



HIGH DENSITY



RAPID DEPLOYMENT



FUTURE PROOFING



SIEMON PLUG AND PLAY FIBER OPTIC SOLUTION

CONNECTING THE WORLD TO A HIGHER STANDARD

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PLUG AND PLAY FIBER SOLUTIONS

High Performance Cabling High Speed Deployment

Combining cutting edge performance with high speed installation, Siemon's Plug and Play Fiber Optic Cabling System was designed from the ground up to satisfy the needs of high-performance data centers:

Performance:

- Constructed of high-quality fiber optic cable and components for future-proof support of critical data center links including 10 Gb/s as well as future 40 and 100 Gb/s applications
- Factory terminated and tested connections guarantee maximum channel throughput without the performance variability of field terminations

Rapid Deployment

- Siemon Plug and Play systems can be deployed 75% faster than traditional field-terminated fiber connections
- Systems are ordered to fit the application then simply pulled and plugged in

Efficiency

- Turn-Key Solution — No connectors, termination kits or consumables required
- Universal configuration eliminates polarity issues

High Density

- A Single MTP® Connector and RazorCore™ cable replaces up to 24 individual fibers and connectors, reducing both cabinet and rack space usage as well as pathway space

Scalable

- The system's flexible design allows additional links to be easily added as connectivity needs expand

Environmentally Sound

- Small diameter RazorCore cable helps optimize data center airflow for energy efficient thermal management
- Factory terminations eliminate the scrap and waste associated with traditional field terminations

Rapid Data Center Deployment



Siemon Fiber Plug and Play Modules

- Simple MTP connections at the rear of each module provide up to 24 LC or 12 SC connections in a fraction of traditional termination times
- High-performance, factory terminated and tested connections eliminate the performance variability of field terminations
- Low profile, lightweight modules provide optimized adapter spacing for easy finger access to fiber jumper latches in high-density patching environments
- Fits within standard Siemon fiber enclosures and Siemon VersaPOD™ vertical patch panels.



Siemon Plug and Play Reels and Extenders

- ❑ Combines reduced-diameter RazorCore™ fiber cable with 12-fiber MTP® connectors for simple pull and connect integration into plug and play modules or adapter plates
- ❑ Available from 12 up to 144 fiber counts in increments of 12 fibers for efficient support of custom configurations
- ❑ Extenders offer Male MTP Connectors on one end and female MTP on the other to allow field extension of reels

Siemon MTP to LC Trunks and Hydras

- ❑ Combine a 12-fiber MTP connector on one end with duplex LC connectors on the other
- ❑ Provide quick installation option for applications where individual LC connections are required for direct installation into electronic equipment
- ❑ Provide enhanced density, requiring only a single small form-factor MTP connector to support up to 12 LC (6 duplex) connections
- ❑ MTP to LC Trunks typically used in cabinet-to-cabinet connections
- ❑ MTP to LC Hydras ideal for reduced distance connections within a single rack or cabinet

Siemon MTP Adapter Plates

- ❑ MTP Adapter Plates offer a user-friendly “pass-through” option for MTP connectors
- ❑ Allows efficient implementation of MTP to MTP extenders and MTP to LC Trunks and Hydras for direct equipment and patching connections
- ❑ Fit within Siemon’s fiber enclosures and VersaPOD™ vertical patch panels
- ❑ Supports future 40 Gb/s and 100 Gb/s applications over multimode 50/125 laser optimized fiber

Performance Data

Fiber Type		Max Insertion Loss (dB)		Min Return loss (dB)		Performance Class
		MTP	LC or SC	MTP	LC or SC	
SM-LWP	SM	0.75	0.4	55	55	XGLO
6MM	62.5/125	0.5	0.5	20	25	LightSystem
5MM	50/125	0.5	0.5	20	25	LightSystem
5L-MM	50/125 10G	0.5	0.25	20	30	XGLO



Plug and Play Channel Configurations

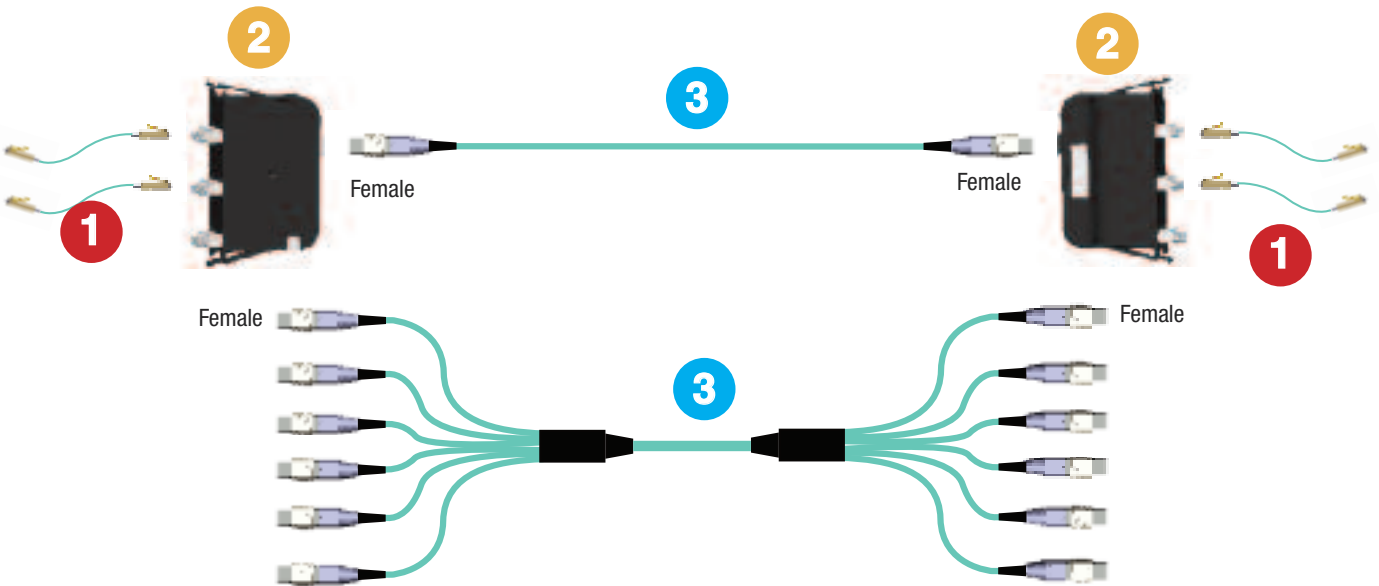
Siemon's full line of fiber Plug and Play cable and connectivity provides a high degree of data center deployment flexibility. Modules, reels, trunks, hydras, adapter plates and extenders combine with Siemon fiber enclosures and jumpers in an array of configurations to fit nearly any infrastructure design. The channel diagrams below illustrate just a few design options.

LEGEND

- 1 Jumpers to Equipment
- 2 Plug and Play Modules
- 3 MTP to MTP Reel
- 4 MTP® Adapter Plate
- 5 MTP to LC Trunk
- 6 MTP to LC Hydra
- 7 MTP to MTP Patch Cord

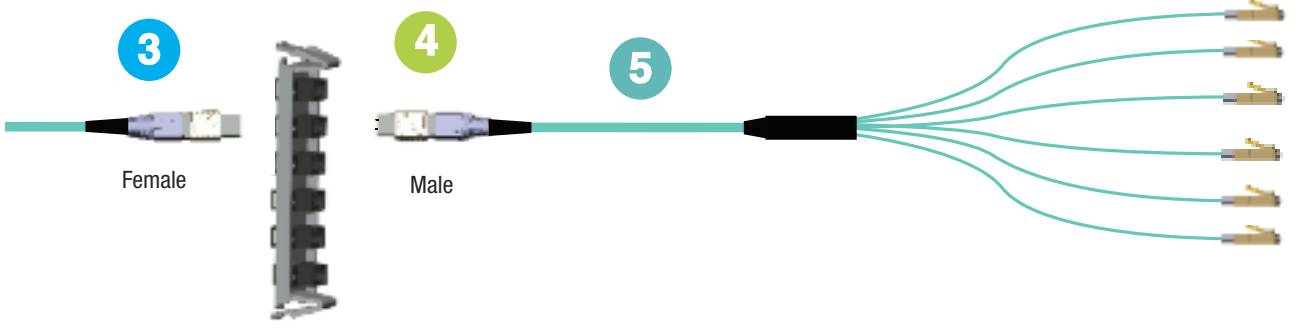
Module to Module Configuration

The most efficient and flexible option, a Plug and Play module to module channel enables rapid deployment of LC and SC equipment connectivity up to 10Gb/s. The module to module configuration combines the rapid deployment and efficiency of a Plug and Play channel with the flexibility of traditional fiber connectivity, ideal for dynamic infrastructures.



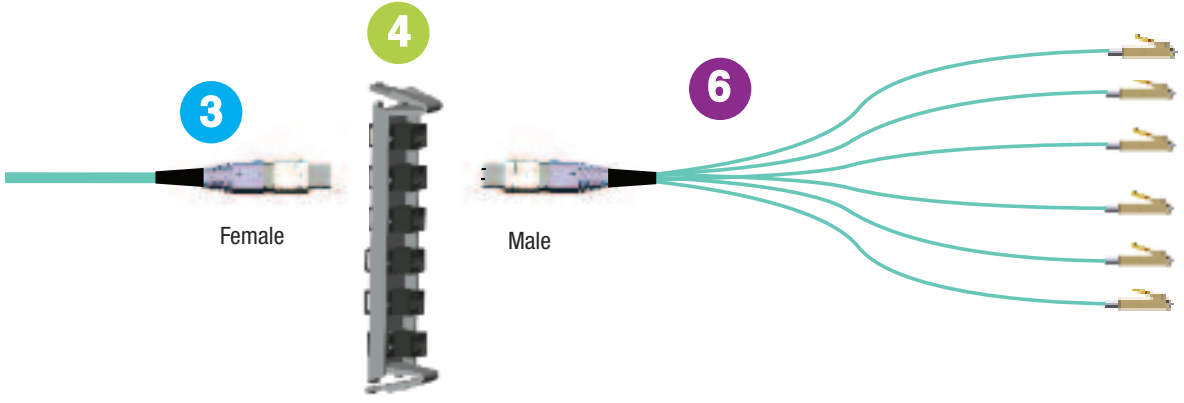
MTP® Adapter to LC Trunk

When a Plug and Play module cannot be installed in close proximity to static equipment, an MTP to duplex LC trunk can provide direct LC connections. These trunks are simply plugged into an MTP Reel via an MTP Adapter on one end, and installed into LC equipment on the other, supporting cabinet to cabinet connections without the need for fiber jumpers.



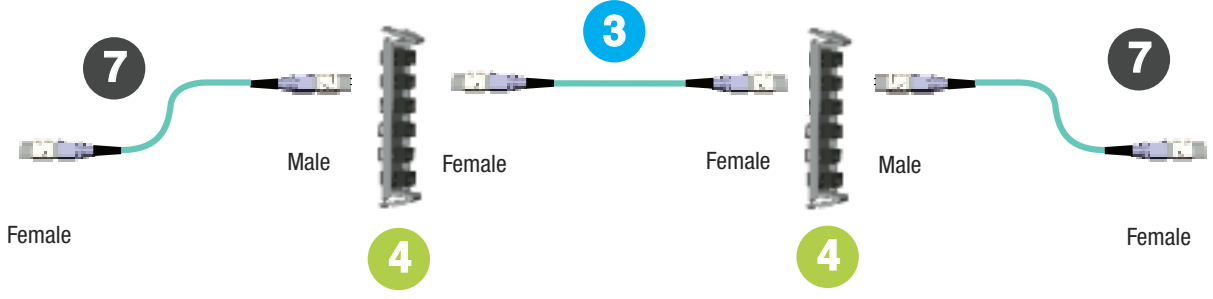
MTP Adapter to LC Hydra

A cost effective option for creating direct MTP to duplex LC equipment connections in static applications, typically within the same rack or cabinet, MTP to LC Hydras plug directly into an MTP Reel via an MTP Adapter. Hydras provide up to 6 jacketed duplex LC “legs” eliminating the need for fiber jumpers.



Future Migration Path for 40 Gb/s and 100 Gb/s

MTP to MTP reels utilizing multimode 50/125 laser optimized fiber and adapter plates enable future upgrades to 40 Gb/s and 100 Gb/s with the use of MTP to MTP patch cords.



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 fiber ports in a single module. These factory terminated and tested ports are protected within the housing for reliably 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) 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
- **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

Ordering Information



PP2-12-(XX)(X)-01 12 Port P&P Module, black

Fiber Type
5 - 50/125 Multimode
6 - 62.5 Multimode
5L - XGLO 50/125 Multimode
SM - Singlemode

Interface
LC - LC
SC - SC



PP2-24-LC(X)-01 24 Port LC P&P Module, black

Fiber Type
5 - 50/125 Multimode
6 - 62.5 Multimode
5L - XGLO 50/125 Multimode
SM - Singlemode

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 extenders and jumpers as well as MTP to LC Trunks and Hydras for direct equipment and patching connections



- **High Density**
 Supports up to 72 fibers per adapter plate - providing up to 864 fibers in 4 RMS
- **Flexible Configurations**
 1, 2 and 6 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**
 Fit within RIC, FCP and SWIC Siemon fiber enclosures and VersaPOD vertical patch panels

Ordering Information

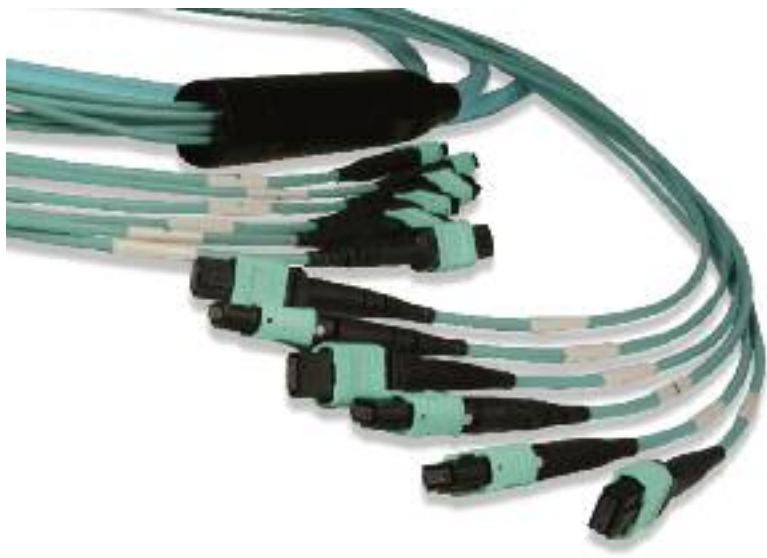


RIC-F-MP(XX)-01 MTP Adapter Plate, black

Fiber Count
12 - 12 (1 MTP pass-through)
24 - 24 (2 MTP pass-throughs)
72 - 72 (6 MTP pass-throughs)

MTP® to MTP Reels

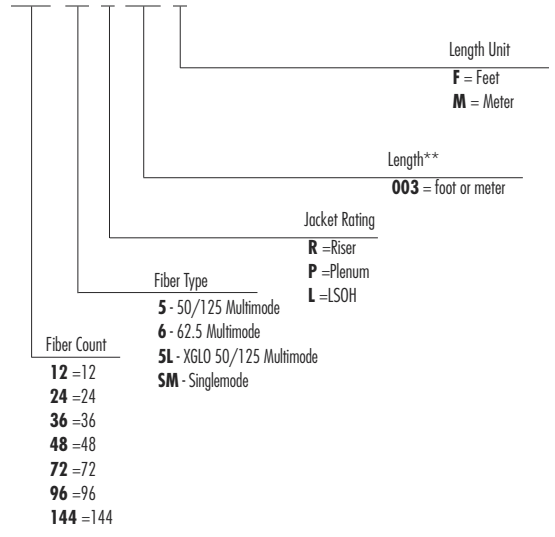
Combining Siemon's reduced-diameter RazorCore™ cable with 12-fiber MTP connectors, Plug and Play Reels are designed to be quickly pulled and connected to Siemon Plug and Play Modules and MTP Adapter Plates. Custom configurable to precise application requirements, these reels efficiently put high-performance, high-density fiber connections exactly where you need them.



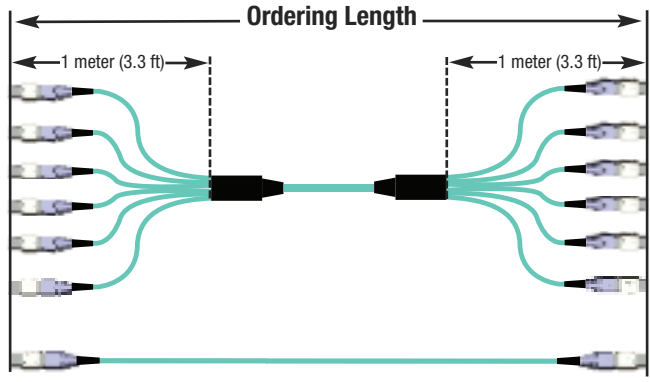
- **Custom Configurations**
 Available from 12 to 144 fiber counts in increments of 12 fibers
- **Multiple Fiber Types**
 Available in Multimode (62.5/125, Standard 50/125 and Laser Optimized 50/125) and singlemode. Jacket ratings in riser, plenum and LSOH
- **Reduced Pathway Fill**
 Siemon's RazorCore cable has significantly reduced cable O.D. resulting in less cable tray fill and pathway restrictions*
- **Protective Packaging**
 Dual shelf reel keeps unprotected connectivity away from harm during payout
- **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

Ordering Information

FR(XXX)-(XX)(X)(XXX)(X)-C.MTP-MTP reel, 12 fiber, all fiber types and jacket material, term. method C per TIA-568-B1.7



**Ordering length is measured connector tip to connector tip. Multi-leg versions offered with standard 1 meter (3.3 ft) legs. Minimum order length is 3 meters (9.9 ft).



* See page 7 for RazorCore cable diameters



MTP® to MTP Extenders

Constructed with Siemon's reduced-diameter RazorCore™ cable, extenders offer Male MTP Connectors on one end and female MTP on the other to allow field extension of MTP Reels. Available in 12-144 fiber versions as well as Multimode (Standard 50/125, 62.5/125, XGLO 50/125) and Singlemode fiber types.

Ordering Information

FE(XXX)-(XX)(X)(XXX)(X) P&P extender, Male MTP to Female MTP

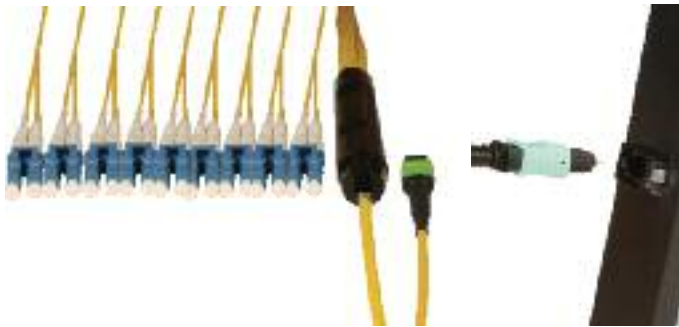
Fiber Count	Fiber Type	Jacket Rating	Length Unit
12 =12	5 - 50/125 Multimode	R =Riser	F = Feet
24 =24	6 - 62.5 Multimode	P =Plenum	M = Meter
36 =36	5L - XGLO 50/125 Multimode	L =LSOH	
48 =48	SM - Singlemode		
72 =72			
96 =96			
144 =144			

Length*
001 = 1 foot or meter

*Ordering length is measured connector tip to connector tip. Multi-leg versions offered with standard 1 meter (3.3 ft) legs.

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 with Siemon's MTP Adapter Plates to provide flexible direct MTP to LC patching options over a wide a 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) and Singlemode. Jacket ratings in riser, plenum and LSOH
- Protective Packaging**
Dual shelf reel keeps connectivity protected during payout

Ordering Information

TF(X)(X)(XX)(X)(XX)LC(XXX)(X) MTP - LC Trunk (distribution to breakout)

Fiber Count	Pulling Eye	Jacket Rating	Length Unit
B=12	A=Side A	R =Riser	F = Feet
C=24	B=Side B	P =Plenum	M = Meter
E=36	C=None	L =LSOH	
F=48			
G=72			
H=96			
J=144			

Fiber Type

- 5 - 50/125 Multimode
- 6 - 62.5 Multimode
- 5L - XGLO 50/125 Multimode
- SM - Singlemode

MTP Connector Gender

- MM = Male
- MF = Female

Length*
001 = 1 foot or meter

*Ordering length is measured connector tip to connector tip. Jacketed duplex LC legs offered in standard 1 meter (3.3 ft) length

RazorCore Cable Diameter

Fiber Count	12	24	36	48	72	96	144
Cable Diameter inches [mm]	.12 [3.0]	.25 [6.4]	.29 [7.3]	.29 [7.3]	.33 [8.4]	.52 [13.2]	.52 [13.2]

MTP® to LC Hydras

A cost effective option for creating direct MTP to LC equipment connections, typically in connections within a rack or cabinet, MTP to LC Hydras plug directly into an MTP reel via an MTP Adaptor. Hydras provide up to 12 jacketed LC (6 duplex) “legs”, eliminating the need for fiber jumpers.

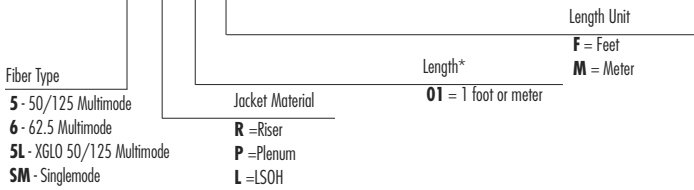


□ MTP-LC Connectivity

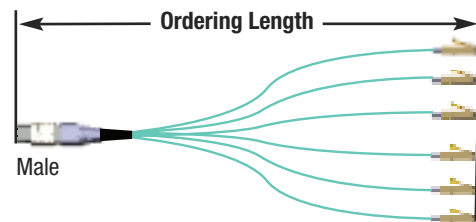
Transitions from 12 strand MTP terminations to (6) duplex LC terminations via 1.6mm zipcord. Allows direct connect to active equipment

Ordering Information

FJ-MMLC(XX)(X)(XX)(X) - Male MTP to LC Hydra (1.6mm zip cord)



*Ordering length is measured connector tip to connector tip.



XGLO™ and LightSystem™ Fiber Jumpers

Available in 10 Gb/s XGLO and Gigabit-rated LightSystem configurations, Siemon’s fiber optic jumpers are a quick and efficient option for equipment patching connections. Supporting both LC and SC connector styles and providing high-performance factory-polished terminations, these jumpers are ideal for use with Siemon Plug and Play modules.



□ High Quality

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

Ordering Information

XGLO 50/125 MULTIMODE DUPLEX JUMPERS

Part #	Description
FJ2-SCSC5L-(XX)AQ	SC to SC aqua duplex jumper, OFNR
FJ2-LCLC5L-(XX)AQ	LC to LC aqua duplex jumper, OFNR
FJ2-LCSC5L-(XX)AQ	LC to SC aqua duplex jumper, OFNR

XGLO SINGLEMODE DUPLEX JUMPERS

Part #	Description
FJ2-SCUSCUL-(XX)	SC to SC yellow duplex jumper, OFNR
FJ2-LCULCUL-(XX)	LC to LC yellow duplex jumper, OFNR
FJ2-LCUSCUL-(XX)	LC to SC yellow duplex jumper, OFNR

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

MULTIMODE DUPLEX JUMPERS

Part #	Description
FJ2-SCSC(X)MM-(XX)	SC to SC orange duplex jumper, OFNR
FJ2-LCLC(X)MM-(XX)	LC to LC orange duplex jumper, OFNR
FJ2-LCSC(X)MM-(XX)	LC to SC orange duplex jumper, OFNR

Use (X) to specify fiber type:
 5 = 50/125µm, 6 = 62.5/125µm
 Use (XX) to specify cable length: 01 = 1m (3.3 ft.), 02 = 2m (6.6 ft.), 03 = 3m (9.8 ft.), 05 = 5m (16.4 ft.)

Additional fiber jumper options and configurations available online at www.siemon.com/e-catalog

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

Rack Mount Interconnect Center - RIC3

Supporting Siemon's Plug and Play modules, MTP Adapter Plates and Quick-Pack™ adapter plates, the RIC3 enclosure offers superior fiber density (up to 288 fibers in just 4 RMS) 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.



ORDERING INFORMATION

RIC3-(XX)-01 Rack Mount Interconnect Center, black

Port Capacity

- 24** - 24 to 96-port, accepts (4) adapter plates, 2 RMS
- 36** - 36 to 144-port, accepts (6) adapter plates, 3 RMS
- 48** - 48 to 192-port, accepts (8) adapter plates, 3 RMS
- 72** - 72 to 288-port, accepts (12) adapter plates, 4 RMS

Rack Mount Fiber Connect Panels - FCP3

Siemon Fiber Connect Panels (FCP3-DWR and FCP3-RACK) economically connect, protect, and manage up to 72 fibers within one Rack Mount Space. It accepts Siemon's Plug and Play modules, MTP Adapter Plates and Quick-Pack™ adapter plates.. 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.



ORDERING INFORMATION

FCP3-(XXXX) 6- to 72-port FCP , accepts (3) adapter plates, 1 RMS, black

Tray Option

- DWR** - Sliding Tray
- RACK** - Fixed Tray

Siemon's VersaPOD™ Data Center Cabinet Solution: Designed with Siemon's Plug and Play Solutions in mind

Siemon's Plug and Play system was designed to integrate seamlessly into the innovative VersaPOD cabinet to provide a rapidly-deployed, scalable and high-density data center infrastructure solution.

VersaPOD creates a completely new and efficient approach to your data center infrastructure. By leveraging the vertical space between bayed cabinets for patching and cable management, the V-POD frees critical horizontal space for active equipment, providing the ultimate density in the minimum floor space.

With options supporting both Siemon's plug and play modules as well as MTP® adapter plates, The V-POD's innovative sliding Zero-U vertical patch panels (VPP) dramatically simplify even the most dense active equipment patching needs.

For more information on Siemon's VersaPOD Data Center Solution, visit: www.siemon.com/VPOD

Supporting System Overview

Siemon's Plug and Play system is supported by a comprehensive family of end-to-end fiber optic cabling systems. Spanning both XGLO 10Gb/s and Gigabit-capable LightSystem configurations, these solutions integrate seamlessly with Siemon's Plug and Play offering to meet any fiber optic cabling need.



XLR8™ Mechanical Splice Connector System

Innovative termination tool and connector system providing high-quality, high speed and ultra simplified field terminations for both LC and SC connectivity



Fiber Optic Distribution Cable

A wide array of cable constructions, fiber counts, performance levels and configurations to support a broad range of cabling applications



Pre-Terminated Trunking Cables

Combining factory terminated LC, SC, ST or MTRJ connectors with Siemon cable in a high-performance double-ended cable assembly, Siemon fiber trunking cables were designed to provide a quickly installed connectivity solution for the data center.



Work Area Solutions

Bring the performance of Siemon's fiber optic systems to the work area with our comprehensive line of faceplates, enclosures, surface mount boxes and adapters.

WORLD WIDE LOCATIONS

The Americas

Siemon - North America

101 Siemon Company Drive
Watertown, CT 06795-0400 USA
Customer Service Direct:
Tel: (1) 866 474 1197
Tel: (1) 866 548 5814 (US)
Tel: (1) 888 425 6165 (Canada)
Fax: (1) 860 945 4225
info@siemon.com

Siemon - CASA Central & South America

Calle.77 No.11-19,
Oficina 601 Edificio Torre 77
Bogota, Colombia
Phone: + 011-571-317-2121
Fax: +011-571-317-1163
info_andino@siemon.com

Siemon - Brasil

Av. Adolfo Pinheiro,
1001 -cj. 145
04733-100 São Paulo/SP Brazil
Tel: (55) 11 5523 8122
Fax: (55) 11 5521 3943
info_brasil@siemon.com

Siemon - Mexico

Bldv. Manuel Avila Camacho
No. 2900-502
Fracc. Los Pirules, Tlalnepantla
Edo.de Mexico, C.P. 54040
Mexico
Tel: (52) 55 5370 6100
Fax: (52) 55 5370 6300
info_mexico@siemon.com

Siemon - Venezuela

Calle Veracruz,
Torre Orinoco Piso 2, Oficina 2-C
Las Mercedes
Caracas, Venezuela
Tel: (58) 212 992 5884
Fax: (58) 212 993 9138
info_venezuela@siemon.com

Siemon - Peru

Calle Martir Oloaya
169 of 701
Lima, Distrito Miraflores
Peru
Tel: (511) 446 5188
Fax: (511) 446 5188
info_peru@siemon.com

Europe, Middle East, and Africa

Siemon - UK

36-48 Windsor Street
Chertsey, Surrey
KT16 8AS
Tel: (44) (0) 1932 571771
Fax: (44) (0) 1932 575070
info_uk@siemon.com

Siemon - Germany

Mainzer Landstrasse 16
60325 Frankfurt
Germany
Tel: (49) (0) 69 97168 184
Fax: (49) (0) 69 97168 304
info_deutsch@siemon.com

Siemon - France

Paris Axe France
ZAC Paris Rive Gauche
118-122 Avenue de France
75013 Paris, France
Tel: (33) 1 46 46 11 85
Fax: (33) 1 46 46 10 00
info_france@siemon.com

Siemon - Italy

Via Senigallia 18/2
20161 Milano
Italy
Tel: (39) 02 64 672 209
Fax: (39) 02 64 672 400
info_italia@siemon.com

Asia Pacific

Siemon - Australia (Sydney)

Unit 3A, 10 Rodborough Road
PO Box 6063
Frenchs Forest NSW 2086
Sydney, Australia
Tel: (02) 8977 7500
Fax: (02) 8977 7501
info_asiapacific@siemon.com

Siemon - Australia (Melbourne)

Siemon - Australia (Melbourne)
Level 6, Suite 616
1 Queens Road
Melbourne VIC 3004
Melbourne, Australia
Tel: 03 9866 5277
Fax: 03 9866 5299
info_asiapacific@siemon.com

Siemon - China (Guangzhou)

Rm. 1104,
Middle Tower, Times Square
28 Tianhebei Road
Guangzhou, 510620, P.R. China
Tel: (86) 20 3882 0055
Fax: (86) 20 3882 0575
info_china@siemon.com

Siemon - Australia (Brisbane)

Siemon - Australia (Brisbane)
Unit 9, 128 Brookes Street
PO Box 2434
Fortitude Valley BC QLD 4006
Brisbane, Australia
Tel: (61) 07 3854 1200
Fax: (61) 07 3854 1077
info_asiapacific@siemon.com

Siemon - China (Shanghai)

Room 2407, Gang Tai Plaza,
700 Yan'An Road East
Shanghai 200001, P.R. of China
Tel: (86) 21-53850303
Fax: (86) 21-53850151
info_china@siemon.com

Siemon - China (Chengdu)

Rm. 1209-1210
Western China Business Tower
No. 19,4 Section, Renminan Road
Chengdu, Sichuan 610041, P.R. China
Tel: (86) 28 6680 1100
Fax: (86) 28 6680 1096

Siemon - Southeast Asia

46 East Coast Road
#07-01/02 East Gate
Singapore 428766
Tel: (65) 6345 9119
Fax: (65) 6345 1120
info_singapore@siemon.com

Siemon - China (Beijing)

Suite 1108 SCITECH Tower
22 Jianguomenwai Avenue
Beijing 100004, P.R. China
Tel: (86) 10 6559 8860
Fax: (86) 10 6559 8867
info_china@siemon.com

Japan

Siemon - Japan

10F Meguro G Bldg.
1-4-16 Meguro,
Meguro-ku, Tokyo, 153-0063 Japan
Tel: 81 (3) 5437-1580
Fax: 81 (3) 5437-1581
info_japan@siemon.com

WWW.SIEMON.COM

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