routed at levels that correspond to the adapters.

Snap-In Adapter Plates
Utilizes same Quick-Pack adapter plates as RIC3 enclosures with integrated latches for snap-in installation and single-finger removal.

MAXIMUM SWIC3 FIBER CAPACITY

# Fibers per Quick-Pack	Adapter Options	SWIC3-M	SWIC3
6	ST, SC	12	24
8	ST, SC	16	32
12	ST, SC	24	48
16	LC	32	64
24	LC	48	96
56	MTP*	192	384

MAXIMUM SPLICING CAPACITY

Splice Type	SWIC3
Fusion	48

**For more MTP adapter options, see page 6.1*

Wall Mount Interconnect Center (SWIC3)

Part #	Description
SWIC3-(X)-01	24- to 96-fiber (up to 384 fiber with MTP adapter plates) Wall Mount Interconnect Center, accepts (4) Quick-Pack® adapter plates, black. Includes dual-level fiber managers, port designation labels and removable pocket, dust-proofing grommets, strain relief hardware, cable ties, and mounting hardware. *height: 311mm (12.2 in.), width: 311mm (12.2 in.), depth: 82.6mm (3.3 in.)*

Use (X) to specify the type of lock on the enclosure:
A = key lock, C = thumb-turn latch

Part #	Description
SWIC3G-(X)(X)-01	24- to 96-fiber (up to 384 fiber with MTP adapter plates) Wall Mount Interconnect Center with integrated jumper guard, accepts (4) Quick-Pack adapter plates, black. Includes dual-level fiber managers, port designation labels and removable pocket, dust-proofing grommets, strain relief hardware, cable ties, and mounting hardware. *height: 311mm (12.2 in.), width: 406mm (16 in.), depth: 82.6mm (3.3 in.)*

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

Part #	Description
TRAY-B-01	Bracket for mounting up to 4 mini splice trays to SWIC3 base

Mini Wall Mount Interconnect Center

The SWIC3 enables the economical interconnection of fiber in locations where wall space is limited while still providing many of the popular, installer-friendly features of the SWIC3. By accepting two flat Quick-Pack adapter plates, the SWIC3 can accommodate from 12-48 fibers (up to 192 with MTP adapter plates). Also included are dust-proofing grommets to provide protection from contaminants and bend radius guides to ensure proper storage of fiber slack.

Part #	Description
SWIC3-M-01	12- to 48-fiber (up to 192 fiber with MTP adapter plates) Mini Wall Mount Interconnect Center, accepts (2) Quick-Pack adapter plates, black *height: 218.4mm (8.6 in.), width: 185.4mm (7.3 in.), depth: 82.6mm (3.3 in.)*

Note: SWIC3-M-01 does not accept splice trays.

Fiber Connect Panel (FCP3)

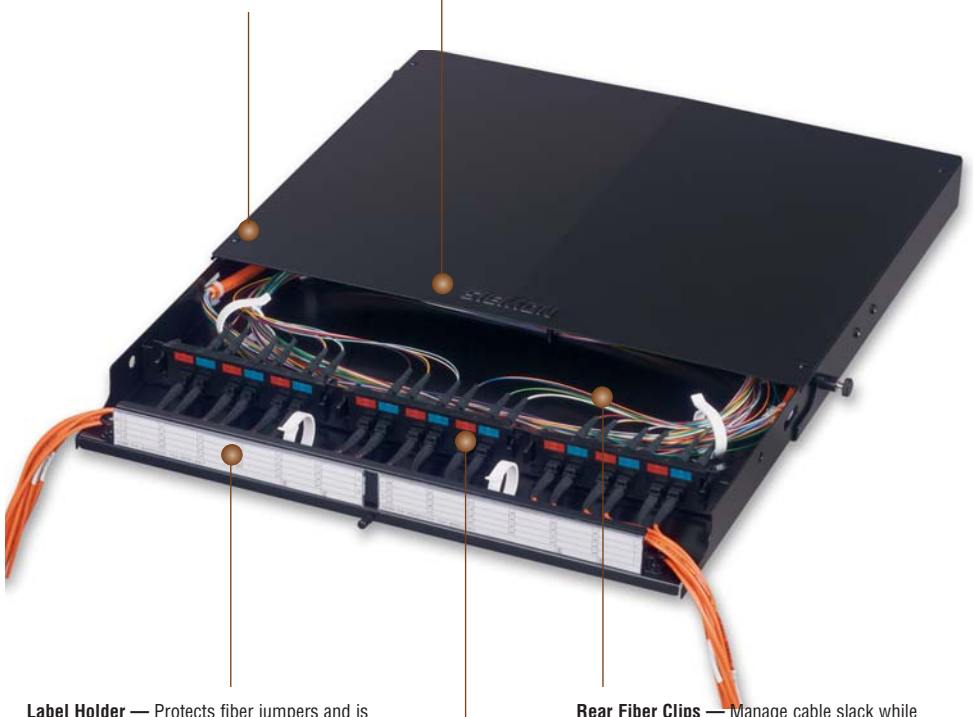
Siemon's popular Fiber Connect Panels (FCP3-DWR and FCP3-RACK) economically connect, protect, and manage up to 72 fibers/1U (up to 288 fibers with MTP to MTP adapters). It accepts Siemon's Quick-Pack® adapter plates with patented single-finger access. The FCP3-DWR makes access to the connections easy via a fixed tray that can be released and slid out of the front or rear of the enclosure.

High Density

FCP3 enclosures accommodate up to 72 fibers (288 with MTP adapter plates) in only 1U on a 19 inch rack.

Sliding Tray

The FCP3-DWR (drawer version) features a tray that slides out from the front or rear, providing easy access to fiber connections. The entire tray can be removed and placed on a work table for more convenience.



MAXIMUM FCP3 FIBER CAPACITY

# Fibers 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

**For more MTP adapter options, see page 6.1*

Fiber Connect Panel (FCP3)

Part #	Description
FCP3-DWR	6- to 72-fiber (up to 288 fiber with MTP adapter plates) Fiber Connect Panel with sliding tray, accepts (3) Quick-Pack® adapter plates, 1U, black. Includes mounting brackets, housing/tray, fiber managers, grommets, label holders, and labels *height: 43.2mm, width: 482.6mm, depth: 355.6mm*
FCP3-RACK	6- to 72-fiber (up to 288 fiber with MTP adapter plates) Fiber Connect Panel with fixed tray, accepts (3) Quick-Pack adapter plates, 1U, black. Includes mounting brackets, housing/cover, fiber managers and grommet *height: 43.2mm, width: 482.6mm, depth: 241.3mm*

Note: 1U = 44.5 mm

FCP3-DWR

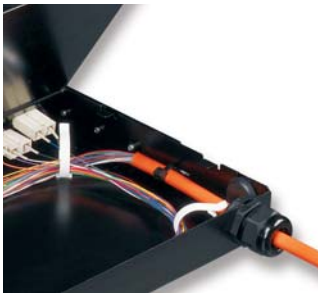
FCP3-RACK

Compression Fittings

Compression fittings are utilized as an enhanced method for securing cables to FCP3 fiber enclosures. Acme threads on the body prevent skipping, allowing for faster installations of lock-nuts.

Part #	Description
CF-(XX)	Compression fitting

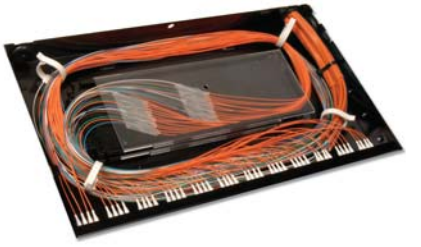
Use (XX) to specify fiber diameter:
40 = 5.8 – 13.9mm,
51 = 11.4 – 18.0mm



Splice Trays (XGLO® and LightSystem®)

These aluminum 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 fiber enclosures
TRAY-M-3	Mini splice tray for up to 12 fusion splices with sleeve protection. For use with SWIC3 enclosures



TRAY-3

Standard Tray Dimensions
height: 103mm,
width: 298mm,
depth: 8.13mm

TRAY-M-3

Mini Tray Dimensions
height: 103mm,
width: 179mm,
depth: 8.13mm

Heat Shrink Sleeves

Heat shrink sleeves provide a safe and efficient method for protecting fusion splices on either 250 or 900 micron coated fibers. Heat shrink sleeves are threaded on to fibers prior to fusion splicing and then positioned directly over splice and heated via an oven or heat gun.*

Part #	Description
HT-40	40mm heat shrink sleeve
HT-60	60mm heat shrink sleeve

**Heating times may vary depending on heat source.*

Quick-Pack® Adapter Plates

Siemon's patented Quick-Pack adapter plates feature an integrated latch, which provides single-finger access to fiber even in fully populated enclosures.

XGLO® & Lightsystem®

RIC-F-SC6-01
3 duplex SC adapters
(6 fibers)

RIC-F-SC8-01
4 duplex SC adapters
(8 fibers)

RIC-F-SC12-01
6 duplex SC adapters
(12 fibers)

RIC-F-LC12-01
6 duplex LC adapters
(12 fibers), beige adapters

RIC-F-LCU12-01C
6 duplex LC adapters
(12 fibers), blue adapters
(not shown)

RIC-F-LC16-01
4 quad LC adapters
(16 fibers), beige adapters

RIC-F-LCU16-01C
4 quad LC adapters
(16 fibers), blue adapters
(not shown)

RIC-F-LC24-01
6 quad LC adapters
(24 fibers), beige adapters

RIC-F-LCU24-01C
6 quad LC adapters
(24 fibers), blue adapters
(not shown)

Lightsystem®

RIC-F-SA6-01
3 duplex ST adapters
(6 fibers)

RIC-F-SA8-01
4 duplex ST adapters
(8 fibers)

RIC-F-SA12-01
6 duplex ST adapters
(12 fibers)
Only recommended for push-pull ST connectors due to access constraints

RIC-F-BLNK-01
Blank adapter plate

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.

See page 6.1 for MTP to MTP adapter plates.

Fiber Management Tray (FMT)

The Siemon Fiber Management Tray (FMT) is an economical solution for managing fiber 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 organize up to 32 fibers. The tray is only 254mm (10 in.) deep, allowing it to readily fit into cabinet enclosures. Each enclosure can accept up to two fiber splice trays.

Part #	Description	RMS
CT-FMT-16	Fiber tray for 1 RMS CT or MAX Panel	1

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

MapIT® G2 Infrastructure Management

Take your network management to the next level. MapIT G2 integrates a powerful combination of innovative Smart Patch Panels, user-friendly Master Control Panels and infrastructure management software to provide real-time tracking and reporting of network-wide physical layer activity. The system continuously monitors your network — 24/7, reducing downtime and increasing physical-layer security by tracking and providing instant alerts on changes in critical device connectivity as well as potential security threats, such as unauthorized connections and devices. All such 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.

- Angled Smart Patch Panels (SPP) — Angled panels eliminate the need for horizontal cable managers, greatly improving patching density
- MTP Plug and Play Smart Fiber Enclosures — Compatible with standard MTP Plug and Play cable assemblies for rapid deployment of monitored high-speed data center links
- MapIT G2 Interconnect System — Interconnect system allows reliable tracking of direct patching links between switches and Smart Patch Panels

Section Contents

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 Fiber 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 and diagnostic information. By providing this interactive interface locally within the patching zone, the MapIT G2 virtually eliminates the need for technicians to carry PDAs or directly access the MapIT 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 centers 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

Excellent Thermal Efficiency
The MCP and DCP's combination of ultra low heat generation and a low profile design limits airflow impedance, helping to maximize cooling efficiency in data center environments

Simple, Multi-Functional User Interface
Large graphic LCD and keypad enables technicians to view circuit traces, patch cord traces, perform 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

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

9A5R4-E1-(XX)-R1A.....Riser (CMR, CSA FT4) 305m (1000 ft.) Reel, (US)
9A5R4-E2 .....PVC (CMR, CSA FT4) Blue jacket, 305m (1000 ft.), Reel-in-Box (International)

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 (colored icons not included)

MapIT IM and PLM Software

This software manages, monitors and documents your network infrastructure through Siemon's MapIT G2 connectivity. For more information on MapIT IM and PLM software, including features, capabilities and system requirements, please contact your local Siemon representative, or visit **www.siemon.com**.

MapIT® G2 Interconnect Solution

The MapIT G2 interconnect solution enables tracking of direct MapIT G2 connectivity between a switch and a single Smart Patch Panel (SPP) — without the need for an additional SPP as is 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.

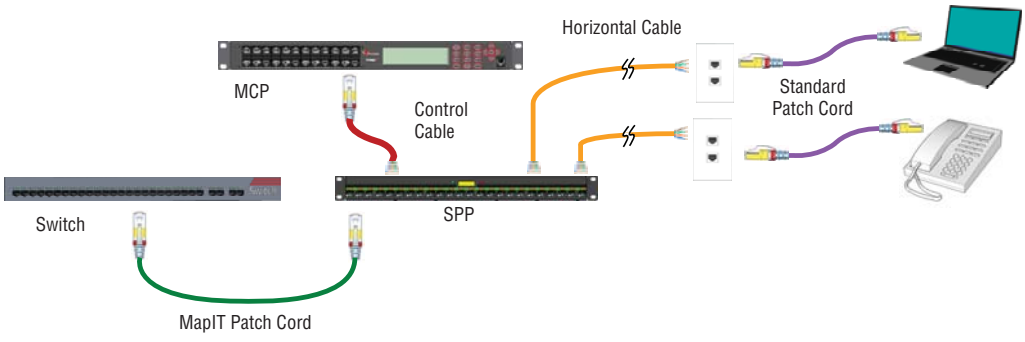
Deployment is simple - just plug a MapIT G2 patch cord into the switch and plug the other end into the Interconnect Module, which discovers the switch port and relays the information to the MapIT G2 system. Then, remove the cord from the module, plug it into the SPP and the link is detected.

Reduced Costs
The interconnect solution requires half the number of patch panels versus an intelligent cross connect installation, cutting both material and installation labor costs

Faster Deployment
By reducing the number of patch panels and associated connectivity, intstallation 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

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 panel port connections during initial installation or during moves, adds and changes.

M-ICM.....MapIT G2 Interconnect Module

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 the MapIT 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 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 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)-K24E(XX) .....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

Use (X) to specify panel type: Blank = Flat, A = Angled
Use (XX) to specify software option:
Blank = 24 IM software port licenses included
NS = software sold separately

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), 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, T568A/B
Z6A-K(XX) .....Keystone unshielded Z-MAX 6A outlet, T568A/B
Z6-K(XX).....Keystone unshielded Z-MAX 6 outlet, T568A/B
MX6-K01.....Keystone unshielded MAX 6 outlet, black

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

Shielded Keystone Z-MAX

Unshielded Keystone Z-MAX

MapIT® G2 Copper Systems

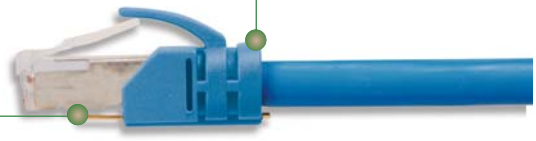
MapIT G2 Patch Cords

These advanced cords also feature a 9th wire and sensor pin contained in a robust over-molded 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-molded 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, color-matching boot, T568A/B, LS0H

Length
- **01** = 1 m (3.3 ft.)
- **02** = 2 m (6.6 ft.)
- **03** = 3 m (9.8 ft.)
- **05** = 5 m (16.4 ft.)

Jacket Color
- **02** = White
- **04** = Gray
- **06** = Blue

M-10GMC-(XX)-(XX) . . . . . MapIT G2 Category 6A UTP, double-ended, stranded modular cord, color-matching boot, T568A/B, CMG

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.)

Jacket Color
- **02** = White
- **04** = Gray
- **06** = Blue

M-MC6-(XX)-(XX) . . . . . MapIT G2 Category 6 UTP, double-ended, stranded modular cord, color-matching boot, T568A/B, CMG

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.)

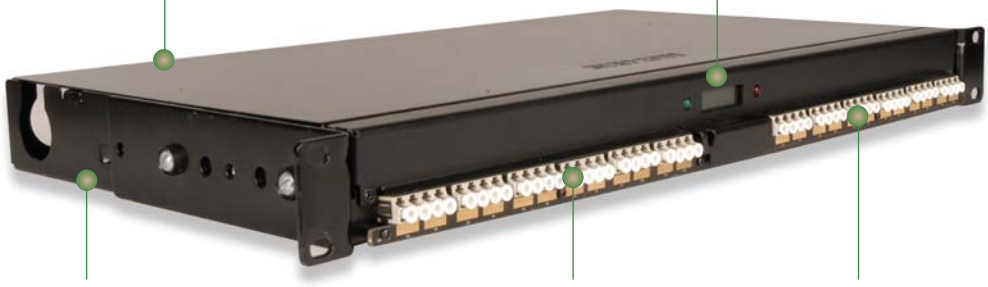
Jacket Color
- **02** = White
- **04** = Gray
- **06** = Blue

MapIT® G2 Smart Fiber Enclosure

The MapIT G2 Smart Fiber Enclosures are an industry first in intelligent 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 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 MapIT IM and PLM software.

High Performance — Available in 40 and 100Gb/s-ready OM4 MTP plug and play versions as well as multimode and singlemode LC field-terminated connectivity

Smart — on panel intelligence tracks fiber jumper connections and drives LCD/LEDs for tech guidance



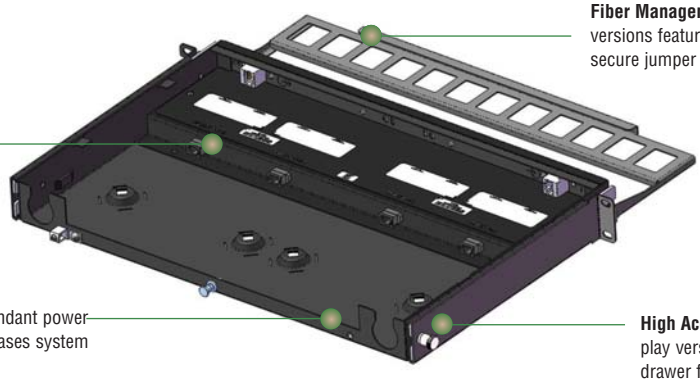
Green — MapIT G2 uses 78% less power than competing systems and run cool for reduced heat generation

High Density — Up to 48 fibers 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 centers

Fiber Management — MTP plug and play versions feature integrated fiber managers for secure jumper routing

Plug and Play — Multi-fiber MTP connectivity provides ultra-fast deployment in mission-critical data centers



Reliable — Resilient redundant power and communications increases system reliability

High Accessibility — Plug and play versions feature sliding drawer for easy access to connectivity

MapIT® G2 Smart Fiber Enclosures

MTP to LC Plug and Play Fiber Enclosure - SMTP

M-SMTP-LC5V48(XX) .....MapIT G2 LC 48-fiber MTP to LC Smart Fiber Enclosure, black, Multimode, OM4
Includes 2 MTP adapters, 24 duplex MM, LC adapters, cable ties, panel ground lug, fiber management clips, front management bar, label holder and labels

M-SMTP-LCSM48(XX) .....MapIT G2 LC 48-fiber MTP to LC Smart Fiber Enclosure, black, Singlemode, OS2
Includes 2 MTP adapters, 24 duplex SM, LC adapters, cable ties, panel ground lug, fiber management clips, front management bar, label holder and labels

LC to LC Fiber Enclosure - SFE

M-SFE-LC48-(XX) .....MapIT G2 LC 48-fiber Smart Fiber Enclosure, black, Multimode
Includes 24 duplex MM, LC adapters, cable ties, panel ground lug, fiber management clips, label holder and labels

M-SFE-LC48-(XX)C.....MapIT G2 LC 48-fiber Smart Fiber Enclosure, black. Singlemode
Includes 24 duplex SM, LC adapters, cable ties, panel ground lug, fiber management clips, label holder and labels

Use (XX) to specify software option:
01 = 24 IM software port licenses included
NS = software sold separately

MapIT G2-Ready Fiber Enclosures

MTP to LC Plug and Play Fiber Enclosure

M-MTP-LC5V48-01.....MapIT G2-Ready MTP to LC Enclosure, black, Multimode, OM4
Includes 2 MTP adapters, 24 duplex MM/LC adapters, cable ties, panel ground lug, fiber management clips, front management bar, label holder and labels

LC to LC Fiber Enclosure

M-FE-LC48-01*.....MapIT G2-Ready Enclosure, black, Multimode*
Includes 24 duplex LC adapters, cable ties, panel ground lug, fiber management clips, label holder and labels

Upgrade Kit for MapIT G2-Ready Fiber Enclosures

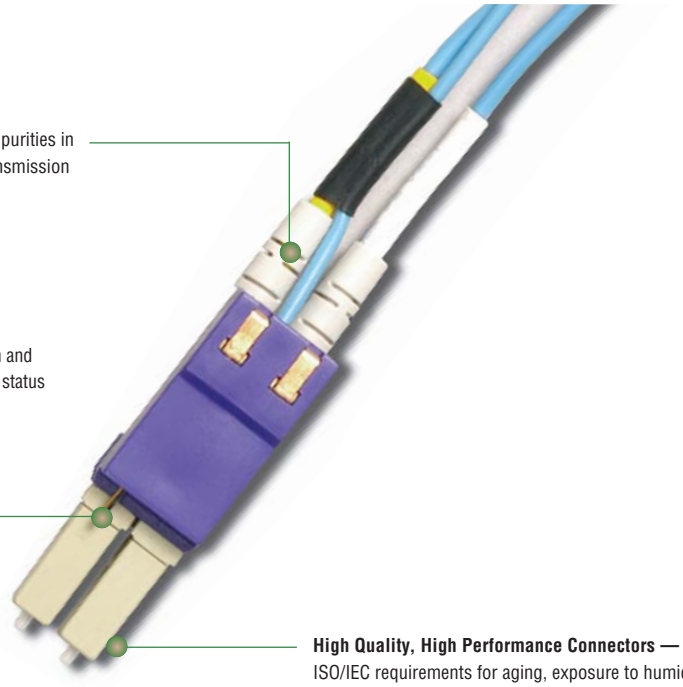
M-SFE-PCBA-24 .....MapIT G2 Upgrade Kit for MapIT G2 Ready Fiber Enclosure
(Upgrade kit includes PCB with built-in sensor pads, LED's and LCD display, new front panel cover, additional mounting hardware and components with instructions), software sold separately

**Singlemode available, contact Customer Service for more information*

MapIT® G2 Fiber Systems

MapIT G2 XGLO® Jumpers

XGLO MapIT G2 jumpers are built to be the best. These assemblies are constructed with premium fiber 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 molded connector clips. These jumpers enable tracking of port connections between MapIT G2 fiber enclosures and LAN equipment.



XGLO Laser Bandwidth Optimized Cable — Reduces impurities in the core of fiber, 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 TIA and ISO/IEC 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 optimized multimode fiber, aqua jacket

Fiber Type	Length
5L = OM3	**01 =** 1 m (3.3 ft.)
5V = OM4	**03 =** 3 m (9.8 ft.)
	05 = 5 m (16.4 ft.)

MapIT G2 XGLO Singlemode Duplex Jumpers:

M-J2-LCULCUL-(XX) . . . . . LC-LC duplex jumper, MapIT G2 XGLO OS1/OS2 singlemode fiber, yellow jacket

Length
01 = 1 m (3.3 ft.)
03 = 3 m (9.8 ft.)
05 = 5 m (16.4 ft.)

Faceplates, Mounting Boxes 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.

In addition to the many MAX® and CT® faceplate options, surface-mount boxes, modular furniture adapters and more, please be certain to check out this comprehensive range of flexible options.

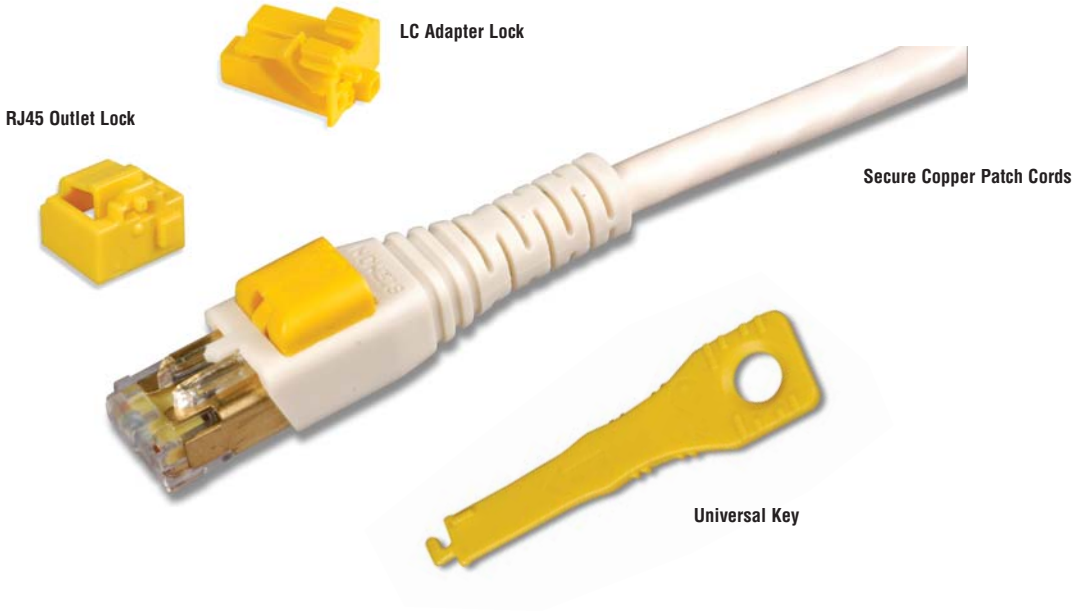
- **Universal Modular Furniture Adapter —** Adapts to securely mount network connectivity in nearly any modular furniture system, eliminating the need for separate, furniture-specific adapters.
- **5-SQUARE® Telecom Box —** Offers 50% more cable management space than traditional boxes to support larger-diamter, high-performance cabling.

Section Contents

LockIT™ Secure Connectivity System

The LockIT solution is comprised of two primary elements: the RJ45 Outlet/LC Adapter Lock and the Secure Patch Cord. The Lock protects a RJ45 copper outlet or LC fiber adapter from the insertion of cords or foreign objects. The Secure RJ45 Patch Cord deters unintended or unauthorized 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 colored in yellow to easily identify secured connectivity.

The LockIT products are compatible with any standards compliant RJ45 outlet, or LC fiber 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 centers, health care environments and government systems.



LockIT can protect copper and fiber work area outlets in public areas from tampering or unwanted access

Patch panel and fiber ports may be protected in the work area, wiring closets and data centers

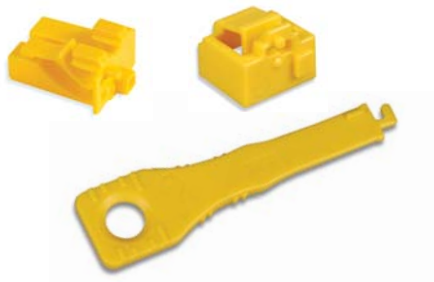
LockIT is ideal to secure active equipment ports against unintended or unauthorized connections or disconnections

Outlet/ Module Locks

LockIT Outlet Lock:
LL-05 .....LockIT 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 6, double ended, 4-pair, stranded LockIT secure patchcord, T568A/B, color matching jacket/boot, LSOH/CM

LP6A-S(XX)M-(XX)L

Cord Length:	Cord Color:
01 = 1m (3 ft.)	**01** = Black
1.5 =1.5m (4.5 ft.)	**02** = White
02 = 2m (6 ft.)	**03** = Red
03 = 3m (9 ft.)	**04** = Gray
04 = 4m (12 ft.)	**05** = Yellow
05 = 5m (15 ft.)	**06** = Blue
	07 = Green

Secure Category 6A UTP Patchcords

UTP Category 6A, double ended, 4-pair, stranded LockIT secure patchcord, T568A/B, color matching jacket/boot, CMG

LP6A-(XX)-(XX)

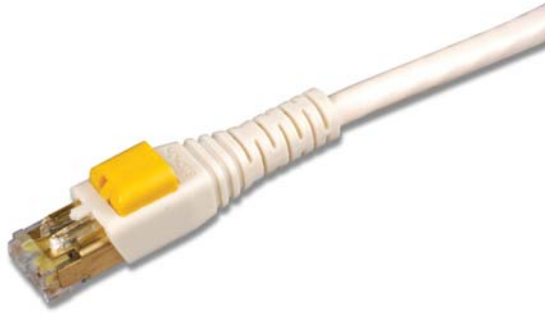
Cord Length:	Cord Color:
03 = 0.9m (3 ft.)	**01** = Black
05 = 1.5m (5 ft.)	**02** = White
07 = 2.1m (7 ft.)	**03** = Red
10 = 3.1m (10 ft.)	**04** = Gray
15 = 4.6m (15 ft.)	**05** = Yellow
20 = 6.1m (20 ft.)	**06** = Blue
	07 = Green

Secure Category 6 Patchcords

UTP Category 6A, double ended, 4-pair, stranded LockIT secure patchcord, T568A/B, color matching jacket/boot, LSOH/CM

LP6-(XX)-(XX)

Cord Length:	Cord Color:
03 = 0.9m (3 ft.)	**01** = Black
05 = 1.5m (5 ft.)	**02** = White
07 = 2.1m (7 ft.)	**03** = Red
10 = 3.1m (10 ft.)	**04** = Gray
15 = 4.6m (15 ft.)	**05** = Yellow
20 = 6.1m (20 ft.)	**06** = Blue
	07 = Green

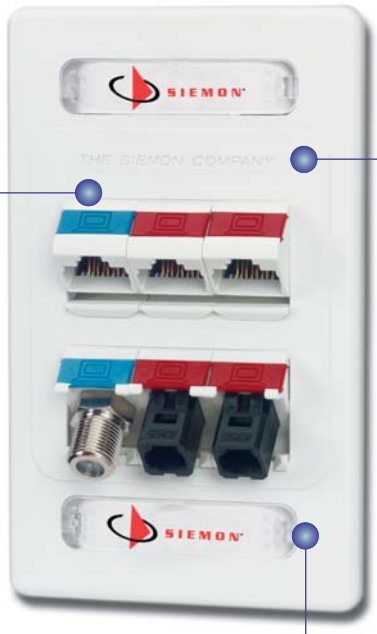


MAX® Faceplates

The MAX faceplates combine high density with aesthetics providing a fresh look to match today's office decor. The faceplates are designed to be used with angled or flat MAX modules, hybrid Z-MAX® outlets or TERA® outlets.

Quick Identification — Color-coded icons allow users to instantly identify different types of devices or applications

Variety — Faceplates available in black, white, gray, ivory, light ivory, and stainless steel



Labels — Sheets of designation labels can be ordered for use with standard printers

Installation Flexibility
MAX or Z-MAX modules can be installed from front or rear of faceplate.

Superior Density
Fits up to 6 outlets in a single gang or 12 in a double gang faceplate.

Labeling
Faceplates include pressure-release designation label covers for quick, tool-less removal.

10G MAX Faceplates

10G MAX Faceplates are required for Z-MAX 6A UTP installations. Isolated port spacing ensures proper Alien Crosstalk performance. Faceplates include designation labels, clear label covers, and mounting screws.

10GMX-FP(XXX)-(XX)

No. of MAX Modules:	Faceplate Color:
S02 = Two (Single Gang)	**01** = Black
S04 = Four (Single Gang)	**02** = White
D06 = Six (Double Gang)	**20** = Ivory
D08 = Eight (Double Gang)	**80** = Light ivory

Ⓑ *Add "B" to end of part number for bulk project pack of 100 faceplates.*

MAX® Faceplates

Faceplates include designation labels, clear label covers, and mounting screws.

MX-FP-S-(XX)-(XX)..... Single Gang

Ports:
- **01** = 1 Port
- **02** = 2 Port
- **03** = 3 Port
- **04** = 4 Port
- **06** = 6 Port

Faceplate Color:
- **01** = Black
- **02** = White
- **04** = Gray
- **20** = Ivory
- **80** = Light ivory

MX-FP-D-(XX)-(XX)..... Double Gang

Ports:
- **06** = 6 Port
- **08** = 8 Port
- **12** = 12 Port

Faceplate Color:
- **01** = Black
- **02** = White
- **04** = Gray
- **20** = Ivory
- **80** = Light ivory

Ⓑ *Add "B" to end of part number for bulk project pack of 100 faceplates.**

**Black and gray color options and bulk project packs available for single gang faceplates only.*

MAX Stainless Steel Faceplates

Single and double gang stainless steel MAX faceplates for use with flat and angled MAX modules. Brushed finish on plates mask minor scratches and scuffs that may occur during day-to-day usage.

MX-FP-S-(XX)-SS-(X)..... Single Gang

Ports:
- **01** = 1 Port
- **02** = 2 Port
- **03** = 3 Port
- **04** = 4 Port
- **06** = 6 Port

Label Options:
- **L** = Label Holder
- **Blank** = No Labels or Holder

MX-FP-D-(XX)-SS-(X)..... Double Gang

Ports:
- **06** = 6 Port
- **08** = 8 Port
- **12** = 12 Port

Label Options:
- **L** = Label Holder
- **Blank** = No Labels or Holder

10G MAX® Horizontal Faceplates

Siemon's 10G single gang horizontal faceplate for Z-MAX, TERA or MAX modules

10GMX-HFP-(XX)-(XX)

Ports:
- **01** = 1 Port
- **02** = 2 Port
- **03** = 3 Port

Color:
- **02** = White
- **20** = Ivory
- **80** = Light Ivory

Ⓑ *Add "B" to end of part number for bulk project pack of 100 faceplates.*

MAX Horizontal Faceplates

Siemon's single gang horizontal faceplate for Z-MAX, TERA or MAX modules

MX-HFP-(XX)-(XX)

Ports:
- **01** = 1 Port
- **02** = 2 Port
- **03** = 3 Port
- **04** = 4 Port

Color:
- **02** = White
- **20** = Ivory
- **80** = Light Ivory

Note: Screws, metal mounting plate, designation label and clear label cover included.

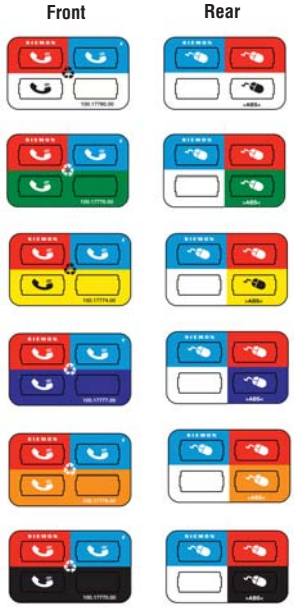
Z-MAX Icon Cards

All Cards include:

- Red and blue icons with voice and data symbols
- Supplemental/color-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 Color
- **01** = Black
- **02** = White
- **03** = Red
- **04** = Gray
- **05** = Yellow
- **06** = Blue
- **07** = Green
- **09** = Orange
- **20** = Ivory
- **80** = Light Ivory



MAX and CT Icons

CT-ICON-(XX) . . . . . 25 colored icon tabs (phone on one side, computer on reverse)

CT-ICON

MAX® Duplex and Designer® Faceplates

The MAX Duplex and Designer faceplates are designed for use with Siemon's MAX series mounting frames. They are ideal for today's small office, home office, or residential environment. Faceplates include designation labels and color-matching label covers for circuit identification.

DP-S-(XX) . . . . . .
Single gang,
Duplex faceplate

DR-S-(XX) . . . . . .
Single gang,
Designer faceplate

DRE-D-(XX) . . . . . .
Double gang
Designer/Duplex faceplate

DR-D-(XX) . . . . . .
Double gang
Designer faceplate

Use (XX) to specify color: 02 = white, 20 = ivory, 25 = bright white, 80 = light ivory

MAX Mounting Frames

Siemon's MAX mounting frames provide a solution for installing MAX or Z-MAX outlets in an environment where electrical Duplex or Designer style faceplates are desired. They are compatible with any Duplex or Designer style faceplate. The mounting ears can also be detached and used as spacers between the frames and mounting boxes.

Duplex Mounting Frames

MX-E2F-(XX) . . . . . .
Duplex mounting frame, accepts two flat MAX or Z-MAX outlets

MX-E2A-(XX) . . . . . .
Duplex mounting frame, accepts two angled MAX or Z-MAX outlets

MX-E4F-(XX) . . . . . .
Duplex mounting frame, accepts four flat MAX or Z-MAX outlets

MX-E4A-(XX) . . . . . .
Duplex mounting frame, accepts four angled MAX outlets

MX-D4F-15-(XX) . . . . . .
4-port MAX mounting frame with HD15 female-female adapter installed

MX-D4F-15E-(XX) . . . . . .
4-port MAX mounting frame, HD15 cut-out, empty

Designer Mounting Frames

MX-D1Z-(XX) . . . . . .
Designer mounting frame, accepts one MAX or Z-MAX outlets

MX-D2Z-(XX) . . . . . .
Designer mounting frame, accepts two MAX or Z-MAX outlets

MX-D4Z-(XX) . . . . . .
Designer mounting frame, accepts four MAX or Z-MAX outlets

MX-D6F-(XX) . . . . . .
Designer mounting frame, accepts six flat MAX or Z-MAX outlets

Use (XX) to specify color: 02 = white, 04 = gray, 20 = ivory, 25 = bright white, 80 = light ivory

Wall Phone Faceplates

WPJP . . . . . .
Plastic Wall Phone Faceplate with 4-pair USOC jack included

MX-WP-(XX)SS . . . . . .
MAX Series Stainless Steel Wall Phone Faceplate with keystone MAX module included

Use (XX) to specify wiring option:
Z6 = category 6 UTP, T568A/B; Z-MAX outlet
Z6A = category 6A UTP, T568A/B; Z-MAX outlet
Z6AS = category 6A Shielded, T568A/B; Z-MAX outlet
K6 = category 6 UTP, T568A/B; MAX outlet
K5 = category 5e UTP, T568A/B; MAX outlet
U3 = 3-pair, 6-position UTP USOC; MAX outlet
U4 = 4-pair, 8-position UTP USOC; MAX outlet

Siemon Universal Modular Furniture Adapter

Siemon's extended depth, universal modular furniture adapter was specifically designed as a single product solution for securely mounting work area network connectivity in all of today's most common modular furniture systems. The adapter's universal mounting frame is adaptable to fit a wide range of available opening sizes, providing simple, snap-in attachment of the plates. This combination of mounting frame and plate facilitates the deployment of today's larger diameter, high performance cabling in congested modular furniture pathways without exceeding performance-critical bend radius limits.

Available in MAX® and CT® versions, this product platform provides a universal mounting solution for all Siemon connectivity lines including CT, MAX, Z-MAX® and TERA®.

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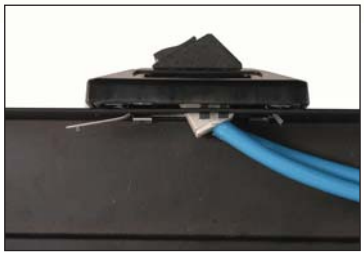
Snap-in Faceplate Mounts —
Robust latching features ensure secure engagement onto mounting frame – even with congested raceways – while providing quick and easy installation

Flexible Mounting —
4-port MAX-style and single coupler CT-style plates are available to support a wide range of connectivity options

Impact Resistant —
Low-profile, angled surface plates protect outlets while eliminating catch points to reduce potential damage due to incidental contact – a common concern in modular furniture environments

Universal Mounting —
Mounting frame adapts to fit nearly any furniture opening and panel thickness, eliminating the need for furniture-specific mounting products while providing a positive fit uncommon to fixed depth latch designs



Manage Bend Radius —
Extended plate design and optional angled adapters provide additional space to help maintain performance-critical bend radius

Improved Labeling Visibility —
Angled, top-mount label window provides better label visibility in low-light, confined locations common to modular furniture applications

Universal Modular Furniture Adapter

CT-UMA-(XX) . . . . . .

CT Universal Modular Furniture Adapter, Accepts (1) CT Coupler. Includes faceplate, mounting frame, label and clear label holder

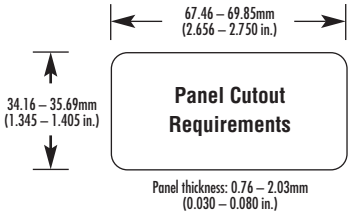
MX-UMA-(XX) . . . . . .

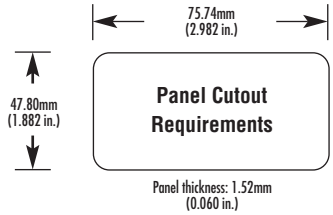
MAX Universal Modular Furniture Adapter, Accepts (4) MAX, Z-MAX or TERA outlets. Includes faceplate, mounting frame, label and clear label holder

Use (XX) To specify color: 01 = black, 02 = white, 04 = gray, 20 = ivory, 80 = light Ivory

MAX® Modular Furniture Adapters

The MAX modular furniture adapters will accept four Z-MAX hybrid outlets, MAX angled or flat modules and snaps directly into communication outlet openings* in most major modular furniture systems, including Steelcase, Haworth and Herman Miller. Adapters include designation label and clear label cover to allow for circuit identification.





MX-MFP-(XX) . . . . . .

Modular furniture adapter for standard openings including Steelcase

Use (XX) to specify color: 01 = black, 02 = white, 04 = gray, 20 = ivory, 80 = light ivory

MX-MFP-HMA-(XX) . . . . . .

Modular furniture adapter for Herman Miller Action Office Series 2 and Ethospace base openings

Use (XX) to specify color: 01 = black, 02 = white, 04 = gray, 20 = ivory

MAX Modular Furniture adapters mount into modular furniture openings, combining superior density with proper circuit designation.

**Furniture outlet openings, panel thickness, and raceway clearance may vary. Please consult furniture manufacturer for actual dimensions to determine compatibility.*

MAX Labeling 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 labeling software.*

(B) Add "B" for bulk pack of 100 icons or tabs.

MAX Outlet Blanks

Blank inserts for unused ports and future growth.

MX-BL-(XX) . . . . . .

Blank module, bag of 10

Use (XX) to specify color: 00 = clear (MX-AD-XX only), 01 = black, 02 = white, 04 = gray, 20 = ivory, 25 = bright white, 80 = light ivory*

MAX® Tamper-Proof Faceplate

Siemon's tamper-proof MAX faceplates provide a secure, low profile solution for mounting our complete line of MAX modules. The design features a one-piece base which accepts up to six angled MAX modules and is secured by a solid cover and a choice of tamper-proof star or standard slotted head screw. The base mounts to any standard North American single gang box.

Part #	Description
MX-TFP-S-06-(XX)	6-port single gang, tamper-proof faceplate for angled MAX modules

Use (XX) to specify color: 02 = white, 80 = light ivory
Faceplates include tamper-proof and standard #6-32x1 mounting screws and color-matching screw cover.
Note: Tamperproof faceplate is not compatible with Z-MAX® or TERA® outlets.

Surface Mounting Boxes for MAX and CT® Faceplates

These boxes offer a surface mounting option for MAX or CT single and double gang faceplates. These boxes are perfect for installations where the work area outlet cannot be recessed into a wall or floor box. The boxes are also compatible with our stand-off rings if extra depth is required behind the faceplate. Mounting hardware not included.

CT4-BOX-(XX) .....
Surface mount box for single gang MAX or CT faceplate
height: 119.3mm (4.70 in.),
width: 74.8mm (2.95 in.),
depth: 40.6mm (1.60 in.)

CT8-BOX-(XX) .....
Surface mount box for double gang MAX or CT faceplate
height: 119.3mm (4.70 in.),
width: 120.8mm (4.76 in.),
depth: 40.6mm (1.60 in.)

Use (XX) to specify color: 01 = black, 02 = white, 04 = gray, 20 = ivory, 80 = light ivory

AB .....
Adhesive backing
(package of 10)

MB .....
Magnetic backing
(package of 10)

Note: Two magnetic or adhesive backings required for double gang boxes.

Stand-Off Rings for MAX and CT Faceplates

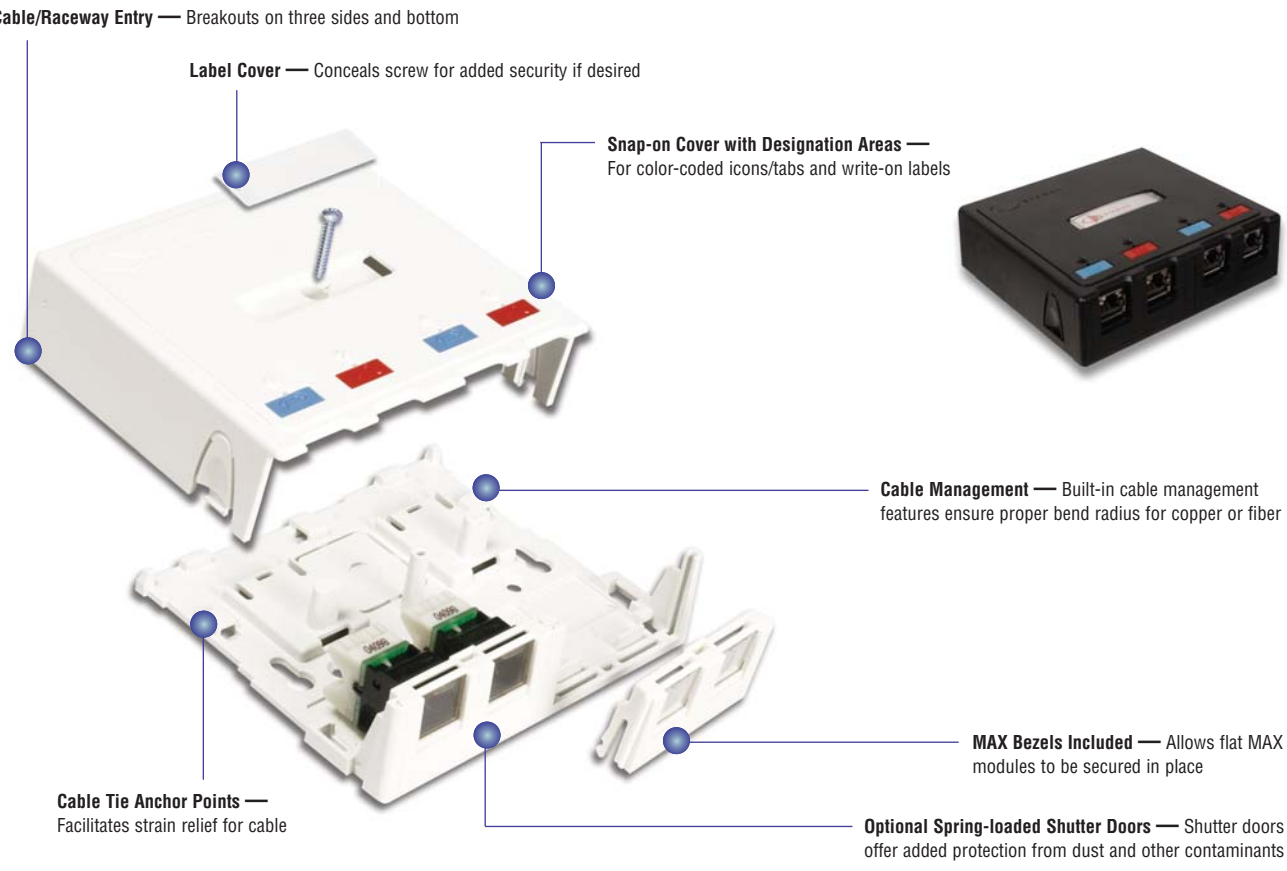
Stand-off rings are a mounting option for installations that need extra depth behind the faceplate. They are compatible with both MAX and CT faceplates. The 25.4mm (1.00 in.) ring is especially useful to ensure the proper bend radius for optical fiber or other multimedia applications (faceplate not included).

Part #	Description
CT4-RING-050-(XX)	12.7mm (0.50 in.) stand-off ring for single gang MAX or CT faceplate
CT4-RING-100-(XX)	25.4mm (1.0 in.) stand-off ring for single gang MAX or CT faceplate
CT8-RING-050-(XX)	12.7mm (0.50 in.) stand-off ring for double gang MAX or CT faceplate
CT8-RING-100-(XX)	25.4mm (1.0 in.) stand-off ring for double gang MAX or CT faceplate

Use (XX) to specify color: 01 = black, 02 = white, 04 = gray, 20 = ivory, 80 = light ivory

Surface Mount Boxes

Surface mount boxes feature a sleek compact, easy-to-install design. UTP, shielded, fiber, 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 organized installation.



Z-MAX Surface Mount Boxes

MX-SMZ(X)-(XX)-(X) . . . . . Z-MAX Surface mount box with cover base, 2 port multimedia bezel, cable ties, adhesive tape and mounting screws

Ports
1 = 1 port
2 = 2 port*
4 = 4 port*
6 = 6 port*

Color
01 = Black
02 = White
20 = Ivory
80 = Light Ivory

Options
(Blank) = n/a
M = magnets

** Includes designation labels and label covers*

Also for use with single-port flat and duplex LC adapter modules and TERA outlets.
See pages 9.15 and 9.16.

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 color: 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 modules. For LC, SC duplex fiber adapters, Z-MAX and TERA options, see MX-SM multimedia bezels below.

MX-SM Multimedia, SC Bezels and Blanks

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 color: 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.

6-Port SP5 Surface Pack Module

This 6-port SP5 Surface Pack is designed to provide high performance modular connectivity and category 5e transmission performance for mobile, surface mount applications. The module fits through 57.15mm (2.25 in.) diameter openings for easy relocation and can be mounted using either mounting screws (not provided) or optional internal mounting magnets. Cable tie strain relief points and tapered entrance secures and protects cables.

Part #	Description
SP5-C5	6-port, surface pack module, T568A/B. Includes icon label holder, label, and cable tie

Add "-M" for optional mounting magnets.

Siemon 5 SQUARE® Telecommunications Outlet Box

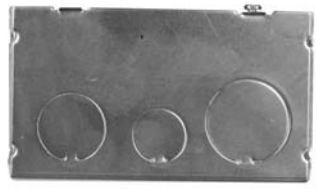
Siemon's 5 SQUARE telecommunications outlet box was specifically designed to support today's high-performance copper and fiber optic cabling systems, providing 50% more useable space than traditional 4 square boxes. This additional space simplifies installation and cable management and helps maintain the strict bend-radius requirements of high-performance systems such as category 6A and category 7_A copper while leaving room for future upgrades and expansions.

50% More Space — Siemon's 5 SQUARE box provides 64 cubic inches of useable space versus just 30-42 cubic inches for standard boxes

Integrated Cable Management — 5 SQUARE is the only telecommunications outlet box with an integrated cable management system

Support Larger-Diameter Cables — Provides additional space for management of larger diameter cables, such as category 6A UTP

Manage Bend Radius — Supports bend-radius requirements of high-performance cabling to ensure proper consistent performance



Flexible Mounting
Standard and bracket-mounted versions feature multiple conduit knockout options.

Installation Options
Available with single and double-gang extension rings with depths up to 1 ¼ in.

Faceplate/Box Compatibility
Plaster/Reducer rings provide compatibility with all US style Siemon and 3rd party single and double gang faceplates, as well as Siemon MX-SM Surface-Mount Boxes, Fiber Outlet Boxes and MuTOA's.

Siemon 5 SQUARE® Telecom Outlet Box

Part #	Description
BB55-01	5 SQUARE Telecom Box w/Cable Mgmt, (1) 1/2, (1) 3/4 in. and (1) 1 in. knockouts on each side
BB55-02	5 SQUARE Telecom Box w/Cable Mgmt, (2) 1 in. knockouts on each side
BB55-03	5 SQUARE Telecom Box w/Cable Mgmt, (1) 1 in. and (1) 1-1/4 in. knockouts on each side
BB55B-01	5 SQUARE Telecom Bracket Box w/Cable Mgmt, (1) 1/2, (1) 3/4 in. and (1) 1 in. knockouts on 3 sides only
BB55B-02	5 SQUARE Telecom Bracket Box w/Cable Mgmt, (2) 1 in. knockouts on 3 sides only
BB55B-03	5 SQUARE Telecom Bracket Box w/Cable Mgmt, (1) 1 in. & (1) 1-1/4 in. knockouts on 3 sides only
BE55-1A	5 SQUARE Single Gang Plaster Ring, Flat
BE55-1B	5 SQUARE Single Gang Plaster Ring, 1/2 in. Raise
BE55-1C	5 SQUARE Single Gang Plaster Ring, 5/8 in. Raise
BE55-1D	5 SQUARE Single Gang Plaster Ring, 3/4 in. Raise
BE55-1E	5 SQUARE Single Gang Plaster Ring, 1 in. Raise
BE55-1F	5 SQUARE Single Gang Plaster Ring, 1-1/4 in. Raise
BE55-2A	5 SQUARE Double Gang Plaster Ring, Flat
BE55-2B	5 SQUARE Double Gang Plaster Ring, 1/2 in. Raise
BE55-2C	5 SQUARE Double Gang Plaster Ring, 5/8 in. Raise
BE55-2D	5 SQUARE Double Gang Plaster Ring, 3/4 in. Raise
BE55-2E	5 SQUARE Double Gang Plaster Ring, 1 in. Raise
BE55-2F	5 SQUARE Double Gang Plaster Ring, 1-1/4 in. Raise


BB55-01


BB55-02


BB55-03


BB55B-01


BB55B-02


BB55B-03


BE55-1A


BE55-1B


BE55-1C


BE55-1D


BE55-1E


BE55-1F


BE55-2A


BE55-2B


BE55-2C

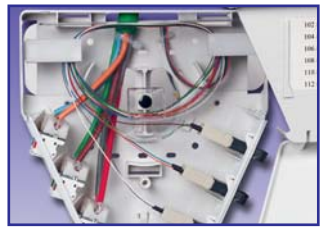

BE55-2D


BE55-2E


BE55-2F

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 ft.) of buffered optical fiber cable using our optional fiber management tray and at least 2m (6.5 ft.) of 4-pair twisted pair cable in the base, while maintaining a minimum bend radius of 30mm (1.2 in.).



Fiber Management
Optional fiber management trays enable isolation and proper routing of optical fiber cabling.

Innovative Labeling
Hideaway labeling system flips down to reveal a designation area that utilizes standard size faceplate designation labels.

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 fiber ports
CT MUTA accommodates any combination up to 6 CT couplers

MUTOA Ordering Information

Part #	Description
(XX)-MMO-(XX)	Multi-user/telecommunications outlet box with cable ties, mounting screws and adhesive tape

Type:
MX = for use with MAX modules
CT = for use with CT couplers

Color:
02 = White
20 = Ivory
80 = Light Ivory

height: 200.2mm (7.88 in.)
width: 200.2mm (7.88 in.)
depth: 57.0mm (2.25 in.)

Optional fiber management tray sold separately (see below).

Use (XX) to specify color: 02 = white, 20 = ivory, 80 = light ivory

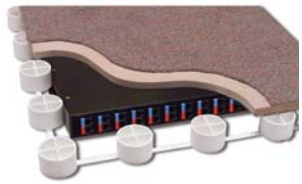
Accessories

Part #	Description
CT-MMO-MAG	Set of 3 magnets for mounting MUTOA
FMT	Clear fiber management tray for MUTOA

MAX® 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 (1.8 x 4.08 in.) opening for cable entry. Cable tie anchor points (hook and loop cable managers included) and fiber 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 zone unit enclosure *height: 44.5mm (1.8 in.),* *width: 254.0mm (10 in.),* *depth: 377.8mm (14.9 in.)*
ZU-MX-24-0515*	24-port MAX zone unit enclosure *height: 44.5mm (1.8 in.),* *width: 114.3mm (4.5 in.),* *depth: 377.8mm (14.9 in.)*

**0515 denotes approximate width and depth in inches.*

MAX Fiber Adapter Modules

Siemon MAX fiber adapter modules are compatible with all MAX series faceplates, modular furniture adapters, surface mount boxes and patch panels. All fiber adapters are "universal" to support either multimode or singlemode fiber connections.

MX-F-SA-(XX)*

Flat module with 1 simplex ST adapter (1 fiber)

MX-SA-(XX)

Angled module with 1 simplex ST adapter (1 fiber)

MX-F1-LC(X)-(XX)*

Flat module with 1 duplex LC adapter (2 fibers)

MX-F-S2-(XX)

Flat module with 1 duplex ST adapter (2 fibers)

MX-S2-(XX)

Angled module with 1 duplex ST adapter (2 fibers)

MX-F-SC-(XX)

Flat module with 1 duplex SC adapter (2 fibers)

MX-SC-(XX)

Angled module with 1 duplex SC adapter (2 fibers)

Use (X) to specify LC adapter color: blank = beige, U = blue

Use (XX) to specify color: 01 = black, 02 = white, 04 = gray, 20 = ivory, 25 = bright white, 80 = light ivory

Modules include dust caps, one color-matching, one red, and one blue icon per port.

**Compatible with SM® boxes.*

Tool-Less MAX® 3 Modules

MAX modules provide a full range of voice and specific data wiring configurations.

MX-(XX)-(XX). . . . . .
Angled module

MX-F-(XX)-(XX) . . . . . .
Flat module

Use 1st (XX) to specify jack: U3 = 3-pair, 6-position jack, USOC; U4 = 4-pair, 8-position jack, USOC
Use 2nd (XX) to specify color: 01 = black, 02 = white, 04 = gray, 20 = ivory, 80 = light ivory
Modules include one color-matching, one red, and one blue icon.

Coax MAX Modules

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 color coded icons to identify type of service.

MX-FA-(XX). . . . . .
Angled module with 1 F-type adapter, 75 ohms, 2 GHz

MX-F-FA-(XX)* . . . . . .
Flat module with 1 F-type adapter, 75 ohms, 2 GHz

MX-F-BA-(XX)* . . . . . .
Flat module with 1 BNC adapter, 75 ohms

Use (XX) to specify color: 01 = black, 02 = white, 04 = gray, 20 = ivory, 80 = light ivory
Modules include one color-matching, one red, and one blue icon.
**Compatible with SM® boxes.*

MAX Audio/Video Modules

Siemon audio/video MAX modules provide connectivity for a wide range of applications. Available media types include RCA, SVHS and HD15.

MX-F-RC-(XX)* . . . . . .
Flat module with 1 RCA connector with solder tail

MX-RC-(XX). . . . . .
Angled module with 1 RCA connector with solder tail

Use (XX) to specify color: 01 = black, 02 = white, 04 = gray, 20 = ivory, 80 = light ivory
RCA Modules include one color-matching, one red, and one blue icon.
**Compatible with SM boxes.*

Fiber Outlet Box (FOB2)

Siemon's low-profile Fiber Outlet Box (FOB2) is the optimal solution for bringing fiber to the desk. The FOB2 offers a well-defined method for managing fiber cabling at the work area by providing a connection point for up to 12 fibers connectors utilizing 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 color: 01 = black, 02 = white, 80 = light ivory

Fiber Bezels

FOB-BZL-LC(X)1-01. . . . . .
1 Duplex LC adapter,
(2 fibers)

FOB-BZL-LC(X)-01. . . . . .
2 Duplex LC adapters,
(4 fibers)

FOB-BZL-SC-01 . . . . . .
1 Duplex SC adapter,
(2 fibers)

FOB-BZL-SA-01 . . . . . .
1 Duplex ST adapter,
(2 fibers)

FOB-BZL-BL-01 . . . . . .
Blank bezel

Use (X) to specify LC adapter color: blank = beige, U = blue

Note: Fiber adapters are "universal" to support both multimode and singlemode.

CT® Faceplates

CT2-FP-(XX) . . . . . .
1-port single gang plastic faceplate for a CT adapter

CT4-FP-(XX) . . . . . .
2-port single gang plastic faceplate for CT adapters

CT8-FP-(XX) . . . . . .
4-port double gang plastic faceplate for CT adapters

CT2-HFPA-(XX)* . . . . . .
1-port single gang plastic horizontal faceplate for a CT adapter, with color matching screw caps

Use (XX) to specify color: 02 = white, 20 = ivory, 80 = light ivory

Faceplates include designation label(s), label cover(s) and #6-32x1 screws.

Ⓑ *Add "B" to end of part number for bulk project pack, (includes 100 CT2 or CT4 faceplates or 50 CT8 faceplates, screws, designation labels, and label covers).*

**Not available in bulk project pack.*

Stainless Steel CT Faceplates

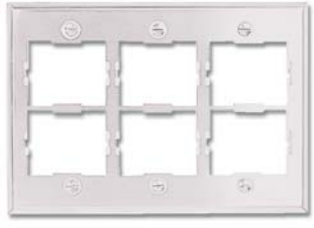
CT4-FP-SS-L . . . . . .
Single gang stainless steel faceplate for two couplers with labels and label holders

CT4-FP-SS . . . . . .
Single gang stainless steel faceplate for two couplers

CT8-FP-SS-L . . . . . .
Double gang stainless steel faceplate for four couplers with labels and label holders

CT8-FP-SS . . . . . .
Double gang stainless steel faceplate for four couplers

CT12-FP-SS . . . . . .
Triple gang stainless steel faceplate for six couplers



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-01-02 . . . . . .
Angled CT adapter for one MAX, Z-MAX or TERA outlet, white

CTE-MXA-02-02 . . . . . .
Angled CT adapter for two MAX, Z-MAX or TERA outlets, white

CTE-HZA-02-(XX) .....
Horizontal CT adapter for two Z-MAX, MAX or TERA outlets

Use (XX) to specify color: 01 = black, 02 = white

See page 9.8 for Universal Modular Furniture Adapters for CT adapters.

CT Modular Furniture Adapters

CT-MFP-(XX) . . . . . .
Adapter for standard openings including Steelcase (accepts one CT coupler)
Use (XX) to specify color:
01 = black, 02 = white, 04 = gray,
20 = ivory, 80 = light ivory

CT-MFP-HMA-(XX). . . . . .
Adapter for Herman Miller Action Office Series 2 and Ethospace base openings (accepts two CT couplers)
Use (XX) to specify color:
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 labeling software.

Flat CT® 3 Couplers

Flat CT 3 couplers provide a full range of voice wiring configurations. They are available with single or double modular jacks.

Double Couplers

CT-(XX)-(XX)-(XX). . . . . .
Flat, double coupler

Use 1st (XX) to specify jack A (see below)
Use 2nd (XX) to specify jack B (see below)
Use 3rd (XX) to specify color: 01 = black, 02 = white, 04 = gray, 20 = ivory, 80 = light ivory

Jack Options: *U3 = 3-pair, 6-position jack, USOC; U4 = 4-pair jack, USOC*

Single Couplers

CT-(XX)-(XX). . . . . .
Flat, single coupler

Use 1st (XX) to specify jack option (see below)
Use 2nd (XX) to specify color: 01 = black, 02 = white, 04 = gray, 20 = ivory, 80 = light ivory

Ⓑ *Add "B" to end of part number for bulk project pack of 100 couplers.*
(Bulk option includes couplers and icons only — termination caps and cable ties are available separately, see page 1.21).
Couplers include one color-matching icon (clear for black, 2 termination caps, and one cable tie per port, plus one red and one blue icon.

Coax CT Couplers

CT-BA-(XX)
Flat coupler with 1 BNC adapter

CT-A-BA-(XX)
Angled coupler with 1 BNC adapter

CT-FA-(XX)
Flat coupler with 1 F-type adapter

CT-A-FA-(XX)
Angled coupler with 1 F-type adapter

CT-BA-BA-(XX)
Flat coupler with 2 BNC adapters

CT-A-BA-BA-(XX)
Angled coupler with 2 BNC adapters

CT-FA-FA-(XX)
Flat coupler with 2 F-type adapters

Use (XX) to specify color: 01 = black, 02 = white, 04 = gray, 20 = ivory, 80 = light ivory
Couplers include one color-matching icon (clear for black); one red and one blue icon.

Fiber Adapter CT Couplers

The CT fiber coupler line consists of MT-RJ, LC, SC, ST and SC/ST hybrid adapters available in 2 and 4 fiber versions. Angled versions are available with our patented gravity-feed design for controlling the bend radius of fiber cables at the work area. All fiber adapters are "universal" to support either multimode or singlemode fiber connections.

CT-LC(X)-(XX)
Flat coupler with 1 duplex LC adapter (2 fibers)

CT-LC(X)-LC(X)-(XX)
Flat coupler with 2 duplex LC adapters (4 fibers)

CT-A-LC(X)-(XX)
Angled coupler with 1 duplex LC adapter (2 fibers)

CT-A-LC(X)-LC(X)-(XX)
Angled coupler with 2 duplex LC adapters (4 fibers)

CT-SC-SC-(XX)
Flat coupler with 1 duplex SC adapter (2 fibers)

CT-SC-4-(XX)
Flat coupler with 2 duplex SC adapters (4 fibers)

CT-A-SC-SC-(XX)
Angled coupler with 1 duplex SC adapter (2 fibers)

CT-SA-SA-(XX)
Flat coupler with 1 duplex ST adapter (2 fibers)

CT-SA-4-(XX)
Flat coupler with 2 duplex ST adapters (4 fibers)

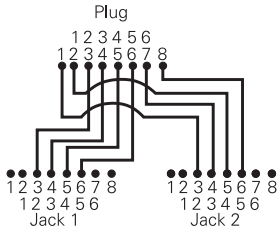
CT-A-SA-SA-(XX)
Angled coupler with 1 duplex ST adapter (2 fibers)

Use (X) to specify LC adapter color: blank = beige, U = blue
Use (XX) to specify color: 01 = black, 02 = white, 04 = gray, 20 = ivory, 80 = light ivory
Couplers include one color-matching icon (clear for black); plus one red and one blue icon.

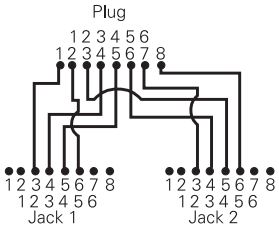
Modular Y-Adapters

Y-Adapters are available as "splitters" which convert one 4-pair jack into two jacks. The Y-Adapters utilize 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 colored icons or the Y-Adapter pinouts, which are printed on the opposite side.

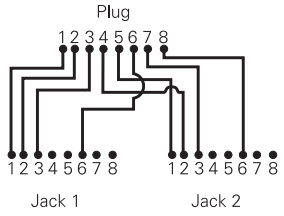
YU4-U2-U2 . . . . . .
Splits a 4-pair USOC jack for Token Ring or voice applications at either jack



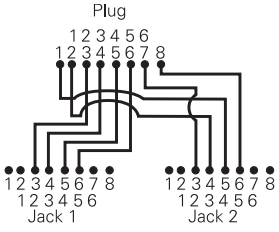
YA4-U2-U2 . . . . . .
Splits a 4-pair T568B jack for Token Ring or voice applications at either jack



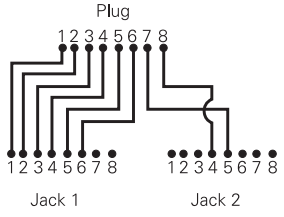
YT4-E2-E2 . . . . . .
Splits a 4-pair T568A/B jack for 10BASE-T applications at either jack



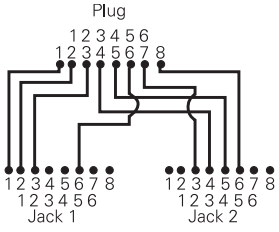
YT4-U2-U2 . . . . . .
Splits a 4-pair T568A jack for Token Ring or voice applications at either jack



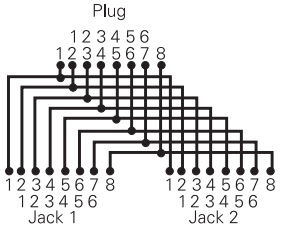
YA4-A3-U1 . . . . . .
Splits a 4-pair T568B jack for 1-, 2- or 3-pair voice and 1-pair voice/modem



YT4-E2-U2 . . . . . .
Splits a 4-pair T568A/B jack for 10BASE-T and Token Ring or voice applications



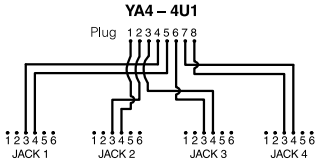
Y-BRIDGE . . . . . .
Bridges all jack pairs. Compatible with any jack wiring. Provides an additional 4-pair jack with the same wiring.

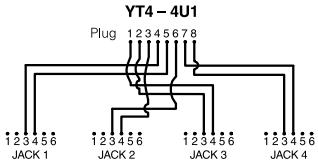


Modular 4-Way Splitter

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.

Universal Modular Plug

Our patented "universal" modular plug eliminates the need to stock more than one size modular plug. The UP-2468 permits field-termination of modular cords in 2-, 3-, or 4-pair increments and terminates twisted pair cable with 26 – 22 AWG (0.40mm – 0.64mm) solid or 7-strand conductors with insulated conductor diameter of 0.86 – 0.99mm (0.034 – 0.039 in.). Plug contacts have 50 microinches minimum of gold plating over nickel and meet TIA-968-A and IEC 60603-7 specifications.

Part #	Description
UP-2468	"Universal" modular plug fits 6 or 8-position RJ outlets

Modular Plugs

We offer modular plugs in standard configurations to terminate modular cords for patching or work area applications. Modular plugs can be terminated to the exact cable length needed in order to maintain a neater, more organized installation. The plugs terminate twisted-pair cable with 26 – 22 AWG (0.40mm – 0.64mm) solid or 7-strand conductors with an insulated conductor diameter of 0.86 – 0.99mm (0.034 – 0.039 in.). All plug contacts have 50 microinches minimum of gold plating over nickel and meet TIA-968-A and IEC 60603-7 specifications.

P-8-8 .....
8-position modular plug
with 8 contacts (compatible with
Siemon and Tyco crimp tools)

P-8-8SS .....
8-position modular plug
with 8 contacts (compatible with
Siemon and
Stewart crimp tools)

PS-8-8 .....
8-position shielded modular plug
with 8 contacts (compatible with
Siemon and Tyco crimp tools)

P-6-6 .....
6-position modular plug
with 6 contacts*

P-6-4 .....
6-position modular plug
with 4 contacts*

Technical Tip!
Factory terminated and tested modular cords are required to achieve consistent channel performance. Field termination is not recommended.

**Siemon 6-position plugs provide empty slots in the outer positions to prevent deformation of jack pins 1 & 8 when inserted into an 8-position modular jack.*

Category 5e and 3 25-Pair Cable Assemblies

Our 25-pair cable assemblies are factory-tested for opens, shorts, and continuity. They feature TIA-1096-A compliant gold plated contacts for extended reliability over time. Category 3 connector ends are available in single-ended male or female, double-ended male or female, or one male/one female configurations. All 25-pair cable assemblies are made with TIA/EIA-568-B.2 category 5e or 3 compliant cable.

Category 5e

Category 5e Cable Assemblies

QP25M-AA-(XX) . . . . . 25-pair, double ended 110°-to-110°, cable assembly with male connectors

Category 3 Cable Assemblies

A25B-DE-(XX) . . . . . 25-pair, double-ended, cable assembly with female connectors

A25B-SE-(XX) . . . . . 25-pair, single-ended, cable assembly with one female connector

B25A-(XX) . . . . . 25-pair, double-ended, cable assembly with one male and one female connector

B25B-DE-(XX) . . . . . 25-pair, double-ended, cable assembly with male connectors

B25B-SE-(XX) . . . . . 25-pair, single-ended, cable assembly with one male connector

Category 3

Use (XX) to specify length: 05 = 1.52m (5 ft.), 10 = 3.05m (10 ft.), 15 = 4.57m (15 ft.), 25 = 7.62m (25 ft.)

RG6 F-Type Coax Connector

Siemon's compression style RG6 F-type connector uses industry leading 360° compression technology for superior RF shielding performance to quickly terminate series 6 tri-shield and quad shield coaxial cables.

Part #	Description
RG6C	RG6 F-type compression connector

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 inch horizontal managers, cable tray, j-hooks and much more.

New solutions in this section:

- **VersaPOD® 4-Post Rack — Adjustable 4-post open rack designed to integrate with the Zero-U vertical cable management, patching and power distribution options used in VersaPOD cabinets**
- **Cable Tray Rack — Mounts to overhead ladder rack or cable tray to provide additional rack-mount space without consuming cabinet space**
- **RouteIT™ Cable Tray System — A complete line of wire basket tray and exclusive accessories for overhead and underfloor applications**
- **RouteIT J-Hooks — High quality cable routing hooks in a wide array of sizes and mounting configurations**

Section Contents

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 Center environments.

In addition to providing compatibility with Siemon's standalone vertical cable managers, the 4-post rack is fully compatible with the 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.

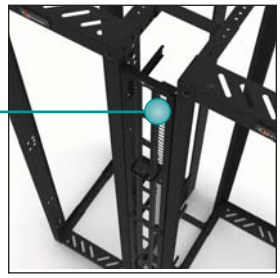
Field Adjustable Depth — Rack depth can be field adjusted in 25mm (1in.) increments to accomodate a range of equipment depths

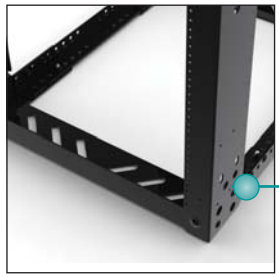
Stamped U Space Indications — Provide ready visual indication of proper panel alignment

Slotted Mounting Holes — Provide a flexible securing point for ladder or wire basket trays mounted perpendicular or parallel to rack

In-Facing Headers and Footers — Maximize 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

VersaPOD® 4-Post Rack

Ordering Information:

Part #	Description
RSQ1-07-S	2.1m (7 ft.) x 0.48m (19 in.) VersaPOD 4-post rack adjustable depth, 560-915mm (22-36 in.), steel, black, 45U, #12-24
RSQ-BAY-VPC6	VersaPOD 4-post rack baying bracket for VPC-6, RS-CNL and RS-CNL3, set of 2
RSQ-BAY-VPC12	VersaPOD 4-post rack baying bracket for VPC-12, set of 2
RSQ-BAY-VPP	VersaPOD 4-post rack baying bracket for Zero-U Panels, set of 4

Note: VPC series baying brackets are optional to ensure row alignment, they are unnecessary if VPC or RS-CNL products are used for both front and back of rack.

Zero-U baying brackets are required to ensure proper operation of Zero-U panels.

External Dimensions:
height: 2.13m (7 ft.)
width: 560mm (22 in.)
depth: 558 -915mm (22-36 in.)

1U = 44.5mm (1.75 in.)

VersaPOD 4-POST RACK SPECIFICATIONS:

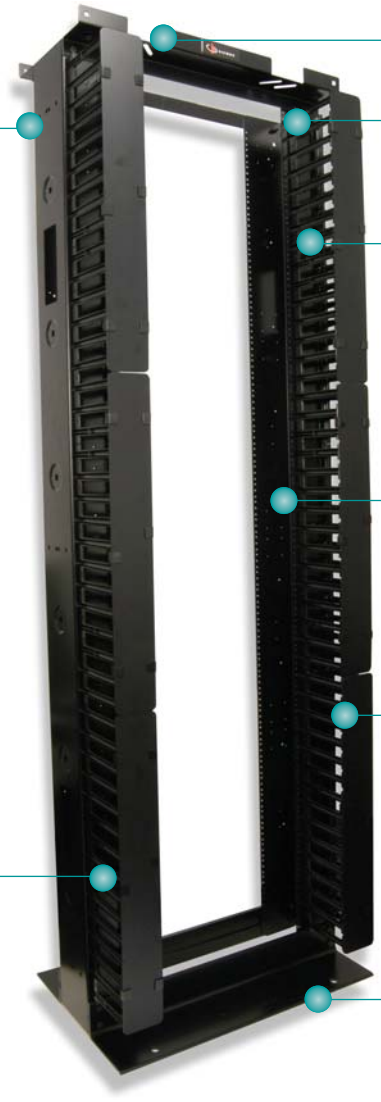
U Space	45
Color	Black
Packaging	Ships unassembled in a single carton
Standard Compliance	CEA-310-E, UL 60950, RoHS
Compatibility	RS-CNL, RS-CNL3, VPC-6, VPC-12, Zero-U VersaPOD Panels
Weight	48 kgs (105 lbs), Full weight with packaging
Load Rating	907 kgs (2000 lbs) Static load, evenly distributed

RS3 Cable Management Rack System

Siemon's RS3 series cable management rack system provides 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 in. 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 (4.5 in. 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 Compatiblility — Mounting holes on rear of RS3 accommodate Siemon's vertical power strip (p/n RS-P04) and smart 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	2.1 x 0.48m (7 ft. x 19 in.) aluminum enhanced cable management rack system, 45U. Includes rack assembly hardware, vertical cable management channels with hinged covers, and ground lug

height: 2.1m (7 ft.),
width: 685.0mm (2.25 ft.),
depth: 457.2mm (1.5 ft.)

Add "S" for steel.

Note: Aluminum 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-Catalog on our Website

RS3 Series Horizontal Cable Managers

These horizontal cable managers are designed for use with Siemon's RS3 series racks and use the same hinged cover design as the vertical managers. The hinged front cover snasp easily over cable managers and provides a concealed routing path into the vertical cable management of the RS3 providing a clean patching environment.

Part #	Description
RS3-RWM-1	Single Sided 19 in. Cable Manager, 1U
RS3-RWM(X)-2	Single Sided 19 in. Cable Manager, 2U
RS3-RWM-2DS	Double Sided 19 in. Cable Manager, 2U
RS3-RWM(X)-4	Single Sided 19 in. Cable Manager, 4U

Use (X) to specify finger length:
Blank = 101mm (4 in.) Fingers
6 = 152mm (6 in.) Fingers

RS3-RWM-1

RS3-RWM-2

RS3-RWM-2DS

RS3-RWM-4

See Cable Management Capacity Table in the Cable Management Section of our E-Catalog on our Website

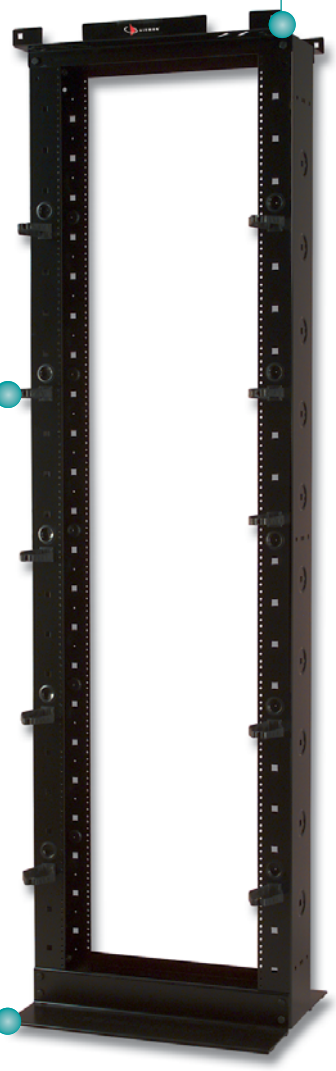
RS Rack System

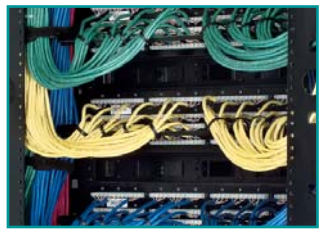
Siemon's RS series cable management rack system combines a 2.1m (7 ft.) x 0.48m (19 in.) black rack with cable management accessories to provide a complete cable management solution. Ideal for all size installations, the rack features fully usable 45U capacity.

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 customized cable management

Anchoring — Mounting holes provided for anchoring rack to floor



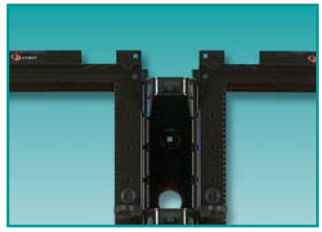


High Capacity Side Rails

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 Vertical Patching Channels (VPC-6 and VPC-12) and RS Series Horizontal Cable Managers.



Optional Vertical Cable Channels

Optional vertical cable management channels (RS-CNL and RS-CNL3) 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	2.1 x 0.48m (7 ft. x 19 in.) steel cable management rack system, 45U. Includes: rack assembly hardware, 10 high-capacity cable managers, 10 hook and loop cable managers, grommets, and ground lug *height: 2.1m (7 ft.),* *width: 609.6mm (2 ft.),* *depth: 457.2mm (1.5 ft.)*

Note: Aluminum 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-Catalog 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 ft.) overall footprint.

Part #	Description
RS-07E	2.1 x 0.48m (7 ft. x 19 in.) aluminum extra-deep cable management rack system, 45U. Includes rack assembly hardware, 10 high-capacity cable managers, 10 hook and loop managers, grommets and ground lug *height: 2.1m (7 ft.),* *width: 609.6mm (2 ft.),* *depth: 609.6mm (1.5 ft.)*

Note: Aluminum 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-Catalog on our Website

RS Series Horizontal Cable Managers

RS-RWM-2

Siemon's RS series cable managers are designed for use with Siemon's RS-07 racks in conjunction with Siemon's Vertical Patching Channel (VPC). The hinged cover extends across the vertical channels of the RS-07 to fully conceal patch cords into the VPC.

Part #	Description
RS-RWM-1	Single Sided 19 in. Cable Manager, 1U
RS-RWM(X)-2	Single Sided 19 in. Cable Manager, 2U
RS-RWM-2DS	Double Sided 19 in. Cable Manager, 2U
RS-RWM(X)-4	Single Sided 19 in. Cable Manager, 4U

RS-RWM-2DS

Use (X) to specify finger length:
Blank = 100 mm (4 in.) Fingers
6 = 152 mm (6 in.) Fingers

See Cable Management Capacity Table in the Cable Management Section of our E-Catalog on our Website

Rack Accessories

Siemon offers a full range of accessories to allow further customization 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

RS-P04 . . . . . .
1.2m (4 ft.) power strip for rear of rack, ten 15A outlets resettable fuse (includes mounting hardware)

SCREW-1224. . . . . .
#12-24 Slotted head screws with washers, black, bag of 100

RS-CNL-MGR . . . . . .
Channel retainers for use with VPC-6, VPC-12, 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

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	U
RHNG-2.	Rack hinge.	2
RHNG-3.	Rack hinge.	3

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

19 to 23 Inch Panel Adapters

These adapters allow 19 inch panels to be mounted to 23 inch racks. The adapters are designed so the panels fit flush with other 23 inch products when mounted (screws included). They can be end-stacked to support larger panel sizes.

Part #	Description
1923-(X).	19 to 23 inch panel adapter (set of 2)

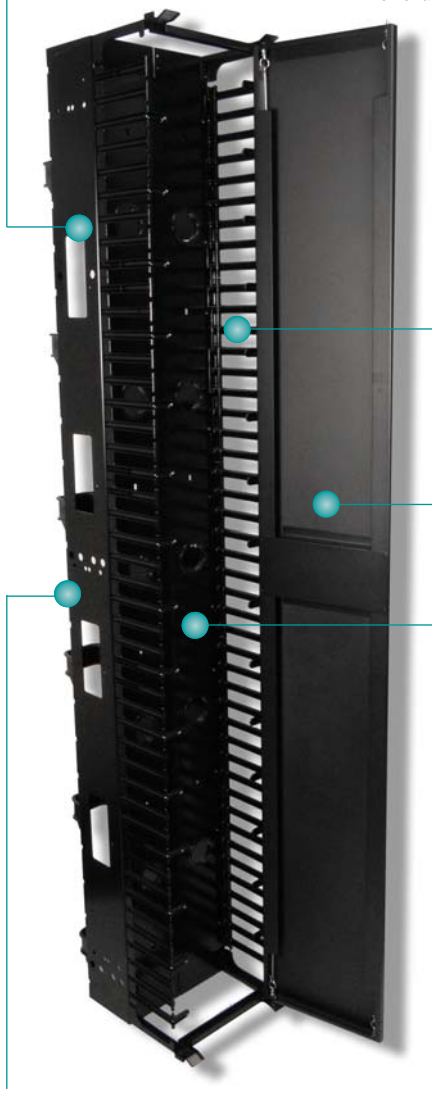
Use (X) to specify adapter size: 2 = 2U, 3 = 3U, 4 = 4U, 5 = 5U, 6 = 6U
Note: 1U = 44.5mm (1.75 in.)

Vertical Patching Channels (VPC)

Siemon's Vertical Patching Channel (VPC) sets the 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.

Cable Access Holes — Allow cables to route easily between the front and rear of the channel

Rounded Managers — 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



Full Length Hinged Covers — With an easy turn of a single knob, the full-length cover hinges in either direction to provide access to the entire vertical channel

Add-on Management — Optional quarter-turn cable managers can be mounted within vertical channels for additional management such as segregation of application specific cords

Open Compatibility — Mounting holes on side of VPC provides compatibility with common 76mm (3 in.) and 152mm (6 in.) industry racking systems including Siemon's RS-07 and XLBET frames as well as Siemon's extended depth RS-07 rack system

Hinged Managers

Rear channel retainers can be hinged in either direction and are removable enabling relocation to any position along the rear vertical channel.

Side Stackable

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 opened for full access.

High Capacity

The front vertical managers feature .02m² - .05m² (36 - 72 sq. in.) of space providing capacity to meet the rigorous demands of today's high density environments. The rear channel features the same capacity with an open design to facilitate easy routing to termination fields.

Vertical Patching Channels (VPC)

Part #	Description
VPC-6	2.1m x 152mm (6.9 x 0.5 ft.) vertical patching channel. Includes front cover, 6 rear channel retainers and mounting hardware *height: 2.1m (7 ft.),* *width: 152.4mm (6 in.),* *depth: 433mm (17 in.)*
VPC-12	2.1m x 305mm (6.9 x 1 ft.)vertical patching channel. Includes front cover, 12 rear channel retainers and mounting hardware *height: 2.1m (7 ft.),* *width: 304.8mm (12 in.),* *depth: 433mm (17 in.)*

VPC-6

VPC-12

RS-07 shown with two VPC-6's

See Cable Management Capacity Table in the Cable Management Section of our E-Catalog on our Website

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 customized 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 customization 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 optimize management of cables on both sides of the channel.

RS-CNL . . . . . .

2.1m x 152mm (6.9 x 0.5 ft.) vertical cable management channel for mounting between 152mm deep racks (includes mounting hardware)

height: 2.1m (7 ft.),
width: 152.4 mm (6 in.),
depth: 224.8 mm (9 in.)

RS-CNL3 . . . . . .

2.1m x 76mm (6.9 x 0.25 ft.) vertical cable management channel for mounting between 76mm deep racks (includes mounting hardware)

height: 2.1m (7 ft.),
width: 152.4 mm (6 in.),
depth: 148.6 mm (6 in.)

Two RS-07's shown with three RS-CNL's

See Cable Management Capacity Table in the Cable Management Section of our E-Catalog on our Website

Cable Tray Rack

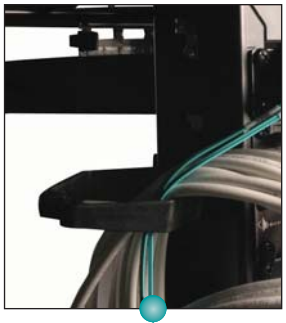
Designed to mount directly to overhead ladder rack or cable tray, Siemon's Cable Tray Rack delivers 4U of easily installed and accessible 19 inch rack mount space above cabinets and racks without consuming additional floor space, making it ideal for use as a Zone Distribution Area (ZDA) or Equipment Distribution Area (EDA) in data centers. Used with copper patch panels or fiber 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, minimizing obstruction of equipment cooling features.

Rapid Data Center Deployment —
Can be used in conjunction with Siemon's pre-terminated copper and fiber solutions to reduce installation time.

Open Compatibility —
Rack mount solution attaches to all common overhead cable tray and ladder rack systems, including Siemon's RouteIT system.

Flexible Mounting —
Unique design can be mounted below, flush or above cable tray in both parallel and perpendicular configurations.



Flexible Cable Routing —
High capacity ¼-turn twist-lock cable managers lock into place quickly without use of screws or mounting tools and can be easily located to provide customized cable management.

Floor Space Maximization —
Provides 4U of standard 19 inch rack mount space above cabinets and racks to maximize cabling density/ minimize data center floor space needs.

MAJOR PRODUCT FEATURES:

- 4U size
- 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 lb) load rating

Ordering Information:

CTR-04-01 .....0.48m (19 in.) Cable Tray Rack, 4U, Black, #12-24.
Includes mounting hardware,
(4) 1/4 turn cable managers, ground lugs

**Add "C" to end of part number for cage nut version (includes 16 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)

Other sizes available. Contact Customer Service for more information.

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 organizing small-to-large bundles of cables and patch cords.

Part #	Description
WM-143-5	Horizontal cable manager with five S143 hangers 1U
WM-144-5	Horizontal cable manager with five S144 hangers, 2U
WM-145-5	Horizontal cable manager with five S145 hangers, 2U

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


WM-143-5


WM-144-5


WM-145-5

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 (3.0 in.)
S145*	87mm (3.4 in.)	57mm (2.2 in.)	125mm (5.0 in.)
S146	151mm (6.0 in.)	63mm (2.4 in.)	130mm (5.1 in.)
S147	254mm (10.0 in.)	63mm (2.4 in.)	130mm (5.1 in.)

**Add "-A" for optional adhesive backing.*


S143


S146


S144


S145


S147

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)-(XX)	Roll of 25 cable managers
VCM-250-(XX)-(XX)	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

Use 2nd (XX) to specify color: 01 = black, 02 = white, 03 = red, 04 = gray, 05 = yellow, 06 = blue


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 #	Part #	Part #	Part #
SBH-2 . . . . . 2U	SBH-3 . . . . . 3U	SBH-4 . . . . . 4U	SBH-6* 6U

height: See U information, width: 483mm, depth: 152mm

**Add -2 for (3) independent 2U hinges (instead of a single 6U hinge).*
Note: 1U = 44.5mm (1.75 in.)

Blank Filler Panels

Blank filler panels are ideal for installations where open or expansion rack space is to be covered. Panels are blank on one side and feature the Siemon logo on the other side.

Part #	Description
PNL-BLNK-(X).	Blank filler panel for 19 inch rack

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)

Double-Sided Heavy Duty 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 lbs.). 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	19 inch double-sided equipment shelf for 152mm (6 in.) deep racks, solid, 3 RMS *height: 133mm (5.25 in.),* *width: 483mm (19 in.),* *depth: 457mm (18 in.)*
SH-S19-01	Single Sided Equipment Shelf - Solid -19 in.
SH-S19V-01	Single Sided Equipment Shelf - Vented -19 in.

SH-D19-01

SH-S19V-01

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

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.

RWM-1

RWM-1DS

Part #	Description
RWM-1	Single-sided horizontal cable manager with cover
RWM-1DS	Double-sided horizontal cable manager with covers

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

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-RWM-02	S110/S210 horizontal cable manager with covers, white, 1U
S110-RWM2-01	S110/S210 horizontal cable manager with covers, black, 2U
S110-RWM2-02	S110/S210 horizontal cable manager with covers, white, 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 organization of horizontal cables being routed to the back of the patch panel.

WM-BK	Rear cable manager with mounting screws and hex nuts

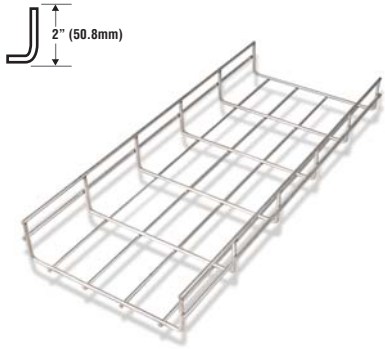
RouteIT™ Wire Mesh Cable Tray System

Cable Tray Ordering Information

RouteIT cable trays are available in an array of sizes and configurations to support nearly any data center and network pathway configuration. Standard tray finishes are pre-galvanized (silver) and black powder coat. Additional finishes are available upon request.

2 Inch DEEP BASKET TRAYS

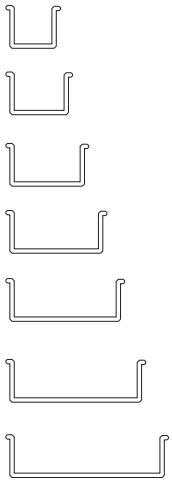
Part Number	Width		Weight Per Piece	
RTT(X)-204 -(XX)	4 in.	100mm	8.2 lbs.	3.72kg
RTT(X)-206 -(XX)	6 in.	150mm	10.2 lbs.	4.62kg
RTT(X)-208 -(XX)	8 in.	200mm	11.8 lbs.	5.35kg
RTT(X)-212 -(XX)	12 in.	300mm	15 lbs.	6.80kg
RTT(X)-216 -(XX)	16 in.	400mm	23 lbs.	10.43kg
RTT(X)-218 -(XX)	18 in.	450mm	25 lbs.	11.33kg
RTT(X)-220 -(XX)	20 in.	500mm	27 lbs.	12.24kg
RTT(X)-224 -(XX)	24 in.	600mm	31 lbs.	14.06kg

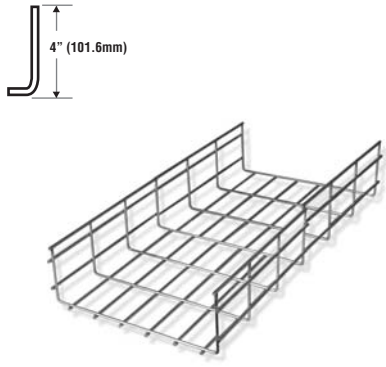


Height: 2 in. (50.8 mm)
Length: 118.125 in. (3 meters)
Wire Dia Minimum: 0.197 in. (5.0 mm)

4 Inch DEEP BASKET TRAYS

Part Number	Width		Weight Per Piece	
RTT(X)-404 -(XX)	4 in.	100mm	11.8 lbs.	5.35kg
RTT(X)-406 -(XX)	6 in.	150mm	12.8 lbs.	5.81kg
RTT(X)-408 -(XX)	8 in.	200mm	15 lbs.	6.80kg
RTT(X)-412 -(XX)	12 in.	300mm	13 lbs.	10.43kg
RTT(X)-416 -(XX)	16 in.	400mm	27 lbs.	12.24kg
RTT(X)-418 -(XX)	18 in.	450mm	29 lbs.	13.15kg
RTT(X)-420 -(XX)	20 in.	500mm	31 lbs.	14.06kg
RTT(X)-424 -(XX)	24 in.	600mm	35 lbs.	15.88kg

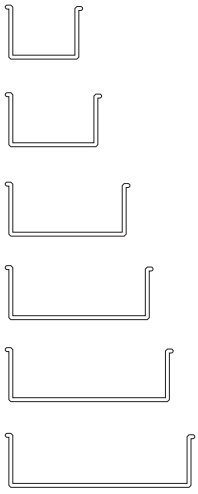


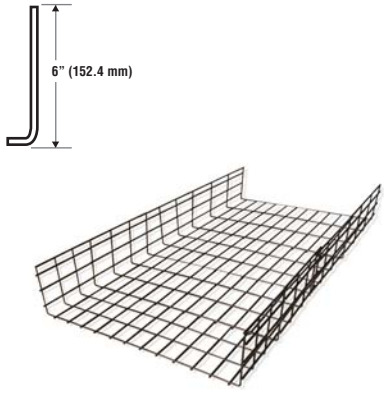


Height: 4 in. (101.6 mm)
Length: 118.125 in. (3 meters)
Wire Dia Minimum: 0.197 in. (5.0 mm)

6 Inch DEEP BASKET TRAYS

Part Number	Width		Weight Per Piece	
RTT(X)-608 -(XX)	8 in.	200mm	23 lbs.	10.43kg
RTT(X)-612 -(XX)	12 in.	300mm	27 lbs.	12.24kg
RTT(X)-616 -(XX)	16 in.	400mm	31 lbs.	14.06kg
RTT(X)-618 -(XX)	18 in.	450mm	33 lbs.	14.97kg
RTT(X)-620 -(XX)	20 in.	500mm	35 lbs.	15.88kg
RTT(X)-624 -(XX)	24 in.	600mm	39 lbs.	17.69kg

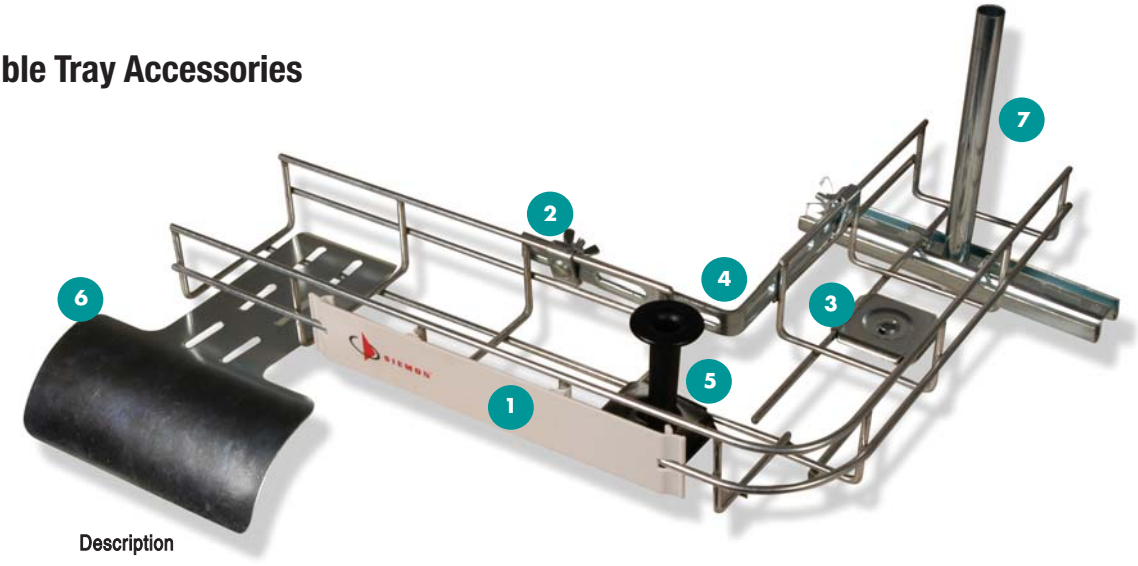




Height: 6 in. (152.4 mm)
Length: 118.125 in. (3 meters)
Wire Dia Minimum: 0.197 in. (5.0 mm)

Use 1st (X) to specify wire form: Blank = Standard round, E = Elongated
Use (XX) to specify tray finish: PS = Pre-galvanized (silver), P1 = Powder Coat Black

RouteIT™ Cable Tray Accessories



	Part #	Description
1	RTT-LC	Tray Clips Label clip for tray identification, 10/box
2	RTS-1-(XX)	Washer Splice Kit Connects multiple lengths of tray Also used for attachment of splice bars and corner guide splice as well as field sweeps and reducers, 50/ box
3	RTS-2-(XX)	Washer Support Provides increased support in straight-tray splices and field junctions/bends, (washer only), 50/box
	RTS-2H-(XX)	Washer Support Kit Provides increased support in straight-tray splices and field junctions/bends Includes 2 washers, 1 screw, and 1 wingnut, 50/box
	RTS-3-(XX)	Bar Splice Provides increased rigidity when used with washer splice in side rail use, 50/box
4	RTS-4-(XX)	Corner Guide Splice Supports 90° corner splice. For use with all tray sizes, 2 splices, 8 nuts/box
5	RTR-G-P1	Corner Cable Guide Protects and maintains correct cable bend radius in corners, 1/box
	RTA-U1-(XX)	Vertical Up Secures cable and protects bend radius at upward vertical transitions, 1/box
6	RTA-D1-(XX)	Vertical Down (Drop Out) Protects bend radius at drop points, 1/box
	RTA-B08-(XX)	Termination Bracket Secures end of tray runs to wall or other vertical structures, 1/box
	RTC-T-(XX)	Ceiling Support Trapeze Clips to tray side and attaches to standard 1/2 in. and 3/8 in. threaded rods for ceiling mount Quick-release allows for side cable loading, 50/box

Use (XX) to specify finish: PS - Pre-galvanized (silver), P1 - Powder Coat Black

Part #	Description
RTW-(XX)-(XX)	Triangle Wall Support For wall mounting of RouteIT Tray. 1/box.

Finish
PS = Pre-galvanized (silver)
P1 = Powder Coat Black

Width
04 = 4 in. **16** = 16 in.
06 = 6 in. **18** = 18 in.
08 = 8 in. **20** = 20 in.
12 = 12 in. **24** = 24 in.

7	RTC-C(XX)-(XX)	Ceiling Support Center Can be mounted over 1/4 in., 3/8 in. or 1/2 in. threaded rod. 1/box.

Finish
PS = Pre-galvanized (silver)
P1 = Powder Coat Black

Width
04 = 4 in. **16** = 16 in.
06 = 6 in. **18** = 18 in.
08 = 8 in. **20** = 20 in.
12 = 12 in. **24** = 24 in.

RTC-P(XX)-(XX)	Profile Ceiling Support Affixes to standard 1/2 in. or 3/8 in. threaded rods for trapeze-style support of tray sections. 1/box.

Finish
PS = Pre-galvanized (silver)
P1 = Powder Coat Black

Width
12 = 12 in. **20** = 20 in.
16 = 16 in. **24** = 24 in.
18 = 18 in.

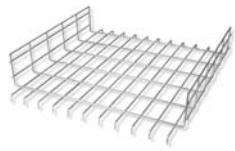
Under Floor Tray & Accessories

Under-floor tray supports come in various configurations, including mounting pedestals, brackets for multi-level pathways and vertical supports designed to mount tray independently of raised floor assemblies. Also included is an seismic-rated under-floor mounting bracket that integrates both vertical pedestals and horizontal tray support into a single, easy to install unit.

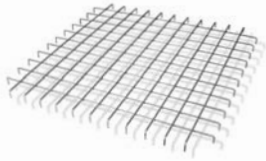
UNDER FLOOR TRAY CHARTS

Siemon Part #	Tray Size (D x W x L)				Weight (per piece)	
	Depth (in.)	Width (in.)	Length (ft.)	(mm.)	(lbs.)	(kg.)
RTR(X)-T2122-PS	2	12	2	51 x 305 x 610	3.1	1.41
RTR(X)-T2124-PS	2	12	4	51 x 305 x 1219	6.2	2.81
RTR(X)-T4122-PS	4	12	2	102 x 305 x 610	3.75	1.70
RTR(X)-T4124-PS	4	12	4	102 x 305 x 1219	7.5	3.40
RTR(X)-T6122-PS	6	12	2	152 x 305 x 610	4.42	2.00
RTR(X)-T6124-PS	6	12	4	152 x 305 x 1219	8.85	4.01
RTR(X)-T2242-PS	2	24	2	51 x 610 x 610	4.76	2.20
RTR(X)-T2244-PS	2	24	4	51 x 610 x 1219	9.5	4.31
RTR(X)-T4242-PS	4	24	2	102 x 610 x 610	5.42	2.50
RTR(X)-T4244-PS	4	24	4	102 x 610 x 1219	10.84	4.92
RTR(X)-T6242-PS	6	24	2	152 x 610 x 610	6.06	2.75
RTR(X)-T6244-PS	6	24	4	152 x 610 x 1219	12.12	5.50

Use (X) to specify wire form: Blank = Standard round, E = Elongated



UNDER FLOOR SECTION



FITTING FLAT

UNDERFLOOR SUPPORT INTERSECTION FITTING

Part # **Description**

RTR-F0242-PS . . . . . .Fitting Flat
Self supporting under floor tray section
24 x 24 in. (610 x 610mm)

RTR-HVF-PS . . . . . .Under Floor Support Intersection Fitting
Installs between horizontal/vertical underfloor supports to create a mounting point for intersecting tray

RTR-HV(XX)-PS . . . . . .Horizontal/Vertical Under Floor Support
Unique design combines horizontal mounting bar and vertical support members for all-in-one, seismic-rated tray support

Height

04 = 4 in. **14** = 14 in.
06 = 6 in. **18** = 18 in.
08 = 8 in. **20** = 20 in.
10 = 10 in. **24** = 24 in.
12 = 12 in.

HORIZONTAL/VERTICAL UNDER FLOOR SUPPORT

12 in. C-BRACKET MOUNT

RTR-C12-PS . . . . . .12 in. C-Bracket Mount
Used in conjunction with under floor supports to create multi-tier/multi-level pathways

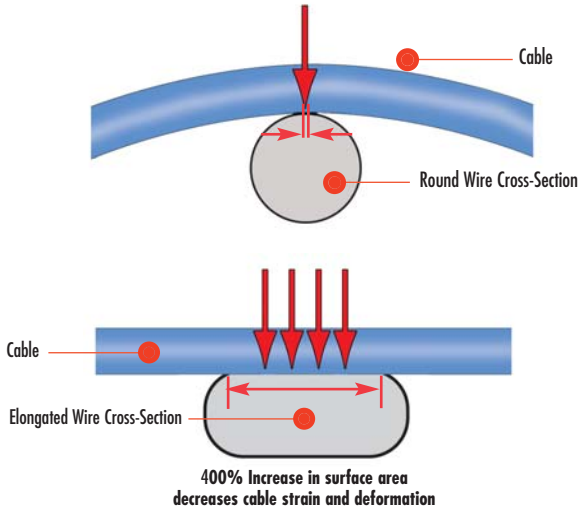
RTR-1-PS . . . . . .Underfloor Securing Clip
Secures tray to underfloor supports and C-bracket mount, 50/box

UNDERFLOOR SECURING CLIP

Additional Tray Data

ELONGATED WIRE CONSTRUCTION

Siemon's RouteIT™ cable tray is offered in an elongated wire construction that increases the surface area of the tray cross-members by 400%, decreasing cable strain up to 65% and reducing cable deformation that can negatively impact overall network performance. Also available in standard round wire design, the trays feature a robust, steel welded construction for reliable support of maximum cable capacities. Both elongated and round wire designs have rounded edges at all critical points and snag-proof "t-welded" top wire construction to prevent damage to cables.



400% Increase in surface area decreases cable strain and deformation

TRAY SPLICE REQUIREMENTS

This chart provides information on the number of splices required to join (2) lengths of cable tray.

Seimon Part #	Tray Size (W x D)		
	in.	mm.	Number of Splices
RTT(X)-204-(XX)	2 x 4	51 x 101	2
RTT(X)-206-(XX)	2 x 6	51 x 152	4
RTT(X)-208-(XX)	2 x 8	52 x 203	4
RTT(X)-212-(XX)	2 x 12	51 x 304	4
RTT(X)-216-(XX)	2 x 16	51 x 406	4
RTT(X)-218-(XX)	2 x 18	51 x 457	4
RTT(X)-220-(XX)	2 x 20	51 x 508	5
RTT(X)-224-(XX)	2 x 24	51 x 610	5
RTT(X)-404-(XX)	4 x 4	101 x101	4
RTT(X)-406-(XX)	4 x 6	101 x152	5
RTT(X)-408-(XX)	4 x 8	101 x 203	6
RTT(X)-412-(XX)	4 x 12	101 x 304	6
RTT(X)-416-(XX)	4 x 16	101 x 406	7
RTT(X)-418-(XX)	4 x 18	101 x 457	7
RTT(X)-420-(XX)	4 x 20	101 x 508	7
RTT(X)-424-(XX)	4 x 24	101 x 610	8
RTT(X)-608-(XX)	6 x 8	152 x 203	6
RTT(X)-612-(XX)	6 x 12	152 x 304	6
RTT(X)-616-(XX)	6 x 16	152 x 406	7
RTT(X)-618-(XX)	6 x 18	152 x 457	7
RTT(X)-620-(XX)	6 x 20	152 x 508	7
RTT(X)-624-(XX)	6 x 24	152 x 610	8

LOAD RATINGS

Siemon Part #	lbs./ft.
RTT(X)-204-(XX)	43
RTT(X)-206-(XX)	50
RTT(X)-208-(XX)	52
RTT(X)-212-(XX)	58
RTT(X)-216-(XX)	70
RTT(X)-218-(XX)	70
RTT(X)-220-(XX)	73
RTT(X)-224-(XX)	75
RTT(X)-404-(XX)	45
RTT(X)-406-(XX)	49
RTT(X)-408-(XX)	78
RTT(X)-412-(XX)	78
RTT(X)-416-(XX)	108
RTT(X)-418-(XX)	116
RTT(X)-420-(XX)	116
RTT(X)-424-(XX)	116
RTT(X)-608-(XX)	116
RTT(X)-612-(XX)	123
RTT(X)-616-(XX)	123
RTT(X)-618-(XX)	127
RTT(X)-620-(XX)	127
RTT(X)-624-(XX)	150
RTR(X)-F0242-PS	67
RTTR(X)-T2122-PS	65
RTTR(X)-T2124-PS	65
RTTR(X)-T2242-PS	116
RTTR(X)-T2244-PS	115
RTTR(X)-T4122-PS	143
RTTR(X)-T4124-PS	143
RTTR(X)-T4242-PS	116
RTTR(X)-T4244-PS	115
RTTR(X)-T6122-PS	157
RTTR(X)-T6124-PS	157
RTTR(X)-T6242-PS	151
RTTR(X)-T6244-PS	151

In lieu of post-manufacturing chemical cleaning, pre-galvanized tray is mechanically cleaned after welding.

c UL us LISTED *Unlike other colored trays, RouteIT's black powder coat finish is cULus Certified so no paint removal is necessary at splice points for proper tray grounding.*

T *The T-Weld Design of the RouteIT's tray provides additional safety from sharp edges for installers and cabling.*

RouteIT™ J-HOOKS

Available in 2 and 4 inch sizes, Siemon RouteIT J-Hooks offer a variety of fastening options, including clips or wire for structural steel mounting as well as screw-in or threaded rod fasteners for wall-mounting. To ensure a long functional lifecycle, these durable steel hooks are treated with an innovative three layer corrosion protection system. RoHS compliant and approved for use with cULus®, this finish also provides a smoother cable-bearing surface, simplifying cable pull and installation procedures.

2 inch J-HOOKS

Part #	Description
JH2	2 in. Stand-Alone Hook, 60/box
JC2-10	2 in. Hook w/ Fixed Beam Clamp, 40/box
JC2-10C	2 in. Hook w/ 360˚ Rotating Beam Clamp, 20/box
JC2-30	2 in. Hook w/ Angle Bracket Fastener For use as bottom mount. 1/4 in. mounting hole, 40/box
JC2-32	2 in. Hook w/ Angle Bracket Fastener For use as bottom mount. 3/8 in. mounting hole, 40/box
JC2-71	2 in. Hook w/ Wire-Plain Threaded Rod Fastener For use w/ drop wires, 40/box

JH2

JC2-10

JC2-10C

JC2-30

JC2-32

JC2-71

4 inch J-HOOKS

Part #	Description
JH4	4 in. Stand-alone Hook, 25/box
JC4-10	4 in. Hook W/ Fixed Beam Clamp, 25/box
JC4-10C	4 in. Hook with 360˚ Rotating Beam Clamp, 25/box

JH4

JC4-10

JC4-10C

See J-Hook Cable Management Capacity in the J-Hook Section of our E-Catalog on our Website

VersaPOD® and V600™ Cabinets

Including both the innovative VeraPOD family of data center solutions and V600 24-inch (600mm) server cabinets, Siemon's comprehensive line of cabinets delivers the design flexibility and options to deploy the physical infrastructure you need — not be limited by what your cabinets can support.

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 additional innovations appearing in this section:

- **SidePOD™ 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 cabinets, these chimneys bring VersaPOD's thermal capacity to 13kW**

Section Contents

VersaPOD® Features and Benefits

Siemon's VersaPOD enables a completely new and efficient approach to your physical data center 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 optimizing data center floor space.

The VersaPOD's innovative 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 center.

Cable Management — Vertical cable management fingers can be mounted alongside each VPP or VPC to facilitate routing of copper or fiber jumpers between patching fields as well as cabinet to cabinet connections

Vertical Patching — Vertical copper and fiber 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

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)

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

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 core component of the VersaPOD solution, 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, brushguards and vertical exhaust ducts*. The VersaPOD cabinet is available in both 40 inch (1000mm) and 48 inch (1200mm) depths and a wide array of door, side panel and lock options.

**Vertical exhaust ducts compatible with VP2 only.*

VP(X)A-(X)(X)(X)(X)11-45

Dimensions
1 = 1000 x 760mm (39 x 30 in.), 45U Black
2 = 1200 x 760mm (47 x 30 in.), 45U Black

Side Panels
0 = No Side Panels
1 = 1 Side Panel
2 = 2 Side Panels

Front Door
A = Full Vented/Dual Handle
B = Split Vented/Dual Handle
C = Split Solid/Dual Handle

Lock
1 = Keyed Lock
2 = Tumbler Combination Lock

Rear Door
A = Full Vented/Dual Handle
B = Split Vented/Dual Handle
C = Split Solid/Dual Handle

Includes: 4 leveling feet, 50 cage nuts and 4 stabilizing brackets

VersaPOD Cabinet Doors and Panels

Part #	Description
VP-DRA	Full vented door, dual handle with standard keyed lock
VP-DRB	Split vented door, dual handle with standard keyed lock (2 doors required to close front or rear of single cabinet)
VP-DRC	Split solid door, dual handle with standard keyed lock (2 doors required to close front or rear of single cabinet)
VP-S	VP1 Locking Side Panel
VP2-S	VP2 Locking Side Panel (includes 2 split side panels for one cabinet side)

U Sliding Vertical Patch Panels

Part #	Description
VP-VPP-TMRIC	Sliding Vertical Copper/Fiber Combo Patch Panel 96 Ports, support all category 5e and category 6 UTP MAX and Z-MAX, category 6A shielded Z-MAX outlets, TERA® outlets and MAX fiber adaptors. (Not for use w/Z-MAX 6A UTP) 6 fiber RIC adaptor mounting spaces for mounting RIC adapter plates or fiber plug and play modules
VP-VPP-TM	Sliding Vertical Copper Patch Panel 96 Ports, supports all category MAX and Z-MAX outlets, TERA outlets and MAX fiber adaptors (Port spacing compatible with Z-MAX 6A UTP)
VP-VPP-6U	Sliding Vertical Bracket for any Standard 19 in. Patch Panel Mounts up to (6) 1U panels in Zero-U vertical orientation


VP-VPP-TMRIC


VP-VPP-TM


VP-VPP-6U

Note: 2 Vertical Panels can be mounted vertically at the front and/or rear of 2 bayed cabinets

End-of-Row Vertical Panels

Part #	Description
VP-VWM	Vertical Wire Manager Panel, end of row
VP-VPP-2U	Vertical Bracket for standard 19 in. rack mount products, end of row, mounts up to (2) 1U panels in Zero-U vertical orientation
VP-BLNK-1	Vertical Blanking Panel, end of row

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


VP-VWM


VP-VPP-2U


VP-BLNK-1

Vertical Cable Management

Part #	Description
VP-FGR(X)	Vertical Cable Management Fingers, length: 965.2mm (38 in.) (can be mounted alongside each VPP and/or VPC to facilitate routing of copper and fiber jumpers between patching fields as well as cabinet to cabinet connections)
VP-VPC(X)	Vertical Patching Channel, with cable management fingers and cover, 177 x 996mm (7 x 39.25 in.)
VP-TRAY2	Vertical Cable Management Tray (manages/secures cable between cabinets, use 4 trays to isolate airflow between cabinets)
VP-FP	Vertical Filler Panel used to fill additional space between vertical cable management trays on VP2 cabinets
RS-VCM	Box of 10 quarter-turn hook and loop cable managers (can be installed in VP-TRAY2, VP-VPC and VP-VWM)
VP-SPL	Quarter-Turn Fiber Management Spool, bag of five (can be installed in VP-VPC and VP-VWM panels)

Use (X) to specify finger length:
Blank = 101mm (4 in.) fingers, for use with VP1 or VP2 cabinets
6 = 152mm (6 in.) fingers, for use with VP2 cabinets only


VP-FGR


VP-VPC


VP-TRAY2


RS-VCM


VP-SPL

Horizontal Cable Management

Part #	Description
RS3-RWM-1	Single Sided 19 in. cable manager, 1U, dual hinged/removable cover, 101mm (4 in.) fingers
RS3-RWM(X)-2	Single Sided 19 in. cable manager, 2U, dual hinged/removable cover
RS3-RWM(X)-4	Single Sided 19 in. cable manager, 4U, dual hinged/removable cover

Use (X) to specify finger length: Blank = 101mm (4 in.) fingers, for use with VP1 or VP2 cabinets
6 = 152mm (6 in.) fingers, for use with VP2 cabinets only

RS3-RWM-2

Vertical Exhaust Duct (Chimney)

Part #	Description
VP-DUCT1	VersaPOD Vertical Exhaust Duct, 523 x 653 x 516-923mm (20.6 x 25.7 x 20-36 in.), Black
VP-DUCT2	VersaPOD Vertical Exhaust Duct, 523 x 653 x 912-1320mm (20.6 x 25.7 x 36-52 in.), Black

Note: Chimney compatible with 1200mm (48 in.) VersaPOD (VP2) and V600 (V2) cabinets only. Solid doors recommended for use with chimneys.

Blanking Panels

Part #	Description
VP-BLNK	Vertical Blanking Panel, (fits in standard VPP opening between 2 bayed cabinets)
PNL-BLNK-(X)	Horizontal Blank Filler Panel, 19 in.

Use (X) to specify panel size: 1 = 1U, 2 = 2U, 3 = 3U, 4 = 4U
Note: 1U = 44.5mm (1.75 in.)

VP-BLNK

PNL-BLNK-1

Accessories

Part #	Description
VP-PDU-001	VersaPOD Rear Facing PDU Mounting Brackets for one PDU, Black, Set of 2 (includes mounting hardware)
VP-PDU-002	VersaPOD Side Facing PDU Mounting Brackets for two PDU's, Black, Set of 2 (includes mounting hardware)
VP-FAN-EU1	Accessory, Cabinet Cooling Fan, 230-240V, BS1363 plug 127 x 444mm (5 x 17.5 in.) (for main top panel cable opening)
VP-FAN-EU2	Accessory, Cabinet Cooling Fan, 250V, CEE 7/7 plug 127 x 444mm (5 x 17.5 in.) (for main top panel cable opening)
VP-T3	Brush Guard 127 x 444mm (5 x 17.5 in.) (for main top panel cable opening)
VP-BRUSH	Brush Guard 413 x 279mm (1.625 x 11 in.) (for perimeter top panel cable openings)
VP-W	Castors, set of four
VP-FT	Leveling Feet, set of four
VP-BAY	VP1 Baying Kit, bracket and hardware (secures 2 VP1 cabinets together)
VP-BAY2	VP2 Baying Kit, bracket and hardware (secures 2 VP2 cabinets together)
VP-GRD	Grounding Kit - ground bar, ground wire, mounting hardware and accessories (capacity to support all required grounding connections for a single cabinet)
VP-SB	Stabilizing Brackets, set of four (secures cabinet to floor)

VP-PDU-001

VP-FAN-EU1

VP-T3

VP-W VP-FT

VP-BAY

VP-GRD VP-SB

Visit www.siemon.com/versapod for a chart detailing the cable capacity of VersaPOD's various cable entry points and cable management zones.

VersaPOD® (VP2) 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 (VP2) 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 into the hot aisle. The baffles can also be mounted in the Zero-U space between adjacent, bayed VP2 cabinets.

In addition to providing a cooling platform, the SidePOD allows full size Zero-U panels to be used in End of Row applications. This includes up to 12U of vertical patching and high capacity vertical cable management with hinged covers.

Shared Use of VP2 Side Panels — The SidePOD is compatible with VP2 side panels allowing VersaPOD panels to be transitioned to the SidePOD when added to end of row installations

Cable Access Openings — Multiple openings in the lid accept optional brush guards to provide cable access to the Zero-U space from overhead distribution systems

Single Finger Door Operation — The SidePOD door features a single, lockable slam latch that allows the door to be opened or closed with a single finger

End of Row Capacity Increase — Cable management and patching options are increased by using full size Zero-U managers with SidePOD

Reversible Baffle Design — Baffles can be installed in either orientaion to properly route either cold air input or hot air exhaust

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 — Even with a baffle installed, the balance of Zero-U space can be fully utilized for patching or cable management

Ordering Information:

Part #	Description
VP2-SPAA1	SidePOD with 2 Vented Doors, 45U, Black Includes 2 leveling feet, 2 sets of baying brackets, ground conductor and assembly hardware (ships unassembled)
VP2-BFL-S	Zero-U Baffle, Black Includes mounting hardware

VP2-SPAA1

VP2-BFL-S

SidePOD™ Product Specifications

Height (Nomimal height with adjustable feet or castors)	2133 mm (84 in.)
Width	140 mm (5.5 in.)
Depth	1200 mm (48. in.)
Weight	26.2 kg (57.8 lbs)
Base Type	Open
Color	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
Top Cable Access Openings	3 openings, 280 x 45mm (11 x 1.77 in.)

V600 Cabinet

The V600 cabinet provides a robust, cost-effective enclosure solution that is ideal for use in conjunction with VersaPOD data center cabinets. While not compatible with VersaPOD's Zero-U vertical patching and cable management accessories, it shares a common appearance for standard cabinet applications. 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 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 — Depth adjustable 19 in vertical mounting rails in 5mm (0.2 in) increments

Consistent Aesthetics — Shares common appearance with VersaPOD for improved aesthetics in data centers when using both V600 and VersaPOD cabinets.

Thermally Efficient — Compatible with VersaPOD thermal management options including exhaust fans and brush guards.1200mm version compatible with VersaPOD Vertical Exhaust Ducts (chimneys)

V600mm Cabinet

Ordering Information:

V1-(X)A(X)(X)11. . . 1000 x 600mm (40 x 24 in.) V600 Cabinet, 45U, Black

V2-(X)A(X)(X)11. . . 1200 x 600mm (48 x 24 in.) V600 Cabinet, 45U, Black

Side Panels
- **0** = No Panels
- **2** = 2 Panels

Rear Door
- **B** = Vented
- **C** = Solid

Lock Type
- **1** = Key Lock
- **2** = Tumbler Lock

Includes 4 leveling feet, 50 cage nuts and 2 stabilizing brackets

V600 Cabinet Specifications

U Space	45
Packaging	Ships assembled on a pallet
Standard Compliance	CEA-310-E, UL 60950, IEC-60297-2, RoHS
Load Rating	907 kgs (2000 lbs) Static load, evenly distributed
Material	Premium grade hot and cold rolled steel
Base Type	Open
Color	Black
Standard Front Doors	Full, hinged, perforated, keyed lock
Standard Rear Doors	Full, hinged, perforated, keyed lock
% Door Perforation	71%
Removable Doors	Yes
Lockable/ Removable Side Panels/ Horizontal Split	Yes
Adjustable Mounting Rails	Yes
U Space Identification on Rails	Yes
Adjustable Leveling Feet	Yes, included with cabinet
Stabilizing Brackets	Yes, included with cabinet, used to secure cabinet to shipping pallet
Top Cable Access Openings (V1)	4 small, 280 x 45mm (11 x 1.77 in.) - 1 large, 448.5 x 130mm (17.66 x 5.12 in.)
Top Cable Access Openings (V2)	3 small, 280 x 45mm (11 x 1.77 in.) - 3 large, 448.5 x 130mm (17.66 x 5.12 in.)

Dimensions	**inches**	**mm**	
Height	84	2133	Nominal Height with adjustable leveling feet or castors
Width	24	600	
Depth (V1)	40	1000	
Depth (V2)	48	1200	
Height on Pallet	89	2261	As delivered on wooden pallet
Product Weight	**lbs**	**kgs**	
Cabinet Weight (V1)	275	125	
Cabinet Weight (V2)	305	138	
Cabinet Weight w/packing (V1)	300	136	Includes wooden pallet and packaging
Cabinet Weight w/packing (V2)	330	150	Includes wooden pallet and packaging

V600 Cabinet Accessories

Part #	Description
V1-VP1-BAY	V1 to VP1 Baying Kit
V2-VP2-BAY	V2 to VP2 Baying Kit
VP-FAN	Top-Mount Cooling Fan Panel*, 3 fans, 15A/125V, NEMA 5-15 Plug 127 x 444mm (5 x 17.5 in.) (for main top panel opening)
VP-FAN-EU1	Top-Mount Cooling Fan Panel*, 3 fans, 13A/230-240V, B51363 Plug 127 x 444mm (5 x 17.5 in.) (for main top panel opening)
VP-FAN-EU2	Top-Mount Cooling Fan Panel*, 3 fans, 16A/250, CEE 7/7 Plug 127 x 444mm (5 x 17.5 in.) (for main top panel opening)
VP-T3	Brush Guard 127 x 444mm (5 x 17.5 in.) (for main top panel opening)
VP-BRUSH	Brush Guard 413 x 279mm (1.625 x 11 in.) (for perimeter top panel openings)
V-W	V600 Castor Wheels, set of 4

**Note: Fans can be removed in large top panel openings.*

Data Center Power and Cooling

With power costs continuing to rise, the ability to maximize a data center'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:

- **IcePack™ Cooling Door System — High-efficiency liquid-cooled solution for supplemental data center cooling. Provides cooling capacity up to 31kW per cabinet, while consuming up to 80% less energy than other cooling products**
- **Intelligent Power Distribution Units — Ranging from metered units to full-featured, networked versions, Siemon's Intelligent PDUs provide an easily-implemented means to monitor power usage at the equipment level, helping to manage capacity, spot problems and reduce energy costs**

Section Contents

IcePack™ Cooling Door

The IcePack Cooling Door is a heat exchanger that uses passive liquid cooling technology. It replaces the standard rear doors on the VersaPOD and V600 1200mm (48 in.) cabinets and functions by close-coupling a specialized fin-and-tube coil array to the equipment heat exhaust. The IcePack door is protected by two 79% open perforated sheets to maintain airflow through the cabinet.

Ordering Information:

RX-VP1A-BR	For VersaPOD VP1, Bottom Feed
RX-VP1A-TR	For VersaPOD VP1, Top Feed
RX-VP2A-BR	For VersaPOD VP2, Bottom Feed
RX-VP2A-TR	For VersaPOD VP2, Top Feed
RX-V6A-BR	For V600, Bottom Feed
RX-V6A-TR	For V600, Top Feed

Coolant Distribution Units (CDU)

Coolant Distribution Units monitor and manage the flow of cooled, treated water in a closed loop environment to the IcePack Cooling Doors. The CDU establishes a secondary loop that is isolated from the building chilled water supply, maintaining a supply temperature above the dew point to prevent condensation and establish 100% sensible cooling. The heat that is collected by the IcePack Cooling Doors is rejected to the chilled water supply by the CDU via an internal stainless steel plate heat exchanger.

- Floor mount and 6U rack mount* versions available
- 260 kW floor mount unit supports up to 48 IcePack cooling doors depending on demands
- 20 kW rack mount unit* supports up to 2 IcePack cooling doors
- Redundant (dual) and non-redundant (basic) versions available
- Standard bottom exit connections with flex tails
- Versions with top exit, filtering and/or flow meter options are available
- Optional communications kit provides intelligent monitoring and interfaces with building management systems and web management tools for the highest reliability

Ordering Information:

Floor Mount CDU

Part #	Description
RX-CDF-45A-RT1	Dual, 400V, 3-phase, 50Hz, Flex Tails, Bottom Exit
RX-CDF-46A-RT1	Dual, 480V, 3-phase, 60Hz, Flex Tails, Bottom Exit
RX-CDF-26A-RT1	Dual, 208V, 3-phase, 60Hz, Flex Tails, Bottom Exit
RX-CDF-2XA-RT1	Dual, 200V, 3-phase, 50/60Hz, Flex Tails, Bottom Exit
RX-CDF-45A-NT1	Dual, 400V, 3-phase, 50Hz, Flex Tails, Bottom Exit
RX-CDF-46A-NT1	Dual, 480V, 3-phase, 60Hz, Flex Tails, Bottom Exit
RX-CDF-26A-NT1	Dual, 208V, 3-phase, 60Hz, Flex Tails, Bottom Exit
RX-CDF-2XA-NT1	Dual, 200V, 3-phase, 50/60Hz, Flex Tails, Bottom Exit

Rack Mount CDU*

Part #	Description
RX-CDR-26A-NK	208V, single-phase, 60Hz
RX-CDR-25A-NK	230V, single-phase, 50Hz

Communication Kits for CDU's

Part #	Description
RX-CDA-CKF	For Floor Mount CDU
RX-CDA-CKR	For Rack Mount CDU

**Rack Mound CDU not available in North America.*

IcePack™ Accessories

Hose Kits

- Each hose kit consists of a flexible supply hose and a return hose
- Factory assembled and tested including leak-testing to 5X operating pressure
- Quick-connect drip-free couplings on one end or both ends
- Available in straight versions for raised floor environments or right angled for non-raised floor data centers
- Standard lengths from 1m (3 ft.) to 9m (30 ft.). Longer lengths available.

Ordering Information:

Straight Hose Kits

Part #	Description
RX-HKS-KK-03R	0.9m (3 ft.), Quick Connect Both Ends
RX-HKS-KK-10R	3m (10 ft.), Quick Connect Both Ends
RX-HKS-KK-20R	6m (20 ft.), Quick Connect Both Ends
RX-HKS-KK-30R	9m (30 ft.), Quick Connect Both Ends
RX-HKS-KZ-03R	0.9m (3 ft.), Quick Connect One End
RX-HKS-KZ-10R	3m (10 ft.), Quick Connect One End
RX-HKS-KZ-20R	6m (20 ft.), Quick Connect One End
RX-HKS-KZ-30R	9m (30 ft.), Quick Connect One End

Right-Angle Hose Kits

Part #	Description
RX-HKR-KK-03R	0.9m (3 ft.), Quick Connect Both Ends
RX-HKR-KK-10R	3m (10 ft.), Quick Connect Both Ends
RX-HKR-KK-20R	6m (20 ft.), Quick Connect Both Ends
RX-HKR-KK-30R	9m (30 ft.), Quick Connect Both Ends
RX-HKR-KZ-03R	0.9m (3 ft.), Quick Connect One End
RX-HKR-KZ-10R	3m (10 ft.), Quick Connect One End
RX-HKR-KZ-20R	6m (20 ft.), Quick Connect One End
RX-HKR-KZ-30R	9m (30 ft.), Quick Connect One End

IcePack™ Accessories

External Manifolds

- Manifolds support multiple cooling doors and/or CDU's
- Connects to flex tails on CDU secondary side
- 8-, 10-, and 12-way versions with ISO B quick connections
- Overhead or under floor versions
- Customized manifolds also available

Ordering Information:

RX-MAN-08B-KR .....Under Floor, 8-way, Quick Connections
RX-MAN-10B-KR .....Under Floor, 10-way, Quick Connections
RX-MAN-12B-KR .....Under Floor, 12-way, Quick Connections
RX-MAN-08T-KR .....Overhead, 8-way, Quick Connections
RX-MAN-10T-KR .....Overhead, 10-way, Quick Connections
RX-MAN-12T-KR .....Overhead, 12-way, Quick Connections

Raised Floor Grommets

- Grommets fill openings cut in raised floors to route hose kits
- Sealing of openings improves efficiency of air delivery system
- Split two-piece and one-piece versions available
- Offered in integral and surface mount styles

Ordering Information:

GR-NT48S .....Integral One Piece 101 x 203mm (4 x 8 in.) Cable Area
GR-NT48D .....Split Integral One Piece 101 x 203mm (4 x 8 in.) Cable Area
GR-SM48D.....Split Surface Mount 101 x 203mm (4 x 8 in.) Cable Area
GR-NT25D .....Split Integral, Mini 50 x 127mm (2 x 5 in.) Cable Area

Treated Water

- Treated water is used in the closed loop between the CDU and Cooling Door
- Maintains clean heat transfer surfaces to avoid downtime
- Protects against scaling, fouling and corrosion
- Available in 19 liters (5 gallons) or 208 liters (55 gallons) containers

Ordering Information:

RX-TW05 .....Treated Water, 19 liters (5 gallons)
RX-TW55 .....Treated Water, 208 liters (55 gallons)
RX-APT .....Air Purging Tool

IcePack™ Deployment/Commissioning Service

To ensure that the IcePack system is installed with the same quality, attention to detail and support that Seimon customers count on for their data center solutions, Siemon offers full deployment and ongoing maintenance services through a network of highly-trained and Siemon certified installation partners.

- Commissioning Service
  - Door Mounting
  - Sealed liquid cooling loop connections
  - System startup and and full function testing
  - Customer Training
- Preventative Maintenance programs are available from installation service providers
- Raised Floor Cutout and Grommet Installation is available to cut floor tiles and install grommets

Ordering Information:

Commissioning Service

Part #	Description
RX-SVC-RD1-AM	N. America, Qty 1-5 Doors
RX-SVC-RD2-AM	N. America, Qty 6-10 Doors
RX-SVC-RD3-AM	N. America, Qty 11-15 Doors
RX-SVC-DC1-AM	N. America, Qty 1-4 Doors + CDUs
RX-SVC-DC2-AM	N. America, Qty 5-8 Doors + CDUs
RX-SVC-DC3-AM	N. America, Qty 9-12 Doors + CDUs
RX-SVC-RD1-LA	Latin America, Qty 1-5 Doors
RX-SVC-RD2-LA	Latin America, Qty 6-10 Doors
RX-SVC-RD3-LA	Latin America, Qty 11-15 Doors
RX-SVC-DC1-LA	Latin America, Qty 1-4 Doors + CDUs
RX-SVC-DC2-LA	Latin America, Qty 5-8 Doors + CDUs
RX-SVC-DC3-LA	Latin America, Qty 9-12 Doors + CDUs

Preventative Maintenance Service

Part #	Description
RX-SVC-PM1-AM	N. America, Up to 4 CDU, 30 Doors
RX-SVC-PM2-AM	N. America, Up to 8 CDU, 60 Doors
RX-SVC-PM3-AM	N. America, Up to 12 CDU, 90 Doors
RX-SVC-PM1-LA	Latin America, Up to 4 CDU, 30 Doors
RX-SVC-PM2-LA	Latin America, Up to 8 CDU, 60 Doors
RX-SVC-PM3-LA	Latin America, Up to 12 CDU, 90 Doors

Raised Floor Cutout and Grommet Installation Service (per tile)

Part #	Description
RX-SVC-FG1-AM	N. America
RX-SVC-FG1-LA	Latin America

Service is performed by Siemon certified 3rd party installation partners.
Service is ordered with IcePack materials.
Refer to Statements of Work (SOW's) for detail on included and excluded services and geographic limitations

Intelligent Power Distribution Units

Siemon's line of intelligent PDUs provide valuable energy consumption data while reliably delivering power to critical IT equipment. Each of our PDU families deliver real-time power information with varying degrees of intelligent functionality ranging from basic Metered units to full-featured Managed PDUs — providing multiple options based on the level of data and control requirements Siemon's intelligent PDUs may be used as stand-alone units, or they can communicate with third-party software through common open networking protocols. All of our network-capable intelligent PDUs also have the capacity to connect environmental sensors, allowing temperature, airflow, and humidity to be measured to further troubleshoot and optimize data center efficiency.

PDU Families

- Metered
- Monitored
- Switched
- Managed

FUNCTION	METERED	MONITORED	SWITCHED	MANAGED
Built-In Display for Local Use	√	√	√	√
Device-Level Monitoring	√	√	√	√
Remote Monitoring via Ethernet Port		√	√	√
Environmental Sensor Ports		√	√	√
Outlet-Level Switching			√	√
Outlet-Level Monitoring				√

Configurations

- NEMA and IEC plug inputs
- Single and 3-phase voltages
- Horizontal and zero-U vertical styles
- 3 meter (10 ft.) cords with other lengths available
- Test data included with each unit

Mounting

- Vertical PDUs mount via tooless button attachments and include a mounting bracket for additional flexibility
- Horizontal PDUs mount to standard EIA 19 in. configurations

Metered PDUs

Metered PDUs provide local visual monitoring capability through a built-in LED meter that displays real-time consumption data. Metered PDUs are a cost-effective alternative to monitored or switched PDUs when remote monitoring is not desired, while providing a more intelligent alternative to basic PDUs.

The 3 phase and 60A units measure current (amps) that scrolls through each phase

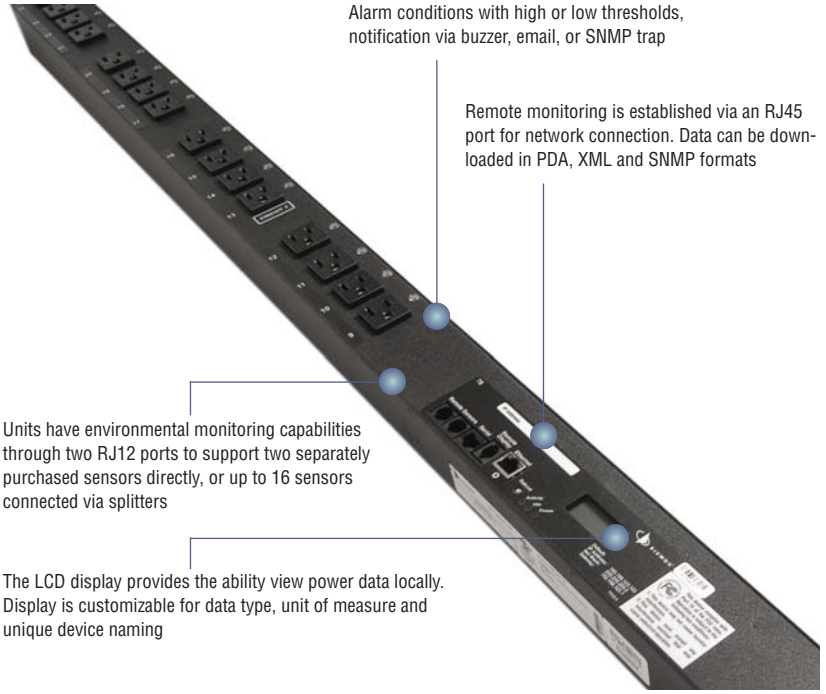
Single-phase PDUs measure power by scrolling through power factor, amps, volts and watts

Ordering Information

Mounting	Input Current	Input Voltage	Power	Input Plug	Output Receptacles	Output Receptacles	Length	Part Number
North America								
Vertical	20A x 2	120 dual input	1.9kW x 2	NEMA 5-20P	5-20R (20)	-	1683mm (66 in.)	7TV02-AB20Z-K2A
Vertical	20A x 2	120 dual input	1.9kW x 2	NEMA L5-20P	5-20R (20)	-	1683mm (66 in.)	7TV05-AB20Z-K2A
Vertical	20A, 3 phase	120 / 208 WYE	5.8kW	NEMA L21-20P	6-20R (24)	-	1683mm (66 in.)	7TV11-AC24Z-K1A
Vertical	20A, 3 phase	120 / 208 WYE	5.8kW	NEMA L21-20P	C-13 (24)	C-19 (6)	1683mm (66 in.)	7TV11-BA24E-K1A
Vertical	20A, 3 phase	120 / 208 WYE	5.8kW	NEMA L21-20P	5-20R (24)	L6-20R (6)	1683mm (66 in.)	7TV11-AB24H-K1A
Vertical	30A	208	5kW	NEMA L6-30P	6-20R (24)	-	1683mm (66 in.)	7TV08-AC24Z-K1A
Vertical	30A	208	5kW	NEMA L6-30P	C-13 (24)	C-19 (6)	1683mm (66 in.)	7TV08-BA24E-K1A
Vertical	30A, 3 phase	120 / 208 WYE	8.6kW	NEMA L21-30P	5-20R (24)	-	1683mm (66 in.)	7TV13-AB24Z-K1A
Vertical	30A, 3 phase	120 / 208 WYE	8.6kW	NEMA L21-30P	C-13 (24)	C-19 (6)	1683mm (66 in.)	7TV13-BA24E-K1A
Vertical	30A, 3 phase	208 DELTA	8.6kW	NEMA L15-30P	C-13 (24)	C-19 (6)	1683mm (66 in.)	7TV15-BA24E-K1A
Vertical	60A	208	10kW	IEC 2P / 3W	C-13 (24)	C-19 (6)	1683mm (66 in.)	7TV24-BA24E-K1A
International								
Vertical	16A, 3 phase	230/400 WYE	11.04kW	IEC 309 3P + N + E	C13 (24)	C-19 (6)	1683mm (66 in.)	7TV26-BA24E-K1A
Vertical	32A	230	7.36kW	IEC 309 2P + E	C-13 (24)	C-19 (6)	1683mm (66 in.)	7TV22-BA24E-K1A
Vertical	32A, 3 phase	230/400 WYE	22.08kW	IEC 309 3P + N + E	C-13 (24)	C-19 (6)	1683mm (66 in.)	7TV27-BA24E-K1A
Horizontal 1U	32A	230	7.36kW	IEC 309 2P + E	C-13 (24)	-	480mm (19 in.)	7TH22-BA24Z-K1A

Monitored PDUs

Monitored PDUs enable remote monitoring of power consumption. Because they collect data at an aggregate, device-level, Monitored PDUs generate a smaller quantity of information to simplify management.



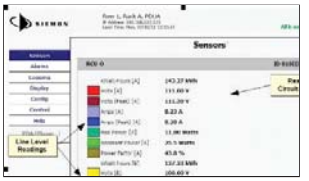
Alarm conditions with high or low thresholds, notification via buzzer, email, or SNMP trap

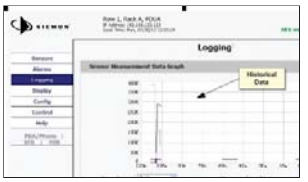
Remote monitoring is established via an RJ45 port for network connection. Data can be downloaded in PDA, XML and SNMP formats

Units have environmental monitoring capabilities through two RJ12 ports to support two separately purchased sensors directly, or up to 16 sensors connected via splitters

The LCD display provides the ability view power data locally. Display is customizable for data type, unit of measure and unique device naming

The browser-based interface is used to view charts and logs without the need for additional software





The unit provides remote and local alarms and utilization logging

Ordering Information

Mounting	Input Current	Input Voltage	Power	Input Plug	Output Receptacles	Output Receptacles	Length	Part Number
North America								
Vertical	20A	120	1.9kW	NEMA 5-20P	5-20R (24)	-	1683mm (66 in.)	7MV02-AB24Z-K1A
Vertical	20A	120	1.9kW	NEMA L5-20P	5-20R (24)	-	1683mm (66 in.)	7MV05-AB24Z-K1A
Vertical	20A	208	3.3kW	NEMA 6-20P	C-13 (24)	C-19 (6)	1683mm (66 in.)	7MV03-BA24E-K1A
Vertical	20A	208	3.3kW	NEMA L6-20P	C-13 (24)	C-19 (6)	1683mm (66 in.)	7MV07-BA24E-K1A
Vertical	20A, 3 phase	120 / 208 WYE	5.8kW	NEMA L21-20P	5-20R (24)	-	1683mm (66 in.)	7MV11-AB24Z-K1A
Vertical	20A, 3 phase	120 / 208 WYE	5.8kW	NEMA L21-20P	C-13 (24)	C-19 (6)	1683mm (66 in.)	7MV11-BA24E-K1A
Vertical	30A	120	2.9kW	NEMA L5-30P	5-20R (24)	-	1683mm (66 in.)	7MV06-AB24Z-K1A
Vertical	30A	208	5kW	NEMA L6-30P	6-20R (24)	-	1683mm (66 in.)	7MV08-AC24Z-K1A
Vertical	30A	208	5kW	NEMA L6-30P	C-13 (24)	C-19 (6)	1683mm (66 in.)	7MV08-BA24E-K1A
Vertical	30A, 3 phase	120 / 208 WYE	8.6kW	NEMA L21-30P	5-20R (24)	-	1683mm (66 in.)	7MV13-AB24Z-K1A
Vertical	30A, 3 phase	120 / 208 WYE	8.6kW	NEMA L21-30P	C-13 (24)	C-19 (6)	1683mm (66 in.)	7MV13-BA24E-K1A
Vertical	35A, 3 phase	208 DELTA	10.1kW	IEC 3P / 4W	C-13 (30)	C-19 (6)	1778mm (70 in.)	7MV28-BA30E-K1A
Vertical	50A, 3 phase	208 DELTA	14.4kW	IEC 3P / 4W	C-13 (24)	C-19 (6)	1778mm (70 in.)	7MV29-BA24E-K1A
Vertical	60A, 3 phase	208 DELTA	17.3kW	IEC 3P / 4W	C-13 (24)	C-19 (6)	1778mm (70 in.)	7MV25-BA24E-K1A
Horizontal 1U	20A	120 or 208	1.9 or 3.3kW	NEMA C-20	C-13 (12)	-	480mm (19 in.)	7MH19-BA12Z-K1A
Horizontal 1U	20A	120	1.9kW	NEMA 5-20P	5-20R (10)	-	480mm (19 in.)	7MH02-AB10Z-K1A
Horizontal 1U	20A	120	1.9kW	NEMA L5-20P	5-20R (10)	-	480mm (19 in.)	7MH05-AB10Z-K1A
International								
Vertical	16A, 3 phase	230/400 WYE	11.04kW	IEC 309 3P + N + E	C-13 (24)	C-19 (6)	1683mm (66 in.)	7MV26-BA24E-K1A
Vertical	16A	230	3.68kW	IEC 309 2P + E	C-13 (24)	C-19 (6)	1683mm (66 in.)	7MV20-BA24E-K1A
Vertical	32A, 3 phase	230/400 WYE	22.08kW	IEC 309 3P + N + E	C-13 (24)	C-19 (6)	1683mm (66 in.)	7MV27-BA24E-K1A
Vertical	32A	230	7.36kW	IEC 309 2P + E	C-13 (24)	C-19 (6)	1683mm (66 in.)	7MV22-BA24E-K1A
Horizontal 1U	16A	230	3.68kW	IEC 309 C-20	C-13 (12)	-	480mm (19 in.)	7MH33-BA12Z-K1A

Switched and Managed PDUs

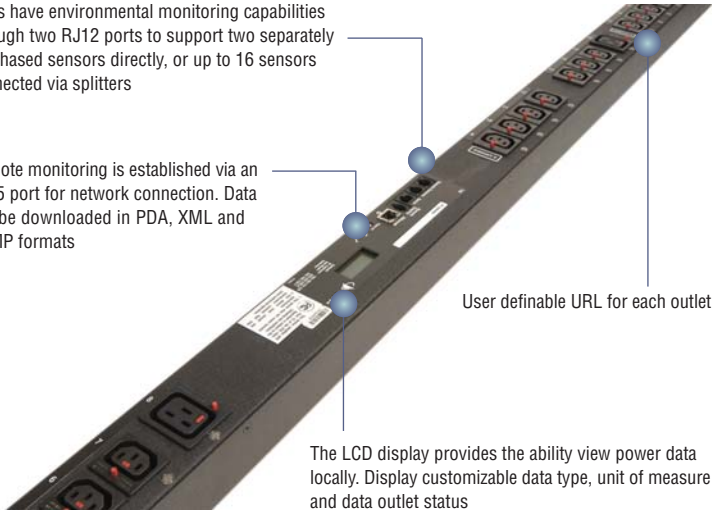
In addition to power monitoring, switched and managed PDUs enable users to remotely control individual receptacles by allowing equipment to be restarted or remotely shut down.

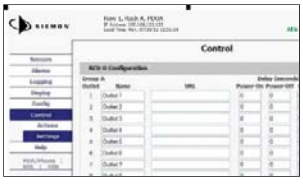
Switched PDUs

Switched PDUs combine total PDU power monitoring with port-level switching. They are the ideal solution when port control is needed but only aggregate consumption data is desired.

Managed PDUs

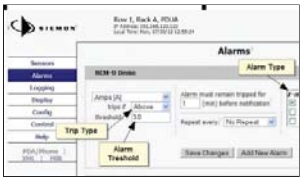
Managed PDUs offer the highest level of control and monitoring by providing outlet-level monitoring and outlet-level switching.





Sequential start up and shut down to manage loads

The browser-based interface is used to access charts, logs, and alarms



Ordering Information

Mounting	Input Current	Input Voltage	Power	Input Plug	Output Receptacles	Output Receptacles	Length	Part Number
Switched								
North America								
Vertical	30A	120	2.9kW	NEMA L5-30P	5-15R (24)	-	1778mm (70 in.)	7SV06-AA24Z-K1A
Vertical	30A	208	5kW	NEMA L6-30P	C-13 (20)	C-19 (4)	1778mm (70 in.)	7SV08-BA20D-K1A
Vertical	30A, 3 phase	120 / 208 WYE	8.6kW	NEMA L21-30P	C-13 (21)	C-19 (3)	1829mm (72 in.)	7SV13-BA21C-K1A
Vertical	30A, 3 phase	208 DELTA	8.6kW	NEMA L15-30P	C-13 (21)	C-19 (3)	1829mm (72 in.)	7SV15-BA21C-K1A
International								
Vertical	16A, 3 phase	230/400 WYE	11.04kW	IEC 309 3P + N + E	C-13 (21)	C-19 (3)	1683mm (66 in.)	7SV26-BA21C-K1A
Vertical	16A	230	3.68kW	IEC 309 2P + E	C-13 (21)	C-19 (3)	1683mm (66 in.)	7SV20-BA21C-K1A
Vertical	32A, 3 phase	230/400 WYE	22.08kW	IEC 309 3P + N + E	C-13 (21)	C-19 (3)	1829mm (72 in.)	7SV27-BA21C-K1A
Vertical	32A	230	7.36kW	IEC 309 2P + E	C-13 (20)	C-19 (4)	1778mm (70 in.)	7SV22-BA20D-K1A
Managed								
North America								
Vertical	20A, 3 phase	120 / 208 WYE	5.8kW	NEMA L21-20P	C-13 (21)	C-19 (3)	1683mm (66 in.)	7WV11-BA21C-K1A
Vertical	30A	208	5kW	NEMA L6-30P	C-13 (20)	C-19 (4)	1778mm (70 in.)	7WV08-BA20D-K1A
Vertical	30A, 3 phase	120 / 208 WYE	8.6kW	NEMA L21-30P	C-13 (21)	C-19 (3)	1829mm (72 in.)	7WV13-BA21C-K1A
Vertical	35A, 3 phase	208 DELTA	10.1kW	IEC 3P / 4W	C-13 (21)	C-19 (3)	1829mm (72 in.)	7WV28-BA21C-K1A
Vertical	60A, 3 phase	208 DELTA	17.3kW	IEC 3P / 4W	C-13 (18)	C-19 (6)	1683mm (66 in.)	7WV25-BA18E-K1A
Horizontal 1U	20A	120 or 208	1.9 or 3.3kW	NEMA C-20	C-13 (8)	-	480mm (19 in.)	7WH19-BA08Z-K1A
International								
Vertical	16A, 3 phase	230/400 WYE	11.04kW	IEC 309 3P + N + E	C-13 (21)	C-19 (3)	1683mm (66 in.)	7WV26-BA21C-K1A
Vertical	16A	230	3.68kW	IEC 309 2P + E	C-13 (21)	C-19 (3)	1683mm (66 in.)	7WV20-BA21C-K1A
Vertical	32A, 3 phase	230/400 WYE	22.08kW	IEC 309 3P + N + E	C-13 (21)	C-19 (3)	1829mm (72 in.)	7WV27-BA21C-K1A
Vertical	32A	230	7.36kW	IEC 309 2P + E	C-13 (20)	C-19 (4)	1778mm (70 in.)	7WV22-BA20D-K1A
Horizontal 1U	32A	230	7.36kW	IEC 309 2P + E	C-13 (8)	-	480mm (19 in.)	7WH22-BA08Z-K1A

Accessories

Environmental Sensors

7ENS-TEMP .....
Temperature Sensor

7ENS-TEMPHAF .....
Temperature/ Airflow/ Humidity Sensor

7ENA-SPLIT-5.....
Splitter RJ12 x 5 way

SPECIFICATIONS

General	
Safety Compliance	UL 60950 (North America PDUs only), CE (International PDUs only)
Emissions	FCC Part 15 Class A
Cord Length	3m (10 ft.)
Circuit breakers	30A and higher units
Outlet Color Coding	On 3 phase units for load balancing
Material	18 Gauge Steel
Finish	Black powder coat
Warranty	3 Years

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 2000m (0 to 6561 ft.)
Storage Elevation	0 to 15240m (0 to 50000 ft.)

Networking	(not applicable to metered units)
Networking Protocols	HTTP, HTTPS (SSL/TLS), SMTP, POP3, ICMP, DHCP, TCP/IP, NTP, Telnet, Syslog
Ethernet Link Speed	10 Mbit; half-duplex
Data Formats	HTML, SNMP, CSV/Plain Text, XML

High Speed Interconnects

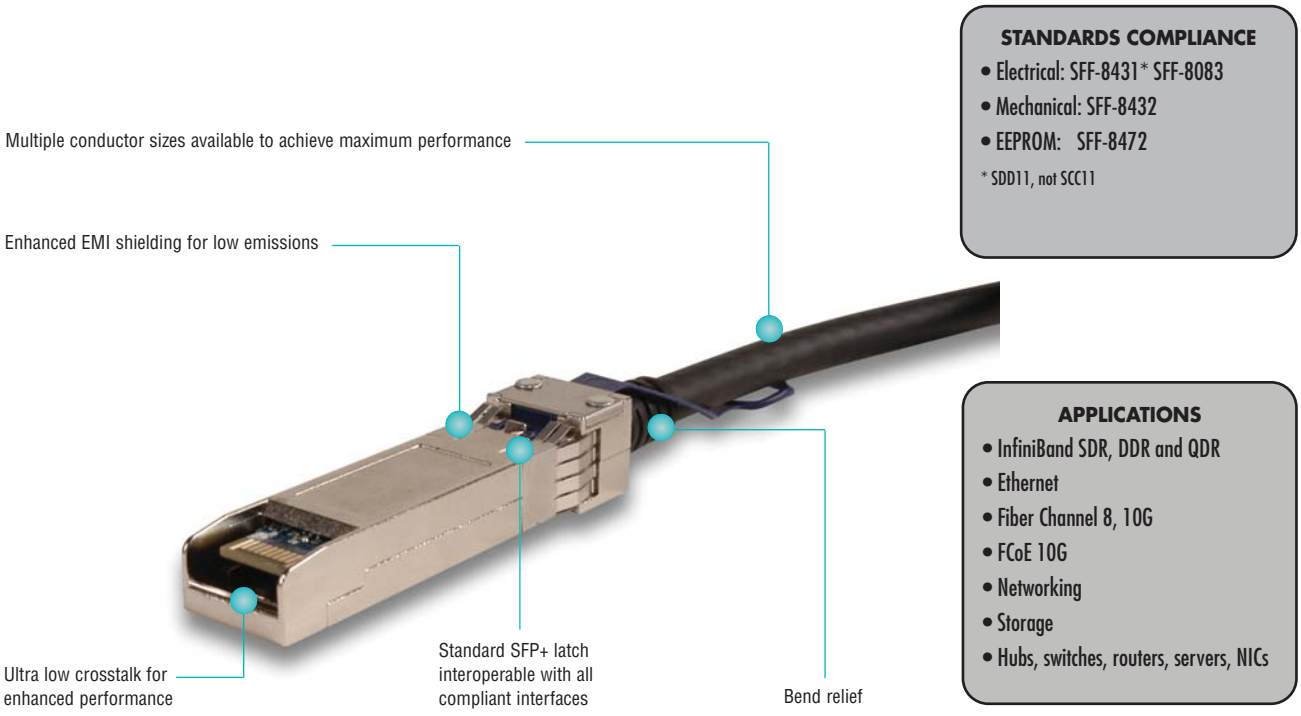
The Siemon Interconnect Solutions team has developed a full offering of interconnect assemblies for ultra high-speed point-to-point applications. Supporting speeds up to 40Gb/s across an array of application standards, the line features QSFP+, SFP+, SFF-8470 and MiniSAS interfaces, as well as hybrid 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

SFP+ Copper Cable Assemblies

SFP+ copper cable assemblies from Siemon Interconnect Solutions (SIS) 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 and network storage markets. The 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 minimize EMI leakage through their fully-shielded design.



STANDARDS COMPLIANCE

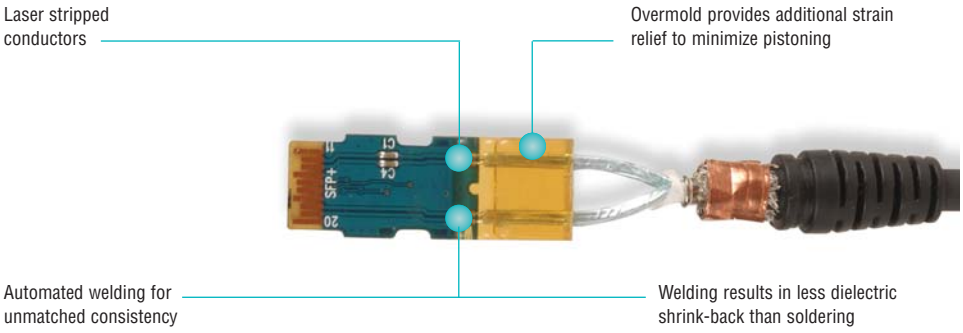
- Electrical: SFF-8431* SFF-8083
- Mechanical: SFF-8432
- EEPROM: SFF-8472

* SDD11, not SCC11

APPLICATIONS

- InfiniBand SDR, DDR and QDR
- Ethernet
- Fiber Channel 8, 10G
- FCoE 10G
- Networking
- Storage
- Hubs, switches, routers, servers, NICs

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	-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

Plug	
Backshell Material	Nickel-Plated Zinc Diecast
Contact Material	PCB with Gold-Plated Pads
Latch	Positive Latching w/ Pull
Insertion Force	30N (6.74 lbf.) Max
Withdrawal Force	20N (4.5 lbf.) Max
Retention Force	90N (20.23 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 (0.177 in.)
	28 AWG = 4.7mm (0.185 in.)
	26 AWG = 5.2mm (0.205 in.)
	24 AWG = 6.2mm (0.244 in.)
Jacket Type	PVC
Bend Radius	5X Cable OD

Ordering Information:

SFP+ Passive Copper Cable Assembly, Double-ended, Black

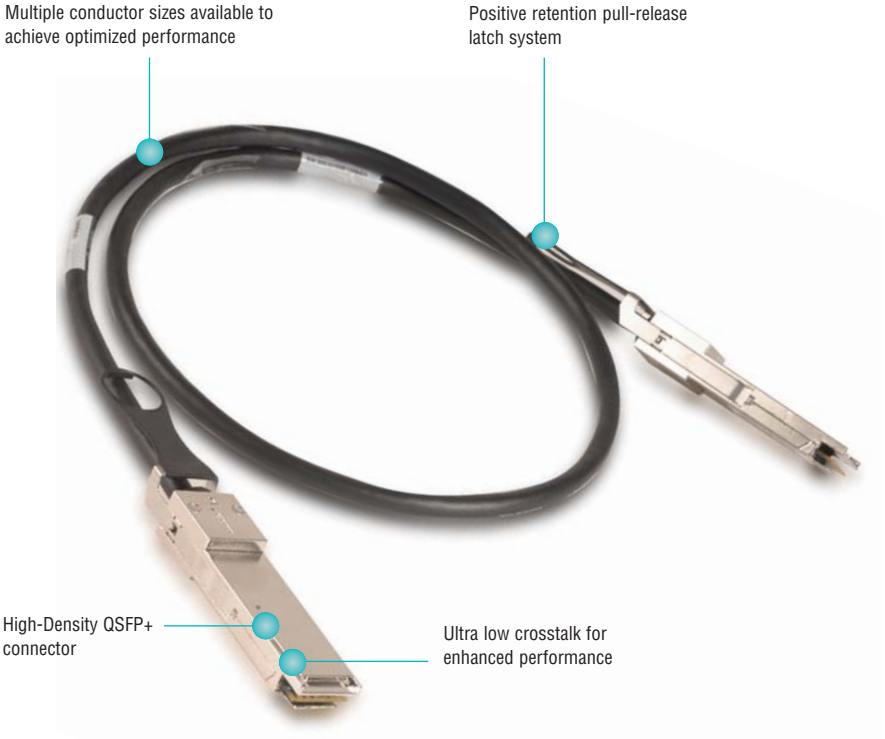
Part Number	Length	Gauge	dWDP(dB)*	VMA(dB)*	VMA(dB)*
SFPP30-01	1m (3.3 ft.)	30			
SFPP30-02	2m (6.6 ft.)	30			
SFPP30-03	3m (9.8 ft.)	30			
SFPP28-05	5m (16.4 ft.)	28	6.2	4.0	46
SFPP24-07	7m (23 ft.)	24	6.5	4.0	42
SFF-8431 Limits			6.75	4.5	32.5

Note: Contact Customer Service for additional lengths and wire gauges.

**Typical*

Siemon QSFP+ Passive Copper Assemblies

Siemon Interconnect Solutions QSFP+ Copper Cable assemblies were developed for high-density applications, offering a cost-effective, low-power option for high-speed data center interconnects. The QSFP+ form factor (Quad SFP+) 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 6 meters (19.7 feet) with longer custom lengths available.



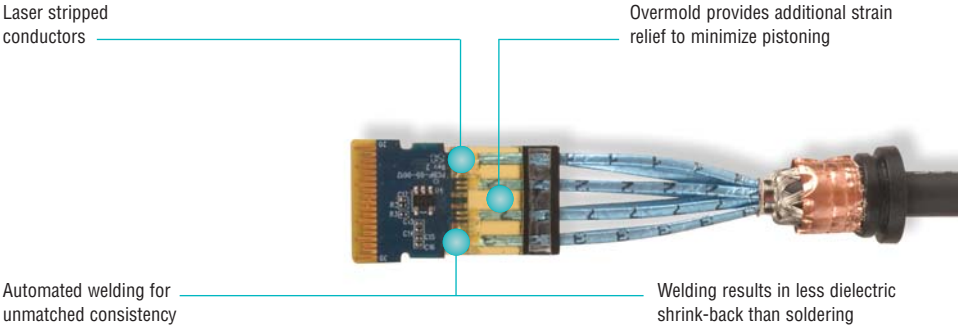
STANDARDS COMPLIANCE

- Electrical: IBTA V2 Revision 1.2.1
- IEEE 802.3ba
- EEPROM: SFF-8436
- RoHS

APPLICATIONS

- InfiniBand 4X SDR, DDR, QDR
- Ethernet 10G,40G
- FiberChannel 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

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 (8.99 lbf.) Max
Withdrawal Force	30N (6.74 lbf.) Max
Retention Force	90N (20.23 lbf.) Min
Durability	250 Cycles
Tightest Recommended Vertical Spacing (Belly to Belly)	11.80 mm (0.5 in.) Center to Center
Tightest Recommended Vertical Spacing (Stacked)	17.50 mm (0.7 in.) Center to Center
Cable	
Conductor	Solid
Wire Gauge	30 AWG to 24 AWG
Impedence	100 +/- 5 ohms
Construction	Twinaxial
Cable OD	30 AWG = 6.50mm (0.256 in.)
	28 AWG = 7.49mm (0.295 in.)
	26 AWG = 8.61mm (0.339 in.)
	24 AWG = 9.70mm (0.382 in.)
Jacket Type	PVC
Bend Radius	5X Cable OD -Single 10X Cable OD - Repeated

Ordering Information:

QSFP+ to QSFP+ Passive Copper Cable Assemblies

Part Number	Length	Gauge
QSFP30-00.5	0.5m (1.6 ft.)	30
QSFP30-01	1m (3.3 ft.)	30
QSFP30-01.5	1.5m (4.9 ft.)	30
QSFP30-02	2m (6.6 ft.)	30
QSFP30-02.5	2.5m (8.2 ft.)	30
QSFP30-03	3m (9.8 ft.)	30
QSFP26-05	5m (16.4 ft.)	26
QSFP24-06	6m (19.6 ft.)	24

Maximum Lengths

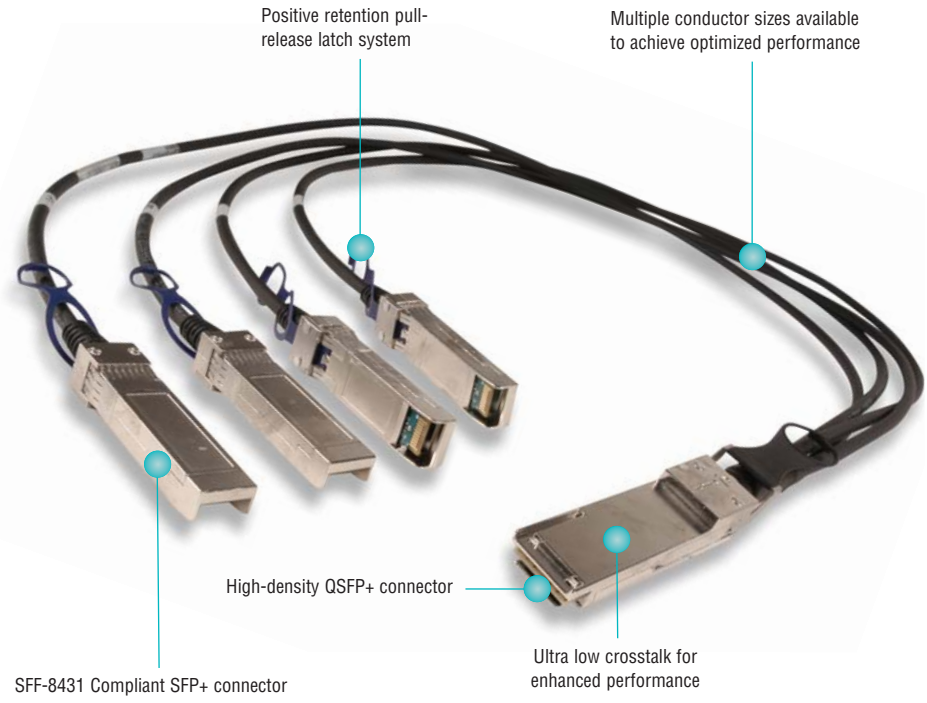
Gauge	IBTA DDR	IBTA QDR[1]	IEEE 802.3ba
30	5m (16.4 ft.)	3m (9.8 ft.)	3m (9.8 ft.)
28	7m (23 ft.)	4m (13.1 ft.)	4m (13.1 ft.)
26	8m (26.2 ft.)	5m (16.4 ft.)[2]	5m (16.4 ft.)
24	10m (32.8 ft.)	6m (19.6)	n/a

1 Per IBTA cable MOI V0.69: -13dB @5GHz
2 May not meet IBTA QDR insertion loss limits but is acceptable for most InfiniBand and all Ethernet applications.

Note: Contact Customer Service for additional lengths.

Siemon QSFP+ to 4 SFP+ Passive Copper Assemblies

Siemon Interconnect Solutions hybrid cables allow users to connect SFP+ and QSFP+ equipment. They offer a cost-effective, low-power option for high-speed data center interconnects. The direct-attach assemblies support 4 lanes of 10 Gb/s (40 Gb/s composite) and are available in standard lengths up to 5 meters (16.4 feet) with longer custom lengths available.



STANDARDS COMPLIANCE

QSFP+ End

- SFF-8436
- Electrical: IBTA Volume 2 Revision 1.2.1*

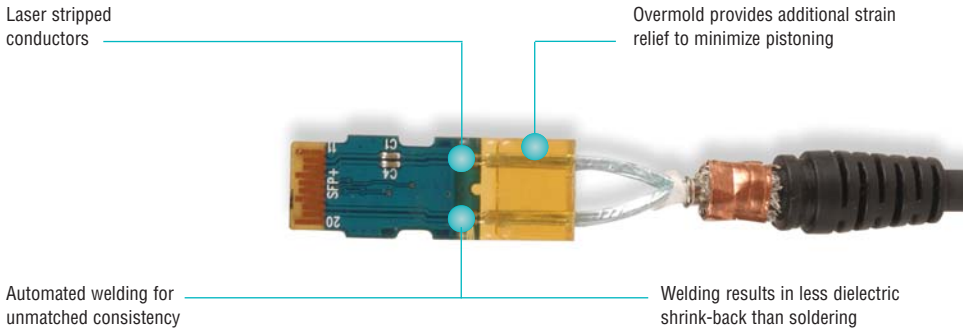
SFP+ End

- SFF-8431
- SFF-8432
- SFF-8472

APPLICATIONS

- InfiniBand SDR, DDR
- Ethernet 1G, 10G
- Fiber Channel
- Rack-to-Rack, Shelf-to-Shelf Interconnect
- Networking
- Storage
- Hubs, switches, routers, servers

PCB Termination



** Proposed IBTA return loss limit (used at latest plugfest)*

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
Latch	Positive Latching w/Pull Tab
Insertion Force	QSFP+: 40N (8.99 lbf.) Max SFP+ 30N (6.74 lbf.) Max
Withdrawal Force	QSFP+: 30N (6.74 lbf.) Max SFP+ 20N (4.50 lbf.) Max
Retention Force	90N (20.23 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
Jacket Type	PVC
Bend Radius	5X Cable OD -Single 10X Cable OD - Repeated

Ordering Information:

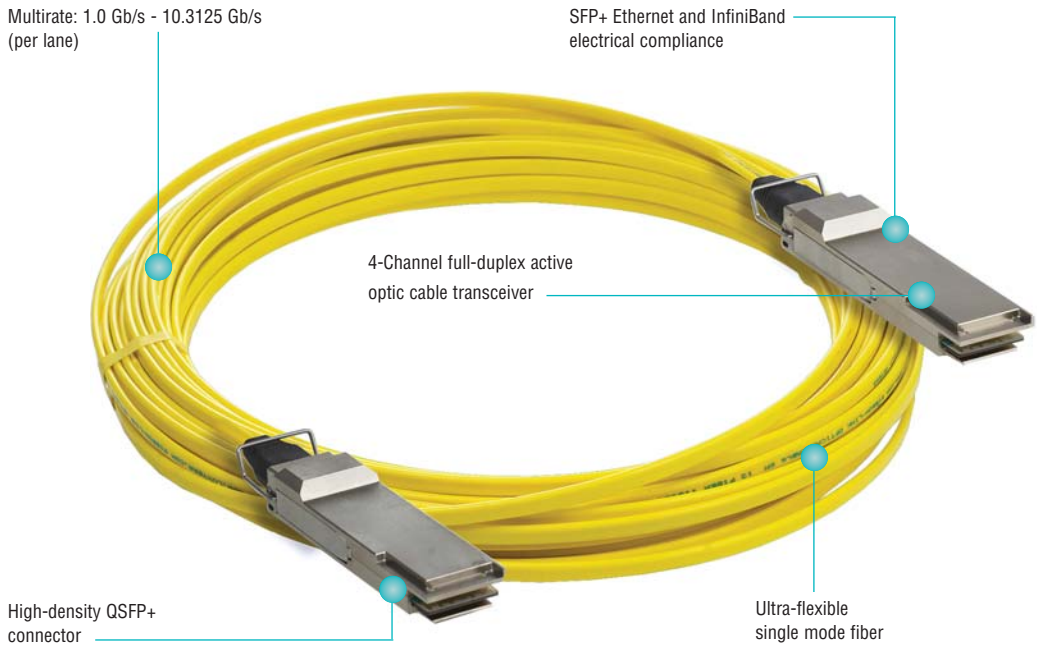
QSFP+ to SFP+ Passive Copper Cable Assemblies

Part Number	Length	Gauge
SFPPQSFP30-00.5	0.5m (1.6 ft.)	30
SFPPQSFP30-01	1m (3.3 ft.)	30
SFPPQSFP30-02	2m (6.6 ft.)	30
SFPPQSFP28-03	3m (9.8 ft.)	28
SFPPQSFP28-05	5m (16.4 ft.)	28

MORAY™ Active Optical Cable Assemblies Single Mode, QSFP+

Siemon Interconnect Solutions MORAY 40 Gb/s Active Optical Cable assemblies offer a cost-effective, extended reach option for high-speed data center interconnects. MORAY assemblies incorporate integrated opto-electronics with four single-mode fiber optic transceivers per end, each operating at data rates from 1 to 10.3125 Gb/s. The cable is available in a number of standard lengths up to 300 meters (984 feet) and custom lengths up to 4,000 meters (13,123 feet).

MORAY offers 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. Optical transceivers are permanently attached to the fiber, shielding the optical interface from environmental contaminants and protecting it from damage during installation.



APPLICATIONS

- InfiniBand SDR, DDR, QDR
- Ethernet 10G,40G
- Fibre Channel 8G,10G
- SAS, SATA 3G, 6G
- Fibre Channel SAN 10G,20G, 40G
- Myrinet 40G
- Optical Backplanes
- Rack-to-Rack, Shelf-to-Shelf Interconnect
- Proprietary Cluster Interconnect
- Networking
- Storage
- Hubs, switches, routers, servers

STANDARDS COMPLIANCE

- SFF-8436
- SFF-8431
- FCC Class B
- EN55022: 2006 (Class B)
- EN/IEC 61000-4-3
- Safety: UL, CSA, CE
- RoHS
- Class 1 laser product per IEC 6095 (eye safety)
- Telcordia GR-468-CORE

Product Information

PERFORMANCE SPECIFICATIONS

Electrical	
Supply Voltage	3.1 to 3.5V
Power Consumption Per End	2.5W (max) per end
General	
Operating Temperature	0 to 70 C (0 to 158 F)
Storage Temperature	-45 to 85 C (-49 to 185 F)
Channels	4 channels, bi-directional
Connector (each end)	QSFP
Weight for 10m (33 ft.) cable	360 g (12.7 oz.) typical
Cable Pull Strength	68N (15.29 lbf.)

Cable	
Type	OFNP/CSA-FT6 (plenum) single mode fiber
Minimum Bend Radius	Cable only: ≤15mm (0.6 in.)
Minimum Cable Assembly Bend Radius	Cable and Connector: 5mm (2.2 in.)
Cross Section (without connector)	4.1mm (0.16 in.) Max x 2.5mm (0.1 in.) Max
Channel Parameters	
Channels	4 Lanes, bi-directional
Data Rate	1 to 10.3125 Gbps/channel
Link Bit Error Rate (BER)	10^{-15}
Signal Latency	2 ns for TX/RX plus 5 ns/m cable length
Operating Optical Wavelength	1490 nm

Ordering Information:

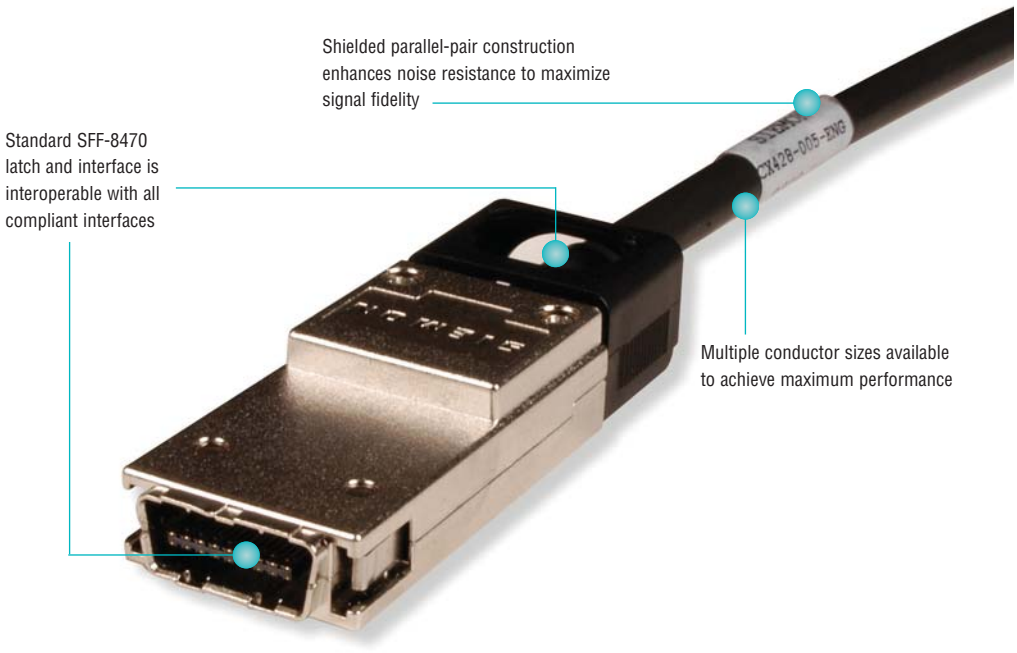
QSFP to QSFP Active Optical Cable Assemblies

Part Number	Length
QSFP-F-007	7m (23 ft.)
QSFP-F-010	10m (32.8 ft.)
QSFP-F-015	15m (49.2 ft.)
QSFP-F-020	20m (65.6 ft.)
QSFP-F-025	25m (82 ft.)
QSFP-F-030	30m (98.4 ft.)
QSFP-F-040	40m (131.2 ft.)
QSFP-F-050	50m (164 ft.)

Note: Contact Customer Service for additional lengths.

8470 4X Copper Cable Assemblies

Siemon Interconnect Solutions (SIS) 8470 4X copper cable assemblies were designed to support an array of high-speed interconnect infrastructures such as high-performance computing (HPC), enterprise networking, data centers and network storage. Combining high bandwidth and low latency signal transmission, these assemblies are ideal for Ethernet, InfiniBand SDR/DDR/QDR and other industry-standard applications. These assemblies support data rates from 2.5Gb/s to 10+ Gb/s per lane.



APPLICATIONS

- InfiniBand SDR, DDR and QDR
- Ethernet CX4, CR4
- Fiber Channel 1, 2, 4, 8, 10G
- XAUI, XAUI.2
- RapidIO
- SAS, SATA
- Myrinet
- Serial Transmissions to 10+Gb/s
- Networking
- Storage
- Hubs, switches, routers, servers

STANDARDS COMPLIANCE

- SFF-8470
- IBTA Volume 2 revision 1.2.1
- IEEE 802.3ak
- OIF - CEI SR 11G

Product Information

PERFORMANCE SPECIFICATIONS

Electrical	
Min. Dielectric Withstand Voltage	300 VDC
Insulation Resistance	1000 Mohms
Current Rating	0.5 Amp Min/Signal Contact
Impedance	10 +/- 10 Ohms at 100psec
Near End Crosstalk (NEXT)	<2% at 100psec (multiple agressors)
General	
Operating Temperature	-10 to 60 °C (14 to 140 °F)
Flammability Rating	UL 94 V-0
Green Features	RoHS, Lead, Halogen and PVC-Free
Shield	Braid/Foil
Marking	Mfg Name, Part#, Date Code

Plug	
Backshell Material	Nickel-Plated Zinc Diecast
Contact Material	Gold-Plated Copper Alloy
Plastic Material	LCP
Latch	Thermoplastic and Copper Alloy
Insertion Force	30N (6.74 lbf.) Max
Withdrawal Force	15N (3.37 lbf.) Max
Retention Force	75N (16.86 lbf.) Max
Durability	250 Cycles Min
Cable	
Conductor	Solid
Wire Gauge	30 AWG to 24 AWG
Impedance	100± 5 ohms
Construction	Twinaxial
Cable OD	30 AWG = 6.1mm (0.240 in.)
	28 AWG = 7.1mm (0.280 in.)
	26 AWG = 8.1mm (0.320 in.)
	24 AWG = 9.2mm (0.362 in.)
Bend Radius	5X Cable OD
Jacket Type	LSZH

Ordering Information:

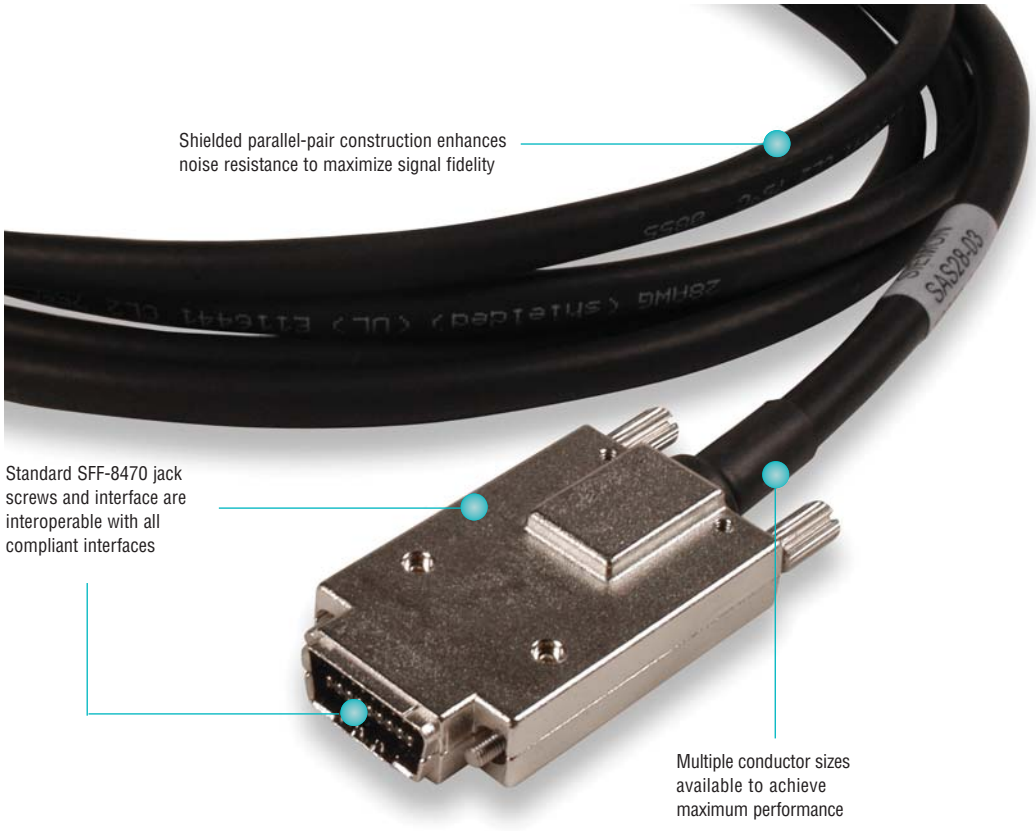
8470 4X Passive Copper Cable Assembly, Double-ended, Black

Part Number	Length	Gauge
CX428-000.5	0.5m (1.6 ft.)	28
CX428-001	1m (3.3 ft.)	28
CX428-002	2m (6.6 ft.)	28
CX428-003	3m (9.8 ft.)	28
CX428-005	5m (16.4 ft.)	28
CX426-007	7m (23 ft.)	26
CX424-010	10 (32.8 ft.)	24

Note: Contact customer service for additional lengths and wire gauges.

8470 4X Copper Cable Assemblies (Thumbscrew Style)

Siemon Interconnect Solutions (SIS) 8470 4X copper cable assemblies were designed to support an array of high-speed interconnect infrastructures such as high-performance computing (HPC), enterprise networking, data centers and network storage. Combining high bandwidth and low latency signal transmission, these assemblies are ideal for Ethernet, InfiniBand SDR/DDR/QDR and other industry-standard applications. These assemblies support data rates from 2.5Gb/s to 10+ Gb/s per lane.



APPLICATIONS

- SAS, SATA
- InfiniBand SDR, DDR and QDR
- Ethernet CX4, CR4
- Fiber Channel 1, 2, 4, 8, 10G
- XAUI, XAUI.2
- RapidIO
- Myrinet
- Serial Transmissions to 10+Gb/s
- Networking
- Storage
- Hubs, switches, routers, servers

STANDARDS COMPLIANCE

- SFF-8470
- IBTA Volume 2 revision 1.2.1
- IEEE 802.3ak
- OIF - CEI SR 11G

Product Information

PERFORMANCE SPECIFICATIONS

Electrical	
Min. Dielectric Withstand Voltage	300 VDC
Insulation Resistance	1000 Mohms
Current Rating	0.5 Amp Min/Signal Contact
Impedance	100 +/- 10 Ohms at 100psec
Near End Crosstalk (NEXT)	<2% at 100psec (multiple agressors)
General	
Operating Temperature	-10 to 60 °C (14 to 140 °F)
Flammability Rating	UL 94 V-0
Green Features	RoHS, Lead, Halogen and PVC-Free
Shield	Braid/Foil
Marking	Mfg Name, Part#, Date Code

Plug	
Backshell Material	Nickel-Plated Zinc Diecast
Contact Material	Gold-Plated Copper Alloy
Insertion Force	30N (6.74 lbf.) Max
Withdrawal Force	15N (3.37 lbf.) Max
Durability	250 Cycles Min
Cable	
Conductor	Solid
Wire Gauge	30 AWG to 24 AWG
Impedance	100± 5 ohms
Construction	Twinaxial
Cable OD	30 AWG = 6.1mm (0.240 in.)
	28 AWG = 7.1mm (0.280 in.)
	26 AWG = 8.1mm (0.320 in.)
	24 AWG = 9.2mm (0.362 in.)
Bend Radius	5X Cable OD
Jacket Type	LSZH

Ordering Information:

8470 4X Passive Copper Cable Assembly, Double-ended, Black

Part Number	Length	Gauge
SAS28-00.5	0.5m (1.6 ft.)	28
SAS28-01	1m (3.3 ft.)	28
SAS28-02	2m (6.6 ft.)	28
SAS28-03	3m (9.8 ft.)	28
SAS28-05	5m (16.4 ft.)	28
SAS26-07	7m (23 ft.)	26
SAS24-10	10 (32.8 ft.)	24

Note: Contact Customer Service for additional lengths and wire gauges

Ruggedized/Industrial Connectivity

Siemon's line of ruggedized/industrial connectivity allows cabling professionals to deliver high-performance copper and fiber 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 fiber systems, Siemon's ruggedized connectivity is ideal for industrial, outdoor and other harsh environments.

Section Contents

Industrial MAX®

Siemon is well-known for its industry leading high performance connectivity. The same high performance copper and fiber products are available with our patented Industrial MAX housings. Industrial MAX outlets and modular patch cords provide an IP66/IP67-rated seal, protecting plug and outlet contacts from dust, moisture, vibration, and common cleaning chemicals. The Industrial MAX solution is ideal for protecting valuable connections in laboratory environments, hospitals, food processing plants and other harsh environments.

Ensures Proper Seal — Bayonet-style mating ensures proper plug depth into the outlet and an IP66/IP67 rated seal

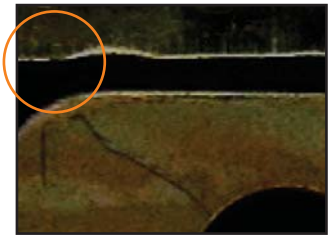
Standardized Interface — The Industrial MAX Connector has been recognized by the Open DeviceNet Vendor Association (ODVA), TIA TR 42.9 and IEC 61076-3-106

Easy Termination — The UTP Industrial MAX outlet utilizes a standard 110 tool for quick and easy punch-down termination

Universal Wiring — Each outlet is compatible with both T568A and T568B wiring options

Siemon's patented Pyramid Wire Entry System on S310 blocks separates paired conductors when lacing cables to simplify and reduce installation time.

Meets Harsh Demands of the Environment
Specially designed Industrial MAX 5e and 6 connectors can withstand humidity, dust and vibration.



Vibration Causes Pitting 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 Industrial MAX outlet's special housing prevents this corrosion.

Industrial MAX® 6/6A Outlets

The Industrial MAX outlet features a MAX module housed in a protective shell. The outlet's outer housing is made of durable, chemical-resistant, industrial-grade thermoplastic and features Siemon's patented bayonet-style mating design. Category 6 or 6A performance is guaranteed in harsh environments.

The industrial connector's bayonet-style mating prevents over-tightening which could damage contact pins inside the outlet or under-tightening which prevents a proper seal.

Part #	Description
X6	Category 6 UTP, industrial outlet, T568A/B
X6S	Category 6A compatible, shielded industrial outlet, T568A/B

Industrial MAX 5e Outlets

The Industrial MAX outlet features a category 5e MAX module housed in a protective shell. The outlet's outer housing is made of durable, chemical-resistant, industrial-grade thermoplastic and features Siemon's patented bayonet-style mating design. Guaranteed category 5e performance to 160 MHz even in the most punishing environments.

Part #	Description
X5	Category 5e UTP, industrial outlet, T568A/B
X5S	Category 5e shielded, industrial outlet, T568A/B
X5-X5S	Category 5e shielded, industrial bulkhead coupler (Industrial outlet to industrial outlet)

Industrial MAX 5e Plugs

The Industrial MAX Plug features a category 5e modular plug contained in Siemon's industrial-grade housing with patented 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 twisted-pair cable with 22 – 26 AWG (0.64 – 0.40mm) solid or 7-strand conductors with an insulated conductor diameter of 0.86 – 0.99mm (0.03 – 0.04 in.).

Part #	Description
XP85	Category 5e UTP, industrial plug, 8-position, 8-contacts
XP85S	Category 5e shielded, industrial plug, 8-position, 8-contacts

Industrial MAX® 6 Modular Patch Cords

Industrial modular patch cords combine the high performance and quality that Siemon cords are known for with a protective industrial-grade plug housing. These assemblies feature standard MC® 6 cordage with a MC 6 plug on one end and an industrial plug on the other.

Part #	Description
XC6-(XX)	Category 6 UTP, industrial plug-to-industrial plug
XC6-(XX)-B05	Category 6 UTP, industrial plug-to-modular RJ-45 plug, yellow boot

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.)

Industrial MAX 5e Modular Patch Cords

Designed to withstand the rigors of a factory floor environment, our industrial 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 industrial jacket types to meet various environmental requirements.

Part #	Description
XC5-(XX)	Category 5e UTP, industrial plug-to-industrial plug, PVC jacket
XC5-(XX)T	Category 5e UTP, industrial plug-to-industrial plug, TPE jacket
XC5-(XX)-B05	Category 5e UTP, industrial plug-to-modular RJ-45 plug, yellow boot, PVC jacket
XC5-(XX)-B05T	Category 5e UTP, industrial plug-to-modular RJ-45 plug, yellow boot, TPE jacket
XC5NS-(XX)-B05T	Category 5e UTP, modular RJ-45 plug-to-modular RJ-45 plug, yellow boot, TPE jacket
XC5S-(XX)	Category 5e Shielded (SF/UTP) industrial plug-to-industrial plug, PVC jacket
XC5S-(XX)T	Category 5e Shielded (SF/UTP) industrial plug-to-industrial plug, TPE jacket
XC5S-(XX)U	Category 5e Shielded (SF/UTP) industrial plug-to-industrial plug, PUR jacket
XC5S-(XX)-B05	Category 5e Shielded (SF/UTP) industrial plug-to-modular RJ-45 plug, yellow boot, PVC jacket
XC5S-(XX)-B05T	Category 5e Shielded (SF/UTP) industrial plug-to-modular RJ-45 plug, yellow boot, TPE jacket
XC5S-(XX)-B05U	Category 5e Shielded (SF/UTP) industrial plug-to-modular RJ-45 plug, yellow boot, PUR jacket
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 color is teal. TPE jacket color is black.

Outlet To Plug Assemblies

Siemon's outlet to plug assemblies provide an avenue to connect to active components mounted within an enclosure. These protected environments allow the use of standard cordage and are available in both UTP and shielded constructions.

Part #	Description
X5-MC5-(XX)-B05	Category 5e UTP, industrial outlet-to-modular RJ-45 plug, yellow boot, CMX
X5S-MC5S-(XX)B05L	Category 5e Shielded (F/UTP), industrial outlet-to-modular RJ-45 plug, yellow boot, 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.)

Industrial MAX® Dust Caps

The Industrial MAX dust caps are the ideal way to protect your investment in your industrial 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 Industrial MAX 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 chain style retention tether, which prevents them from being misplaced when not in use.

XP-CAP2 . . . . . .
Industrial plug dust cap
with retention tether

X-CAP . . . . . .
Industrial outlet dust cap
with retention tether

Industrial MAX Surface Mount Boxes

The Siemon Industrial MAX Surface Mount Box mounts either Siemon copper or fiber industrial outlets. Boxes provide an IP66/IP67 (NEMA 4X) seal and can be mounted on virtually any flat surface. Compression fittings are provided for cable entry.

X-IBOX-01 . . . . . .
Industrial surface mount box,
1-port, supplied with 1 cable
entry compression fitting

X-IBOX-02 . . . . . .
Industrial surface mount box,
2-port, supplied with 2 cable
entry compression fittings

X-IBOX-03 . . . . . .
Industrial surface mount box,
3-port, supplied with 3 cable
entry compression fittings

X-IBOX-04 . . . . . .
Industrial 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 industrial knockouts for custom mounting.

Industrial MAX Stainless Steel Faceplates

Mount Siemon's Industrial MAX outlets into these stainless steel faceplates for a protective seal from moisture and debris. The faceplates are available in 1-, 2- 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.

Industrial LC Fiber Connectivity

Another first from Siemon — the Industrial LC Fiber System. The Siemon Industrial LC Fiber solution provides a robust fiber connection with an IP66/IP67-rated seal and is ideal for protecting valuable connections in laboratory environments, hospitals, food processing plants and other harsh environments.

The Siemon Industrial Fiber solution is ideal for installations requiring extended distances in close proximity to heavy sources of EMI, or where fiber active equipment is used.

Robust Design — Protects fiber connections in virtually any harsh environment

High Performance — Meets TIA-568-C.3 and, ISO/IEC 11801 Ed 2.0 specifications for multimode and singlemode components

Specialized Bend Relief — Compression fitting provides a superior rear seal and ensures fiber meet minimum bend radius requirements

Proper Seal — Bayonet-style mating ensures proper fiber alignment and an IP66/IP67 rated seal

Field-Termination — Plug includes two industrial qualified multimode or singlemode LC connectors that accepts 2 strand, round, breakout style fiber 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 Industrial LC provides reliability with leading edge technology for applications where highly accurate performance is critical.

Robust and Reliable
Industrial Fiber connections help to streamline operations, improve product availability, and reduce costs in manufacturing environments.

Meets Harsh Demands of the Environment
The Industrial LC connector is ideal in areas where chemicals, corrosive gases and liquids are commonplace.

Industrial LC Fiber Plug and Outlet

Part #	Description
XPLC2-MM	Industrial LC fiber plug, multimode, duplex Includes two multimode LC connectors
XPLC2-SM	Industrial LC fiber plug, singlemode, duplex Includes two singlemode LC connectors
XLC-MM	Industrial LC fiber adapter, multimode, duplex
XLC-SM	Industrial LC fiber adapter, singlemode, duplex

Note: Industrial LC fiber plug accepts 2 strand, round, breakout style fiber optic cable with O.D. ranges from 5 – 8mm (0.2 – 0.3 in.) with two 2.4 – 3.0mm (0.1 – 0.12 in.) jacketed subunits.

Field-Installable LC Fiber Connector

Siemon LC buffered connectors have been qualified for use in Siemon's industrial fiber system. Use these connectors to terminate 62.5/125 or 50/125 micron multimode or singlemode fiber and plug into the rear of the Industrial LC outlet.

Part #	Description
FC1-LC-MM-B80	LC simplex connector, multimode, buffered fiber beige boot
FC2-LC-MM-J80	LC duplex connector, multimode, jacketed fiber beige boot
FC1-LC-SM-B02	LC simplex connector, singlemode, buffered fiber, white boot
FC2-LC-SM-J02	LC duplex connector, singlemode, jacketed fiber, white boot

Industrial LC Fiber Kit

Use the Industrial LC Kit with Siemon's *LightSpeed*® Termination Kit for Industrial LC connector terminations. The kit contains a dual LC polishing puck, which decreases polish time by 50%.

Part #	Description
FTERM-XLC	Industrial LC fiber termination kit used in conjunction with FTERM-L2 includes dual polishing puck
FT-LC2PUCK	Dual LC polishing puck
FT-MSLC2HEAD	Dual LC microscope adapter

RUGGEDIZED/INDUSTRIAL CONNECTIVITY

Tools and Testers

Siemon offers an extensive line of test equipment and tools designed to help cabling professionals simplify the delivery of high-performance cabling systems. Including the easy-to-use and economical STM-8 and MT-5000 testers as well as testing accessories to support a wide array of cabling types and configurations, Siemon's line of cabling test equipment helps ensure that your installed layer one infrastructure performs as expected. To facilitate quick and efficient installation, Siemon delivers a full line of termination tools and toolkits, including the trusty S814 and multi-pair S110/210® punch-down tool, AllPrep™ cable preparation tool, and the innovative Z-MAX® Z-TOOL™.

Section Contents

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

Easy Reference — Indications for 6- and 8-position jacks

Line Voltage Indicator — The presence of line voltage is indicated on the display to help prevent accidental damage to the unit

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

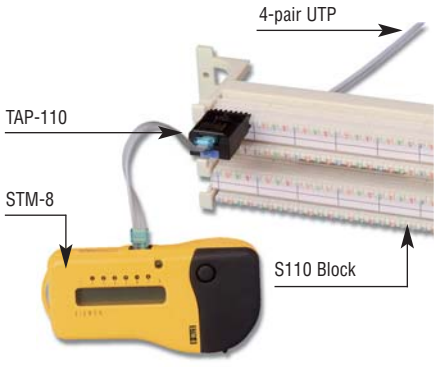
In the LENGTH mode, the STM-8 will determine the distance measurements on any given cable link up to 900m. This feature may be used with all four identifiable remotes.

STM-8 and STM-8-S

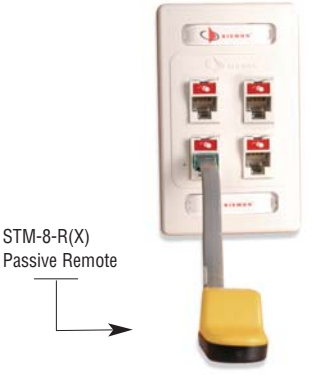
Part #	Description
STM-8	UTP (unshielded, twisted-pair) tester. Includes carrying case, remote "A", two universal plug-ended modular cords, wiring guide, 9V alkaline battery, instructions, and warranty card
MC-8-005	Universal plug-ended modular replacement cord

Horizontal Cross-Connect

The S110® Test Adapter can be used to test horizontal cabling that is terminated on 110-type connecting blocks

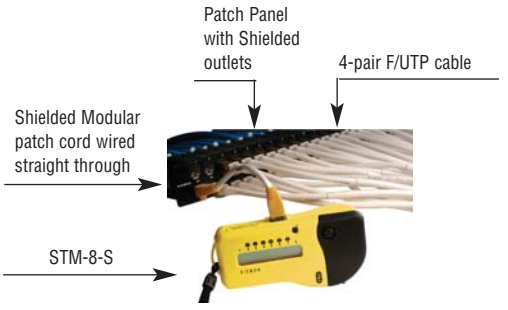


Work Area Outlet



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

MT-5000

The MT-5000 is a versatile, hand-held tester — it is fast, reliable, and durable. It tests opens, shorts, and miswires from 1- to 25-pairs and can accommodate a combination of 25-pair and modular jack terminations. For instance, using the 25-pair test adapter (see below), the remote unit can be attached to a 66 block that is connected to multiple horizontal cable runs in the equipment closet. Then, using the modular jack in the master unit, one person can test up to six 4-pair station cables in the work area. Cable runs of up to 762m (2,500 ft.) can be tested with accuracy.

The MT-5000 tests individual conductors, not pairs. This allows testing of all wiring configurations including USOC, T568A, and T568B.

The MT-5000 consists of a master and a remote unit. The master controls all of the test functions, so one person can perform testing. Test results are reported on a large, easy-to-read LCD display. Each unit has both male and female 25-pair connectors, one 6-position (1-, 2- or 3-pair) modular jack, and one 8-position (4-pair) keyed modular jack. The unit also features a low-battery status indicator, a power input jack, and a power saving auto-off switch. It comes in a padded, nylon carrying case with batteries included.

Part #	Description
MT-5000	Cable tester (master and remote) with case and two universal plug-ended modular cords
MC-8-005	Universal plug-ended modular replacement cord, 152 mm (6 in.)

25-Pair Test Adapters

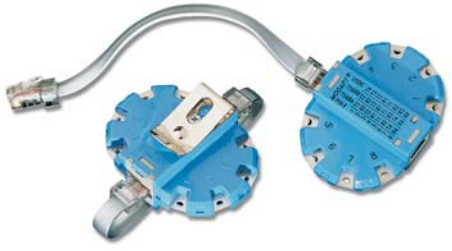
TAP-50

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-connectorize 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.

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 molded in blue plastic and has molded-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 utilize 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

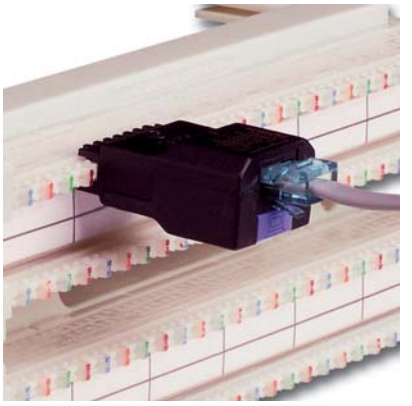
1-pair 2-pair 3-pair 4-pair

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 polarized to prevent incorrect insertion.

The adapters have an area for a colored 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

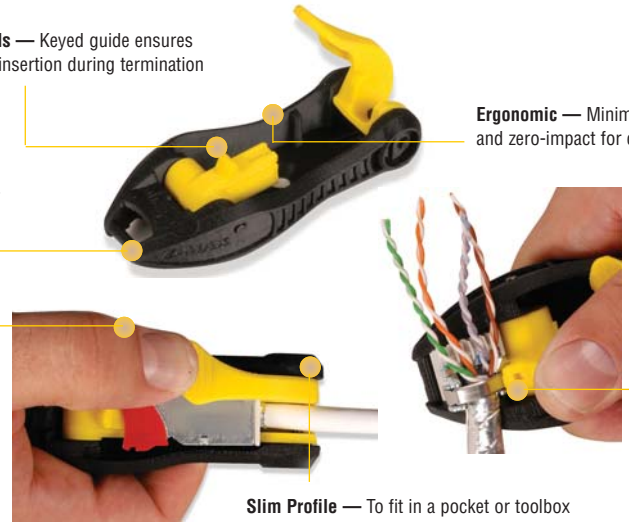


Technical Tip!
The adapters utilize a unique, spring-loaded contact design to ensure a reliable connection without disturbing existing cross-connect terminations. This also extends the life-cycle of the test adapter.

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 enage 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.

S788J4-210 . . . . . .
4-pair S210 termination tool

S788J4B-210 . . . . . .
4-pair S210 replacement cutting blade and insertion assembly

S788J4H-210 . . . . . .
4-pair S210 replacement head for impact tool, including housing, cutting blade and insertion assembly

S788J4 . . . . . .
4-pair S110 termination tool

S788J4B. . . . . .
4-pair S110 replacement cutting blade and insertion assembly

S788J4H . . . . . .
4-pair S110 replacement head for impact tool, including housing, cutting blade and insertion assembly

S788J5 . . . . . .
5-pair S110 termination tool

S788J5B. . . . . .
5-pair S110 replacement cutting blade and insertion assembly

S788J5H . . . . . .
5-pair S110 replacement head for impact tool, including housing, cutting blade and insertion assembly

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
DG-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

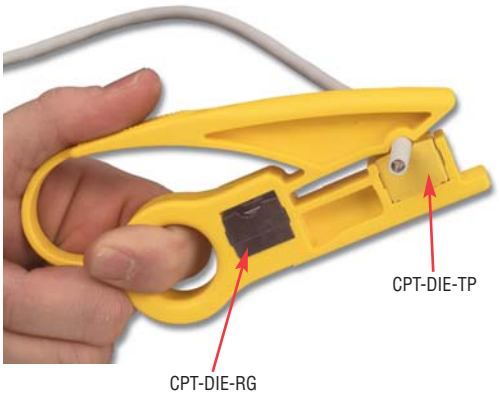
Siemon's CI-KIT2 includes all the components of the standard CI-KIT, with the addition of our popular AllPrep™ cable preparation tool in place of the CPT-WEB tool. Also, a "D-Ring" has been added to carry additional tools. These tools are stored in a handy, lightweight, clip-on pouch which allows the 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

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 fiber cables.

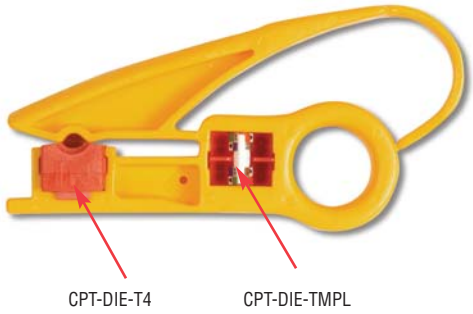
Part #	Description
CPT-RGTP	AllPrep cable preparation tool for coax/twisted pair cables
CPT-DIE-RG	Replacement coax die (black)
CPT-DIE-TP	Replacement twisted-pair die (yellow)



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 (0.015 – 0.025 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 fiber bandwidth is specified in megahertz kilometers (MHz.km).

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 fiber 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 or 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 center: 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 minimize radiated emissions and maximize 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 centralized 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 fiber communications technologies for local area networks (LANs).

Far-end Crosstalk (FEXT): Crosstalk measured at the opposite end from which the disturbing signal is transmitted.

Fiber Optic Transmission: See Optical Fiber 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 fiber 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 fiber 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 Optimized: A multimode optical fiber with a refractive index profile optimized 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 Fiber: An optical fiber that will allow multiple modes of light to propagate. The fiber may be either a graded-index or step-index fiber. Multimode optical fibers have a much larger core than singlemode fibers.

Multi-user Telecommunications Outlet Assembly (MuTOA): A grouping in one location of several telecommunications/outlet connectors.

Nanosecond (ns): One billionth of a second (10-9 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 Fiber Transmission: A communications scheme whereby electrical data is converted to light energy and transmitted through optical fibers.

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.

Private Branch Exchange (PBX): A private switching system usually serving an organization, 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 Fiber: An optical fiber that will allow only one mode of light to propagate; this fiber is typically a step-index fiber.

Small Form Factor: An optical fiber connector and adapter that provide for two strands of fiber 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/meter) 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.

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	Kilometer
LAN	Local area network
lbf	Pounds force
LED	Light emitting diode
m	Meter
µm	Micron; one millionth of a metre (0.000001); also micrometer
Mb/s	Megabits per second
MC	Main cross-connect
MDA	Main Distribution Area (same as Main Distribution in ISO)
MPO	Multi-fiber push on
MTP®	Registered trademark of US Connec MPO-Style Connector
MHz	Megahertz
MHz.km	Megahertz kilometer
mm.	Millimeter
MuTOA	Multi-user Telecommunications Outlet Assembly
NAS	Network Attached Storage
NEXT	Near-end crosstalk
nm	Nanometer
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)

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Siemon delivers a range of product and system warranties:

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- **An extended Siemon Cabling System Warranty covering application assurance, product, quality and performance margins when designed and installed by a Siemon Certified Installer℠ and registered with Siemon.**

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