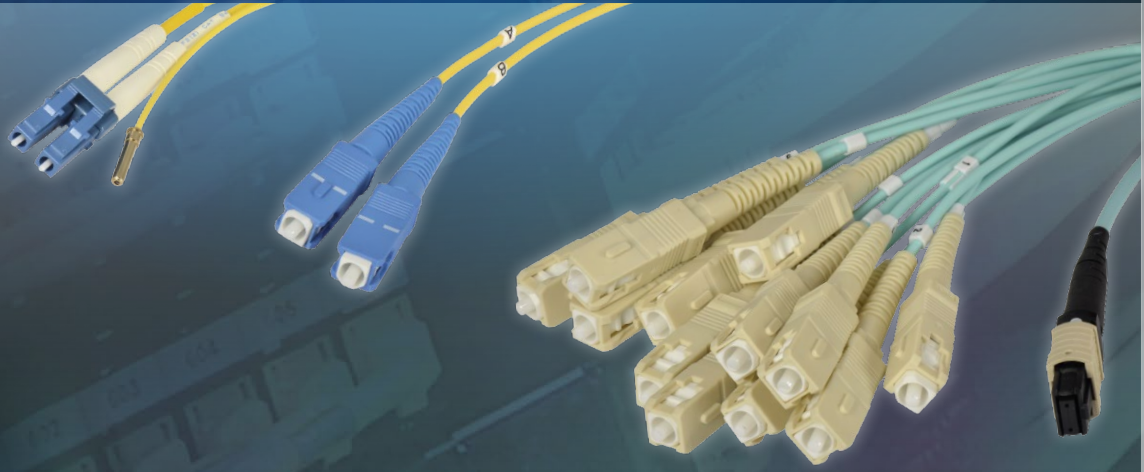




02

LAN Solutions



SWISS MANUFACTURING PLANT



HISTORY

- 1973 **E-tec** manufacturing Switzerland was founded as a turned pin manufacturer for the watch and electronics industry.
- 1980 The first private label (OEM) IC socket was produced and the product line was expanded over the following decade to a full range of IC sockets and interconnects products.
- 1984 The facility was purchased, completely renovated and high technology fully automated production equipment was installed for the production of precision interconnection products.
- 1992 The trademark **E-tec** was registered to cover the complete interconnect product range (IC sockets & connectors) and new offices in Switzerland, Germany and France were established.
- 1993 As a world-wide sales & distribution network (**E-tec Asia, UK, and USA** were set-up to promote this new brand name on a world-wide basis) was established to offer fast and efficient service regardless of location. In addition to the interconnection products **E-tec** also supplies high quality screw machine parts as well as customized injection moulded and machined products. Our innovative approach to new product development allows us to offer the service, quality and competitive prices our customers demand.
- 1999 The LAN product line (copper cables, fiber optic cables and LAN accessories) was added to the interconnect product portfolio.
- 2004 **E-tec Interconnect Ltd Switzerland** is ISO 9001:2000 certified
- 2005 The ETEC-LAN was officially allocated to this product line, in order to clearly separate the **E-tec** interconnect product business from the ETEC-LAN cabling business.
- 2006 **E-tec Interconnect Asia Ltd** is ISO 9001:2000 certified
- 2012 **E-tec Interconnect Ltd Switzerland** and **E-tec Interconnect Asia Ltd** are ISO 9001:2008 certified
- 2013 **E-tec Interconnect Ltd** has consolidated the international headquarter and the Swiss factory into one location at Lengnau b. Biel Switzerland and celebrates its 40th anniversary.

Whatever your requirement, be it high volume commodity product or low quantity custom special, **E-tec**, the “**Swiss Connection**” will endeavour to satisfy your requirements.

Please contact our sales office on info@e-tec.com

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TBC-4-xx-xxx.xM	Tight Buffered Distribution Cable (2-24 Fibers) - Multimode - OM4	29
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xx/x-xxx-4xxx-xxx.xM-x-xx/x	Pre-Terminated Cable Solution - Multimode - OM4	34
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FIBER OPTIC GENERAL INFORMATION

Fiber optic connectors

The fiber optic connectors are precision made and produced to very high quality standards. The alignment of the fiber inside the connector is a crucial point in the production process in order to ensure low light loss between the mating connectors. Besides, the ferrule needs to be highly polished also.

The body of the connector will lock the ferrule into an adapter and the ferrule is generally manufactured from ceramic, with the exception of the MTRJ and MPO connectors, which use a polymer ferrule instead.

The connectors are designed for fibers in multimode (enhanced 50/125 μm or 50/125 μm) and singlemode (9/125 μm fiber) versions, which are generally delivered in 900 μm (pigtailed) and 1.80mm, 2mm or 3mm patch cables.

The first designs of fiber optic connectors (ST, FC) were produced with nickel plated brass bodies but the more recent generation connectors are plastic injection molded designs (SC, LC, MU, MTRJ, E2000).

Fiber optic cable assemblies

Fiber optic cable assemblies consist of a fiber optic cable which is mounted with a connector (on one or both ends). The critical part of the cable assembly is the manufacturing process and this will define the final quality of the cable assembly. The performance can be enhanced by the choice of the cable and the connector style, but the actual manufacturing process is key to a high quality product and which will avoid high insertion & low return losses in a fiber optic network.

Fiber optic adapters

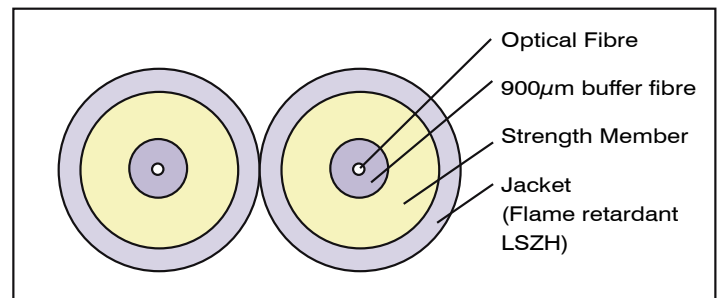
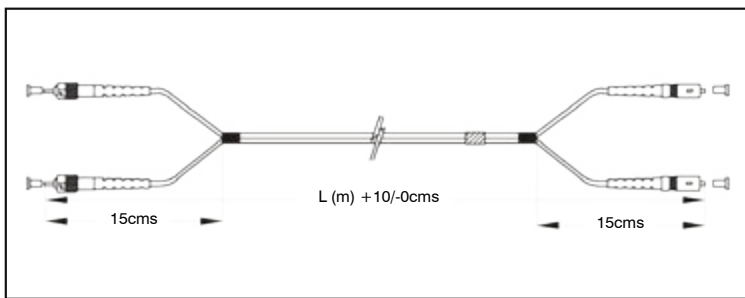
Fiber optic patch cables are connected between each other with a fiber optic adapter and which is generally mounted in a wall box or a panel. This adapter will ensure correct alignment of the ferrules between each other. With the exception of the MTRJ connectors, the adapters generally contain two types of alignment sleeves, which come either in phosphor bronze (for general purpose application) or in ceramic (generally for singlemode only). For the MTRJ, the alignment feature is made with two alignment pins seated inside the connector itself and the adapter only supports and locks the connectors together.

FIBER OPTIC PATCH CABLE ASSEMBLIES

Specifications for Standard Patch Cords



Diagram and Cross Section of Cable



General specifications

- Mating durability: min. 500 cycles
- Operating temperature: -40°C to +70°C
- LSZH cable jacket
- RoHS compliant
- Cable diameters available in 1.80mm (for MTRJ), 2mm (standard for others) and 3mm (option)
- Individual Lot numbers & Test Results delivered per cable
- Cable length tolerances:

less than 0.5 meter	=	+/- 10cm
between 0.5 meter and 5 meter	=	+/- 15cm
over 5 meters	=	+/- 20cm

Specifications for singlemode patch cords (OS2 & OS2-APC style)

- Fiber terminations:

PC = ultra polished style
APC = (angled polished style)
- Connector styles:

PC: available in E2000, FC, LC, MTRJ, MU, SC, ST
APC: available in E2000, FC, LC, SC
- Insertion Loss: 0.3dB max. , for MTRJ: 0.5dB max.
- Return Loss: 50dB min. for PC / 60dB min. for APC
- Standard color: Yellow (others on request)

Specifications for multimode patch cords (OM2, OM3, OM4)

- Fiber types:

OM2 = 50/125µm / OM3 = 50/125µm
OM4 = enhanced 50/125µm (550m/10GbE)
- Fiber termination: PC = ultra polished style
- Connector styles: available in E2000, FC, LC, MTRJ, MU, SC, ST
- Insertion Loss: 0.3dB max.
- Standard colors:

OM2 = orange
OM3 = aqua blue OM4 = magenta
Other colors (on request)

FIBER OPTIC CABLE ASSEMBLIES

Standard Patch Cords (FPC)

Fiber optic patch cords need to be produced to the highest quality standards in order to guarantee a perfect network performance, which depends on the following three factors:

1. Connector type
2. Cable quality
3. Manufacturing quality

E-tec Interconnect Ltd only chooses the highest quality connector and cable types. Besides we have a very long term experience in manufacturing high quality fiber optic cable assemblies and which are only released after severe final QA control procedures. Each cable is delivered with an individual lot number and the final test result is printed on a sticker which is added on each individual plastic bag.

E-tec Interconnect Ltd offers a full product range adapted to any fiber optic network system, offering cable assemblies including all industry standard connector versions (FC, ST, SC, LC, E2000, MTRJ, MU) and all fiber styles (multimode and singlemode) in simplex and duplex versions.

Please contact E-tec Interconnect Ltd for any fiber optic cable requirement. We will be able to offer a solution to all your requirements.

FIBER OPTIC CABLE ASSEMBLIES

Reduced Bend Sensitivity (FRB) patch cords and pigtails

FRB patch cords and pigtails are available for multimode (OM3 and OM4) and singlemode (OS2/G.657A1 and G.657A2) based on reduced bend sensitivity fiber cable.

FRB patch cords exhibit much lower optical power loss under bend conditions while remaining compatible with conventional cabling and are made with solid trench assisted optical fiber that is designed to reduce optical loss when the cable is bent.

They provide the same high quality, mechanical features and optical performance as our standard patch cords with the added capability of maintaining optical performance when bent or flexed.

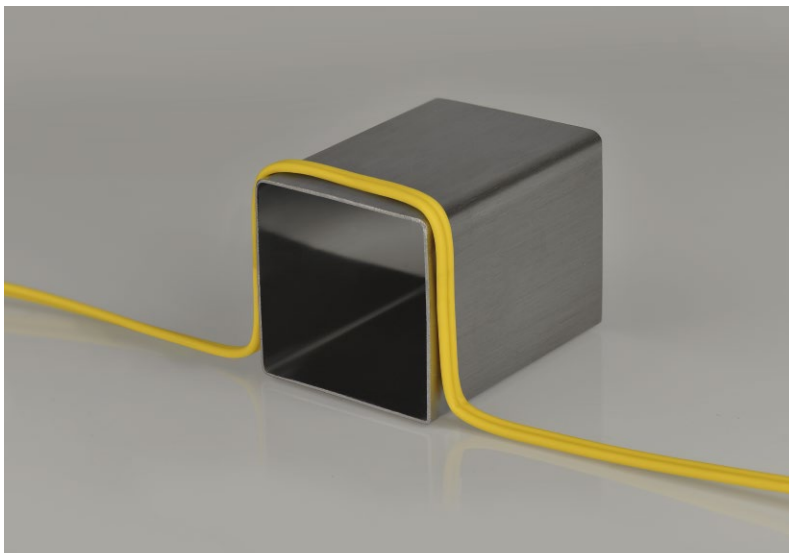
Applications

FRB patch cords and pigtails are used in applications for which low loss in tight radius routing is important:

- When routing cable around corners and in tight spaces is required, for example in FTTH (Fiber to the Home) installations in existing buildings.
- FTTH cabling in Point of Presences, Main Distribution points and subscriber connections.
- Data Centers where network up time is critical. For example, OM4 FRB patch cords will continue to provide data service when pinched by a cabinet door, whereas service would be lost with conventional OM4 patch cords.
- When small radius installation is needed or the cabling may be subject to occasional small radius events.

Specification

General mechanical and optical specifications of FRB patch cords are as per corresponding standard products including IEC and TIA/EIA standards conformance.



Tight Radius Routing

FIBER OPTIC CABLE ASSEMBLIES

Specifications for FRB singlemode patch cords (OS2 / ITU-T G657A1 and G657A2)

G657A1 Bend performance

- Guideline radius: 15mm radius
- Loss at 1550nm: 15mm radius < 0.25 dB
10mm radius < 0.75 dB

G657A2 Bend performance

- Guideline radius: 7.5mm radius
- Loss at 1550nm: 15mm radius < 0.03 dB
10mm radius < 0.01 dB
7.5mm radius < 0.5 dB

Specifications for multimode patch cords (OM3 and OM4)

OM3 Bend performance

- Guideline radius: 10mm radius
- Loss at 850nm: 15mm radius < 0.1 dB
- Loss at 1300nm: 15mm radius < 0.3 dB

OM4 Bend performance

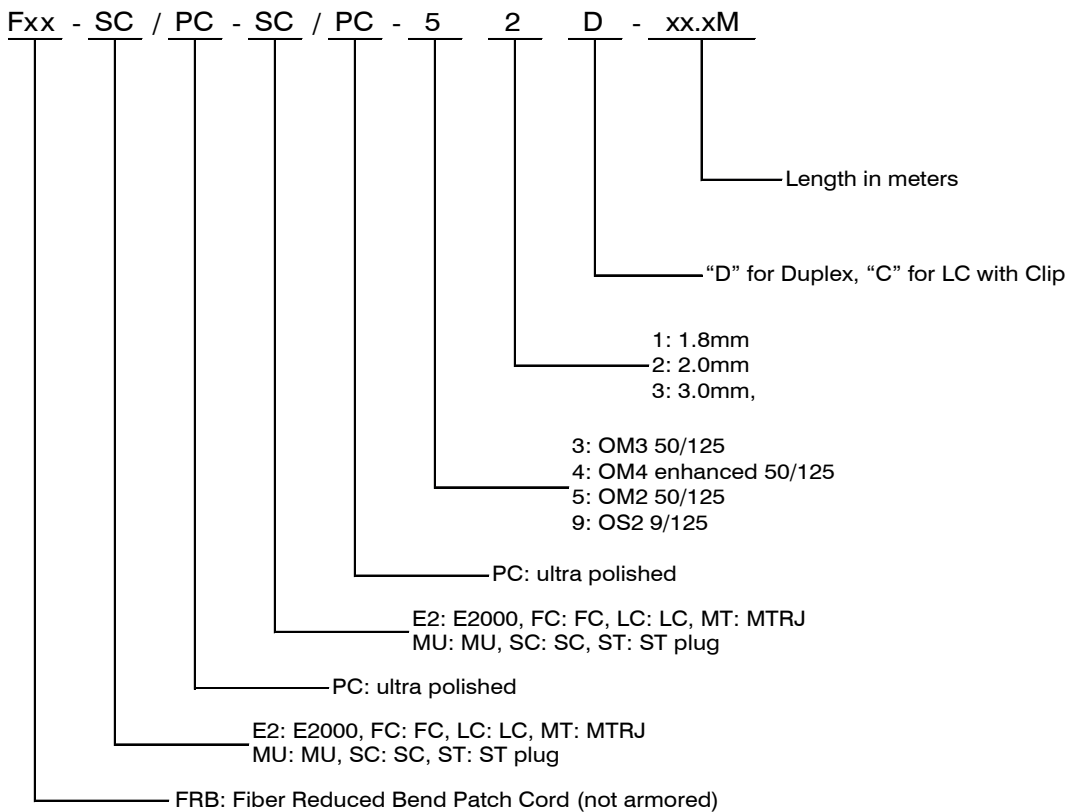
- Guideline radius: 10mm radius
- Loss at 850nm: 7.5mm radius < 0.2 dB
- Loss at 1300nm: 7.5mm radius < 0.4 dB

Reduced Bend Sensitivity (FRB) Patch Cords

OPTIONS

Cable length:	Replace "xx.x" by cable length in meter (example: 07.0 = 7 meter cable)		
Standard cable lengths:	1, 2, 3, 5 & 10 meters (others on demand)		
Cable diameter:	standard = 2.00mm (1.80mm for MTRJ) 3.00mm = on request		
Color:	OS2	=	Yellow (standard)
	OM2	=	Orange (standard)
	OM3	=	Aqua Blue (standard)
	OM4	=	Magenta (standard)
	Other colors	=	on request

ORDERING CODE STRUCTURE



FIBER OPTIC PATCH CABLE ASSEMBLIES

Standard Patch Cords Duplex Multimode

		OM2 50/125µm orange color	OM3 50/125µm/300m(10GbE) aqua blue color	OM4 enhanced 50/125µm/550m(10GbE) magenta color	
E2000/E2000 	OM2	Fxx-E2/PC-E2/PC-52D-xx.xM	LC/MTRJ 	OM2	Fxx-LC/PC-MT/PC-51C-xx.xM
	OM3	Fxx-E2/PC-E2/PC-32D-xx.xM		OM3	Fxx-LC/PC-MT/PC-31C-xx.xM
	OM4	Fxx-E2/PC-E2/PC-42D-xx.xM		OM4	Fxx-LC/PC-MT/PC-41C-xx.xM
E2000/FC 	OM2	Fxx-E2/PC-FC/PC-52D-xx.xM	LC/SC 	OM2	Fxx-LC/PC-SC/PC-52C-xx.xM
	OM3	Fxx-E2/PC-FC/PC-32D-xx.xM		OM3	Fxx-LC/PC-SC/PC-32C-xx.xM
	OM4	Fxx-E2/PC-FC/PC-42D-xx.xM		OM4	Fxx-LC/PC-SC/PC-42C-xx.xM
E2000/LC 	OM2	Fxx-E2/PC-LC/PC-52C-xx.xM	LC/ST 	OM2	Fxx-LC/PC-ST/PC-52C-xx.xM
	OM3	Fxx-E2/PC-LC/PC-32C-xx.xM		OM3	Fxx-LC/PC-ST/PC-32C-xx.xM
	OM4	Fxx-E2/PC-LC/PC-42C-xx.xM		OM4	Fxx-LC/PC-ST/PC-42C-xx.xM
E2000/MTRJ 	OM2	Fxx-E2/PC-MT/PC-51D-xx.xM	MPO/SC 	OM2	Fxx-MF/PC-SC/PC-52D-xx.xM
	OM3	Fxx-E2/PC-MT/PC-31D-xx.xM		OM3	Fxx-MF/PC-SC/PC-32D-xx.xM
	OM4	Fxx-E2/PC-MT/PC-41D-xx.xM		OM4	Fxx-MF/PC-SC/PC-42D-xx.xM
E2000/SC 	OM2	Fxx-E2/PC-SC/PC-52D-xx.xM	MPO/ST 	OM2	Fxx-MF/PC-ST/PC-52D-xx.xM
	OM3	Fxx-E2/PC-SC/PC-32D-xx.xM		OM3	Fxx-MF/PC-ST/PC-32D-xx.xM
	OM4	Fxx-E2/PC-SC/PC-42D-xx.xM		OM4	Fxx-MF/PC-ST/PC-42D-xx.xM
E2000/ST 	OM2	Fxx-E2/PC-ST/PC-52D-xx.xM	MTRJ/MTRJ 	OM2	Fxx-MT/PC-MT/PC-51D-xx.xM
	OM3	Fxx-E2/PC-ST/PC-32D-xx.xM		OM3	Fxx-MT/PC-MT/PC-31D-xx.xM
	OM4	Fxx-E2/PC-ST/PC-42D-xx.xM		OM4	Fxx-MT/PC-MT/PC-41D-xx.xM
FC/FC 	OM2	Fxx-FC/PC-FC/PC-52D-xx.xM	MTRJ/SC 	OM2	Fxx-MT/PC-SC/PC-51D-xx.xM
	OM3	Fxx-FC/PC-FC/PC-32D-xx.xM		OM3	Fxx-MT/PC-SC/PC-31D-xx.xM
	OM4	Fxx-FC/PC-FC/PC-42D-xx.xM		OM4	Fxx-MT/PC-SC/PC-41D-xx.xM
FC/LC 	OM2	Fxx-FC/PC-LC/PC-52C-xx.xM	MTRJ/ST 	OM2	Fxx-MT/PC-ST/PC-51D-xx.xM
	OM3	Fxx-FC/PC-LC/PC-32C-xx.xM		OM3	Fxx-MT/PC-ST/PC-31D-xx.xM
	OM4	Fxx-FC/PC-LC/PC-42C-xx.xM		OM4	Fxx-MT/PC-ST/PC-41D-xx.xM
FC/MTRJ 	OM2	Fxx-FC/PC-MT/PC-51D-xx.xM	SC/SC 	OM2	Fxx-SC/PC-SC/PC-52D-xx.xM
	OM3	Fxx-FC/PC-MT/PC-31D-xx.xM		OM3	Fxx-SC/PC-SC/PC-32D-xx.xM
	OM4	Fxx-FC/PC-MT/PC-41D-xx.xM		OM4	Fxx-SC/PC-SC/PC-42D-xx.xM
FC/SC 	OM2	Fxx-FC/PC-SC/PC-52D-xx.xM	SC/ST 	OM2	Fxx-SC/PC-ST/PC-52D-xx.xM
	OM3	Fxx-FC/PC-SC/PC-32D-xx.xM		OM3	Fxx-SC/PC-ST/PC-32D-xx.xM
	OM4	Fxx-FC/PC-SC/PC-42D-xx.xM		OM4	Fxx-SC/PC-ST/PC-42D-xx.xM
LC/LC 	OM2	Fxx-LC/PC-LC/PC-52C-xx.xM	ST/ST 	OM2	Fxx-ST/PC-ST/PC-52D-xx.xM
	OM3	Fxx-LC/PC-LC/PC-32C-xx.xM		OM3	Fxx-ST/PC-ST/PC-32D-xx.xM
	OM4	Fxx-LC/PC-LC/PC-42C-xx.xM		OM4	Fxx-ST/PC-ST/PC-42D-xx.xM
LC/MPO 	OM2	Fxx-LC/PC-MF/PC-52C-xx.xM		OM2	
	OM3	Fxx-LC/PC-MF/PC-32C-xx.xM		OM3	
	OM4	Fxx-LC/PC-MF/PC-42C-xx.xM		OM4	

Replace "xx.x" by length in "meters"

FIBER OPTIC PATCH CABLE ASSEMBLIES

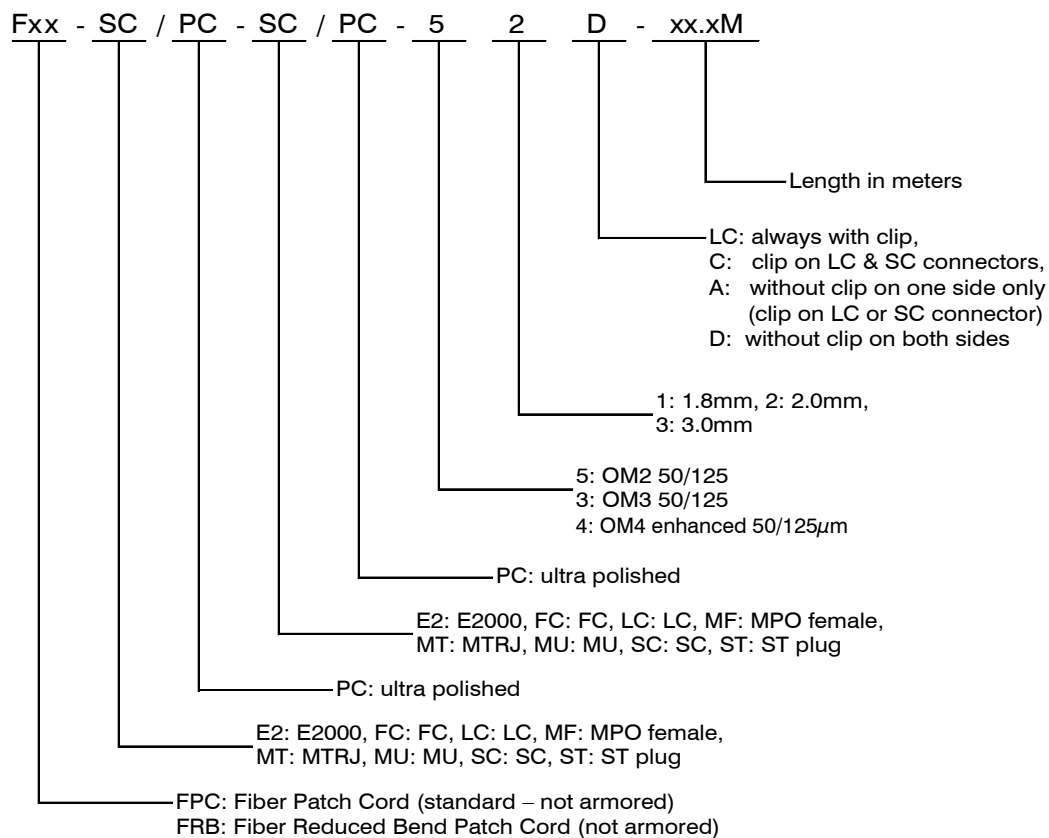
Standard Patch Cords

Duplex Multimode

OPTIONS

















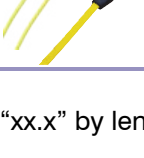

Cable length:	Replace "xx.x" by cable length in meter (example: 07.0 = 7 meter cable)		
Standard cable lengths:	1, 2, 3, 5 & 10 meters (others on demand)		
Cable diameter:	standard = 2.00mm (1.80mm for MTRJ) 3.00mm = on request		
Color:	OM2	=	Orange (standard)
	OM3	=	Aqua Blue (standard)
	OM4	=	Magenta (standard)
	Other colors	=	on request

ORDERING CODE STRUCTURE



FIBER OPTIC PATCH CABLE ASSEMBLIES









Standard Patch Cords Duplex Singlemode

		OS2 9/125 μ m (PC/PC) Yellow color	OS2-APC 9/125 μ m (APC/APC) Yellow color		Mixed: OS2-APC & OS2 9/125 μ m (APC/PC) Yellow color
E2000/E2000 	OS2	Fxx-E2/PC-E2/PC-92D-xx.xM	FC/MTRJ 	OS2	Fxx-FC/PC-MT/PC-91D-xx.xM
	OS2-APC	Fxx-E2/AP-E2/AP-92D-xx.xM		OS2-APC	
	Mixed	Fxx-E2/AP-E2/PC-92D-xx.xM		Mixed	Fxx-FC/AP-MT/PC-91D-xx.xM
E2000/FC 	OS2	Fxx-E2/PC-FC/PC-92D-xx.xM	FC/MU 	OS2	Fxx-FC/PC-MU/PC-92D-xx.xM
	OS2-APC	Fxx-E2/AP-FC/AP-92D-xx.xM		OS2-APC	
	Mixed	Fxx-E2/AP-FC/PC-92D-xx.xM Fxx-E2/PC-FC/AP-92D-xx.xM		Mixed	Fxx-FC/AP-MU/PC-92D-xx.xM
E2000/LC 	OS2	Fxx-E2/PC-LC/PC-92C-xx.xM	FC/SC 	OS2	Fxx-FC/PC-SC/PC-92D-xx.xM
	OS2-APC	Fxx-E2/AP-LC/AP-92C-xx.xM		OS2-APC	Fxx-FC/AP-SC/AP-92D-xx.xM
	Mixed	Fxx-E2/AP-LC/PC-92C-xx.xM Fxx-E2/PC-LC/AP-92C-xx.xM		Mixed	Fxx-FC/AP-SC/PC-92D-xx.xM Fxx-FC/PC-SC/AP-92D-xx.xM
E2000/MTRJ 	OS2	Fxx-E2/PC-MT/PC-91D-xx.xM	LC/LC 	OS2	Fxx-LC/PC-LC/PC-92C-xx.xM
	OS2-APC			OS2-APC	Fxx-LC/AP-LC/AP-92C-xx.xM
	Mixed	Fxx-E2/AP-MT/PC-91D-xx.xM		Mixed	Fxx-LC/AP-LC/PC-92C-xx.xM
E2000/SC 	OS2	Fxx-E2/PC-SC/PC-92D-xx.xM	LC/MPO 	OS2	Fxx-LC/PC-MF/PC-92C-xx.xM
	OS2-APC	Fxx-E2/AP-SC/AP-92D-xx.xM		OS2-APC	Fxx-LC/AP-MF/AP-92C-xx.xM
	Mixed	Fxx-E2/AP-SC/PC-92D-xx.xM Fxx-E2/PC-SC/AP-92D-xx.xM		Mixed	Fxx-LC/AP-MF/PC-92C-xx.xM Fxx-LC/PC-MF/AP-92C-xx.xM
E2000/ST 	OS2	Fxx-E2/PC-ST/PC-92D-xx.xM	LC/MTRJ 	OS2	Fxx-LC/PC-MT/PC-91C-xx.xM
	OS2-APC			OS2-APC	
	Mixed	Fxx-E2/AP-ST/PC-92D-xx.xM		Mixed	Fxx-LC/AP-MT/PC-91C-xx.xM
FC/FC 	OS2	Fxx-FC/PC-FC/PC-92D-xx.xM	LC/MU 	OS2	Fxx-LC/PC-MU/PC-92C-xx.xM
	OS2-APC	Fxx-FC/AP-FC/AP-92D-xx.xM		OS2-APC	
	Mixed	Fxx-FC/AP-FC/PC-92D-xx.xM		Mixed	Fxx-LC/AP-MU/PC-92C-xx.xM
FC/LC 	OS2	Fxx-FC/PC-LC/PC-92C-xx.xM	LC/SC 	OS2	Fxx-LC/PC-SC/PC-92C-xx.xM
	OS2-APC	Fxx-FC/AP-LC/AP-92C-xx.xM		OS2-APC	Fxx-LC/AP-SC/AP-92C-xx.xM
	Mixed	Fxx-FC/AP-LC/PC-92C-xx.xM Fxx-FC/PC-LC/AP-92C-xx.xM		Mixed	Fxx-LC/AP-SC/PC-92C-xx.xM Fxx-LC/PC-SC/AP-92C-xx.xM
FC/MPO 	OS2	Fxx-FC/PC-MF/PC-92D-xx.xM	LC/ST 	OS2	Fxx-LC/PC-ST/PC-92C-xx.xM
	OS2-APC	Fxx-FC/AP-MF/AP-92D-xx.xM		OS2-APC	
	Mixed	Fxx-FC/AP-MF/PC-92D-xx.xM Fxx-FC/PC-MF/AP-92D-xx.xM		Mixed	Fxx-LC/AP-ST/PC-92C-xx.xM

Replace "xx.x" by length in "meters"

FIBER OPTIC PATCH CABLE ASSEMBLIES

Standard Patch Cords Duplex Singlemode

		OS2 9/125 μ m (PC/PC) Yellow color	OS2-APC 9/125 μ m (APC/APC) Yellow color		Mixed: OS2-APC & OS2 9/125 μ m (APC/PC) Yellow color
MPO/SC 	OS2	Fxx-MF/PC-SC/PC-92D-xx.xM	MTRJ/ST 	OS2	Fxx-MT/PC-ST/PC-91D-xx.xM
	OS2-APC	Fxx-MF/AP-SC/AP-92D-xx.xM		OS2-APC	
	Mixed	Fxx-MF/AP-SC/PC-92D-xx.xM		Mixed	
		Fxx-MF/PC-SC/AP-92D-xx.xM			
MPO/ST 	OS2	Fxx-MF/PC-ST/PC-92D-xx.xM	SC/SC 	OS2	Fxx-SC/PC-SC/PC-92D-xx.xM
	OS2-APC			OS2-APC	Fxx-SC/AP-SC/AP-92D-xx.xM
	Mixed	Fxx-MF/AP-ST/PC-92D-xx.xM		Mixed	Fxx-SC/AP-SC/PC-92D-xx.xM
MTRJ/MTRJ 	OS2	Fxx-MT/PC-MT/PC-91D-xx.xM	SC/ST 	OS2	Fxx-SC/PC-ST/PC-92D-xx.xM
	OS2-APC			OS2-APC	
	Mixed			Mixed	Fxx-SC/AP-ST/PC-92D-xx.xM
MTRJ/SC 	OS2	Fxx-MT/PC-SC/PC-91D-xx.xM	ST/ST 	OS2	Fxx-ST/PC-ST/PC-92D-xx.xM
	OS2-APC			OS2-APC	
	Mixed	Fxx-MT/PC-SC/AP-91D-xx.xM		Mixed	

Replace "xx.x" by length in "meters"

FIBER OPTIC PATCH CABLE ASSEMBLIES

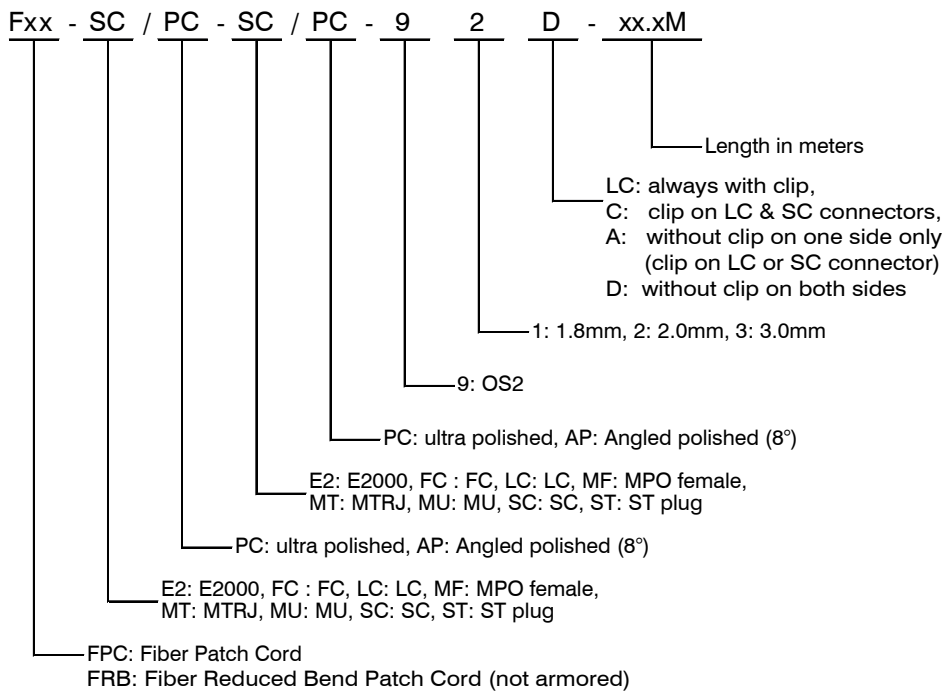
Standard Patch Cords

Duplex Singlemode

OPTIONS

















Cable length:	Replace "xx.x" by cable length in meter (example: 07.0 = 7 meter cable)
Standard cable lengths:	1, 2, 3, 5 & 10 meters (others on demand)
Cable diameter:	standard = 2.00mm (1.80mm for MTRJ) 3.00mm = option on request
Ultra polished OS2:	PC
Angled polished OS2-APC:	AP (only for E2000, FC, LC, SC)
Color:	Yellow (standard) Others (on request)

ORDERING CODE STRUCTURE



FIBER OPTIC PATCH CABLE ASSEMBLIES

Standard Patch Cords Simplex Singlemode

		OS2 9/125 μ m (PC/PC) Yellow color	OS2-APC 9/125 μ m (APC/APC) Yellow color		Mixed: OS2-APC & OS2 9/125 μ m (APC/PC) Yellow color
E2000/E2000 	OS2	<u>Fxx-E2/PC-E2/PC-92S-xx.xM</u>	FC/SC 	OS2	<u>Fxx-FC/PC-SC/PC-92S-xx.xM</u>
	OS2-APC	<u>Fxx-E2/AP-E2/AP-92S-xx.xM</u>		OS2-APC	<u>Fxx-FC/AP-SC/AP-92S-xx.xM</u>
	Mixed	<u>Fxx-E2/AP-E2/PC-92S-xx.xM</u>		Mixed	<u>Fxx-FC/AP-SC/PC-92S-xx.xM</u>
		<u>Fxx-FC/PC-SC/AP-92S-xx.xM</u>			
E2000/FC 	OS2	<u>Fxx-E2/PC-FC/PC-92S-xx.xM</u>	LC/LC 	OS2	<u>Fxx-LC/PC-LC/PC-92S-xx.xM</u>
	OS2-APC	<u>Fxx-E2/AP-FC/AP-92S-xx.xM</u>		OS2-APC	<u>Fxx-LC/AP-LC/AP-92S-xx.xM</u>
	Mixed	<u>Fxx-E2/AP-FC/PC-92S-xx.xM</u>		Mixed	<u>Fxx-LC/AP-LC/PC-92S-xx.xM</u>
		<u>Fxx-E2/PC-FC/AP-92S-xx.xM</u>			
E2000/LC 	OS2	<u>Fxx-E2/PC-LC/PC-92S-xx.xM</u>	LC/MU 	OS2	<u>Fxx-LC/PC-MU/PC-92S-xx.xM</u>
	OS2-APC	<u>Fxx-E2/AP-LC/AP-92S-xx.xM</u>		OS2-APC	
	Mixed	<u>Fxx-E2/AP-LC/PC-92S-xx.xM</u>		Mixed	<u>Fxx-LC/AP-MU/PC-92S-xx.xM</u>
		<u>Fxx-E2/PC-LC/AP-92S-xx.xM</u>			
E2000/SC 	OS2	<u>Fxx-E2/PC-SC/PC-92S-xx.xM</u>	LC/SC 	OS2	<u>Fxx-LC/PC-SC/PC-92S-xx.xM</u>
	OS2-APC	<u>Fxx-E2/AP-SC/AP-92S-xx.xM</u>		OS2-APC	<u>Fxx-LC/AP-SC/AP-92S-xx.xM</u>
	Mixed	<u>Fxx-E2/AP-SC/PC-92S-xx.xM</u>		Mixed	<u>Fxx-LC/AP-SC/PC-92S-xx.xM</u>
		<u>Fxx-E2/PC-SC/AP-92S-xx.xM</u>			
E2000/ST 	OS2	<u>Fxx-E2/PC-ST/PC-92S-xx.xM</u>	LC/ST 	OS2	<u>Fxx-LC/PC-ST/PC-92S-xx.xM</u>
	OS2-APC			OS2-APC	
	Mixed	<u>Fxx-E2/AP-ST/PC-92S-xx.xM</u>		Mixed	<u>Fxx-LC/AP-ST/PC-92S-xx.xM</u>
FC/FC 	OS2	<u>Fxx-FC/PC-FC/PC-92S-xx.xM</u>	SC/SC 	OS2	<u>Fxx-SC/PC-SC/PC-92S-xx.xM</u>
	OS2-APC	<u>Fxx-FC/AP-FC/AP-92S-xx.xM</u>		OS2-APC	<u>Fxx-SC/AP-SC/AP-92S-xx.xM</u>
	Mixed	<u>Fxx-FC/AP-FC/PC-92S-xx.xM</u>		Mixed	<u>Fxx-SC/AP-SC/PC-92S-xx.xM</u>
FC/LC 	OS2	<u>Fxx-FC/PC-LC/PC-92S-xx.xM</u>	SC/ST 	OS2	<u>Fxx-SC/PC-ST/PC-92S-xx.xM</u>
	OS2-APC	<u>Fxx-FC/AP-LC/AP-92S-xx.xM</u>		OS2-APC	
	Mixed	<u>Fxx-FC/AP-LC/PC-92S-xx.xM</u>		Mixed	<u>Fxx-SC/AP-ST/PC-92S-xx.xM</u>
		<u>Fxx-FC/PC-LC/AP-92S-xx.xM</u>			
FC/MU 	OS2	<u>Fxx-FC/PC-MU/PC-92S-xx.xM</u>	ST/ST 	OS2	<u>Fxx-ST/PC-ST/PC-92S-xx.xM</u>
	OS2-APC			OS2-APC	
	Mixed	<u>Fxx-FC/AP-MU/PC-92S-xx.xM</u>		Mixed	

Replace "xx.x" by length in "meters"

FIBER OPTIC PATCH CABLE ASSEMBLIES

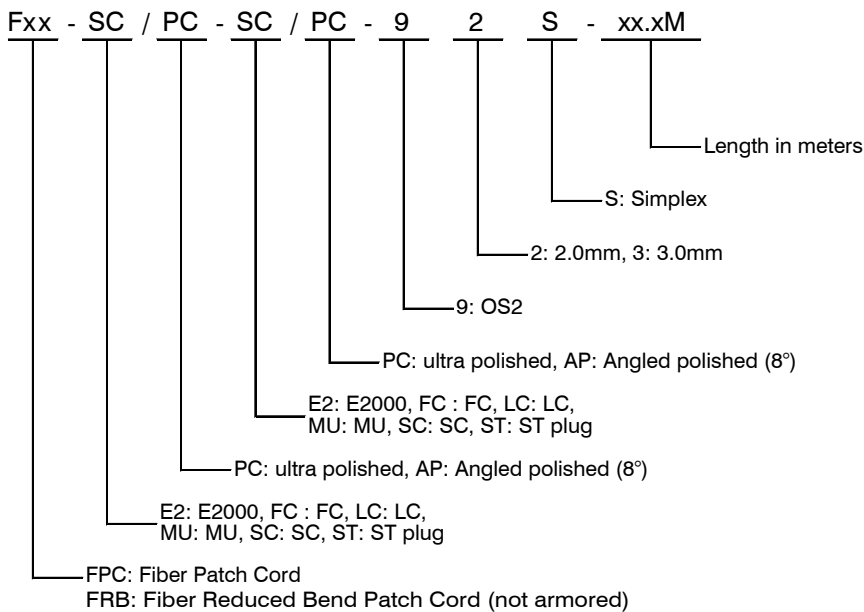
Standard Patch Cords

Simplex Singlemode

OPTIONS






Cable length:	Replace "xx.x" by cable length in meter (example: 07.0 = 7 meter cable)
Standard cable lengths:	1, 2, 3, 5 & 10 meters (others on demand)
Cable diameter:	standard = 2.00mm 3.00mm = option on request
Ultra polished OS2:	PC
Angled polished OS2-APC:	AP (only for E2000, FC, LC, SC)
Color:	Yellow (standard) Others (on request)

ORDERING CODE STRUCTURE



FIBER OPTIC PATCH CABLE ASSEMBLIES

Standard Pigtails Pigtails Multimode

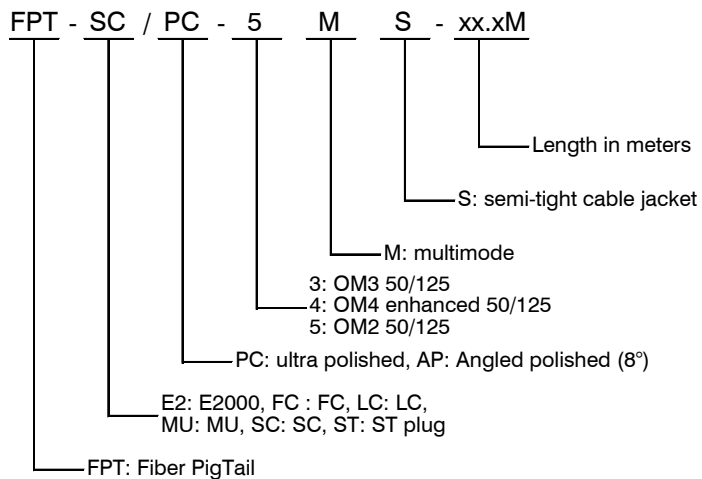
	OM2 50/125 μ m	OM3 50/125 μ m	OM4 enhanced 50/125 μ m		
E2000 	OM2	FPT-E2/PC-5MS-xx.xM	SC 	OM2	FPT-SC/PC-5MS-xx.xM
	OM3	FPT-E2/PC-3MS-xx.xM		OM3	FPT-SC/PC-3MS-xx.xM
	OM4	FPT-E2/PC-4MS-xx.xM		OM4	FPT-SC/PC-4MS-xx.xM
FC 	OM2	FPT-FC/PC-5MS-xx.xM	ST 	OM2	FPT-ST/PC-5MS-xx.xM
	OM3	FPT-FC/PC-3MS-xx.xM		OM3	FPT-ST/PC-3MS-xx.xM
	OM4	FPT-FC/PC-4MS-xx.xM		OM4	FPT-ST/PC-4MS-xx.xM
LC 	OM2	FPT-LC/PC-5MS-xx.xM			
	OM3	FPT-LC/PC-3MS-xx.xM			
	OM4	FPT-LC/PC-4MS-xx.xM			

Replace "xx.x" by length in "meters"

OPTIONS







Cable length: Replace "xx.x" by cable length in meter
(example: 02.0 = 2 meter cable)

ORDERING CODE STRUCTURE



FIBER OPTIC PATCH CABLE ASSEMBLIES

Standard Pigtails Pigtails Singlemode

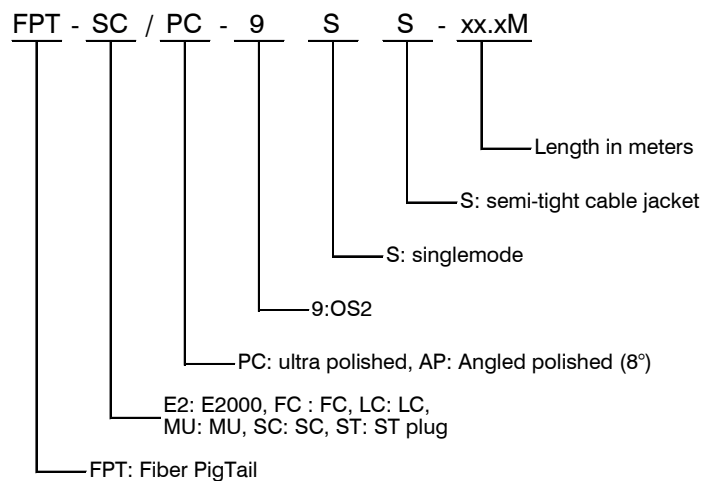
		OS2 9/125µm (PC)			OS2-APC 9/125µm (APC)	
E2000 	OS2	FPT-E2/PC-9SS-xx.xM	MU 	OS2	FPT-MU/PC-9SS-xx.xM	
	OS2-APC	FPT-E2/AP-9SS-xx.xM		OS2-APC	FPT-MU/AP-9SS-xx.xM	
FC 	OS2	FPT-FC/PC-9SS-xx.xM	SC 	OS2	FPT-SC/PC-9SS-xx.xM	
	OS2-APC	FPT-FC/AP-9SS-xx.xM		OS2-APC	FPT-SC/AP-9SS-xx.xM	
LC 	OS2	FPT-LC/PC-9SS-xx.xM	ST 	OS2	FPT-ST/PC-9SS-xx.xM	
	OS2-APC	FPT-LC/AP-9SS-xx.xM		OS2-APC	FPT-ST/AP-9SS-xx.xM	

Replace “xx.x” by length in “meters”

OPTIONS

Cable length: Replace “xx.x” by cable length in meter
(example: 02.0 = 2 meter cable)

ORDERING CODE STRUCTURE



MPO/MTP Cable Assemblies & Patch Panels

MPO/MTP Fiber Management

The MPO/MTP system is the perfect solution for fiber optic installations. The high density fiber optic MPO/MTP connector from “USCONEC” allows simple plug & play of the backbone fiber to the distribution cabinet. Pre-terminated MPO/MTP fiber solutions allows you to prepare the distribution cabinets in your own premises and installed at the site when the installation is ready to go live.

1. System design

The system needs to be designed according to the number of fibers and type of connectors required in the distribution cabinet. SC and MTRJ connectors can accept up to a maximum of 36 fibers, whereas LC connectors can support up to 144 fibers. For lower patch panel density requirements the standard sliding tray patch panel can be an option.

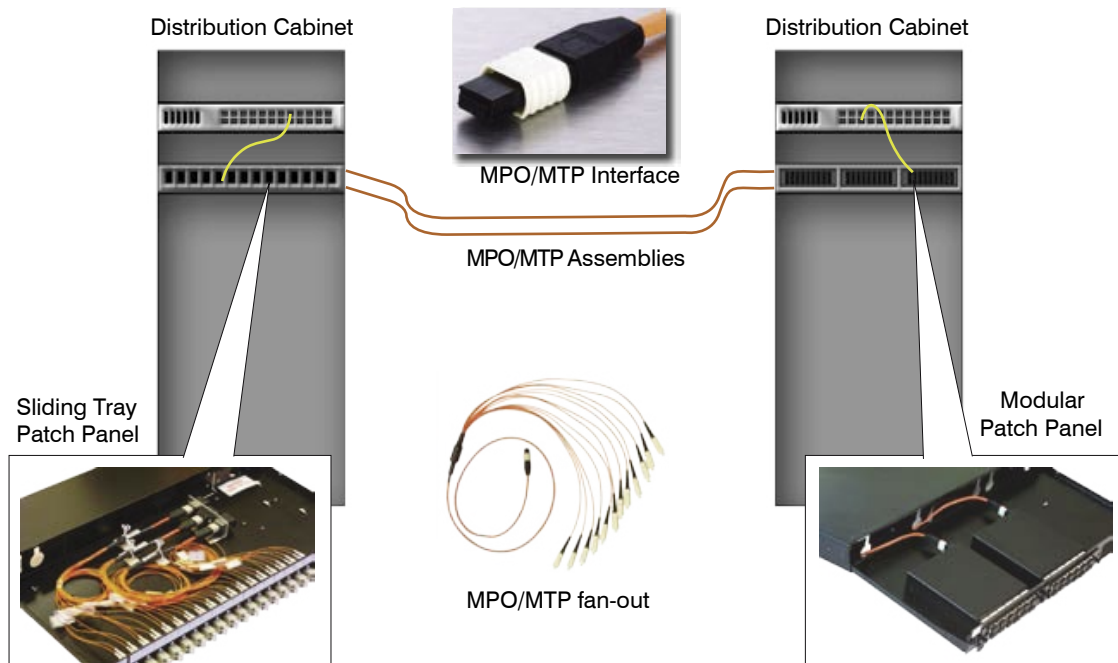
2. Site survey

Measure the total length of the backbone cable required from point A to B and increase this value by another 10% for cable slack, plus a total of 6 meters (2 meters at each end) for termination and management of the cables within the distribution cabinet.

3. Installation

The MPO/MTP cable assembly is laid into position and loosely secured to the cable tray with no bends smaller than 5cm radius. Make sure that the maximum pulling force of the cable will not be exceeded when pulling any fiber optical assembly into the building. Any excess force will damage the cable and the fibers inside. Loop any spare cable under or within the cabinet to ensure a stress free run to the rear of the patch panel. Maintain the dust caps on the MPO/MTP assemblies until final connection. Once the dust caps have been removed, connect the pre-terminated MPO/MTP fiber assembly immediately to the MPO/MTP-fan-out or module.

MPO/MTP Installation



MPO / MTP

MPO/MTP Cable Assemblies

MPO/MTP Fan-out Cables

The MPO/MTP fan-out cables for direct connections within the communications cabinet.

These cables are offered in multimode and singlemode with FC, LC, MTRJ, MU, SC and ST terminations.

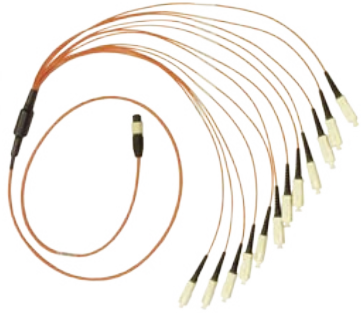
Cable style	Connector	2.00mm cable	0.9mm cable
OM2(50/125)	E2000	FMF-SM/PC-E2/PC-52-yy-xxxM	not available
	FC	FMF-SM/PC-FC/PC-52-yy-xxxM	FMF-SM/PC-FC/PC-59-yy-xxxM
	LC	FMF-SM/PC-LC/PC-52-yy-xxxM	FMF-SM/PC-LC/PC-59-yy-xxxM
	MTRJ	FMF-SM/PC-MT/PC-52-yy-xxxM	FMF-SM/PC-MT/PC-59-yy-xxxM
	MU	FMF-SM/PC-MU/PC-52-yy-xxxM	not available
	SC	FMF-SM/PC-SC/PC-52-yy-xxxM	FMF-SM/PC-SC/PC-59-yy-xxxM
	ST	FMF-SM/PC-ST/PC-52-yy-xxxM	FMF-SM/PC-ST/PC-59-yy-xxxM
OM3 (50/125)	E2000	FMF-SM/PC-E2/PC-32-yy-xxxM	not available
	FC	FMF-SM/PC-FC/PC-32-yy-xxxM	FMF-SM/PC-FC/PC-39-yy-xxxM
	LC	FMF-SM/PC-LC/PC-32-yy-xxxM	FMF-SM/PC-LC/PC-39-yy-xxxM
	MTRJ	FMF-SM/PC-MT/PC-32-yy-xxxM	FMF-SM/PC-MT/PC-39-yy-xxxM
	MU	FMF-SM/PC-MU/PC-32-yy-xxxM	not available
	SC	FMF-SM/PC-SC/PC-32-yy-xxxM	FMF-SM/PC-SC/PC-39-yy-xxxM
	ST	FMF-SM/PC-ST/PC-32-yy-xxxM	FMF-SM/PC-ST/PC-39-yy-xxxM
OM4 enhanced (50/125)	E2000	FMF-SM/PC-E2/PC-42-yy-xxxM	not available
	FC	FMF-SM/PC-FC/PC-42-yy-xxxM	FMF-SM/PC-FC/PC-49-yy-xxxM
	LC	FMF-SM/PC-LC/PC-42-yy-xxxM	FMF-SM/PC-LC/PC-49-yy-xxxM
	MTRJ	FMF-SM/PC-MT/PC-42-yy-xxxM	FMF-SM/PC-MT/PC-49-yy-xxxM
	MU	FMF-SM/PC-MU/PC-42-yy-xxxM	not available
	SC	FMF-SM/PC-SC/PC-42-yy-xxxM	FMF-SM/PC-SC/PC-49-yy-xxxM
	ST	FMF-SM/PC-ST/PC-42-yy-xxxM	FMF-SM/PC-ST/PC-49-yy-xxxM
OS2(9/125)	E2000	FMF-SM/PC-E2/PC-92-yy-xxxM	not available
	FC	FMF-SM/PC-FC/PC-92-yy-xxxM	FMF-SM/PC-FC/PC-99-yy-xxxM
	LC	FMF-SM/PC-LC/PC-92-yy-xxxM	FMF-SM/PC-LC/PC-99-yy-xxxM
	MTRJ	FMF-SM/PC-MT/PC-92-yy-xxxM	FMF-SM/PC-MT/PC-99-yy-xxxM
	MU	FMF-SM/PC-MU/PC-92-yy-xxxM	not available
	SC	FMF-SM/PC-SC/PC-92-yy-xxxM	FMF-SM/PC-SC/PC-99-yy-xxxM
	ST	FMF-SM/PC-ST/PC-92-yy-xxxM	FMF-SM/PC-ST/PC-99-yy-xxxM
OS2-APC (9/125 angled)	E2000	FMF-SM/PC-E2/AP-92-yy-xxxM	not available
	FC	FMF-SM/PC-FC/AP-92-yy-xxxM	FMF-SM/PC-FC/AP-99-yy-xxxM
	LC	FMF-SM/PC-LC/AP-92-yy-xxxM	FMF-SM/PC-LC/AP-99-yy-xxxM
	SC	FMF-SM/PC-SC/AP-92-yy-xxxM	FMF-SM/PC-SC/AP-99-yy-xxxM

Replace “yy-xxxM” by number of fibers and length in meters: Examples: -12-002M = 12 fibers / 2 Meters

MPO / MTP

MPO/MTP Cable Assemblies

MPO/MTP Fan-out Cables

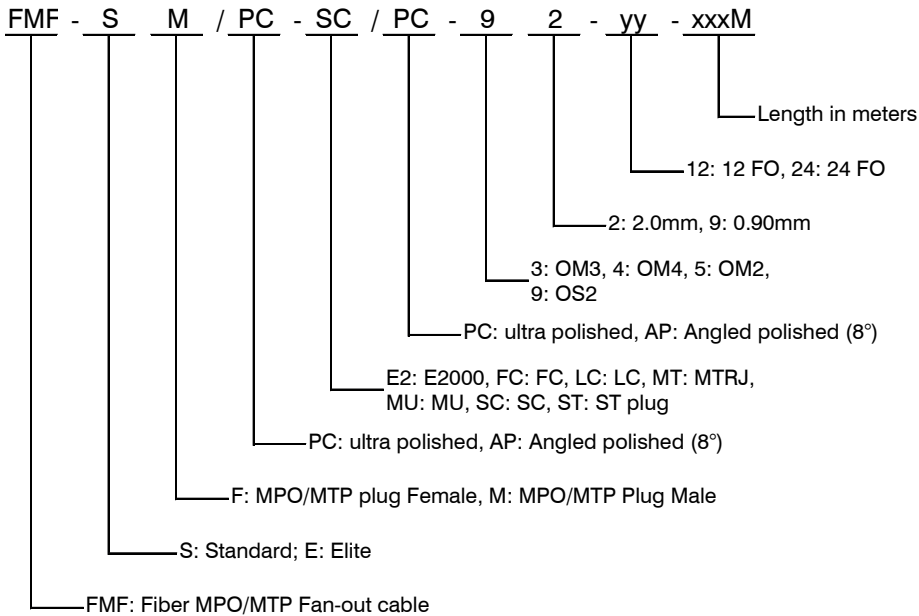


MPO/MTP 2.0mm fan-out cable



MPO/MTP 0.9mm fan-out cable

ORDERING CODE STRUCTURE



MPO / MTP

MPO/MTP Cable Assemblies

MPO/MTP Pre-terminated Trunk Cables

Pre-terminated MPO/MTP cable assemblies are offered in multimode and singlemode with female MPO/MTP terminations for installation within the building and connecting to the rear of a MPO/MTP patch panel or to a fan-out cable.

Multimode	OM2 (50/125)	FMP-SF/PC-SF/PC-5-yyy-A-xxxM
	OM3 (enhanced 50/125 μ m)	FMP-SF/PC-SF/PC-3-yyy-A-xxxM
	OM4 (enhanced 50/125 μ m)	FMP-SF/PC-SF/PC-4-yyy-A-xxxM
Singlemode	OS2(9/125)	FMP-SF/PC-SF/PC-9-yyy-A-xxxM
	OS2-APC(9/125)	FMP-SF/AP-SF/AP-9-yyy-A-xxxM

Replace “yyy-A-xxxM” by number of fibers and length in meters: Examples: -012-A-125M = 12 fibers / 125 Meters

ORDERING CODE STRUCTURE

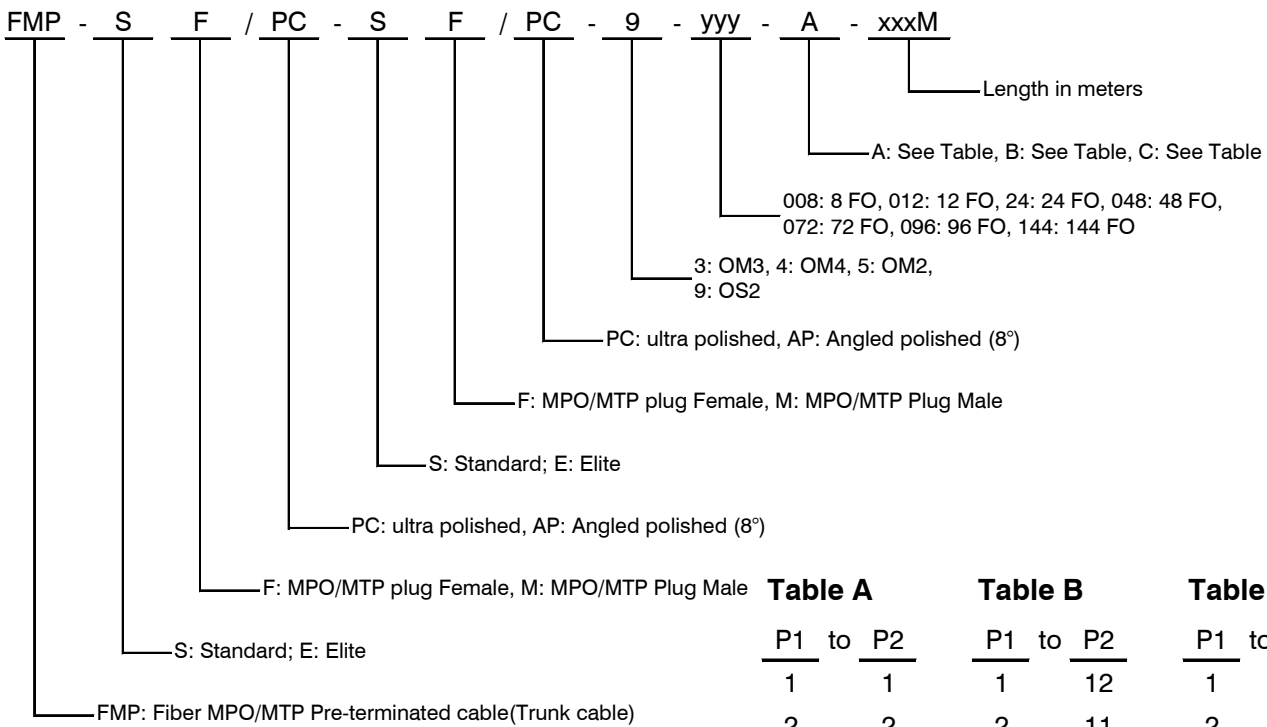


Table A		Table B		Table C	
P1	to P2	P1	to P2	P1	to P2
1	1	1	12	1	2
2	2	2	11	2	1
3	3	3	10	3	4
4	4	4	9	4	3
5	5	5	8	5	6
6	6	6	7	6	5
7	7	7	6	7	8
8	8	8	5	8	7
9	9	9	4	9	10
10	10	10	3	10	9
11	11	11	2	11	12
12	12	12	1	12	11



MPO / MTP

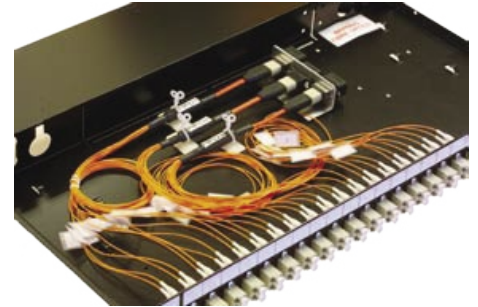
MPO/MTP Patch Panels

MPO/MTP Standard Patch Panel

19" black sliding tray patch panel pre-loaded for 24 FC, SC, ST and 48 MTRJ or LC connections to MPO/MTP cable assemblies. Contact E-tec Interconnect Ltd for more information & part numbers.

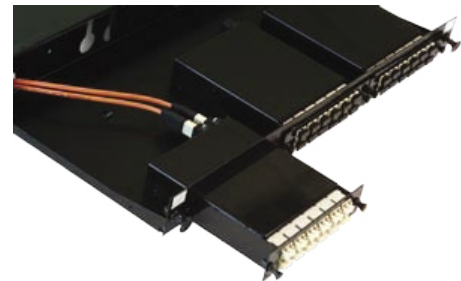
Order Code for empty Sliding Patch Panel:

FC & ST adapter style = **SPP-24-N- FC/ST-ME-B**
 E2000/LC/MT/SC adapter style = **SPP-24-V- E2/LC/MT/SC-ME-B**



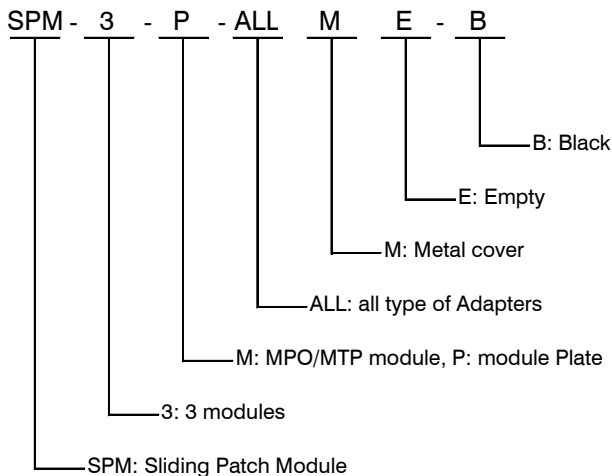
MPO/MTP Modular Sliding Patch Module

19" black sliding tray patch panel for 3 modules supports up to 36 SC connections with 3 MPO/MTP links or 72 LC/MTRJ connections with 6 MPO/MTP Links.



SPM-3-P-ALL-ME-B

ORDERING CODE STRUCTURE



MPO / MTP

MPO/MTP Patch Panels

MPO/MTP Sliding Modules

The 12 and 24 port sliding modules are designed to fit the MPO/MTP Modular Patch Panel.

Order code information

Cable style	Connector	12 Fibers	24 Fibers
OM2 (50/125)	E2000	MPM-PC-12-E2/PC-5	not available
	FC	MPM-PC-12-FC/PC-5	not available
	LC	MPM-PC-12-LC/PC-5	MPM-PC-24-LC/PC-5
	MTRJ	MPM-PC-12-MT/PC-5	not available
	MU	MPM-PC-12-MU/PC-5	not available
	SC	MPM-PC-12-SC/PC-5	not available
	ST	MPM-PC-12-ST/PC-5	not available
OM3 (50/125)	E2000	MPM-PC-12-E2/PC-3	not available
	FC	MPM-PC-12-FC/PC-3	not available
	LC	MPM-PC-12-LC/PC-3	MPM-PC-24-LC/PC-3
	MTRJ	MPM-PC-12-MT/PC-3	not available
	MU	MPM-PC-12-MU/PC-3	not available
	SC	MPM-PC-12-SC/PC-3	not available
	ST	MPM-PC-12-ST/PC-3	not available
OM4 (enhanced 50/125)	E2000	MPM-PC-12-E2/PC-4	not available
	FC	MPM-PC-12-FC/PC-4	not available
	LC	MPM-PC-12-LC/PC-4	MPM-PC-24-LC/PC-4
	MTRJ	MPM-PC-12-MT/PC-4	not available
	MU	MPM-PC-12-MU/PC-4	not available
	SC	MPM-PC-12-SC/PC-4	not available
	ST	MPM-PC-12-ST/PC-4	not available
OS2 (9/125)	E2000	MPM-PC-12-E2/PC-9	not available
	FC	MPM-PC-12-FC/PC-9	not available
	LC	MPM-PC-12-LC/PC-9	MPM-PC-24-LC/PC-9
	MTRJ	MPM-PC-12-MT/PC-9	not available
	MU	MPM-PC-12-MU/PC-9	not available
	SC	MPM-PC-12-SC/PC-9	not available
	ST	MPM-PC-12-ST/PC-9	not available
OS2-APC (9/125 angled)	E2000	MPM-PC-12-E2/AP-9	not available
	FC	MPM-PC-12-FC/AP-9	not available
	LC	MPM-PC-12-LC/AP-9	MPM-PC-24-LC/AP-9
	SC	MPM-PC-12-SC/AP-9	not available

MPO / MTP

MPO/MTP Patch Panels

MPO/MTP Sliding Modules

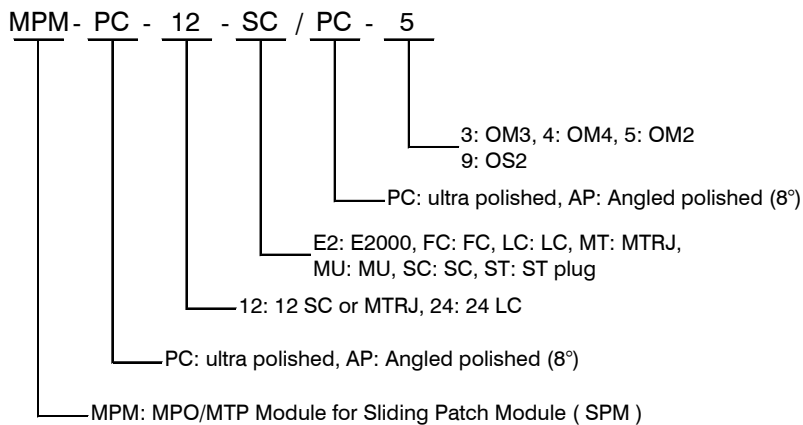


MPO/MTP 12-port SC module
pre-assembled for 12 SC connections



MPO/MTP 24-port LC module
pre-assembled for 24 LC connections

ORDERING CODE STRUCTURE



FIBRE OPTIC CABLE

Product Datasheet

Single Loose Tube Fibre Optic Cable (2-24 Fibres)

DESCRIPTION

2 to 24 fibre OM2, OM3, OM4 multimode or OS2 (ITU-T G.652D) singlemode 250µm single loose tube external duct cables with e-glass strength members and polyethylene (PE) or Low Smoke Zero Halogen (LSZH) jacket.

The single loose tube cables consist of 2 to 24, 250µm optical fibres in a single gel filled loose tube with e-glass non metallic strength members and black PE or LSZH jacket with ripcord.

FEATURES / BENEFITS

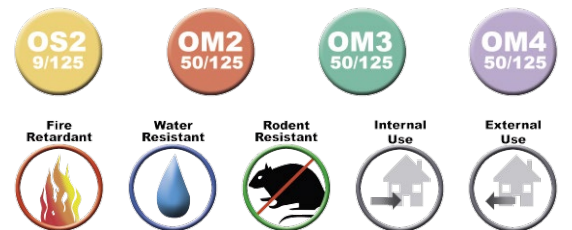
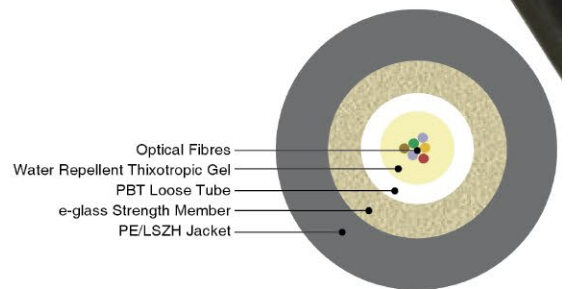
- Choice of fibre types
- Colour coded fibres
- E-glass strength members for rodent resistance
- Flame retardant LSZH jacket option for enhanced fire performance
- Compact 250µm loose tube construction

APPLICATIONS

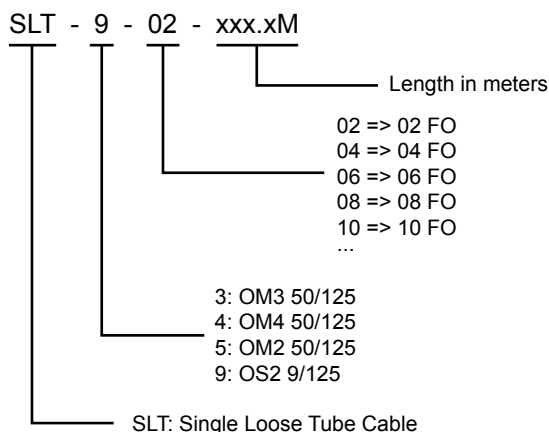
- Suitable for internal / external duct applications
- Suitable for environments where rodent resistance is required
- Ideal for intra building links in campus environments

TECHNICAL SPECIFICATIONS

DESCRIPTION		2-12 CORE	14-24 CORE
Outer Diameter	mm	6.5 ±0.3	6.7 ±0.3
Weight	kg/km	40	47
Max. Load (installation)	N	1000	1000
Max. Load (installed)	N	500	500
Min. Bend Radius (installation)	Times diameter	20	20
Min. Bend Radius (installed)	Times diameter	10	10
Fire Performance		LSZH	LSZH
Operating Temp.	°C	-20~+60	-20~+60
Storage Temp.	°C	-20~+60	-20~+60
Installation Temp.	°C	-20~+60	-20~+60
Crush Resistance	N/100mm	1000	1000



ORDERING CODE STRUCTURE



FIBRE OPTIC CABLE

Product Datasheet

Tight Buffered Distribution Cable (2-24 Fibres)

DESCRIPTION

The tight buffered internal distribution cables are constructed of 900µm buffered fibres surrounded by e-glass strenght members jacketed in a LSZH outer jacket.

FEATURES / BENEFITS

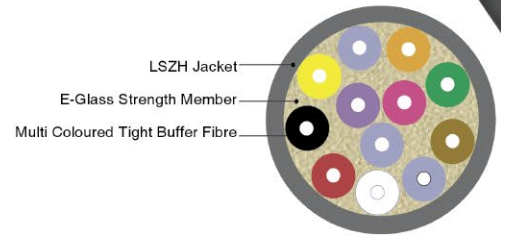
- Choice of fibre types
- Colour coded fibres
- High strenght E-Glass rodent resistant yarn strenght members for ease of handling
- LSZH jacket
- Easy to strip

APPLICATIONS

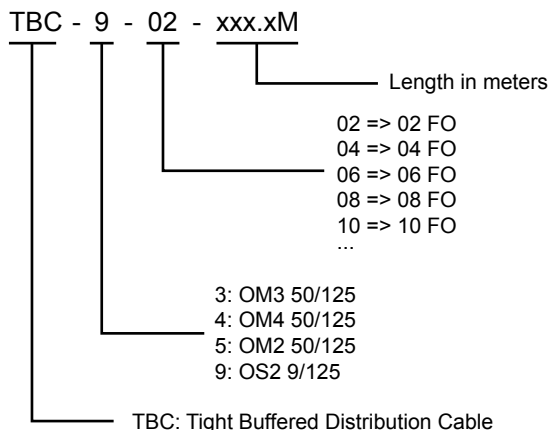
- Internal cable for installation in trunking, under floor or ceiling spaces
- Fibre backbones in riser and horizontal configurations

TECHNICAL SPECIFICATIONS

DESCRIPTION		4-CORE LSZH	8-CORE LSZH	12-CORE LSZH	24-CORE LSZH
Outer Diameter	mm	4.8 ±0.3	5.8 ±0.3	6.5 ±0.3	7.5 ±0.3
Weight	kg/km	26	34	40	61
Max. Load (installation)	N	600	750	750	900
Max. Load (installed)	N	300	375	375	450
Min. Bend Radius (installation)	mm	96	116	130	150
Min. Bend Radius (installed)	mm	48	58	65	75
Fire Performance		LSZH	LSZH	LSZH	LSZH
Operating Temp.	°C	-20~+60	-20~+60	-20~+60	-20~+60
Storage Temp.	°C	-20~+60	-20~+60	-20~+60	-20~+60
Installation Temp.	°C	-20~+60	-20~+60	-20~+60	-20~+60
Crush Resistance		1000	1000	1000	1000



ORDERING CODE STRUCTURE



FIBRE OPTIC CABLE

Product Datasheet

Tight Buffered Distribution Cable Multi-Core (36-96 Fibres)

DESCRIPTION

36 to 96 fibre, stranded sub unit rodent resistant internal distribution cables consisting of 4 to 8, 12 fibre sub units and fillers when necessary. Each subunit consists of 12, 900µm tight buffered optical fibres with e-glass non-metallic strength members and LSZH jacket. The individually coloured 6mm outside diameter (OD) sub units are helically stranded around an FRP central strength member with polyester wrapping tape, ripcord and Low Smoke Zero Halogen (LSZH) final jacket.

FEATURES / BENEFITS

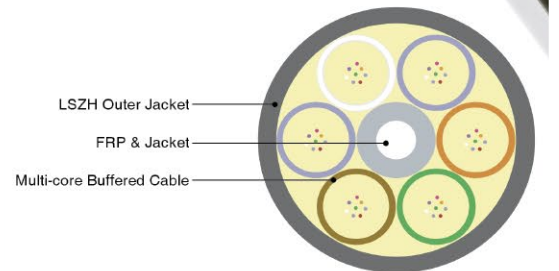
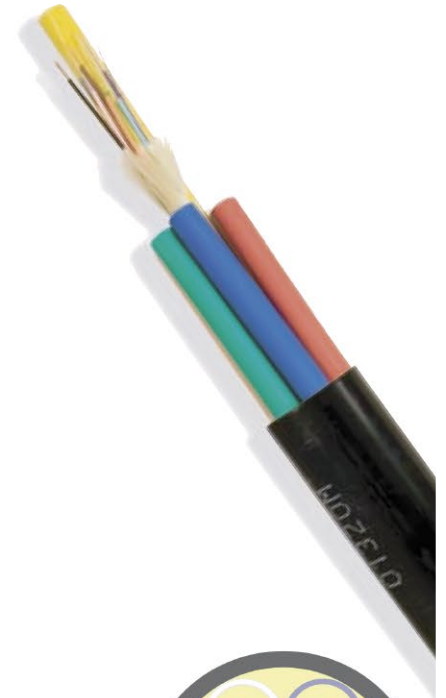
- Choice of fibre types
- Colour coded fibres for easy identification
- High strength aramid yarn strength members
- Easy to use
- Lightweight and compact
- LSZH jacket

APPLICATIONS

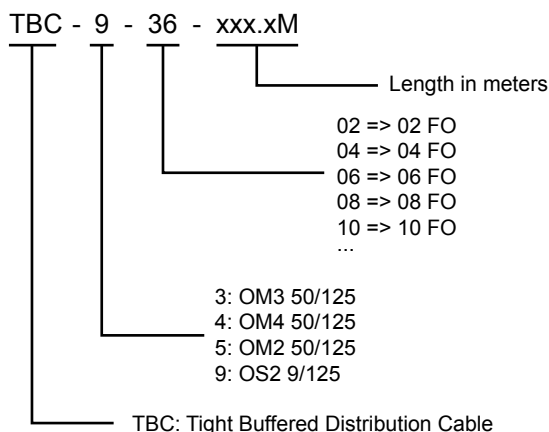
- Internal cable for horizontal distribution or riser applications

TECHNICAL SPECIFICATIONS

DESCRIPTION		36-CORE LSZH	48-CORE LSZH	72-CORE LSZH	96-CORE LSZH
Outer Diameter	mm	17.4 ±0.5	17.4 ±0.5	21.6 ±0.5	25.5 ±0.5
Weight	kg/km	237	237	397	571
Max. Load (installation)	N	2800	2800	4600	5000
Max. Load (installed)	N	1500	1500	2000	2200
Min. Bend Radius (installation)	mm	350	350	440	500
Min. Bend Radius (installed)	mm	175	175	220	250
Fire Performance		LSZH	LSZH	LSZH	LSZH
Operating Temp.	°C	-20~+60	-20~+60	-20~+60	-20~+60
Storage Temp.	°C	-20~+60	-20~+60	-20~+60	-20~+60
Installation Temp.	°C	-20~+60	-20~+60	-20~+60	-20~+60
Crush Resistance	N/100mm	1500	1500	1500	1500



ORDERING CODE STRUCTURE



FIBRE OPTIC CABLE

Product Datasheet

Single Loose Tube STA Fiber Optic Cable

DESCRIPTION

Single loose tube corrugated **steel tape armored** cables are constructed of 250µm fibers held in a gel filled central loose tube surrounded by waterblocking tape and corrugated, polyethylene laminated steel tape. The cable features two parallel steel wire strength members embedded in the PE /LSZH outer jacket.

FEATURES / BENEFITS

- Choice of fibre types
- Colour code of fiber
- High water resistance
- PE outer sheath

APPLICATIONS

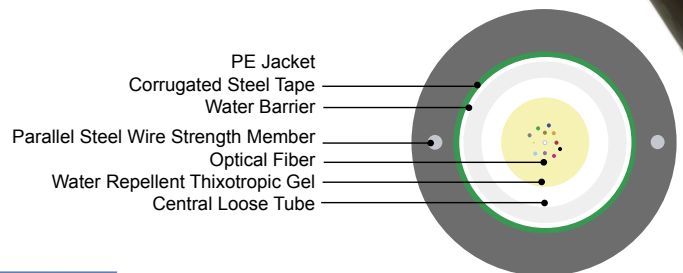
- Suitable for external applications in ducts.

OPTIONS

- Bend insensitive fibers G657 A/B
- OM4 fibers 10 Gigs at 550 meters
- Any color of cable jacket
- Printing on cable
- OFNP plenum jacket

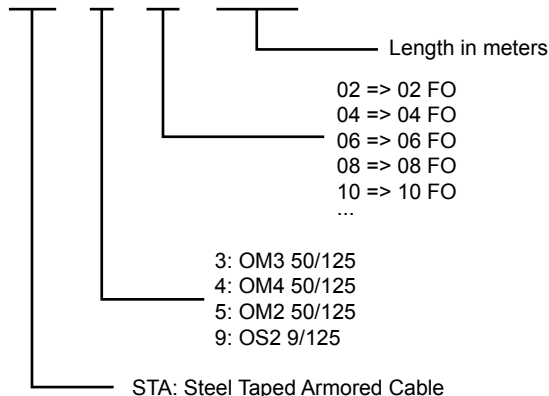
TECHNICAL SPECIFICATIONS

FiBer NumBer	OD	CABLe Weigh T	Drum DimeNSIONS	Drum Weigh T	miN. BeND rAD iuS		mAx. Te NSION (N)		Cru Sh LOADiNg (N/100mm)	
					Static	Dynamic	Short terms	Long terms	Short terms	Long terms
4	10.1	105	900	54						
8	10.1	105	900	54						
12	10.1	105	900	54	10XD	20XD	1500	600	3000	1000
16	10.1	105	900	54						
24	10.6	105	900	54						



ORDERING CODE STRUCTURE

STA - 9 - 04 - xxx.xM



FIBRE OPTIC CABLE

Product Datasheet

Multi Loose Tube CST Fiber Optic Cable

DESCRIPTION

Multi loose tube cable construction consists of up to 12 elements and a maximum of 144, 250 µm optical fibers in 12 fiber gel filled loose tubes with fillers where appropriate, SZ stranded around a jacketed Fiber Reinforced Plastic (FRP) central strength member with waterswellable threads and waterswellable tape. Helically applied waterblocking e-glass non metallic strength members with ripcord. **Corrugated Steel Tape (CST)** armoring and black High Density Polyethylene (HDPE) or Low Smoke Zero Halogen (LSZH) jacket.

FEATURES / BENEFITS

- Choice of fiber type
- Colour code of fiber
- High water resistance
- PE outer sheath

APPLICATIONS

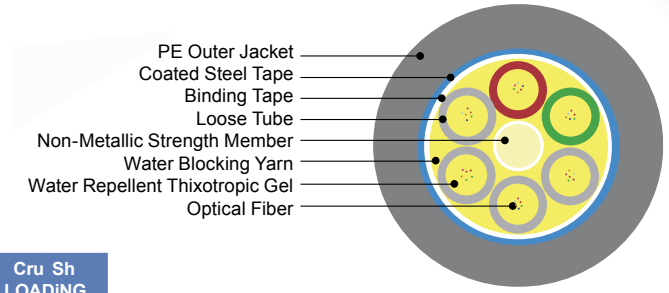
- Suitable for external applications in ducts.

OPTIONS

- Bend insensitive fibers G657 A/B
- OM4 fibers 10 Gigs at 550 meters
- Any color of cable jacket
- Printing on cable
- OFNP plenum jacket

TECHNICAL SPECIFICATIONS

FiBer NuMber	OD	CABLe WeiGhT	Dru M DiMeNSiONS	Dru M WeiGhT	MiN. BeND rAD iuS		MAx. TeNSiON (N)		Cru Sh LOADIg (N/100MM)	
					Static	Dynamic	Short terms	Long terms	Short terms	Long terms
24	10.6	105	900	54						
36	11.1	116	1000	67						
48	11.4	135	1000	67						
72	11.9	160	1100	76	10xD	20xD	1500	600	3000	1000
96	12.9	170	1100	95						
144	16.3	260	1300	108						
256	18.7	295	1400	158						



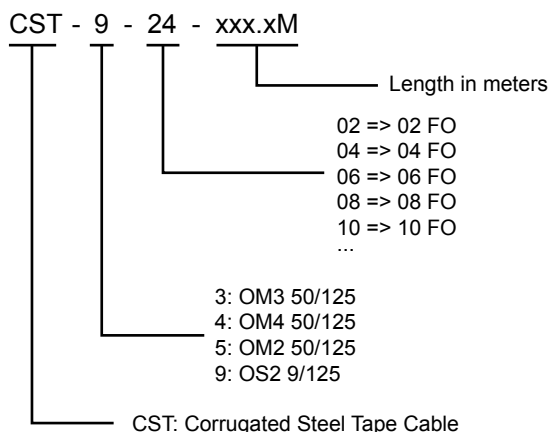
Water Resistant

Rodent Resistant

Internal Use

External Use

ORDERING CODE STRUCTURE



FIBRE OPTIC CABLE

Product Datasheet

Break-Out Fiber Optic Cable

DESCRIPTION

Full OM1, OM2, OM3, OM4 multimode or OS1/OS2 (ITU-TG.652D), ITU-T G.657A1 singlemode Breakout cable consisting of 24, 2.0 mm Low Smoke Zero Halogen (LSZH) Simplex cables each consisting of 1, 900um tight secondary buffered optical fiber with longitudinally applied aramid non metallic strength members and low smoke zero halogen (LSZH) jacket The individually numbered Simplex subunits are helically stranded in two layers around a LSZH jacketed Fiber Reinforced Plastic (FRP) non metallic central strength member with polyester wrapping tape, ripcord and LSZH final jacket.

FEATURES / BENEFITS

- Fire retardant
- Choice of fiber type
- Individual aramid yarn strength members
- Easy to use
- Lightweight and compact
- Choice of outer sheath material
- Choice of outer sheath color

APPLICATIONS

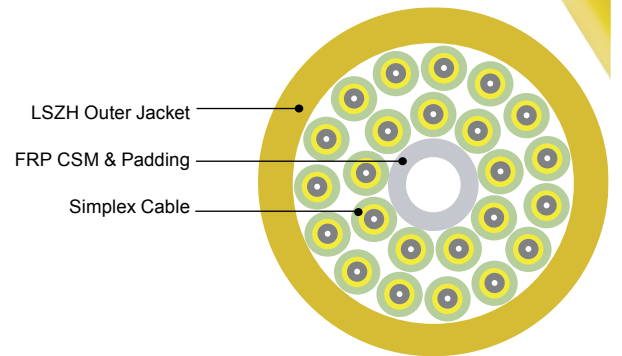
- Internal break-out cable for horizontal distribution

OPTIONS

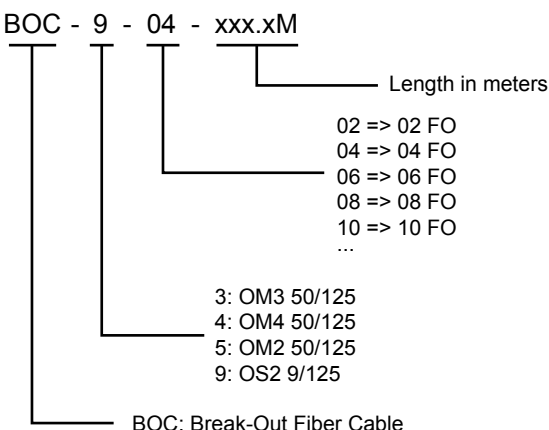
- Bend insensitive fibers G657 A/B
- OM4 fibers 10 Gigs at 550 meters
- Any color of cable jacket
- Printing on cable
- OFNP plenum jacket

Technical Specifications

FiBer NumBer	OD mm	CABLe WeiGhT kg/km	Drum DimeNsiONs mm	Drum WeiGhT kg/pcs	miN. BeND rAD ius		mAx. Te NsiON (N)	
					Static	Dynamic	Short terms	Long terms
4	7.2	54	800	43			500	270
6	8.3	75	900	54			1000	600
8	9.4	100	900	54	10D	20D	1100	700
12	12.2	170	1100	76			1400	800
24	15.6	230	1300	108			2300	1100



ORDERING CODE STRUCTURE



FIBRE OPTIC CABLE

Product Datasheet

Pre-Terminated Cable Solutions for Rapid Deployment



DESCRIPTION

E-tec Interconnect Ltd have established state-of-the-art manufacturing facilities, which provide a rapid turnaround on all of your orders.

The speed and cost of network deployment can be the factors that decide which solution is chosen.

The way to reduce time and cost is to use a Pre-Terminated fibre optic cable solution. Installation can be 65% quicker than traditional methods.

A Pre-Terminated solution consists of a length of cable that is stripped out at each end. The cable is then terminated with connectors, fully tested and fitted with protective sleeving and pulling eye at each end. This will then be delivered to site ready to be installed. Simple!

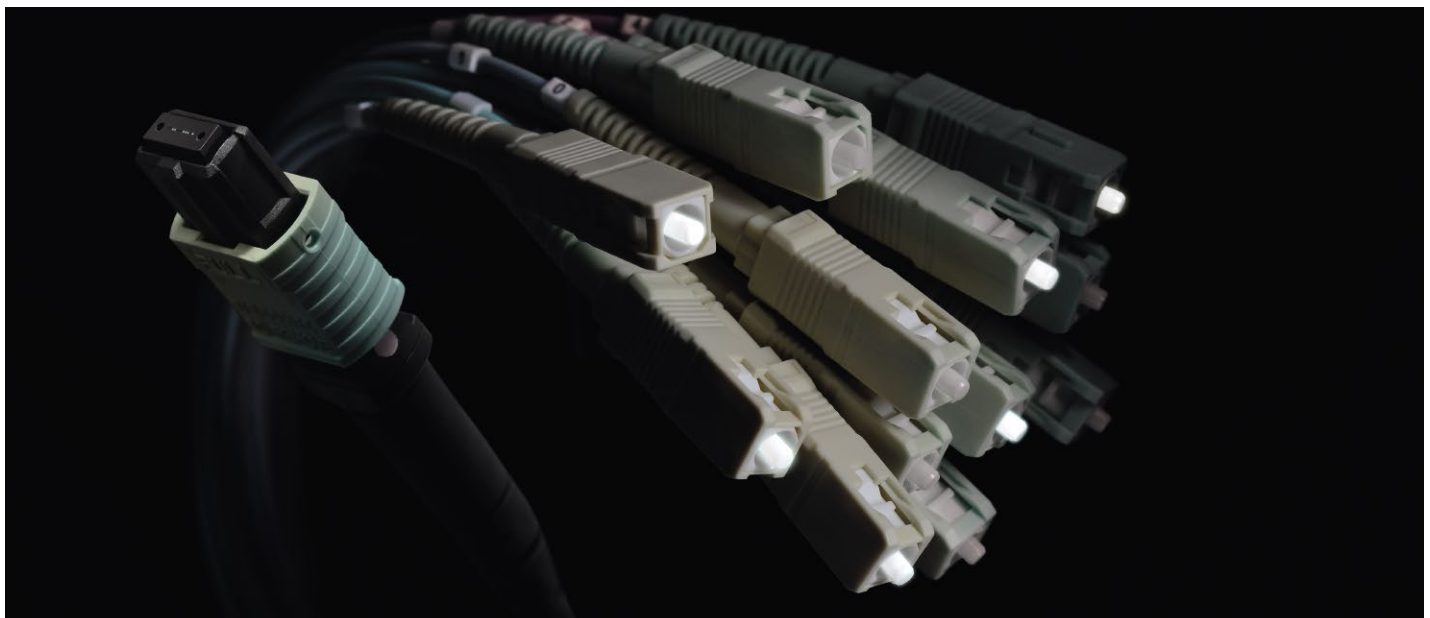
FEATURES / BENEFITS

- Fast installation time with minimum site disruption.
- Short, reliable lead-time.
- No need for specialized training or special tools and termination kits.
- Less waste to dispose of on site.
- Delivered labelled and fully tested with documentation.
- High precision connectors terminated in a controlled environment deliver a maximum insertion loss of 0.30dB.

Our Pre-Term solutions are totally tailor made to suit your requirements.

APPLICATIONS

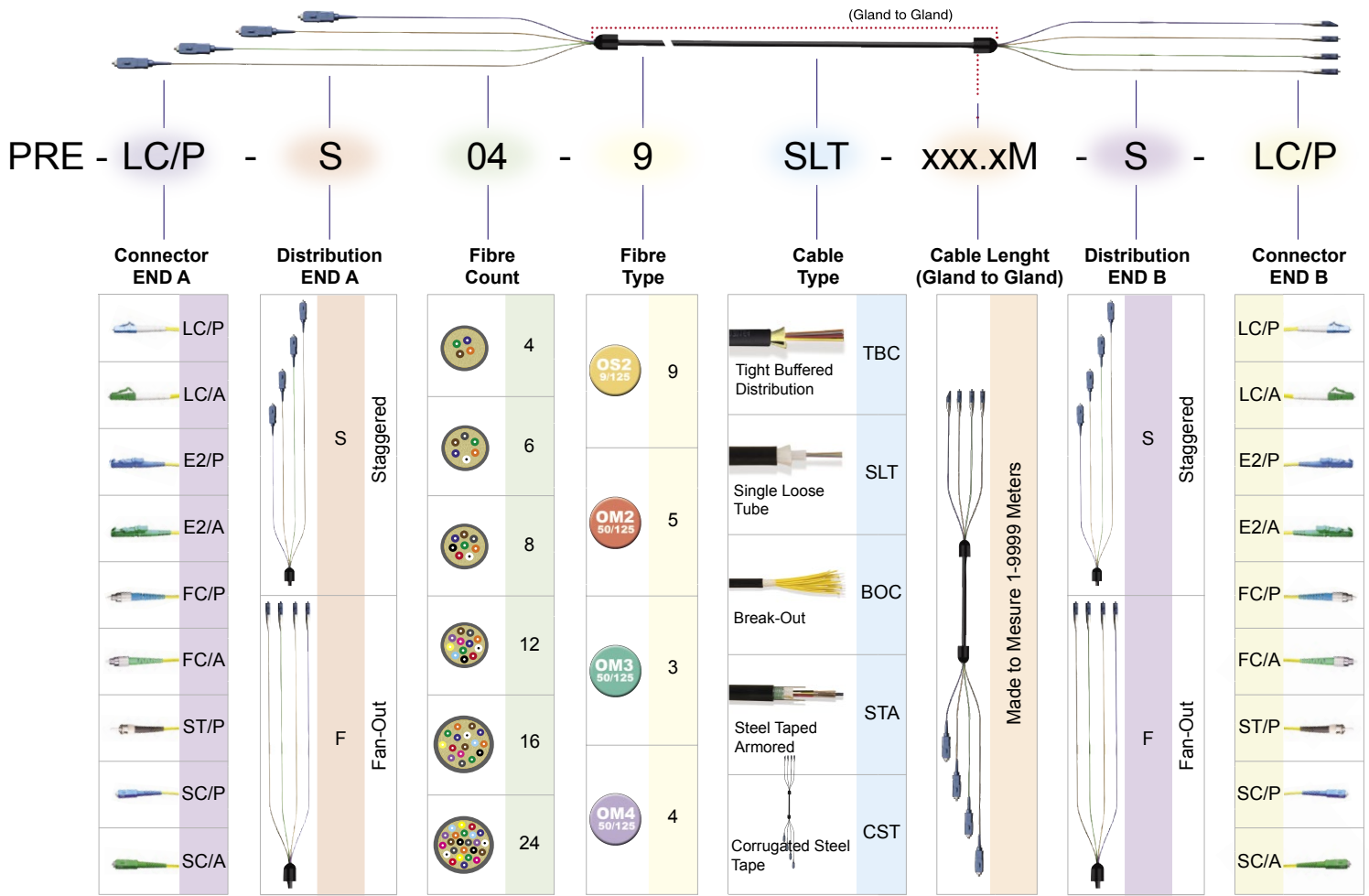
- Enterprise premise and campus applications.
- Data Centre: Trunk cables to Equipment Distribution Area (EDA) and Storage Area Network (SAN) applications.
- FTTX.



FIBRE OPTIC CABLE

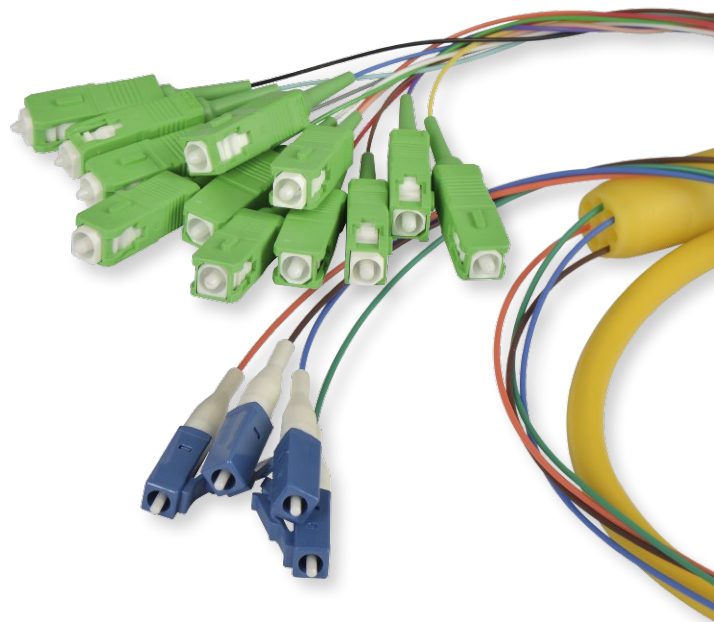
ORDERING CODE STRUCTURE

Example: PRE - LC/P - S04 - 9SLT - xxx.xM - S - LC/P



CONNECTOR TYPE CHART

LC/P	LC ultra polished
LC/A	LC angled polished 8°
E2/P	E2 ultra polished
E2/A	E2 angled polished 8°
FC/P	FC ultra polished
FC/A	FC angled polished 8°
ST/P	ST ultra polished
SC/A	SC angled polished 8°
SC/P	SC ultra polished

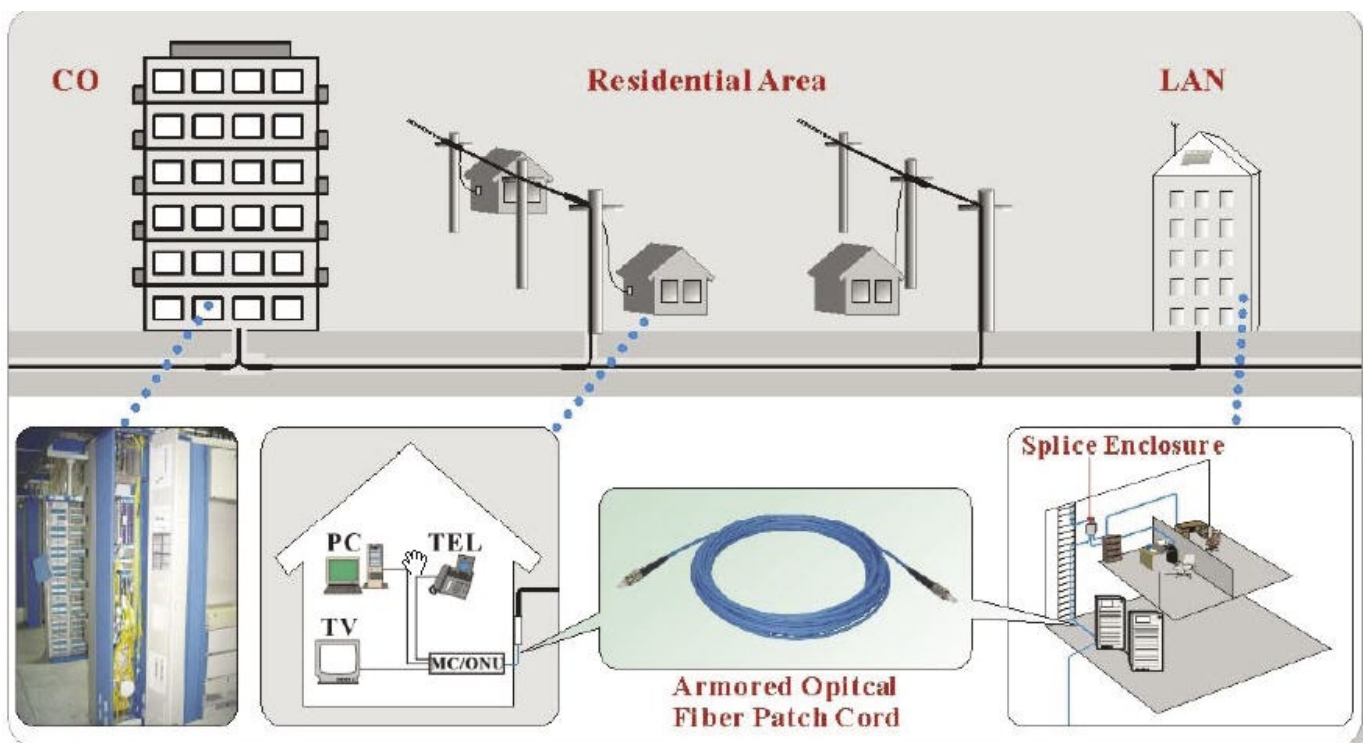
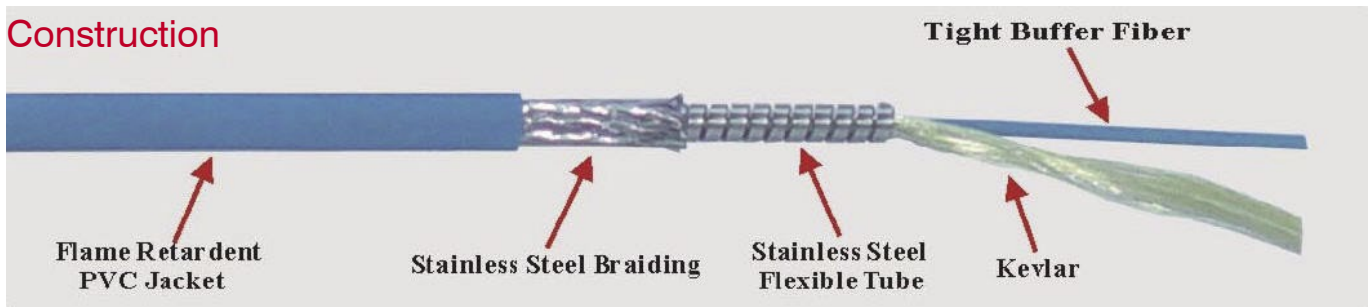


FIBER OPTIC CABLE ASSEMBLIES

Armored Patch Cords

The armored cables are used in harsh environments and they enhance the stability and safety of the whole network. They are also very popular for covering long distances, since the fibers are protected by a stainless steel flexible tube, which substantially increases the tensile strength, pressure and twist resistance. As a result it greatly increases the yield during the installation phase and thus offers a high cost saving. These cables sustain up to 300 kilo weight which also avoids damage from trampling on the cables. The construction of the armored cable offers high flexibility despite the armored braiding and tubing surrounding the fiber optic cable. It also secures transmission power and avoids extra attenuation compared to standard patch cords, in case of bending/twisting the cables and/or when using cable ties to attach several cables together.

Construction



FIBER OPTIC CABLE ASSEMBLIES

Specifications for Armored Patch Cords

General specifications

- Mating durability: min. 500 cycles
- Operating temperature: -40°C to +85°C
- RoHS compliant
- Pulling force: 20 kilos (pulling velocity 50mm/min)
- Load force: 300 kilos (Tube deformation >50°, FO still functioning)
- Cable diameter: 3mm
- Individual Lot numbers & Test Results delivered per cable
- Cable length tolerances:

less than 0.5 meter	=	+/- 10cm
between 0.5 meter and 5 meter	=	+/- 15cm
over 5 meters	=	+/- 20cm

Specifications for singlemode patch cords (OS2 & OS2-APC style)

- Fiber terminations:

PC = ultra polished style
APC = (8° angled polished style)
- Connector styles:

PC: available in E2000, FC, LC, MTRJ, MU, SC, ST
APC: available in E2000, FC, SC
- Insertion Loss: <0.5dB for MTRJ / <0.3dB (all others)
- Return Loss: >55dB for PC / >60dB for APC
- Standard color: Yellow (others on request)

Specifications for multimode patch cords (OM2, OM3, OM4)

- Fiber types:

OM2 = 50/125µm / OM3 = 50/125µm
OM4 = enhanced 50/125µm
- Fiber termination: PC = ultra polished style
- Connector styles: available in E2000, FC, LC, MTRJ, MU, SC, ST
- Insertion Loss: <0.3dB / typ. 0.2dB
- Standard colors:

OM2 = Orange
OM3 = Blue
OM4 = Magenta
Other colors (on request)

FIBER OPTIC CABLE ASSEMBLIES

Armored Patch Cords

Duplex Multimode

	OM2 50/125µm orange color	OM3 50/125µm blue color	OM4 enhanced 50/125µm magenta color
E2000/E2000	APC-E2/PC-E2/PC-53D-xx.xM	APC-E2/PC-E2/PC-33D-xx.xM	APC-E2/PC-E2/PC-43D-xx.xM
E2000/FC	APC-E2/PC-FC/PC-53D-xx.xM	APC-E2/PC-FC/PC-33D-xx.xM	APC-E2/PC-FC/PC-43D-xx.xM
E2000/LC	APC-E2/PC-LC/PC-53C-xx.xM	APC-E2/PC-LC/PC-33C-xx.xM	APC-E2/PC-LC/PC-43C-xx.xM
E2000/MTRJ	APC-E2/PC-MT/PC-53D-xx.xM	APC-E2/PC-MT/PC-33D-xx.xM	APC-E2/PC-MT/PC-43D-xx.xM
E2000/SC	APC-E2/PC-SC/PC-53D-xx.xM	APC-E2/PC-SC/PC-33D-xx.xM	APC-E2/PC-SC/PC-43D-xx.xM
E2000/ST	APC-E2/PC-ST/PC-53D-xx.xM	APC-E2/PC-ST/PC-33D-xx.xM	APC-E2/PC-ST/PC-43D-xx.xM
FC/FC	APC-FC/PC-FC/PC-53D-xx.xM	APC-FC/PC-FC/PC-33D-xx.xM	APC-FC/PC-FC/PC-43D-xx.xM
FC/LC	APC-FC/PC-LC/PC-53C-xx.xM	APC-FC/PC-LC/PC-33C-xx.xM	APC-FC/PC-LC/PC-43C-xx.xM
FC/MTRJ	APC-FC/PC-MT/PC-53D-xx.xM	APC-FC/PC-MT/PC-33D-xx.xM	APC-FC/PC-MT/PC-43D-xx.xM
FC/MU	APC-FC/PC-MU/PC-53D-xx.xM	APC-FC/PC-MU/PC-33D-xx.xM	APC-FC/PC-MU/PC-43D-xx.xM
FC/SC	APC-FC/PC-SC/PC-53D-xx.xM	APC-FC/PC-SC/PC-33D-xx.xM	APC-FC/PC-SC/PC-43D-xx.xM
FC/ST	APC-FC/PC-ST/PC-53D-xx.xM	APC-FC/PC-ST/PC-33D-xx.xM	APC-FC/PC-ST/PC-43D-xx.xM
LC/LC	APC-LC/PC-LC/PC-53C-xx.xM	APC-LC/PC-LC/PC-33C-xx.xM	APC-LC/PC-LC/PC-43C-xx.xM
LC/MPO	APC-LC/PC-MF/PC-53C-xx.xM	APC-LC/PC-MF/PC-33C-xx.xM	APC-LC/PC-MF/PC-43C-xx.xM
LC/MTRJ	APC-LC/PC-MT/PC-53C-xx.xM	APC-LC/PC-MT/PC-33C-xx.xM	APC-LC/PC-MT/PC-43C-xx.xM
LC/MU	APC-LC/PC-MU/PC-53C-xx.xM	APC-LC/PC-MU/PC-33C-xx.xM	APC-LC/PC-MU/PC-43C-xx.xM
LC/SC	APC-LC/PC-SC/PC-53C-xx.xM	APC-LC/PC-SC/PC-33C-xx.xM	APC-LC/PC-SC/PC-43C-xx.xM
LC/ST	APC-LC/PC-ST/PC-53C-xx.xM	APC-LC/PC-ST/PC-33C-xx.xM	APC-LC/PC-ST/PC-43C-xx.xM
MTRJ/MTRJ	APC-MT/PC-MT/PC-53D-xx.xM	APC-MT/PC-MT/PC-33D-xx.xM	APC-MT/PC-MT/PC-43D-xx.xM
MTRJ/SC	APC-MT/PC-SC/PC-53D-xx.xM	APC-MT/PC-SC/PC-33D-xx.xM	APC-MT/PC-SC/PC-43D-xx.xM
MTRJ/ST	APC-MT/PC-ST/PC-53D-xx.xM	APC-MT/PC-ST/PC-33D-xx.xM	APC-MT/PC-ST/PC-43D-xx.xM
MPO/SC	APC-MF/PC-SC/PC-53D-xx.xM	APC-MF/PC-SC/PC-33D-xx.xM	APC-MF/PC-SC/PC-43D-xx.xM
MPO/ST	APC-MF/PC-ST/PC-53D-xx.xM	APC-MF/PC-ST/PC-33D-xx.xM	APC-MF/PC-ST/PC-43D-xx.xM
SC/SC	APC-SC/PC-SC/PC-53D-xx.xM	APC-SC/PC-SC/PC-33D-xx.xM	APC-SC/PC-SC/PC-43D-xx.xM
SC/ST	APC-SC/PC-ST/PC-53D-xx.xM	APC-SC/PC-ST/PC-33D-xx.xM	APC-SC/PC-ST/PC-43D-xx.xM
ST/ST	APC-ST/PC-ST/PC-53D-xx.xM	APC-ST/PC-ST/PC-33D-xx.xM	APC-ST/PC-ST/PC-43D-xx.xM

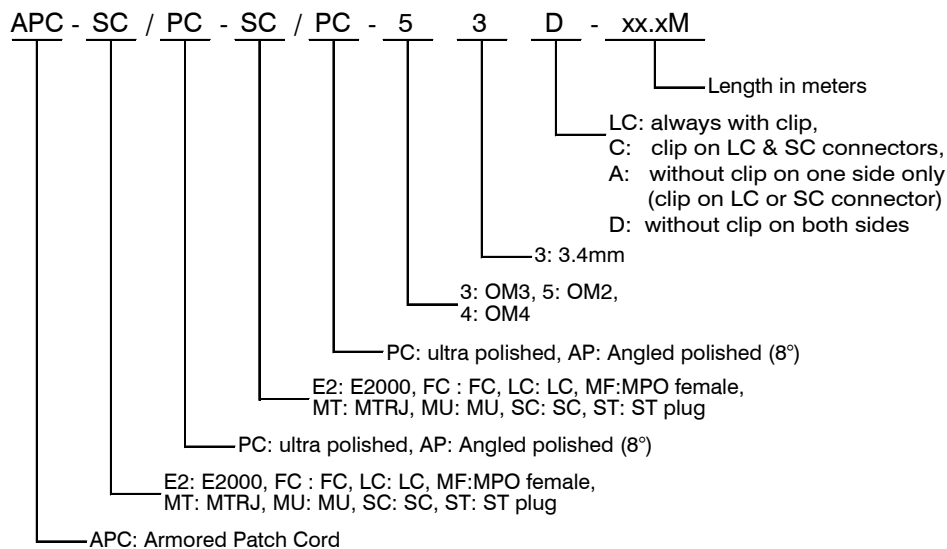
OPTIONS

Cable length: Replace "xx.x" by cable length in meter
(example: 35.0 = 35 meter cable)

Cable diameter: 3.4mm

Color: OM2 = Orange (other colors on request)
OM3 = Blue (other colors on request)
OM4 = Magenta (other colors on request)

ORDERING CODE STRUCTURE



FIBER OPTIC CABLE ASSEMBLIES

Armored Patch Cords Duplex Singlemode

	OS2 9/125 μ m (PC/PC) Yellow color	OS2-APC 9/125 μ m (APC/APC) Yellow color	Mixed: OS2-APC & OS2 9/125 μ m (APC/APC) Yellow color
E2000/E2000	APC-E2/PC-E2/PC-93D-xx.xM	APC-E2/AP-E2/AP-93D-xx.xM	APC-E2/AP-E2/PC-93D-xx.xM
E2000/FC	APC-E2/PC-FC/PC-93D-xx.xM	APC-E2/AP-FC/AP-93D-xx.xM	APC-E2/AP-FC/PC-93D-xx.xM APC-E2/PC-FC/AP-93D-xx.xM
E2000/LC	APC-E2/PC-LC/PC-93C-xx.xM		APC-E2/AP-LC/PC-93C-xx.xM
E2000/MTRJ	APC-E2/PC-MT/PC-93D-xx.xM		APC-E2/AP-MT/PC-93D-xx.xM
E2000/SC	APC-E2/PC-SC/PC-93D-xx.xM	APC-E2/AP-SC/AP-93D-xx.xM	APC-E2/AP-SC/PC-93D-xx.xM APC-E2/PC-SC/AP-93D-xx.xM
E2000/ST	APC-E2/PC-ST/PC-93D-xx.xM		APC-E2/AP-ST/PC-93D-xx.xM
FC/FC	APC-FC/PC-FC/PC-93D-xx.xM	APC-FC/AP-FC/AP-93D-xx.xM	APC-FC/AP-FC/PC-93D-xx.xM
FC/LC	APC-FC/PC-LC/PC-93C-xx.xM	APC-FC/AP-LC/AP-93C-xx.xM	APC-FC/AP-LC/PC-93C-xx.xM
FC/MPO	APC-FC/PC-MF/PC-93D-xx.xM	APC-FC/AP-MF/AP-93D-xx.xM	APC-FC/AP-MF/PC-93D-xx.xM APC-FC/PC-MF/AP-93D-xx.xM
FC/MTRJ	APC-FC/PC-MT/PC-93D-xx.xM		APC-FC/AP-MT/PC-93D-xx.xM
FC/MU	APC-FC/PC-MU/PC-93D-xx.xM		APC-FC/AP-MU/PC-93D-xx.xM
FC/SC	APC-FC/PC-SC/PC-93D-xx.xM	APC-FC/AP-SC/AP-93D-xx.xM	APC-FC/AP-SC/PC-93D-xx.xM APC-FC/PC-SC/AP-93D-xx.xM
LC/LC	APC-LC/PC-LC/PC-93C-xx.xM		
LC/MPO	APC-LC/PC-MF/PC-93C-xx.xM		APC-LC/PC-MF/AP-93C-xx.xM
LC/MTRJ	APC-LC/PC-MT/PC-93C-xx.xM		
LC/MU	APC-LC/PC-MU/PC-93C-xx.xM		
LC/SC	APC-LC/PC-SC/PC-93C-xx.xM		APC-LC/PC-SC/AP-93C-xx.xM
LC/ST	APC-LC/PC-ST/PC-93C-xx.xM		
MPO/SC	APC-MF/PC-SC/PC-93D-xx.xM	APC-MF/AP-SC/AP-93D-xx.xM	APC-MF/AP-SC/PC-93D-xx.xM APC-MF/PC-SC/AP-93D-xx.xM
MPO/ST	APC-MF/PC-ST/PC-93D-xx.xM		APC-MF/AP-ST/PC-93D-xx.xM
MTRJ/MTRJ	APC-MT/PC-MT/PC-93D-xx.xM		
MTRJ/SC	APC-MT/PC-SC/PC-93D-xx.xM		APC-MT/PC-SC/AP-93D-xx.xM
MTRJ/ST	APC-MT/PC-ST/PC-93D-xx.xM		
SC/SC	APC-SC/PC-SC/PC-93D-xx.xM	APC-SC/AP-SC/AP-93D-xx.xM	APC-SC/AP-SC/PC-93D-xx.xM
SC/ST	APC-SC/PC-ST/PC-93D-xx.xM		APC-SC/AP-ST/PC-93D-xx.xM
ST/ST	APC-ST/PC-ST/PC-93D-xx.xM		

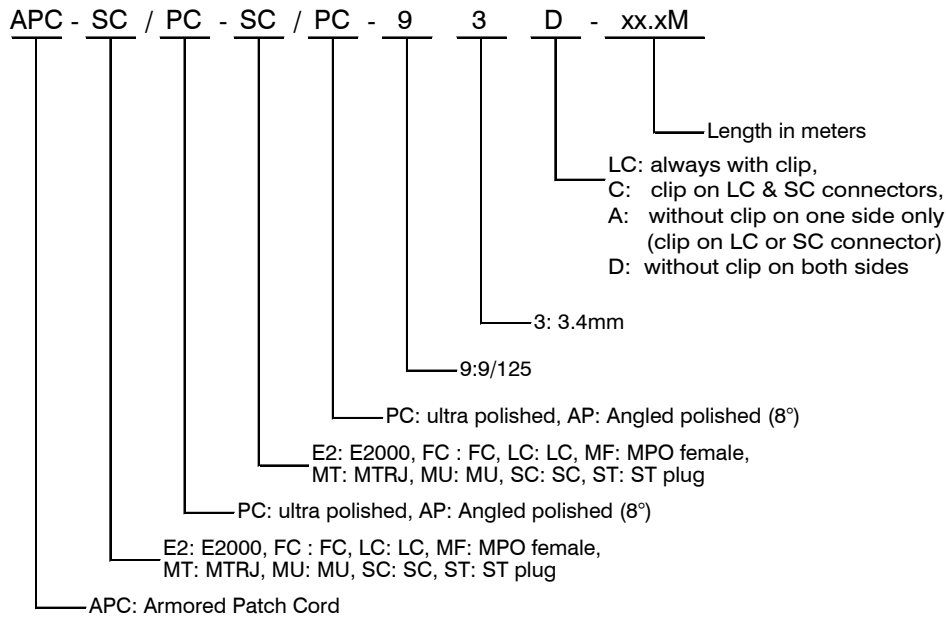
FIBER OPTIC CABLE ASSEMBLIES

Armored Patch Cords Duplex Singlemode

OPTIONS

Cable length:	Replace "xx.x" by cable length in meter (example:35.0 = 35 meter cable)
Cable diameter:	3.4mm
Ultra polished OS2:	PC
Angled polished OS2-APC:	AP (only for E2000, FC, MPO, SC)
Color:	Yellow (standard) Others (on request)

ORDERING CODE STRUCTURE

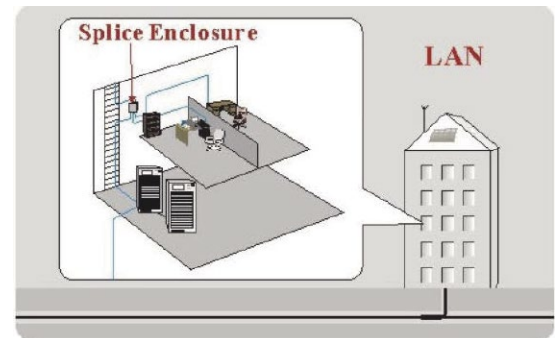
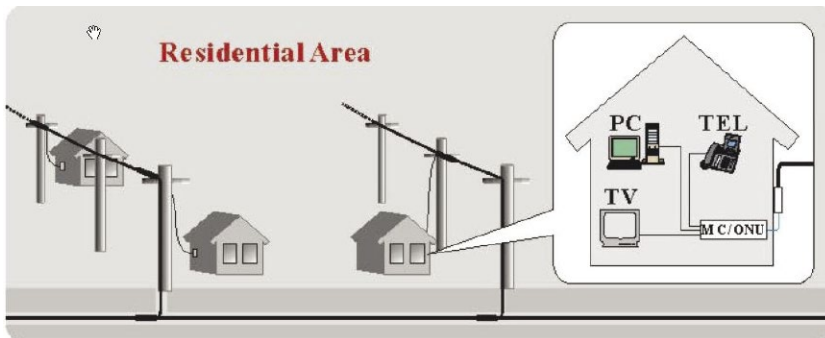
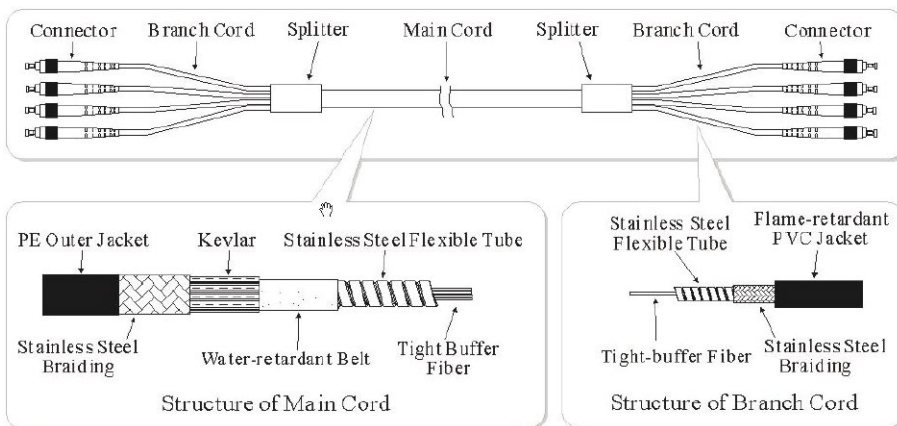


FIBER OPTIC CABLE ASSEMBLIES

Armored Dispatching Cords

The armored dispatching cords are generally used in hard environments and they enhance the stability and safety of the whole network. The fibers are protected by a stainless steel flexible tube, which substantially increases the tensile strength, pressure and twist resistance. As a result it greatly increases the yield during the installation phase and thus offers a high cost saving. The PVC coating of the different branch cords can be offered up to 12 different standard colors (IEC6030) and with a maximum core count of 12. The outer jacket and water retardant belt prevent the fiber from damage due to water and/or humidity.

These cables are mainly used for connecting between floors and multi-core connections to the ODF (Optical Fiber Distribution Frame) and is most suitable for the transmission of the last 100 meters of FTTH (Fiber to the Home).



General Specifications

Insertion loss:	SM = 0.2dB max. / MM = 0.3dB max.
Return loss (SM):	45dB min (PC) / 50dB min (UPC) / 60dB min (APC)
Pressure resistance:	≤300 kilos
Tensile resistance:	Main cord: 100 kilos / branch cord: 15 kilos
Operating temperature:	-40°C to +85°C
Cable diameter:	Main cord: 6.0/6.9mm +/- 0.1mm Branch cord: 2.5/3.00mm +/- 0.1mm

FIBER OPTIC CABLE ASSEMBLIES

Armored Dispatching Cords Multimode

	OM2 50/125µm	OM3 50/125µm	OM4 enhanced 50/125µm
E2000/E2000	ADC-E2/PC-E2/PC-5yy-xxxM	ADC-E2/PC-E2/PC-3yy-xxxM	ADC-E2/PC-E2/PC-4yy-xxxM
E2000/FC	ADC-E2/PC-FC/PC-5yy-xxxM	ADC-E2/PC-FC/PC-3yy-xxxM	ADC-E2/PC-FC/PC-4yy-xxxM
E2000/LC	ADC-E2/PC-LC/PC-5yy-xxxM	ADC-E2/PC-LC/PC-3yy-xxxM	ADC-E2/PC-LC/PC-4yy-xxxM
E2000/MTRJ	ADC-E2/PC-MT/PC-5yy-xxxM	ADC-E2/PC-MT/PC-3yy-xxxM	ADC-E2/PC-MT/PC-4yy-xxxM
E2000/SC	ADC-E2/PC-SC/PC-5yy-xxxM	ADC-E2/PC-SC/PC-3yy-xxxM	ADC-E2/PC-SC/PC-4yy-xxxM
E2000/ST	ADC-E2/PC-ST/PC-5yy-xxxM	ADC-E2/PC-ST/PC-3yy-xxxM	ADC-E2/PC-ST/PC-4yy-xxxM
FC/FC	ADC-FC/PC-FC/PC-5yy-xxxM	ADC-FC/PC-FC/PC-3yy-xxxM	ADC-FC/PC-FC/PC-4yy-xxxM
FC/LC	ADC-FC/PC-LC/PC-5yy-xxxM	ADC-FC/PC-LC/PC-3yy-xxxM	ADC-FC/PC-LC/PC-4yy-xxxM
FC/MTRJ	ADC-FC/PC-MT/PC-5yy-xxxM	ADC-FC/PC-MT/PC-3yy-xxxM	ADC-FC/PC-MT/PC-4yy-xxxM
FC/MU	ADC-FC/PC-MU/PC-5yy-xxxM	ADC-FC/PC-MU/PC-3yy-xxxM	ADC-FC/PC-MU/PC-4yy-xxxM
FC/SC	ADC-FC/PC-SC/PC-5yy-xxxM	ADC-FC/PC-SC/PC-3yy-xxxM	ADC-FC/PC-SC/PC-4yy-xxxM
LC/LC	ADC-LC/PC-LC/PC-5yy-xxxM	ADC-LC/PC-LC/PC-3yy-xxxM	ADC-LC/PC-LC/PC-4yy-xxxM
LC/MTRJ	ADC-LC/PC-MT/PC-5yy-xxxM	ADC-LC/PC-MT/PC-3yy-xxxM	ADC-LC/PC-MT/PC-4yy-xxxM
LC/MU	ADC-LC/PC-MU/PC-5yy-xxxM	ADC-LC/PC-MU/PC-3yy-xxxM	ADC-LC/PC-MU/PC-4yy-xxxM
LC/SC	ADC-LC/PC-SC/PC-5yy-xxxM	ADC-LC/PC-SC/PC-3yy-xxxM	ADC-LC/PC-SC/PC-4yy-xxxM
LC/ST	ADC-LC/PC-ST/PC-5yy-xxxM	ADC-LC/PC-ST/PC-3yy-xxxM	ADC-LC/PC-ST/PC-4yy-xxxM
MTRJ/MTRJ	ADC-MT/PC-MT/PC-5yy-xxxM	ADC-MT/PC-MT/PC-3yy-xxxM	ADC-MT/PC-MT/PC-4yy-xxxM
MTRJ/SC	ADC-MT/PC-SC/PC-5yy-xxxM	ADC-MT/PC-SC/PC-3yy-xxxM	ADC-MT/PC-SC/PC-4yy-xxxM
MTRJ/ST	ADC-MT/PC-ST/PC-5yy-xxxM	ADC-MT/PC-ST/PC-3yy-xxxM	ADC-MT/PC-ST/PC-4yy-xxxM
SC/SC	ADC-SC/PC-SC/PC-5yy-xxxM	ADC-SC/PC-SC/PC-3yy-xxxM	ADC-SC/PC-SC/PC-4yy-xxxM
SC/ST	ADC-SC/PC-ST/PC-5yy-xxxM	ADC-SC/PC-ST/PC-3yy-xxxM	ADC-SC/PC-ST/PC-4yy-xxxM
ST/ST	ADC-ST/PC-ST/PC-5yy-xxxM	ADC-ST/PC-ST/PC-3yy-xxxM	ADC-ST/PC-ST/PC-4yy-xxxM

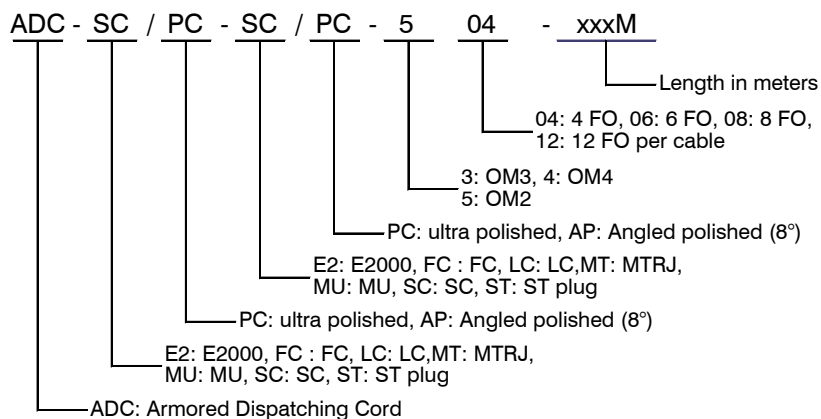
OPTIONS

Cable length: Replace "yy-xxxM", "yy" by number of fibers (04, 06, 08, 12) and "xxx" by length in meters (total cable length, including breakout cables)
 Examples: 12-020M = 12 fibers / 20 Meters
 04-100M = 4 fibers / 100 Meters

Breakout cable length (Branch cords): 1 meters (standard) – others on request

Colors: Main cable: black
 Break-out cables: Individual colors for easy identification

ORDERING CODE STRUCTURE



FIBER OPTIC CABLE ASSEMBLIES

Armored Dispatching Cords Singlemode

	OS2 9/125μm (PC/PC)	OS2-APC 9/125μm (APC/APC)	Mixed: OS2-APC & OS2 9/125μm (APC/APC)
E2000/E2000	ADC-E2/PC-E2/PC-9yy-xxxM	ADC-E2/AP-E2/AP-9yy-xxxM	ADC-E2/AP-E2/PC-9yy-xxxM
E2000/FC	ADC-E2/PC-FC/PC-9yy-xxxM	ADC-E2/AP-FC/AP-9yy-xxxM	ADC-E2/AP-FC/PC-9yy-xxxM
E2000/LC	ADC-E2/PC-LC/PC-9yy-xxxM		ADC-E2/AP-LC/PC-9yy-xxxM
E2000/SC	ADC-E2/PC-SC/PC-9yy-xxxM	ADC-E2/AP-SC/AP-9yy-xxxM	ADC-E2/AP-SC/PC-9yy-xxxM
E2000/ST	ADC-E2/PC-ST/PC-9yy-xxxM		ADC-E2/AP-ST/PC-9yy-xxxM
FC/FC	ADC-FC/PC-FC/PC-9yy-xxxM	ADC-FC/AP-FC/AP-9yy-xxxM	ADC-FC/AP-FC/PC-9yy-xxxM
FC/LC	ADC-FC/PC-LC/PC-9yy-xxxM		ADC-FC/AP-LC/PC-9yy-xxxM
FC/MU	ADC-FC/PC-MU/PC-9yy-xxxM		ADC-FC/AP-MU/PC-9yy-xxxM
FC/SC	ADC-FC/PC-SC/PC-9yy-xxxM	ADC-FC/AP-SC/AP-9yy-xxxM	ADC-FC/AP-SC/PC-9yy-xxxM
LC/LC	ADC-LC/PC-LC/PC-9yy-xxxM		
LC/MU	ADC-LC/PC-MU/PC-9yy-xxxM		
LC/SC	ADC-LC/PC-SC/PC-9yy-xxxM		ADC-LC/PC-SC/AP-9yy-xxxM
LC/ST	ADC-LC/PC-ST/PC-9yy-xxxM		
SC/SC	ADC-SC/PC-SC/PC-9yy-xxxM	ADC-SC/AP-SC/AP-9yy-xxxM	ADC-SC/AP-SC/PC-9yy-xxxM
SC/ST	ADC-SC/PC-ST/PC-9yy-xxxM		
ST/ST	ADC-ST/PC-ST/PC-9yy-xxxM		

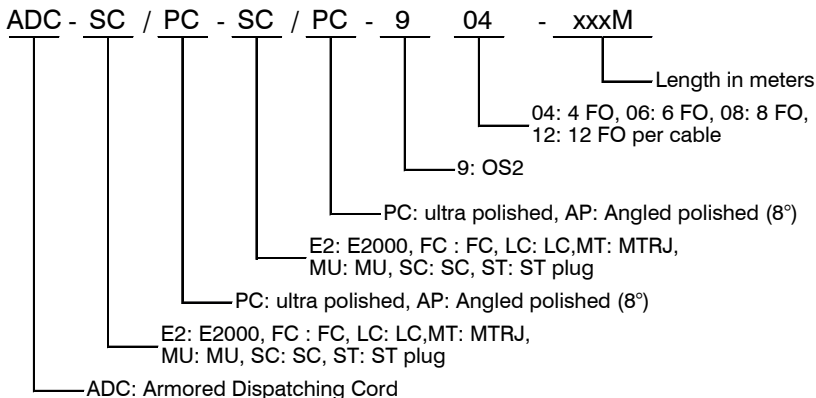
OPTIONS

Cable length: Replace "yy-xxxM", "yy" by number of fibers (04, 06, 08, 12) and "xxx" by length in meters (total cable length, including breakout cables)
 Examples: 12-020M = 12 fibers / 20 Meters
 04-100M = 4 fibers / 100 Meters

Breakout cable length (Branch cords): 1 meters (standard) – others on request

Colors: Main cable: black
 Break-out cables: Individual colors for easy identification

ORDERING CODE STRUCTURE



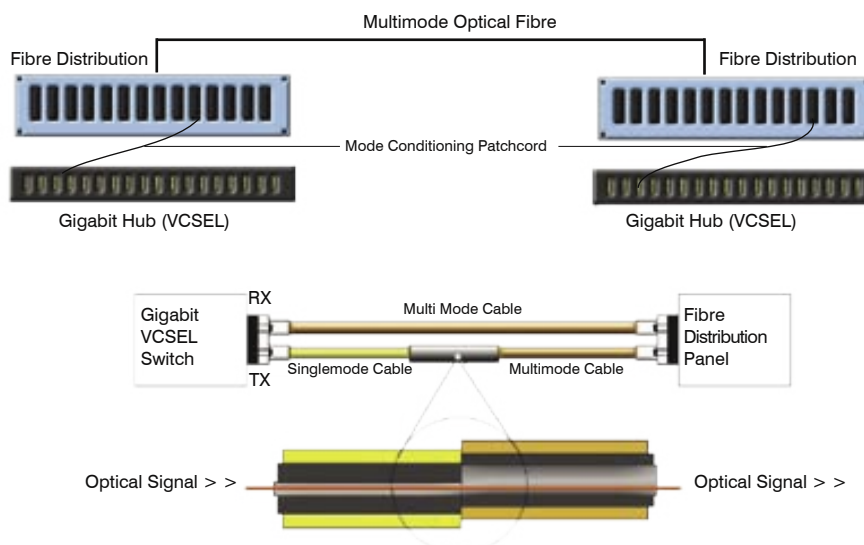
FIBER OPTIC CABLE ASSEMBLIES

Mode Conditioning Patch Cords

Multimode optical fiber cables which are linked to a laser based transmitter can be limited in bandwidth to values less than half of the over-filled launch bandwidth. The bandwidth is very low in the case of center launch and the E-tec Interconnect Ltd mode conditioning patch cords are designed to transmit your gigabit signals into conventional precision fusion spliced to the multimode fiber to a precise core alignment. The light is launched on to the multimode fiber at a precise angle, giving the cable its mode conditioning properties. The fusion splice of the mode conditioning cable assembly is protected by a black over-wrap and the yellow side of the cable connects to the transmit side of the gigabit equipment.



Mode conditioning cables are generally used when the link distances exceed 300 meters. The E-tec Interconnect Ltd mode conditioning cable assemblies allow long wave length signals at 1310 nm to be transmitted up to 550 meter distances. The Gigabit hubs (VCSEL) are used in gigabit ethernet applications, based on a singlemode launch condition and they operate over both singlemode and multimode fiber. Differential mode delay (DMD) occurs when the transmitter device launches a singlemode laser signal into the center of the multimode fiber, resulting in transmission of multiple signals. Such signals confuse the receiver with resultant limitations on the operating bandwidth and especially the drive distances of the gigabit ethernet. The E-tec Interconnect Ltd mode conditioning cables eliminate this differential mode delay by moving the singlemode launch to an offset position away from the center of the fiber where the impurities are found.



FIBER OPTIC CABLE ASSEMBLIES

Mode Conditioning Patch Cords

Equipment side MM/SM		Cable plant side MM/MM	OM2 50/125µm	OM3 50/125µm	OM4 enhanced 50/125µm
FC	to	FC	FMC-FC/PC-FC/PC-5D-xxxM	FMC-FC/PC-FC/PC-3D-xxxM	FMC-FC/PC-FC/PC-4D-xxxM
FC	to	LC	FMC-FC/PC-LC/PC-5C-xxxM	FMC-FC/PC-LC/PC-3C-xxxM	FMC-FC/PC-LC/PC-4C-xxxM
FC	to	SC	FMC-FC/PC-SC/PC-5D-xxxM	FMC-FC/PC-SC/PC-3D-xxxM	FMC-FC/PC-SC/PC-4D-xxxM
FC	to	ST	FMC-FC/PC-ST/PC-5D-xxxM	FMC-FC/PC-ST/PC-3D-xxxM	FMC-FC/PC-ST/PC-4D-xxxM
LC	to	FC	FMC-LC/PC-FC/PC-5C-xxxM	FMC-LC/PC-FC/PC-3C-xxxM	FMC-LC/PC-FC/PC-4C-xxxM
LC	to	LC	FMC-LC/PC-LC/PC-5C-xxxM	FMC-LC/PC-LC/PC-3C-xxxM	FMC-LC/PC-LC/PC-4C-xxxM
LC	to	SC	FMC-LC/PC-SC/PC-5C-xxxM	FMC-LC/PC-SC/PC-3C-xxxM	FMC-LC/PC-SC/PC-4C-xxxM
LC	to	ST	FMC-LC/PC-ST/PC-5C-xxxM	FMC-LC/PC-ST/PC-3C-xxxM	FMC-LC/PC-ST/PC-4C-xxxM
SC	to	LC	FMC-SC/PC-LC/PC-5C-xxxM	FMC-SC/PC-LC/PC-3C-xxxM	FMC-SC/PC-LC/PC-4C-xxxM
SC	to	SC	FMC-SC/PC-SC/PC-5D-xxxM	FMC-SC/PC-SC/PC-3D-xxxM	FMC-SC/PC-SC/PC-4D-xxxM
SC	to	ST	FMC-SC/PC-ST/PC-5D-xxxM	FMC-SC/PC-ST/PC-3D-xxxM	FMC-SC/PC-ST/PC-4D-xxxM
ST	to	FC	FMC-ST/PC-FC/PC-5D-xxxM	FMC-ST/PC-FC/PC-3D-xxxM	FMC-ST/PC-FC/PC-4D-xxxM
ST	to	LC	FMC-ST/PC-LC/PC-5C-xxxM	FMC-ST/PC-LC/PC-3C-xxxM	FMC-ST/PC-LC/PC-4C-xxxM
ST	to	SC	FMC-ST/PC-SC/PC-5D-xxxM	FMC-ST/PC-SC/PC-3D-xxxM	FMC-ST/PC-SC/PC-4D-xxxM
ST	to	ST	FMC-ST/PC-ST/PC-5D-xxxM	FMC-ST/PC-ST/PC-3D-xxxM	FMC-ST/PC-ST/PC-4D-xxxM

OPTIONS

Cable length: Replace "xx.xM" by cable length in meter
Examples: 25.0M = 25 Meters

ORDERING CODE STRUCTURE

FMC - SC / PC - SC / PC - 5 D - xx.xM

Length in meters

LC: always with clip,
C: clip on LC & SC connectors,
A: without clip on one side only
(clip on LC or SC connector)
D: without clip on both sides

5: OM2 50/125
3: OM3 50/125
4: OM4 enhanced 50/125

PC: ultra polished, AP: Angled polished (8°)

Cable plant side:
FC: FC, LC: LC, SC: SC, ST: ST plug

PC: ultra polished, AP: Angled polished (8°)

Equipment side:
FC: FC, LC: LC, SC: SC, ST: ST

FMC: Fiber Mode Conditioning patch cord

TRANSCEIVER

Gigabit Transceivers

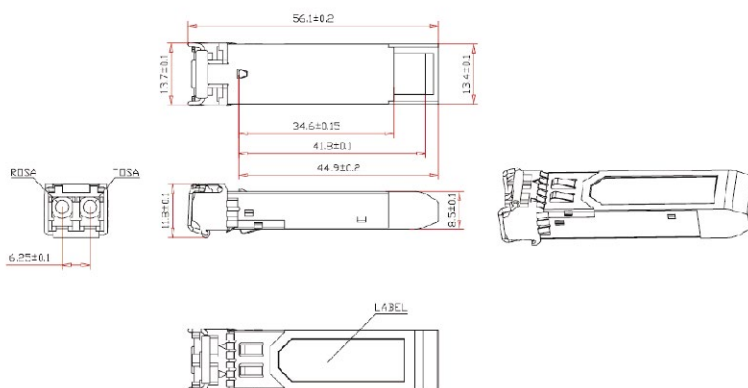
E-tec Interconnect Ltd offers a comprehensive range of Gigabit interface converters (GBIC) compatible with Cisco, 3com, HP, Alcatel, etc., commonly used with Gigabit Ethernet for copper and fiber channel. The GBIC is a hot swappable electrical interface and the long-wavelength SFP transceivers are compatible with the Small Form Factor Multi-Sourcing Agreement (MSA) and comply with the IEEE standards for Gigabit Ethernet applications.



The following Gigabit long-wave SFP Transceiver are available as standard products from E-tec Interconnect Ltd and any other types are available on request:

Ordering Code	Transceiver description
GBIC-GLC-T -SFP	1000Base T (RJ45/100m/ Cat5e) transceiver for CISCO
GBIC-GLC-SX-MM-SFP	1000Base SX (LC/550m/850nm/Multimode) transceiver for CISCO
GBIC-GLC-LH-SM-SFP	1000Base LX (LC/10km/1310nm/singlemode) transceiver for CISCO
GBIC-GLC-ZX-SM-SFP	1000Base ZX (LC/70km/1550nm/singlemode) transceiver for CISCO

General SFP dimensions



Product features

- Up to 1.25Gb/s bi-directional data links (all others on request)
- Hot pluggable SFP footprint
- 850nm, 1310 & 1550 nm Fabry-Perot laser transmitter
- Duplex LC connector
- Very low jitter
- No Rate Select input required for Fiber Channel 1x/2x Operation
- Up to 70 km on 9/125µm SM fiber (depending on GBIC type)
- Metal enclosure for lower EMI
- Single 3.3V power supply
- Low power dissipation <700mW typical
- CWDM is also available

Applications

- Gigabit Ethernet
- 1x Fiber or 1x copper channel
- Switch to Switch interface
- Switched backplane applications
- Router/Server interface
- Other optical transmission systems

TRANSCEIVER

Gigabit Transceivers

Technical Specifications

1. Absolute Maximum Ratings

Parameter	Symbol	Min	Typ	Max	Unit	Note
Maximum Supply Voltage	Vcc	0.5		4.5	V	
Storage Temperature	TS	-40		100	°C	
Case Operating Temperature	TOP	-40		85	°C	
Relative Humidity	RH	0		85	%	1

2. Electrical Characteristics (TOP = -40°C to +85°C, VCC 3V to 3.60V)

Parameter	Symbol	Min	Typ	Max	Unit	Note
Supply Voltage	Vcc	3		3.6	V	
Supply Current	Icc		200	300	mA	
Transmitter						
Input differential impedance	Rin		100		Ω	2
Single ended data input swing	Vin,pp	250		1200	mV	
Transmit Disable Voltage	VD	Vcc – 1.3		Vcc	V	
Transmit Enable Voltage	VEN	Vee		Vee+ 0.8	V	3
Transmit Disable Assert Time				10	us	
Receiver						
Single ended data output swing	Vout,pp	300	400	800	mV	4
Data output rise time	tr		100	175	ps	5
Data output fall time	tf		100	175	ps	5
LOS Fault	VLOS fault	Vcc – 0.5		VccHOST	V	6
LOS Normal	VLOS	norm Vee		Vee+0.5	V	6
Power Supply Rejection	PSR	100			mVpp	7
Deterministic Jitter Contribution	RX Δ DJ			51.7	ps	8
Total Jitter Contribution	RX Δ TJ			122.4	ps	

Notes:

1. Non condensing.
2. AC coupled.
3. Or open circuit.
4. Into 100 ohm differential termination.
5. 20 – 80 %
6. LOS is LVTTTL. Logic 0 indicates normal operation; logic 1 indicates no signal detected.
7. All transceiver specifications are compliant with a power supply sinusoidal modulation of 20 Hz to 1.5 MHz up to specified value applied through the power supply filtering network shown on page 23 of the Small Form-factor Pluggable (SFP) Transceiver MultiSource Agreement (MSA), September 14, 2000.
8. Measured with DJ-free data input signal. In actual application, output DJ will be the sum of input DJ and DJ and Δ DJ.

TRANSCEIVER

Gigabit Transceivers

3. Optical Characteristics (TOP = 0°C to +70°C, VCC 3V to 3.60V)

Parameter	Symbol	Min	Typ	Max	Unit	Note
Transmitter						
Output Opt. Power	POUT	-8		0	dBm	1
Optical Wavelength	λ	1270	1310	1360	nm	2
Spectral Width	σ			3	nm	2
Optical Modulation Amplitude	OMA	174			μ W	2,3
Optical Rise/Fall Time	tr/ tf		100	160	ps	4
RIN				-120	dB/Hz	
Deterministic Jitter Contribution	TX Δ DJ		20	56.5	ps	5
Total Jitter Contribution	TX Δ TJ		70	119	ps	
Optical Extinction Ratio	ER	9			dB	
Receiver						
Average Rx Sensitivity @ 2.125 Gb/s (2X Fiber Channel)	RSENS1			-21	dBm	6, 7
Average Rx Sensitivity @ 1.25 Gb/s (Gigabit Ethernet)	RSENS2			-22	dBm	6, 7
Average Rx Sensitivity @ 1.06 Gb/s (1X Fiber Channel)	RSENS1			-22	dBm	6, 7
Stressed RX sens. = 1.25 Gb/s			-18	-14.5	dBm	
Average Received Power	RxMAX			0	dBm	
Receiver Elec. 3 dB cutoff freq.				1500	MHz	
Optical Center Wavelength	λ C	1265		1600	nm	
Return Loss		12			dB	
LOS De-Assert	LOSD		-23	-19	dBm	
LOS Assert	LOSA	-30	-25		dBm	
LOS Hysteresis		0.5			dB	

Notes:

1. Class 1 Laser Safety per FDA/CDRH and EN (IEC) 60825 regulations.
2. Also specified to meet curves in FC-PI 13.0 Figures 18 and 19, which allow trade-off between wavelength, spectral width and OMA.
3. Equivalent extinction ratio specification for Fiber Channel. Allows smaller ER at higher average power.
4. Unfiltered, 20-80%. Complies with IEEE 802.3 (Gig. E), FC 1x and 2x eye masks when filtered.
5. Measured with DJ-free data iMeasured with DJ-free data ion, output DJ will be the sum of input DJ and Δ DJ.
6. Measured with conformance signals defined in FC-PI 13.0 specifications.
7. Measured with PRBS 27-1 at 10-12 BER.

FIBER OPTIC ACCESSORIES

Fiber Optic Attenuators

E-tec Interconnect Ltd singlemode attenuators are used in communication systems to reduce the optical power launched onto receivers. These high performance devices give accurate attenuation and they are designed to be plugged directly onto the ends of the fiber optical cable and inserted into the appropriate adapter.

These fiber optical attenuators are available in FC, LC, MU, SC, ST connector styles with PC and APC finish and for a wavelength operation of 1310nm (others on request).



Standard types:

Connector/Cable style

Order code :

FC/PC	FAT-05-FC/PC-1
FC/APC	FAT-05-FC/AP-1
LC/PC	FAT-05-LC/PC-1
MU/PC	FAT-05-MU/PC-1
SC/PC	FAT-05-SC/PC-1
SC/APC	FAT-05-SC/AP-1

ORDERING CODE STRUCTURE

FAT - 05 - SC / PC - 1

1: 1310nm, 2: 1550nm,
3: 1310nm and 1550nm

PC: ultra polished, AP: Angled polished (8°)

E2: E2000, FC : FC, LC: LC
SC: SC, ST: ST plug

05: -5dB, 10: -10db

FAT: Fiber optic Attenuator

Features:

- Plug-in type
- Ultra low back reflection
- Accurate attenuation
- RoHS compliant

Specifications:

Available attenuation:

Attenuation tolerance:

Return Loss:

Operating wavelength:

Temperature range:

Applications:

- Telecommunications Networks
- CATV
- FTTX
- LAN and WAN
- Test & Measurement

1.0 to 30 dB with 1.0dB increments

up to 5dB = +/- 0.5dB / as of 5dB

= +/- 10% of nominal value

PC (ultra polished style) >55dB

/ APC (angled polished style) >60dB

1310nm (others on request)

-40°C to +85°C

FIBER OPTIC ACCESSORIES

Fiber Optic Adapters

The fiber optic adapters are used to mate two connectors together within a distribution panel or wall box. The E-tec Interconnect Ltd fiber optic adapters are precision made to ensure perfect alignment of the connections in order to keep the insertion loss to a minimum. Phosphor bronze sleeves are for general use and the ceramic versions are generally used in singlemode low loss environments. The MTRJ and MPO connectors incorporate two small alignment pins, so that the fiber optic adapter for these two versions simply supports and locks the connectors together.

E2000



Multimode Simplex
Beige color
FAD-E2/PC-E2/PC-MS-F



Singlemode Simplex
Blue color
FAD-E2/PC-E2/PC-SS-F



Singlemode APC Simplex
Green color
FAD-E2/AP-E2/AP-SS-F

FC



Multimode Simplex
Black cap
FAD-FC/PC-FC/PC-MS-D



Singlemode Simplex
Yellow cap
FAD-FC/PC-FC/PC-SS-D



Singlemode APC Simplex
Green cap
FAD-FC/AP-FC/AP-SS-D

LC



Multimode Duplex
Beige color
FAD-LC/PC-LC/PC-MD-F



Singlemode Duplex
Blue color
FAD-LC/PC-LC/PC-SD-F



Singlemode APC Duplex
Green color
FAD-LC/AP-LC/AP-SD-F



Quad Multimode
Beige color
FAD-LC/PC-LC/PC-MQ-F



Quad Singlemode
Blue color
FAD-LC/PC-LC/PC-SQ-F

MTRJ & MPO



Multimode MTRJ Duplex
Black color
FAD-MT/PC-MT/PC-MD-F



Multimode MPO Simplex PC
Black color
FAD-MP/PC-MP/PC-MS-F



Singlemode MPO Simplex APC
Black color
FAD-MP/AP-MP/AP-SS-F

MU



Singlemode
Metal color
FAD-MU/PC-MU/PC-SD-F

FIBER OPTIC ACCESSORIES

Fiber Optic Adapters

SC



Multimode Simplex
Beige color
FAD-SC/PC-SC/PC-MS-F



Singlemode Simplex
Blue color
FAD-SC/PC-SC/PC-SS-F



Singlemode APC Simplex
Green color
FAD-SC/AP-SC/AP-SS-F



Multimode Duplex
Beige color
FAD-SC/PC-SC/PC-MD-F



Singlemode Duplex
Blue color
FAD-SC/PC-SC/PC-SD-F



Singlemode APC Duplex
Green color
FAD-SC/AP-SC/AP-SD-F

ST



Multimode Simplex
Black cap
FAD-ST/PC-ST/PC-MS-D



Singlemode Simplex
Yellow cap
FAD-ST/PC-ST/PC-SS-D

Hybrid



SC-ST Multimode Duplex
Beige color
FAD-SC/PC-ST/PC-MD-F



SC-ST Singlemode Duplex
Blue color
FAD-SC/PC-ST/PC-SD-F



SC-FC Singlemode Simplex
Blue color
FAD-SC/PC-FC/PC-SS-F

Keystone Jack adapters



Blank type
White color
FAD-KT-BK-W



LC Duplex/SC type (square)
White color
FAD-KT-SC-W

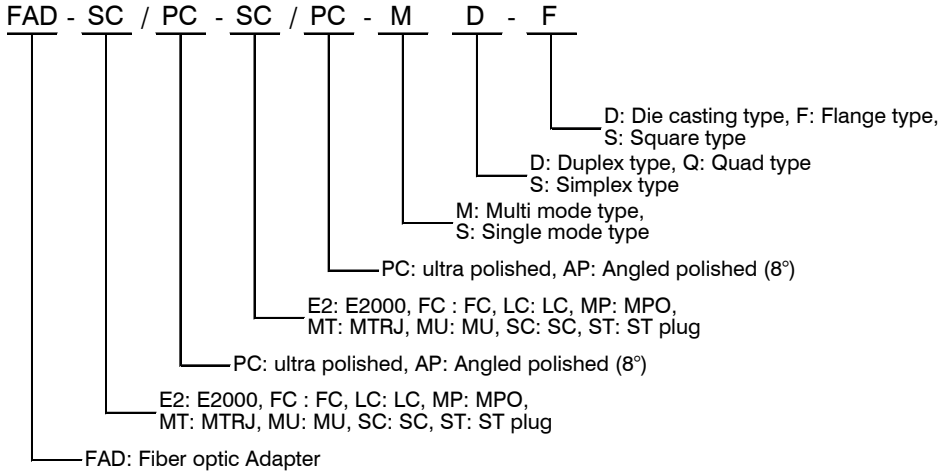


ST type (round)
White color
FAD-KT-ST-W

FIBER OPTIC ACCESSORIES

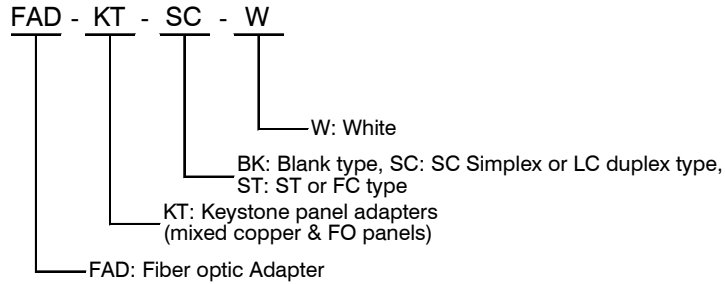
Fiber Optic Adapters

ORDERING CODE STRUCTURE



Keystone Jack Adapters

ORDERING CODE STRUCTURE



FIBER OPTIC PATCH PANELS

Description Sliding Patch Panels

E-Tec Interconnect Ltd offers an innovative, robust 1U sliding patch panel. This panel has been designed to accept up to 48 fibres housed within a 1U space.

With the ability to use a full array of Adaptor types offering a flexible solution to the end user, enabling them to incorporate a multi functional panel which allow easy access during installation or re-work with no disturbance of the existing cable or fibres.

In the addition to the array of adaptors the panel also offers multiple cable entry solutions, up to 4 standard cable entry points for, loose tube, tight buffer, pre terminated and steel tape armoured cable.

Each panels has integrated strength member tie positions also with the additional removable plate at the rear of the panel allows the installation of steel tape armored cable.



Features / Benefits

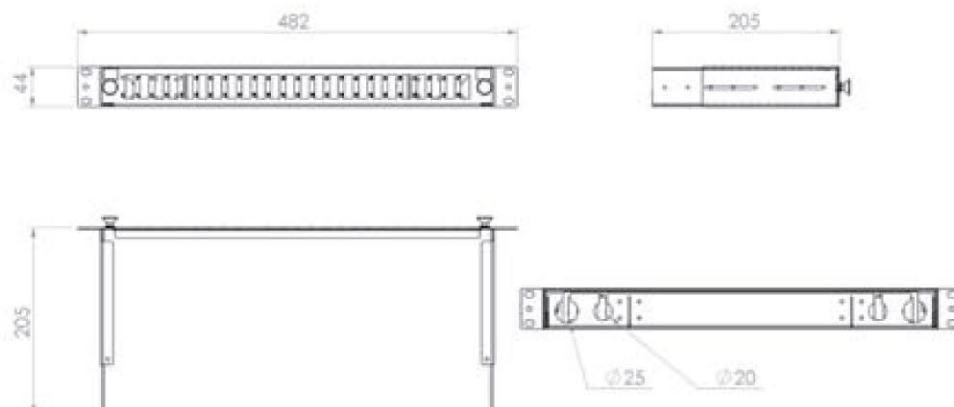
- Up to 48 fibres in 1U
- Multiple Adaptor options available
- 24 Adaptor positions
- Individually labelled ports
- 45° open working angle
- Accepts loose tube, distribution and pre terminated cables
- ROHS, REACH SvHC and UL rated
- Fits standard 19"

Applications

- Data centres, premise instalations, telecommunication networks
- Ethernet, fibre Channel, ATM, LAN, MAN, and WAN
- Data communication
- Indoor applications

Technical Specification

Element	Characteristic
U Size	1U (44.4mm)
Width	482mm
Depth	205mm
Net weight	2.5 kgs
Packaged weight	3 kgs
Packaged dimensions	450mm W X 55mm H x 260mm D
IP rating	IP20
Suitable for Adaptor type	SC Duplex
Number of ports	24
Cable Entry 20mm	2
Cable entry 25mm	2
Mounting Adjustment range	50mm
Material	Cold- rolled steel
Material thickness	1.2mm
Material coating	Powder coating
Colour	RAL 9004
Operating temperature	-40°c to +50°c
Designed in accordance with	TIA/EIA 568.C, ISO/IEC 11801, EN50173, IEC60304, IEC61754, EN297-1
Compliant to	RoHS, Reach/SVHC



FIBER OPTIC PATCH PANELS

Sliding Patch Panels

FC, ST Patch Panels (Sliding tray style)

24-port



Order Code (empty 24-port patch panel): **SPP-24-N-FC/ST-ME-B**

	With	FC Multimode – 24 Port	FC Singlemode – 24 Port
	4 adapters	SPP-24-N-FC/PC-MS-ME-04-B	SPP-24-N-FC/PC-SS-ME-04-B
	8 adapters	SPP-24-N-FC/PC-MS-ME-08-B	SPP-24-N-FC/PC-SS-ME-08-B
	12 adapters	SPP-24-N-FC/PC-MS-ME-12-B	SPP-24-N-FC/PC-SS-ME-12-B
	16 adapters	SPP-24-N-FC/PC-MS-ME-16-B	SPP-24-N-FC/PC-SS-ME-16-B
	fully loaded	SPP-24-N-FC/PC-MS-ME-24-B	SPP-24-N-FC/PC-SS-ME-24-B
	Adapters only	FAD-FC/PC-FC/PC-MS-D	FAD-FC/PC-FC/PC-SS-D
Adapters	With	FC APC Singlemode – 24 Port	
	4 adapters	SPP-24-N-FC/AP-SS-ME-04-B	
	8 adapters	SPP-24-N-FC/AP-SS-ME-08-B	
	12 adapters	SPP-24-N-FC/AP-SS-ME-12-B	
	16 adapters	SPP-24-N-FC/AP-SS-ME-16-B	
	fully loaded	SPP-24-N-FC/AP-SS-ME-24-B	
	Adapters only	FAD-FC/AP-FC/AP-SS-D	
Adapters	With	ST Multimode – 24 Port	ST Singlemode – 24 Port
	4 adapters	SPP-24-N-ST/PC-MS-ME-04-B	SPP-24-N-ST/PC-SS-ME-04-B
	8 adapters	SPP-24-N-ST/PC-MS-ME-08-B	SPP-24-N-ST/PC-SS-ME-08-B
	12 adapters	SPP-24-N-ST/PC-MS-ME-12-B	SPP-24-N-ST/PC-SS-ME-12-B
	16 adapters	SPP-24-N-ST/PC-MS-ME-16-B	SPP-24-N-ST/PC-SS-ME-16-B
	fully loaded	SPP-24-N-ST/PC-MS-ME-24-B	SPP-24-N-ST/PC-SS-ME-24-B
	Adapters only	FAD-ST/PC-ST/PC-MS-D	FAD-ST/PC-ST/PC-SS-D

See Cable Management Accessories for further options

FIBER OPTIC PATCH PANELS

Sliding Patch Panels

E2000, LC, MTRJ Patch Panels

(Sliding tray style – vertical adapter position)



24-port

Order Code (empty 24-port patch panel): **SPP-24-V-E2/LC/MT/SC-ME-B**

Adapters

With	E2000 Multimode – 24 Port	E2000 Singlemode – 24 Port
4 adapters	SPP-24-V-E2/PC-MS-ME-04-B	SPP-24-V-E2/PC-SS-ME-04-B
8 adapters	SPP-24-V-E2/PC-MS-ME-08-B	SPP-24-V-E2/PC-SS-ME-08-B
12 adapters	SPP-24-V-E2/PC-MS-ME-12-B	SPP-24-V-E2/PC-SS-ME-12-B
16 adapters	SPP-24-V-E2/PC-MS-ME-16-B	SPP-24-V-E2/PC-SS-ME-16-B
fully loaded	SPP-24-V-E2/PC-MS-ME-24-B	SPP-24-V-E2/PC-SS-ME-24-B
Adapters only	FAD-E2/PC-E2/PC-MS-F	FAD-E2/PC-E2/PC-SS-F
With	E2000 APC Singlemode - 24 Port	MTRJ – 24 Port
4 adapters	SPP-24-V-E2/AP-SS-ME-04-B	SPP-24-V-MT/PC-MD-ME-04-B
8 adapters	SPP-24-V-E2/AP-SS-ME-08-B	SPP-24-V-MT/PC-MD-ME-08-B
12 adapters	SPP-24-V-E2/AP-SS-ME-12-B	SPP-24-V-MT/PC-MD-ME-12-B
16 adapters	SPP-24-V-E2/AP-SS-ME-16-B	SPP-24-V-MT/PC-MD-ME-16-B
fully loaded	SPP-24-V-E2/AP-SS-ME-24-B	SPP-24-V-MT/PC-MD-ME-24-B
Adapters only	FAD-E2/AP-E2/AP-SS-F	FAD-MT/PC-MT/PC-MD-F
With	LC Multimode Duplex– 24 Port	LC Singlemode Duplex– 24 Port
4 adapters	SPP-24-V-LC/PC-MD-ME-04-B	SPP-24-V-LC/PC-SD-ME-04-B
8 adapters	SPP-24-V-LC/PC-MD-ME-08-B	SPP-24-V-LC/PC-SD-ME-08-B
12 adapters	SPP-24-V-LC/PC-MD-ME-12-B	SPP-24-V-LC/PC-SD-ME-12-B
16 adapters	SPP-24-V-LC/PC-MD-ME-16-B	SPP-24-V-LC/PC-SD-ME-16-B
fully loaded	SPP-24-V-LC/PC-MD-ME-24-B	SPP-24-V-LC/PC-SD-ME-24-B
Adapters only	FAD-LC/PC-LC/PC-MD-F	FAD-LC/PC-LC/PC-SD-F

See Cable Management Accessories for further options

FIBER OPTIC PATCH PANELS

Sliding Patch Panels

SC Patch Panels

(Sliding tray style – vertical adapter position)

24-port



Order Code (empty 24-port patch panel): **SPP-24-V-SC-ME-B**

With	SC Multimode Simplex – 24 Port	SC Singlemode Simplex– 24 Port
4 adapters	SPP-24-V-SC/PC-MS-ME-04-B	SPP-24-V-SC/PC-SS-ME-04-B
8 adapters	SPP-24-V-SC/PC-MS-ME-08-B	SPP-24-V-SC/PC-SS-ME-08-B
12 adapters	SPP-24-V-SC/PC-MS-ME-12-B	SPP-24-V-SC/PC-SS-ME-12-B
16 adapters	SPP-24-V-SC/PC-MS-ME-16-B	SPP-24-V-SC/PC-SS-ME-16-B
fully loaded	SPP-24-V-SC/PC-MS-ME-24-B	SPP-24-V-SC/PC-SS-ME-24-B
Adapters only	FAD-SC/PC-SC/PC-MS-F	FAD-SC/PC-SC/PC-SS-F

Adapters

With	SC Singlemode APC Simplex– 24 Port
4 adapters	SPP-24-V-SC/AP-SS-ME-04-B
8 adapters	SPP-24-V-SC/AP-SS-ME-08-B
12 adapters	SPP-24-V-SC/AP-SS-ME-12-B
16 adapters	SPP-24-V-SC/AP-SS-ME-16-B
fully loaded	SPP-24-V-SC/AP-SS-ME-24-B
Adapters only	FAD-SC/AP-SC/AP-SS-F

See Cable Management Accessories for further options

FIBER OPTIC PATCH PANELS

Sliding Patch Panels

LC-Quad & SC Duplex Patch Panels
(Sliding tray style – horizontal adapter position)

8-port



Order Code (empty 8-port patch panel): **SPP-08-H-LCQ/SCD-ME-B**

	With	LC Quad Multimode – 8 Port	LC Quad Singlemode – 8 Port
	2 adapters	SPP-08-H-LC/PC-MQ-ME-02-B	SPP-08-H-LC/PC-SQ-ME-02-B
	4 adapters	SPP-08-H-LC/PC-MQ-ME-04-B	SPP-08-H-LC/PC-SQ-ME-04-B
	fully loaded	SPP-08-H-LC/PC-MQ-ME-08-B	SPP-08-H-LC/PC-SQ-ME-08-B
	Adapters only	FAD-LC/PC-LC/PC-MQ-F	FAD-LC/PC-LC/PC-SQ-F
	With	SC Multimode Duplex – 8 Port	SC Singlemode Duplex – 8 Port
Adapters	2 adapters	SPP-08-H-SC/PC-MD-ME-02-B	SPP-08-H-SC/PC-SD-ME-02-B
	4 adapters	SPP-08-H-SC/PC-MD-ME-04-B	SPP-08-H-SC/PC-SD-ME-04-B
	fully loaded	SPP-08-H-SC/PC-MD-ME-08-B	SPP-08-H-SC/PC-SD-ME-08-B
	Adapters only	FAD-SC/PC-SC/PC-MD-F	FAD-SC/PC-SC/PC-SD-F
		With	SC APC Singlemode Duplex – 8 Port
	2 adapters	SPP-08-H-SC/AP-SD-ME-02-B	
	4 adapters	SPP-08-H-SC/AP-SD-ME-04-B	
	fully loaded	SPP-08-H-SC/AP-SD-ME-08-B	
	Adapters only	FAD-SC/AP-SC/AP-SD-F	

See Cable Management Accessories for further options

FIBER OPTIC PATCH PANELS

Sliding Patch Panels

LC-Quad & SC Duplex Patch Panels
(Sliding tray style – vertical adapter position)

12-port



Order Code (empty 12-port patch panel): **SPP-12-V-LCQ/SCD-ME-B**

	With	LC Quad Multimode – 12 Port	LC Quad Singlemode – 12 Port
	4 adapters	SPP-12-V-LC/PC-MQ-ME-04-B	SPP-12-V-LC/PC-SQ-ME-04-B
	8 adapters	SPP-12-V-LC/PC-MQ-ME-08-B	SPP-12-V-LC/PC-SQ-ME-08-B
	fully loaded	SPP-12-V-LC/PC-MQ-ME-12-B	SPP-12-V-LC/PC-SQ-ME-12-B
	Adapters only	FAD-LC/PC-LC/PC-MQ-F	FAD-LC/PC-LC/PC-SQ-F
	With	SC Multimode Duplex – 12 Port	SC Singlemode Duplex – 12 Port
Adapters	4 adapters	SPP-12-V-SC/PC-MD-ME-04-B	SPP-12-V-SC/PC-SD-ME-04-B
	8 adapters	SPP-12-V-SC/PC-MD-ME-08-B	SPP-12-V-SC/PC-SD-ME-08-B
	fully loaded	SPP-12-V-SC/PC-MD-ME-12-B	SPP-12-V-SC/PC-SD-ME-12-B
	Adapters only	FAD-SC/PC-SC/PC-MD-F	FAD-SC/PC-SC/PC-SD-F
		With	SC APC Singlemode Duplex – 12 Port
	4 adapters	SPP-12-V-SC/AP-SD-ME-04-B	
	8 adapters	SPP-12-V-SC/AP-SD-ME-08-B	
	fully loaded	SPP-12-V-SC/AP-SD-ME-12-B	
	Adapters only	FAD-SC/AP-SC/AP-SD-F	

See Cable Management Accessories for further options

FIBER OPTIC PATCH PANELS

Sliding Patch Panels

LC-Quad & SC Duplex Patch Panels
(Sliding tray style – vertical adapter position)

24-port



Order Code (empty 24-port patch panel): **SPP-24-V-LCQ/SCD-ME-B**

Adapters

With	LC Quad Multimode – 24 Port	LC Quad Singlemode – 24 Port
4 adapters	SPP-24-V-LC/PC-MQ-ME-04-B	SPP-24-V-LC/PC-SQ-ME-04-B
8 adapters	SPP-24-V-LC/PC-MQ-ME-08-B	SPP-24-V-LC/PC-SQ-ME-08-B
12 adapters	SPP-24-V-LC/PC-MQ-ME-12-B	SPP-24-V-LC/PC-SQ-ME-12-B
16 adapters	SPP-24-V-LC/PC-MQ-ME-16-B	SPP-24-V-LC/PC-SQ-ME-16-B
fully loaded	SPP-24-V-LC/PC-MQ-ME-24-B	SPP-24-V-LC/PC-SQ-ME-24-B
Adapters only	FAD-LC/PC-LC/PC-MQ-F	FAD-LC/PC-LC/PC-SQ-F
With	SC Multimode Duplex – 24 Port	SC Singlemode Duplex – 24 Port
4 adapters	SPP-24-V-SC/PC-MD-ME-04-B	SPP-24-V-SC/PC-SD-ME-04-B
8 adapters	SPP-24-V-SC/PC-MD-ME-08-B	SPP-24-V-SC/PC-SD-ME-08-B
12 adapters	SPP-24-V-SC/PC-MD-ME-12-B	SPP-24-V-SC/PC-SD-ME-12-B
16 adapters	SPP-24-V-SC/PC-MD-ME-16-B	SPP-24-V-SC/PC-SD-ME-16-B
fully loaded	SPP-24-V-SC/PC-MD-ME-24-B	SPP-24-V-SC/PC-SD-ME-24-B
Adapters only	FAD-SC/PC-SC/PC-MD-F	FAD-SC/PC-SC/PC-SD-F
With	SC APC Singlemode Duplex – 24 Port	
4 adapters	SPP-24-V-SC/AP-SD-ME-04-B	
8 adapters	SPP-24-V-SC/AP-SD-ME-08-B	
12 adapters	SPP-24-V-SC/AP-SD-ME-12-B	
16 adapters	SPP-24-V-SC/AP-SD-ME-16-B	
fully loaded	SPP-24-V-SC/AP-SD-ME-24-B	
Adapters only	FAD-SC/AP-SC/AP-SD-F	

See Cable Management Accessories for further options

FIBER OPTIC PATCH PANELS

Sliding Patch Panels

E2000, LC, MTRJ, SC Patch Panels
(Sliding tray style – angled adapter position)

8-port



Order Code (empty 8-port patch panel): **SPP-08-A-E2/LC/MT/SC-ME-B**

With	E2000 Multimode – 8 Port	E2000 Singlemode – 8 Port
2 adapters	SPP-08-A-E2/PC-MS-ME-02-B	SPP-08-A-E2/PC-SS-ME-02-B
4 adapters	SPP-08-A-E2/PC-MS-ME-04-B	SPP-08-A-E2/PC-SS-ME-04-B
fully loaded	SPP-08-A-E2/PC-MS-ME-08-B	SPP-08-A-E2/PC-SS-ME-08-B
Adapters only	FAD-E2/PC-E2/PC-MS-F	FAD-E2/PC-E2/PC-SS-F
With	E2000 APC Singlemode - 8 Port	MTRJ – 8 Port
2 adapters	SPP-08-A-E2/AP-SS-ME-02-B	SPP-08-A-MT/PC-MD-ME-02-B
4 adapters	SPP-08-A-E2/AP-SS-ME-04-B	SPP-08-A-MT/PC-MD-ME-04-B
fully loaded	SPP-08-A-E2/AP-SS-ME-08-B	SPP-08-A-MT/PC-MD-ME-08-B
Adapters only	FAD-E2/AP-E2/AP-SS-F	FAD-MT/PC-MT/PC-MD-F
With	LC Multimode Duplex– 8 Port	LC Singlemode Duplex– 8 Port
2 adapters	SPP-08-A-LC/PC-MD-ME-02-B	SPP-08-A-LC/PC-SD-ME-02-B
4 adapters	SPP-08-A-LC/PC-MD-ME-04-B	SPP-08-A-LC/PC-SD-ME-04-B
fully loaded	SPP-08-A-LC/PC-MD-ME-08-B	SPP-08-A-LC/PC-SD-ME-08-B
Adapters only	FAD-LC/PC-LC/PC-MD-F	FAD-LC/PC-LC/PC-SD-F
With	SC Multimode Simplex-8 Port	SC Singlemode Simplex-8 Port
2 adapters	SPP-08-A-SC/PC-MS-ME-02-B	SPP-08-A-SC/PC-SS-ME-02-B
4 adapters	SPP-08-A-SC/PC-MS-ME-04-B	SPP-08-A-SC/PC-SS-ME-04-B
fully loaded	SPP-08-A-SC/PC-MS-ME-08-B	SPP-08-A-SC/PC-SS-ME-08-B
Adapters only	FAD-SC/PC-SC/PC-MS-F	FAD-SC/PC-SC/PC-SS-F
With	SC Singlemode APC Simplex– 8 Port	
2 adapters	SPP-08-A-SC/AP-SS-ME-02-B	
4 adapters	SPP-08-A-SC/AP-SS-ME-04-B	
fully loaded	SPP-08-A-SC/AP-SS-ME-08-B	
Adapters only	FAD-SC/AP-SC/AP-SS-F	

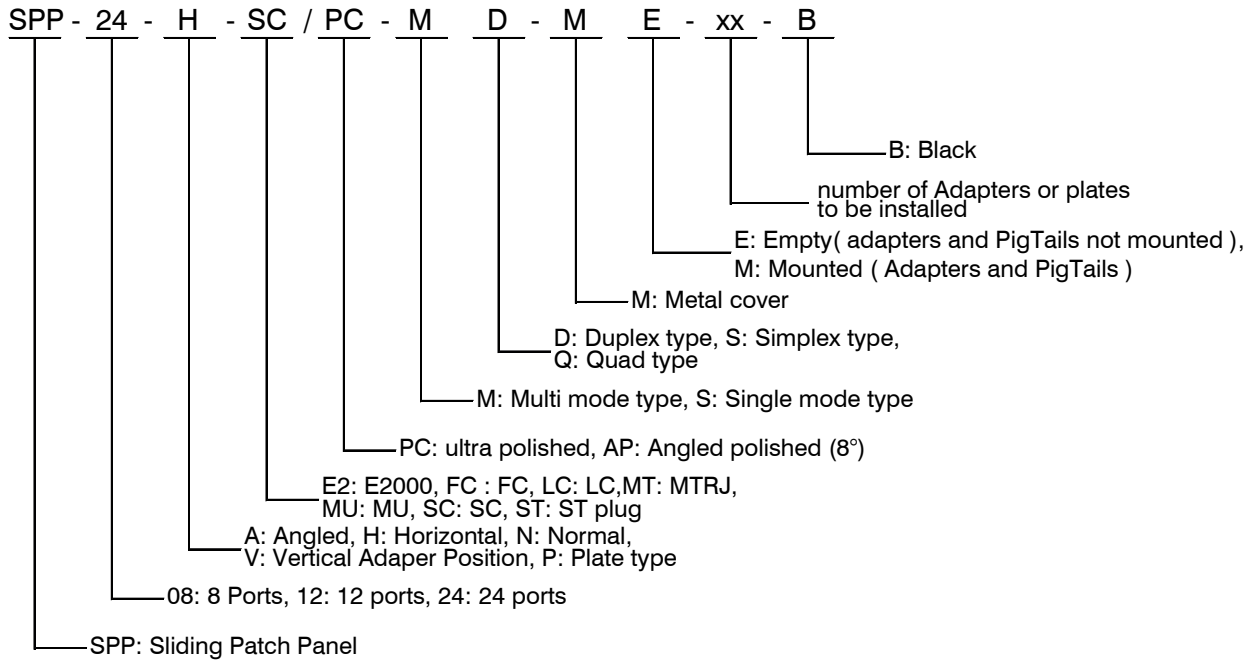
Adapters

See Cable Management Accessories for further options

FIBER OPTIC PATCH PANELS

Sliding Patch Panels

ORDERING CODE STRUCTURE



FIBER OPTIC PATCH PANELS

Sliding Patch Panels

Sliding Patch Modules (Sliding tray style)

3-Sliding Patch Module

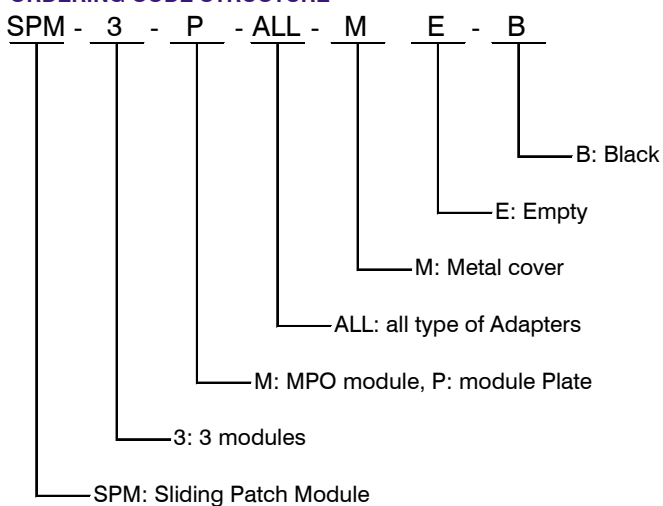
19" black sliding tray patch panel for 3 modules

Supports up to 36 SC connections with 3 MPO links or 72 LC/MTRJ connections with 6 MPO Links



SPM-3-P-ALL-ME-B

ORDERING CODE STRUCTURE



FIBER OPTIC PATCH PANELS

Sliding Patch Panels Module Patch Plate

E2000 Multimode – 8 Port



8 port adapter **MPP-08-V-E2/PC-MS**
Adapters only **FAD-E2/PC-E2/PC-MS-F**

E2000 Singlemode – 8 Port



8 port adapter **MPP-08-V-E2/PC-SS**
Adapters only **FAD-E2/PC-E2/PC-SS-F**

E2000 APC Singlemode – 8 Port



8 port adapter **MPP-08-V-E2/AP-SS**
Adapters only **FAD-E2/AP-E2/AP-SS-F**

MTRJ – 8 Port



8 port adapter **MPP-08-V-MT/PC-MD**
Adapters only **FAD-MT/PC-MT/PC-MD-F**

FC Multimode – 8 Port



8 port adapter **MPP-08-Z-FC/PC-MS**
Adapters only **FAD-FC/PC-FC/PC-MS-D**

FC Singlemode – 8 Port



8 port adapter **MPP-08-Z-FC/PC-SS**
Adapters only **FAD-FC/PC-FC/PC-SS-D**

FC APC Singlemode – 8 Port



8 port adapter **MPP-08-Z-FC/AP-SS**
Adapters only **FAD-FC/AP-FC/AP-SS-D**

LC Multimode Duplex – 8 Port



8 port adapter **MPP-08-V-LC/PC-MD**
Adapters only **FAD-LC/PC-LC/PC-MD-F**

LC Singlemode Duplex – 8 Port



8 port adapter **MPP-08-V-LC/PC-SD**
Adapters only **FAD-LC/PC-LC/PC-SD-F**

LC APC Singlemode Duplex – 8 Port



8 port adapter **MPP-08-V-LC/AP-SD**
Adapters only **FAD-LC/AP-LC/AP-SD-F**

FIBER OPTIC PATCH PANELS

Sliding Patch Panels Module Patch Plate

LC Quad Multimode– 6 Port



6 port adapter
Adapters only

MPP-06-V-LC/PC-MQ
FAD-LC/PC-LC/PC-MQ-F

LC Quad Singlemode – 6 Port



6 port adapter
Adapters only

MPP-06-V-LC/PC-SQ
FAD-LC/PC-LC/PC-SQ-F

SC Multimode Duplex – 6 Port



6 port adapter
Adapters only

MPP-06-H-SC/PC-MD
FAD-SC/PC-SC/PC-MD-F

SC Singlemode Duplex – 6 Port



6 port adapter
Adapters only

MPP-06-H-SC/PC-SD
FAD-SC/PC-SC/PC-SD-F

SC Multimode Simplex – 8 Port



8 port adapter
Adapters only

MPP-08-V-SC/PC-MS
FAD-SC/PC-SC/PC-MS-F

SC Singlemode Simplex – 8 Port



8 port adapter
Adapters only

MPP-08-V-SC/PC-SS
FAD-SC/PC-SC/PC-SS-F

See Cable Management Accessories for further options

FIBER OPTIC PATCH PANELS

Sliding Patch Panels Module Patch Plate

SC APC Singlemode Simplex – 8 Port



8 port adapter
Adapters only

MPP-08-V-SC/AP-SS
FAD-SC/AP-SC/AP-SS-F

ST Multimode – 8 Port



8 port adapter
Adapters only

MPP-08-Z-ST/PC-MS
FAD-ST/PC-ST/PC-MS-D

ST Singlemode – 8 Port



8 port adapter
Adapters only

MPP-08-Z-ST/PC-SS
FAD-ST/PC-ST/PC-SS-D

Blank Plate



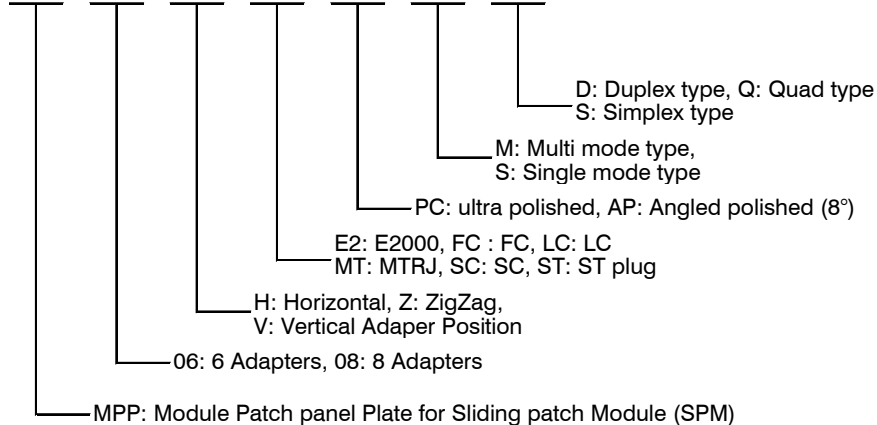
Blank cover plate

MPP-BLANK

See Cable Management Accessories for further options

ORDERING CODE STRUCTURE

MPP - 08 - V - SC / PC - M D



FIBER OPTIC PATCH PANELS

Universal Dual Plate Patch Panels

E2000, FC, LC Duplex, MTRJ, MU, SC Simplex, ST Patch Panels



12-port: **PLK-D-12-1U-0-M**

Blank patch panel only / black color
Adapters & jacks to be ordered separately

16-port: **PLK-D-16-1U-0-M**

Blank patch panel only / black color
Adapters & jacks to be ordered separately

Universal patch panel assembly examples:

12-port example:



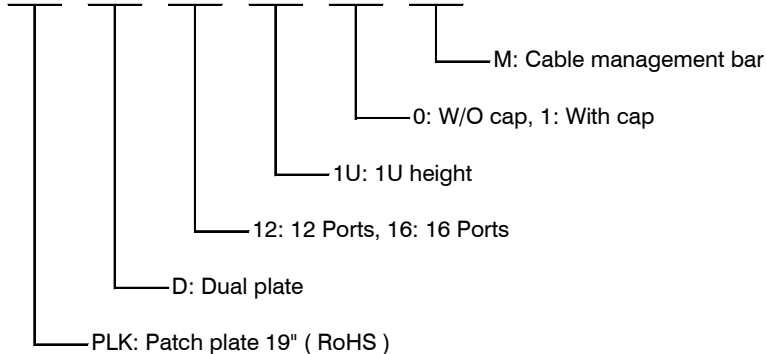
16-port example



The Universal Dual Plate Patch Panels are assembled first with the « Panel adapters » which allow to use this universal patch panel with the various types of fiber optic adapters

ORDERING CODE STRUCTURE

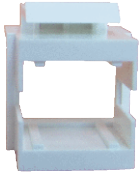
PLK - D - 12 - 1U - 0 - M



FIBER OPTIC PATCH PANEL ACCESSORIES

Universal Dual Plate Patch Panel Accessories

1. Panel adapters:



FAD-KT-SC-W

Square hole type

Panel adapter for

E2000 Simplex, LC Duplex

MTRJ, MU or SC Simplex

White Color



FAD-KT-ST-W

Round hole type

Panel adapter for

FC or ST

White Color



FAD-KT-BK-W

Blank type

Panel adapter to close

unused holes in patchpanel

White Color

2. Fiber Optic adapters



E2000

Multimode Simplex

Beige color

FAD-E2/PC-E2/PC-MS-F



Singlemode Simplex

Blue color

FAD-E2/PC-E2/PC-SS-F



Singlemode APC Simplex

Green color

FAD-E2/AP-E2/AP-SS-F



FC

Multimode Simplex

Black cap

FAD-FC/PC-FC/PC-MS-D



Singlemode Simplex

Yellow cap

FAD-FC/PC-FC/PC-SS-D



Singlemode APC Simplex

Green cap

FAD-FC/AP-FC/AP-SS-D



LC

Multimode Duplex

Beige color

FAD-LC/PC-LC/PC-MD-F



Singlemode Duplex

Blue color

FAD-LC/PC-LC/PC-SD-F



Singlemode APC Duplex

Green color

FAD-LC/AP-LC/AP-SD-F

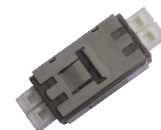
MTRJ & MU



Multimode MTRJ Duplex

Black color

FAD-MT/PC-MT/PC-MD-F



MU Singlemode

Blue color

FAD-MU/PC-MU/PC-SD-F

FIBER OPTIC PATCH PANEL ACCESSORIES

Universal Dual Plate Patch Panel Accessories



Multimode Simplex
Beige color
FAD-SC/PC-SC/PC-MS-F



Singlemode Simplex
Blue color
FAD-SC/PC-SC/PC-SS-F



Singlemode APC Simplex
Green color
FAD-SC/AP-SC/AP-SS-F

SC



Multimode Duplex
Beige color
FAD-SC/PC-SC/PC-MD-F



Singlemode Duplex
Blue color
FAD-SC/PC-SC/PC-SD-F



Singlemode APC Duplex
Green color
FAD-SC/AP-SC/AP-SD-F

ST



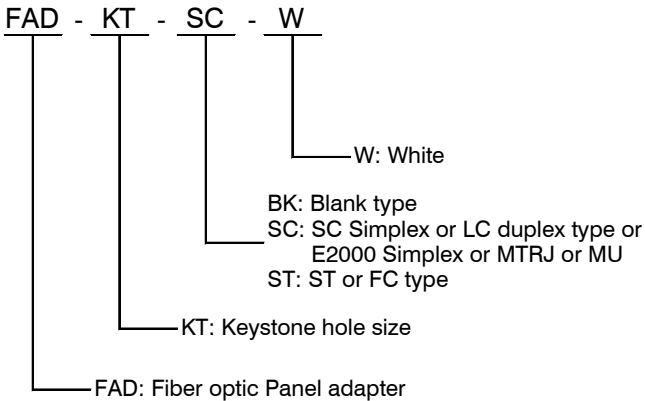
Multimode Simplex
Black cap
FAD-ST/PC-ST/PC-MS-D



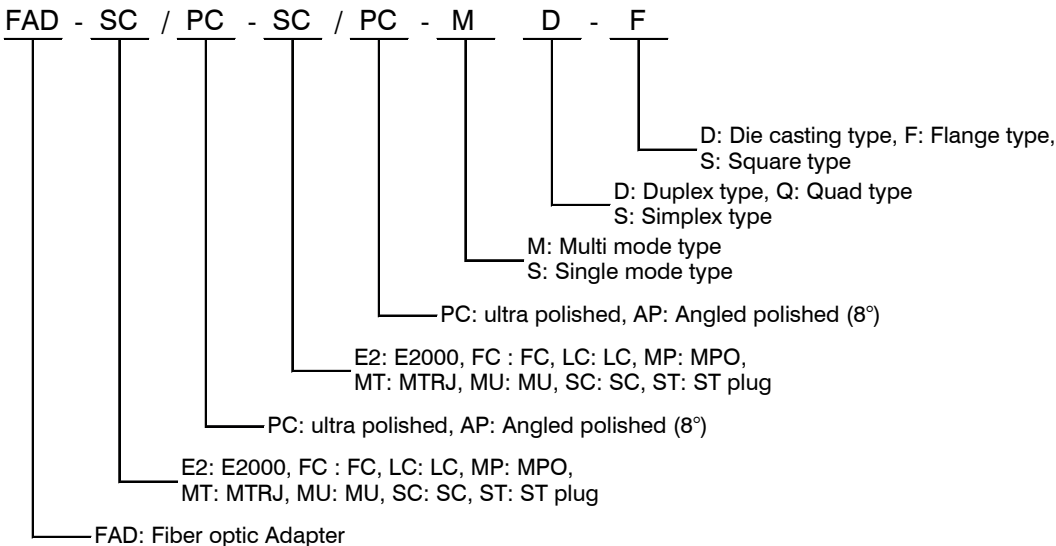
Singlemode Simplex
Yellow cap
FAD-ST/PC-ST/PC-SS-D

ORDERING CODE STRUCTURE

1. Panel Adapters



2. Fiber Optic Adapters

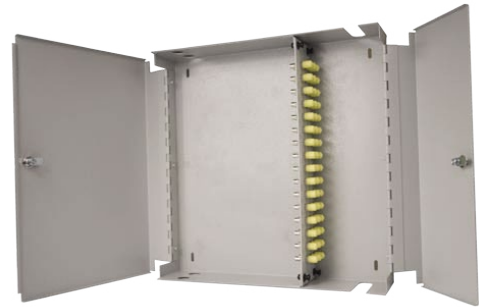


FIBER OPTIC WALL BOXES

Lockable Wall Boxes

FC, ST Wall boxes
(Lockable – Double door style)

48-port



Order Code (empty 48-port wall box): **LWB-48-D-FC/ST-ME-G**

	With	FC Multimode – 48 Port	FC Singlemode – 48 Port
	24 adapters	LWB-48-D-FC/PC-MS-ME-24-G	LWB-48-D-FC/PC-SS-ME-24-G
	36 adapters	LWB-48-D-FC/PC-MS-ME-36-G	LWB-48-D-FC/PC-SS-ME-36-G
	fully loaded	LWB-48-D-FC/PC-MS-ME-48-G	LWB-48-D-FC/PC-SS-ME-48-G
	Adapters only	FAD-FC/PC-FC/PC-MS-D	FAD-FC/PC-FC/PC-SS-D
	With	FC APC Singlemode – 48 Port	
Adapters	24 adapters	LWB-48-D-FC/AP-SS-ME-24-G	
	36 adapters	LWB-48-D-FC/AP-SS-ME-36-G	
	fully loaded	LWB-48-D-FC/AP-SS-ME-48-G	
	Adapters only	FAD-FC/AP-FC/AP-SS-D	
	With	ST Multimode – 48 Port	ST Singlemode – 48 Port
	24 adapters	LWB-48-D-ST/PC-MS-ME-24-G	LWB-48-D-ST/PC-SS-ME-24-G
	36 adapters	LWB-48-D-ST/PC-MS-ME-36-G	LWB-48-D-ST/PC-SS-ME-36-G
	fully loaded	LWB-48-D-ST/PC-MS-ME-48-G	LWB-48-D-ST/PC-SS-ME-48-G
	Adapters only	FAD-ST/PC-ST/PC-MS-D	FAD-ST/PC-ST/PC-SS-D

Specifications:

Dimensions: Width 355mm, Depth 90mm, Height 365mm
Weight: 4.0 kilos (fully loaded), Color: Grey, 4 x 20mm gland holes

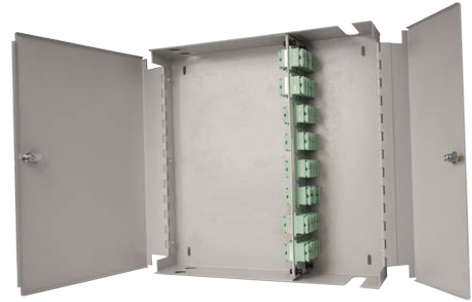
See Cable Management Accessories for further options

FIBER OPTIC WALL BOXES

Lockable Wall Boxes

LC Quad, SC Duplex Wall boxes
(Lockable – Double door style)

36-port



Order Code (empty 36-port wall box): **LWB-36-D-LCQ/SCD-ME-G**

	With	LC Quad Multimode – 36 Port	LC Quad Singlemode – 36 Port
	18 adapters	LWB-36-D-LC/PC-MQ-ME-18-G	LWB-36-D-LC/PC-SQ-ME-18-G
	24 adapters	LWB-36-D-LC/PC-MQ-ME-24-G	LWB-36-D-LC/PC-SQ-ME-24-G
	fully loaded	LWB-36-D-LC/PC-MQ-ME-36-G	LWB-36-D-LC/PC-SQ-ME-36-G
	Adapters only	FAD-LC/PC-LC/PC-MQ-F	FAD-LC/PC-LC/PC-SQ-F
	With	SC Multimode Duplex – 36 Port	SC Singlemode Duplex – 36 Port
Adapters	18 adapters	LWB-36-D-SC/PC-MD-ME-18-G	LWB-36-D-SC/PC-SD-ME-18-G
	24 adapters	LWB-36-D-SC/PC-MD-ME-24-G	LWB-36-D-SC/PC-SD-ME-24-G
	fully loaded	LWB-36-D-SC/PC-MD-ME-36-G	LWB-36-D-SC/PC-SD-ME-36-G
	Adapters only	FAD-SC/PC-SC/PC-MD-F	FAD-SC/PC-SC/PC-SD-F
		With	SC APC Singlemode Duplex – 36 Port
	18 adapters	LWB-36-D-SC/AP-SD-ME-18-G	
	24 adapters	LWB-36-D-SC/AP-SD-ME-24-G	
	fully loaded	LWB-36-D-SC/AP-SD-ME-36-G	
	Adapters only	FAD-SC/AP-SC/AP-SD-F	

Specifications:

Dimensions: Width 355mm, Depth 90mm, Height 365mm

Weight: 4.0 kilos (fully loaded), Color: Grey, 4 x 20mm gland holes

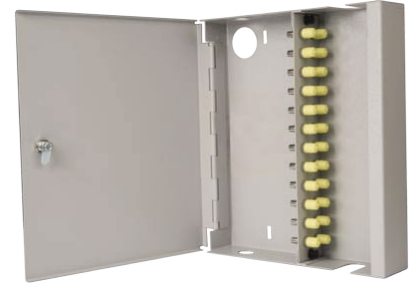
See Cable Management Accessories for further options

FIBER OPTIC WALL BOXES

Lockable Wall Boxes

FC, ST Wall boxes
(Lockable – Single door style)

24-port



Order Code (empty 24-port wall box): **LWB-24-S-FC/ST-ME-G**

	With	FC Multimode – 24 Port	FC Singlemode – 24 Port
	6 adapters	LWB-24-S-FC/PC-MS-ME-06-G	LWB-24-S-FC/PC-SS-ME-06-G
	12 adapters	LWB-24-S-FC/PC-MS-ME-12-G	LWB-24-S-FC/PC-SS-ME-12-G
	fully loaded	LWB-24-S-FC/PC-MS-ME-24-G	LWB-24-S-FC/PC-SS-ME-24-G
	Adapters only	FAD-FC/PC-FC/PC-MS-D	FAD-FC/PC-FC/PC-SS-D
	With	FC APC Singlemode – 24 Port	
Adapters	6 adapters	LWB-24-S-FC/AP-SS-ME-06-G	
	12 adapters	LWB-24-S-FC/AP-SS-ME-12-G	
	fully loaded	LWB-24-S-FC/AP-SS-ME-24-G	
	Adapters only	FAD-FC/AP-FC/AP-SS-D	
	With	ST Multimode – 24 Port	ST Singlemode – 24 Port
	6 adapters	LWB-24-S-ST/PC-MS-ME-06-G	LWB-24-S-ST/PC-SS-ME-06-G
	12 adapters	LWB-24-S-ST/PC-MS-ME-12-G	LWB-24-S-ST/PC-SS-ME-12-G
	fully loaded	LWB-24-S-ST/PC-MS-ME-24-G	LWB-24-S-ST/PC-SS-ME-24-G
	Adapters only	FAD-ST/PC-ST/PC-MS-D	FAD-ST/PC-ST/PC-SS-D

Specifications:

Dimensions: Width 225mm, Depth 50mm, Height 270mm
Weight: 2.0 kilos (fully loaded), Color: Grey, 2 x 20mm gland holes

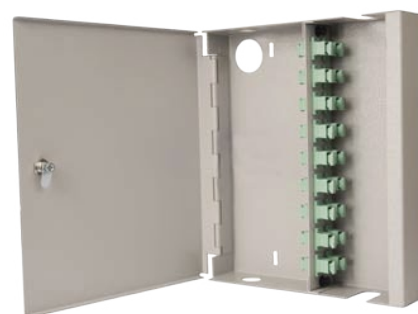
See Cable Management Accessories for further options

FIBER OPTIC WALL BOXES

Lockable Wall Boxes

E2000, LC, MTRJ, SC Wall boxes
(Lockable – Single door style)

18-port



Order Code (empty 18-port wall box): **LWB-18-S-E2/LC/MT/SC-ME-G**

	With	E2000 Multimode – 18 Port	E2000 Singlemode – 18 Port
	4 adapters	LWB-18-S-E2/PC-MS-ME-04-G	LWB-18-S-E2/PC-SS-ME-04-G
	6 adapters	LWB-18-S-E2/PC-MS-ME-06-G	LWB-18-S-E2/PC-SS-ME-06-G
	12 adapters	LWB-18-S-E2/PC-MS-ME-12-G	LWB-18-S-E2/PC-SS-ME-12-G
	fully loaded	LWB-18-S-E2/PC-MS-ME-18-G	LWB-18-S-E2/PC-SS-ME-18-G
	Adapters only	FAD-E2/PC-E2/PC-MS-F	FAD-E2/PC-E2/PC-SS-F
	With	E2000 APC Singlemode - 18 Port	MTRJ – 18 Port
	4 adapters	LWB-18-S-E2/AP-SS-ME-04-G	LWB-18-S-MT/PC-MD-ME-04-G
	6 adapters	LWB-18-S-E2/AP-SS-ME-06-G	LWB-18-S-MT/PC-MD-ME-06-G
	12 adapters	LWB-18-S-E2/AP-SS-ME-12-G	LWB-18-S-MT/PC-MD-ME-12-G
	fully loaded	LWB-18-S-E2/AP-SS-ME-18-G	LWB-18-S-MT/PC-MD-ME-18-G
	Adapters only	FAD-E2/AP-E2/AP-SS-F	FAD-MT/PC-MT/PC-MD-F
	With	LC Multimode Duplex– 18 Port	LC Singlemode Duplex– 18 Port
	4 adapters	LWB-18-S-LC/PC-MD-ME-04-G	LWB-18-S-LC/PC-SD-ME-04-G
	6 adapters	LWB-18-S-LC/PC-MD-ME-06-G	LWB-18-S-LC/PC-SD-ME-06-G
	12 adapters	LWB-18-S-LC/PC-MD-ME-12-G	LWB-18-S-LC/PC-SD-ME-12-G
	fully loaded	LWB-18-S-LC/PC-MD-ME-18-G	LWB-18-S-LC/PC-SD-ME-18-G
	Adapters only	FAD-LC/PC-LC/PC-MD-F	FAD-LC/PC-LC/PC-SD-F
	With	SC Multimode Simplex – 18 Port	SC Singlemode Simplex– 18 Port
	4 adapters	LWB-18-S-SC/PC-MS-ME-04-G	LWB-18-S-SC/PC-SS-ME-04-G
	6 adapters	LWB-18-S-SC/PC-MS-ME-06-G	LWB-18-S-SC/PC-SS-ME-06-G
	12 adapters	LWB-18-S-SC/PC-MS-ME-12-G	LWB-18-S-SC/PC-SS-ME-12-G
	fully loaded	LWB-18-S-SC/PC-MS-ME-18-G	LWB-18-S-SC/PC-SS-ME-18-G
	Adapters only	FAD-SC/PC-SC/PC-MS-F	FAD-SC/PC-SC/PC-SS-F
	With	SC Singlemode APC Simplex– 18 Port	
	4 adapters	LWB-18-S-SC/AP-SS-ME-04-G	
	6 adapters	LWB-18-S-SC/AP-SS-ME-06-G	
	12 adapters	LWB-18-S-SC/AP-SS-ME-12-G	
	fully loaded	LWB-18-S-SC/AP-SS-ME-18-G	
	Adapters only	FAD-SC/AP-SC/AP-SS-F	

Adapters

Specifications:

Dimensions: Width 225mm, Depth 50mm, Height 270mm

Weight: 2.0 kilos (fully loaded), Color: Grey, 2 x 20mm gland holes

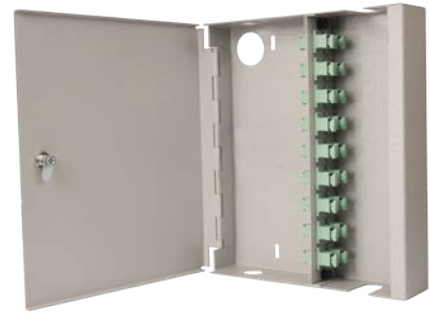
See Cable Management Accessories for further options

FIBER OPTIC WALL BOXES

Lockable Wall Boxes

LC-Quad & SC Duplex Wall boxes
(Lockable – Single door style)

12-port



Order Code (empty 12-port wall box): **LWB-12-S-LCQ/SCD-ME-G**

	With	LC Quad Multimode – 12 Port	LC Quad Singlemode – 12 Port
	4 adapters	LWB-12-S-LC/PC-MQ-ME-04-G	LWB-12-S-LC/PC-SQ-ME-04-G
	8 adapters	LWB-12-S-LC/PC-MQ-ME-08-G	LWB-12-S-LC/PC-SQ-ME-08-G
	fully loaded	LWB-12-S-LC/PC-MQ-ME-12-G	LWB-12-S-LC/PC-SQ-ME-12-G
	Adapters only	FAD-LC/PC-LC/PC-MQ-F	FAD-LC/PC-LC/PC-SQ-F
	With	SC Multimode Duplex – 12 Port	SC Singlemode Duplex – 12 Port
Adapters	4 adapters	LWB-12-S-SC/PC-MD-ME-04-G	LWB-12-S-SC/PC-SD-ME-04-G
	8 adapters	LWB-12-S-SC/PC-MD-ME-08-G	LWB-12-S-SC/PC-SD-ME-08-G
	fully loaded	LWB-12-S-SC/PC-MD-ME-12-G	LWB-12-S-SC/PC-SD-ME-12-G
	Adapters only	FAD-SC/PC-SC/PC-MD-F	FAD-SC/PC-SC/PC-SD-F
		With	SC APC Singlemode Duplex – 12 Port
	4 adapters	LWB-12-S-SC/AP-SD-ME-04-G	
	8 adapters	LWB-12-S-SC/AP-SD-ME-08-G	
	fully loaded	LWB-12-S-SC/AP-SD-ME-12-G	
	Adapters only	FAD-SC/AP-SC/AP-SD-F	

Specifications:

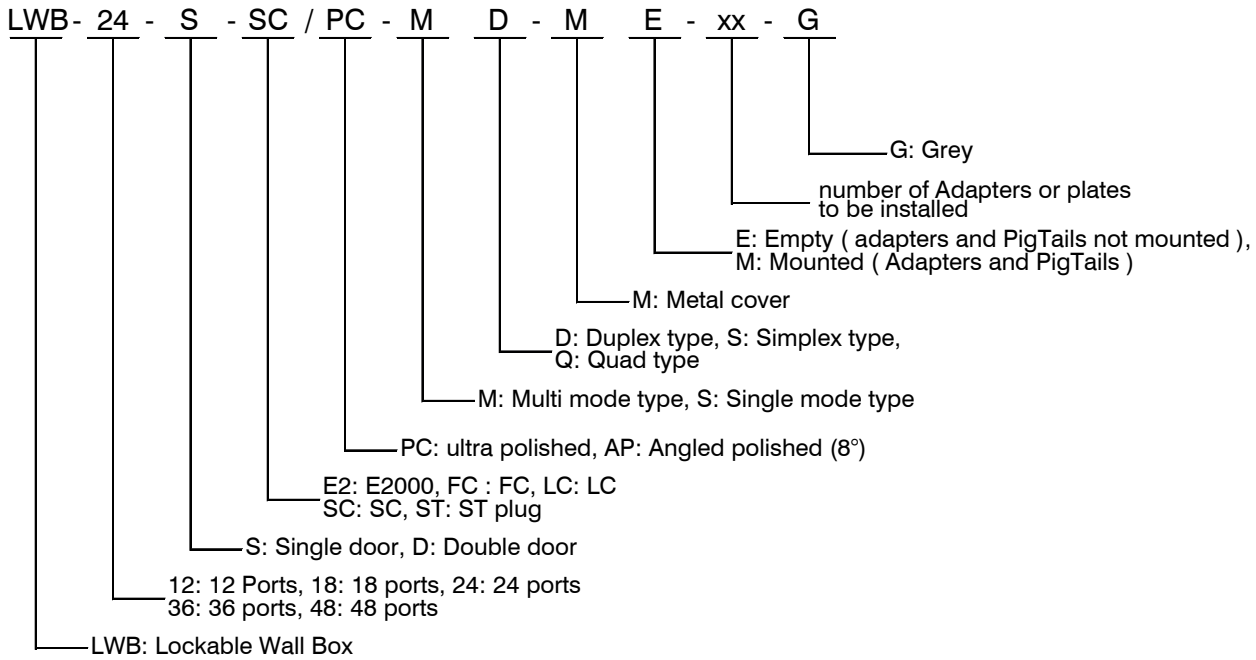
Dimensions: Width 225mm, Depth 50mm, Height 270mm
Weight: 2.0 kilos (fully loaded), Color: Grey, 2 x 20mm gland holes

See Cable Management Accessories for further options

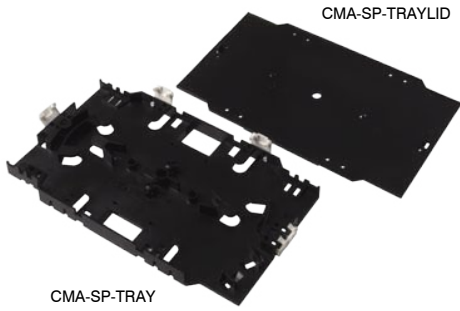
FIBER OPTIC WALL BOXES

Lockable Wall Boxes

ORDERING CODE STRUCTURE



CABLE MANAGEMENT ACCESSORIES



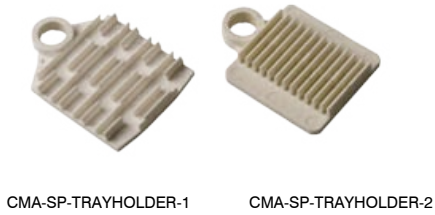
Splice Tray & Lid

Universal splice tray:

Lid for Splice tray:

CMA-SP-TRAY

CMA-SP-TRAYLID



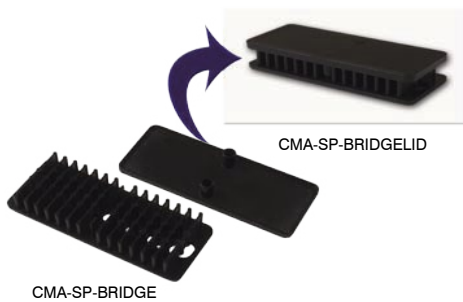
Splice Tray Splice Holders

Splice holder for heatshrink splice:

Splice holder for crimp splice:

CMA-SP-TRAYHOLDER-1

CMA-SP-TRAYHOLDER-2



Splice Bridge & Lid

Splice Bridge :

Lid for Splice Bridge:

CMA-SP-BRIDGE

CMA-SP-BRIDGELID



Splice Cassette with Clear Lid

Splice Cassette Base unit :

2x6 way base unit with clear lid

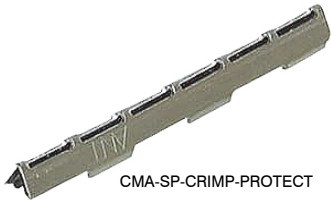
CMA-SP-CASSETTE-BASE-12

Stackable splice cassette:

2x6 way stackable splice
cassette with clear lid

CMA-SP-CASSETTE-ADD-12

CABLE MANAGEMENT ACCESSORIES



Crimp Splice Protector
Metal crimp splice protector

CMA-SP-CRIMP-PROTECT



Blanks for Panels
ST Blank Plug
SC Duplex Blank Plug
SC Simplex Blank Plug

CMA-ST-BLANK
CMA-SC-D-BLANK
CMA-SC-S-BLANK



Cable Gland
Cable Gland

CMA-GLAND-EG13.5



Cable Management Bar
Cable Management Bar

CMA-BAR

CABLE MANAGEMENT ACCESSORIES

Dust Caps

ST Singlemode dust cap (yellow)

CMA-ST-S-YL

ST Multimode dust cap (black)
(delivered in packs of 100 pieces)

CMA-ST-M-BK

SC dust cap (transparent)
(delivered in packs of 1000 pieces)

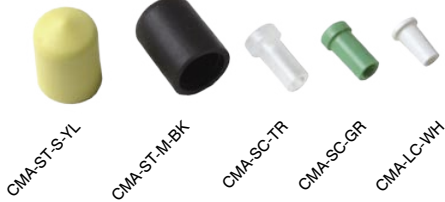
CMA-SC-TR

SC APC dust cap (green)
(delivered in packs of 1000 pieces)

CMA-SC-GR

LC dust cap (white)

CMA-LC-WH



Bunny Clip

Bunny clip for cable management

CMA-B-CLIP



CMA-B-CLIP

Splice Protectors

45mm Splice protector (transparent)

CMA-SP-PROTECT-45

60mm Splice protector (transparent)

CMA-SP-PROTECT-60



CMA-SP-PROTECT-60

Cable Management Kit

Cable Management Kit

CMA-KIT



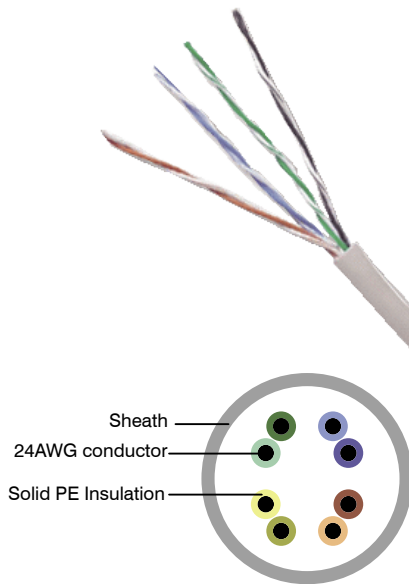
CMA-KIT

COPPER CABLE

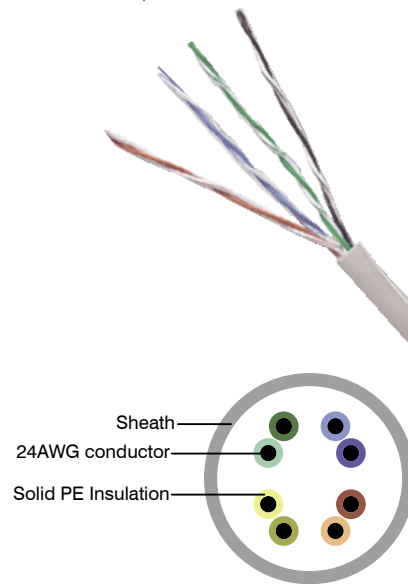
Cable General Information

E-tec Interconnect Ltd offers a full range of Cat 5e and Cat 6 cable assemblies in unshielded and fully shielded versions and which are available in all common colors. LSNH cable coating is also available optionally. These cables correspond to the TIA-EIA-568A and ISO 11801 standards and they exceed the respective Cat 5e and Cat 6 specifications. The individual cable constructions can be found here below:

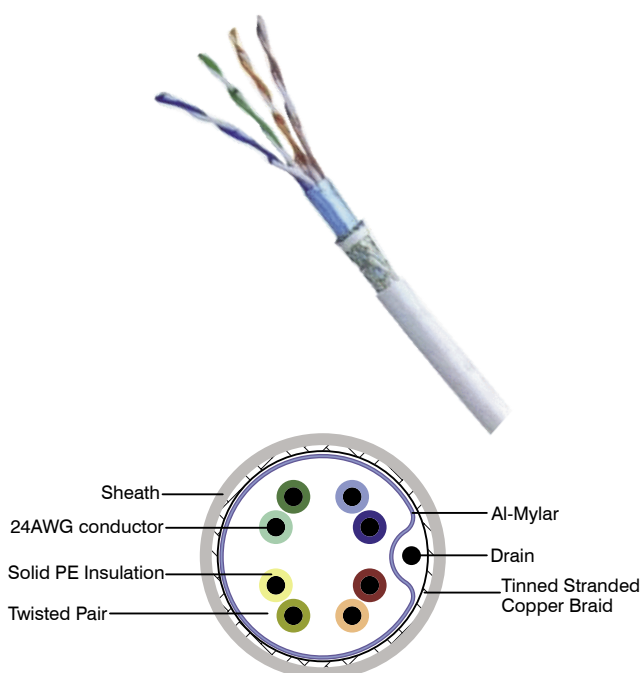
UTP Cat 5e cable construction



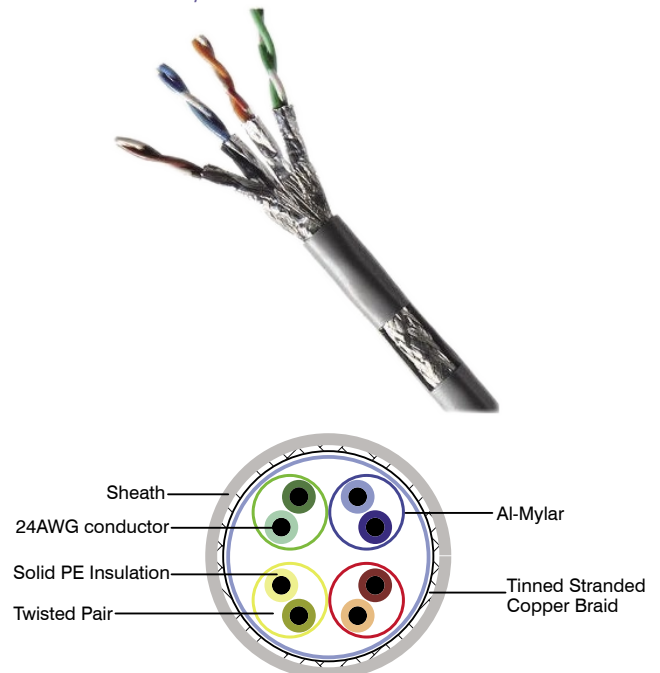
UTP Cat 6/6a cable construction



SSTP Cat 5e cable construction



SFTP Cat 6/6a LSNH cable construction



















COPPER CABLE

Cat 5e Standard Patch Cords

E-tec Interconnect Ltd offers the Cat 5e patch cords in a comprehensive range colors and special color requirements are available on request also.



Cat 5e cable ordering codes

		Cat 5e UTP Unshielded patch cable		Cat 5e SFTP Fully shielded patch cable
Grey		CBL-3-MU-xx.xM-GY/N		CBL-3-MF-xx.xM-GY
Red		CBL-3-MU-xx.xM-RD/N		CBL-3-MF-xx.xM-RD
Orange		CBL-3-MU-xx.xM-OR/N		CBL-3-MF-xx.xM-OR
Yellow		CBL-3-MU-xx.xM-YL/N		CBL-3-MF-xx.xM-YL
Green		CBL-3-MU-xx.xM-GN/N		CBL-3-MF-xx.xM-GN
Blue		CBL-3-MU-xx.xM-BU/N		CBL-3-MF-xx.xM-BU
Black		CBL-3-MU-xx.xM-BK/N		CBL-3-MF-xx.xM-BK
White		CBL-3-MU-xx.xM-WH/N		CBL-3-MF-xx.xM-WH

COPPER CABLE

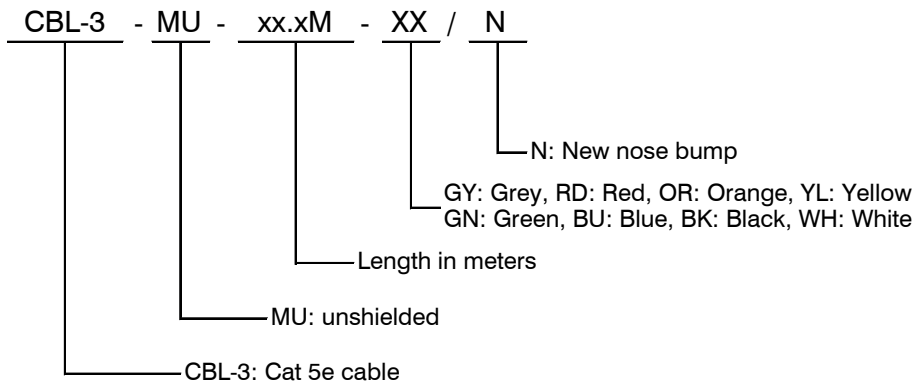
Cat 5e Standard Patch Cords

OPTIONS

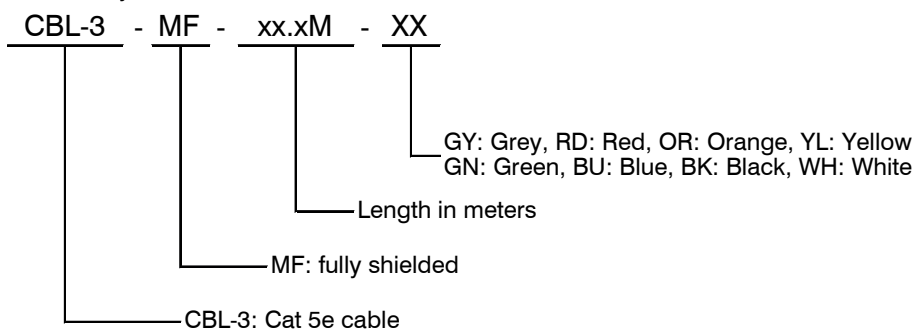
- Cable length: Replace "xx.x" by cable length in meter
(example: 01.0 = 1 meter cable)
- Standard cable lengths: 0.3, 0.6, 1, 1.5, 2, 3, 5, 7, 10 & 20 meters (others on request)
- Standard colors: Grey (GY), Red (RD), Orange (OR), Yellow (YL), Green (GN),
Blue (BU), Black (BK), White (WH)
Others on request

ORDERING CODE STRUCTURE

Cat 5e unshielded:



Cat 5e fully shielded:



COPPER CABLE

Cat 5e & Cat 6 Special Patch Cords

E-tec Interconnect Ltd also offers special 2-pair cables generally used for telephone installations (standard green color).

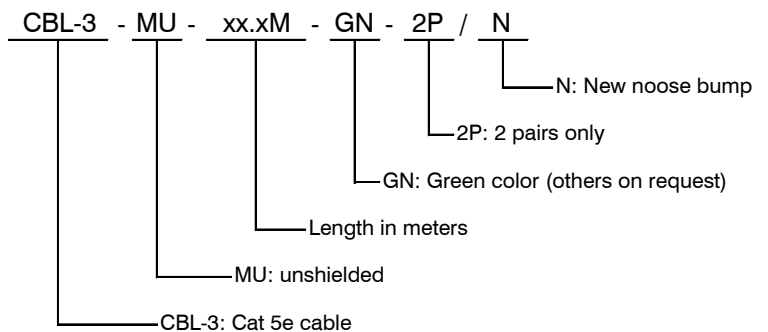
We also offer red color crossed cables which are identified by a black overmold on each extremity for UTP cables and grey color crossed cables which are identified by a black overmold on each extremity for SSTP.

Cat 5e – special 2-pair UTP (green color)



Length	Order Code
0.3 meter	CBL-3-MU-00.3M-GN-2P/N
0.6 meter	CBL-3-MU-00.6M-GN-2P/N
1.0 meter	CBL-3-MU-01.0M-GN-2P/N
1.5 meter	CBL-3-MU-01.5M-GN-2P/N
2.0 meter	CBL-3-MU-02.0M-GN-2P/N
3.0 meter	CBL-3-MU-03.0M-GN-2P/N

ORDERING CODE STRUCTURE



4-pair crossed cables (red color with black overmold)

Cat 5e UTP



Length	Order Code
0.3 meter	CBL-3-MU/R-00.3M-RD/BK/N
0.6 meter	CBL-3-MU/R-00.6M-RD/BK/N
1.0 meter	CBL-3-MU/R-01.0M-RD/BK/N
1.5 meter	CBL-3-MU/R-01.5M-RD/BK/N
2.0 meter	CBL-3-MU/R-02.0M-RD/BK/N
3.0 meter	CBL-3-MU/R-03.0M-RD/BK/N
5.0 meter	CBL-3-MU/R-05.0M-RD/BK/N
7.0 meter	CBL-3-MU/R-07.0M-RD/BK/N
10 meter	CBL-3-MU/R-10.0M-RD/BK/N
20 meter	CBL-3-MU/R-20.0M-RD/BK/N

Cat 5e SSTP



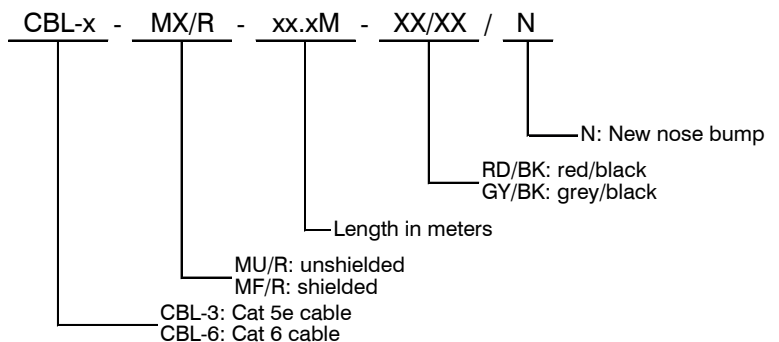
Length	Order Code
0.6 meter	CBL-3-MF/R-00.6M-GY/BK
1.0 meter	CBL-3-MF/R-01.0M-GY/BK
2.0 meter	CBL-3-MF/R-02.0M-GY/BK
3.0 meter	CBL-3-MF/R-03.0M-GY/BK
5.0 meter	CBL-3-MF/R-05.0M-GY/BK
10.0 meter	CBL-3-MF/R-10.0M-GY/BK
20.0 meter	CBL-3-MF/R-20.0M-GY/BK

Cat 6 UTP



Length	Order Code
0.5 meter	CBL-6-MU/R-00.5M-RD/BK/N
1.0 meter	CBL-6-MU/R-01.0M-RD/BK/N
1.5 meter	CBL-6-MU/R-01.5M-RD/BK/N
2.0 meter	CBL-6-MU/R-02.0M-RD/BK/N
3.0 meter	CBL-6-MU/R-03.0M-RD/BK/N
5.0 meter	CBL-6-MU/R-05.0M-RD/BK/N
7.0 meter	CBL-6-MU/R-07.0M-RD/BK/N
10 meter	CBL-6-MU/R-10.0M-RD/BK/N

ORDERING CODE STRUCTURE



COPPER CABLE

Cat 6 Standard Patch Cords











E-tec Interconnect Ltd offers the Cat 6 patch cables in a comprehensive range colors and special color requirements are available on request also.



Cat 6 cable ordering codes

Cat 6 UTP
Unshielded patchcable

Cat 6 SFTP
Shielded and Foiled
Twisted pairs

	Cat 6 UTP Unshielded patchcable	Cat 6 SFTP Shielded and Foiled Twisted pairs
Grey	 CBL-6-MU-xx.xM-GY/N	 CBL-6-MF-xx.xM-GY/LN
Red	 CBL-6-MU-xx.xM-RD/N	 CBL-6-MF-xx.xM-RD/LN
Yellow	 CBL-6-MU-xx.xM-YL/N	 CBL-6-MF-xx.xM-YL/LN
Green	 CBL-6-MU-xx.xM-GN/N	 CBL-6-MF-xx.xM-GN/LN
Blue	 CBL-6-MU-xx.xM-BU/N	 CBL-6-MF-xx.xM-BU/LN

COPPER CABLE

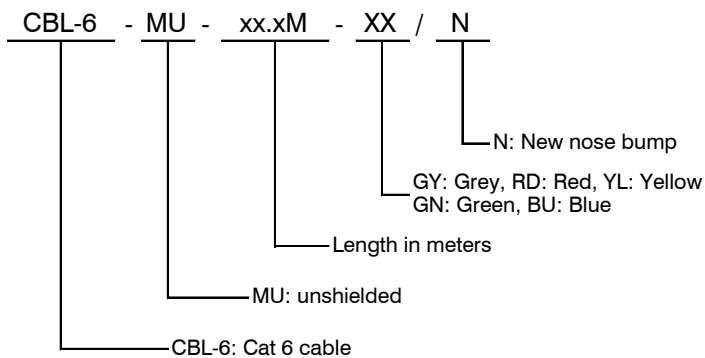
Cat 6 Standard Patch Cords

OPTIONS

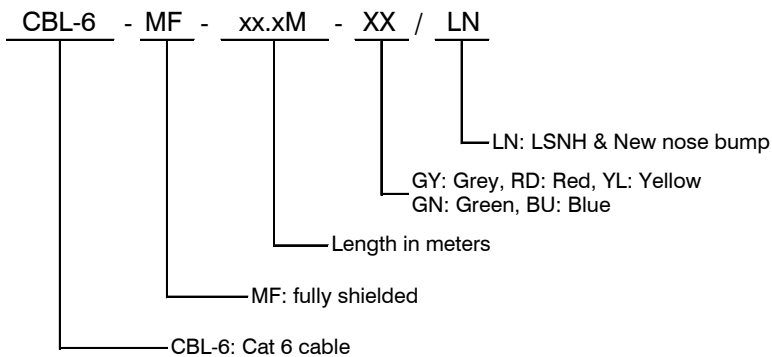
- Cable length: Replace "xx.x" by cable length in meter
(example: 01.0 = 1 meter cable)
- Standard cable lengths: 0.5, 1, 1.5, 2, 3, 5, 7, 10 meters (others on request)
- Standard colors: Grey (GY), Red (RD), Yellow (YL), Green (GN),
Blue (BU)
Others on request

ORDERING CODE STRUCTURE

Cat 6 unshielded:



Cat 6 fully shielded:



COPPER CABLE

Cat 6a Standard Patch Cords











E-tec Interconnect Ltd offers the Cat 6a patch cables in a comprehensive range colors and special color requirements are available on request also.



Cat 6a cable ordering codes

Cat 6a UTP
Unshielded patchcable

Cat 6a SFTP
Shielded and Foiled
Twisted pairs

		Cat 6a UTP Unshielded patchcable		Cat 6a SFTP Shielded and Foiled Twisted pairs
Grey		CBL-6a-MU-xx.xM-GY/N		CBL-6a-MF-xx.xM-GY/LN
Red		CBL-6a-MU-xx.xM-RD/N		CBL-6a-MF-xx.xM-RD/LN
Yellow		CBL-6a-MU-xx.xM-YL/N		CBL-6a-MF-xx.xM-YL/LN
Green		CBL-6a-MU-xx.xM-GN/N		CBL-6a-MF-xx.xM-GN/LN
Blue		CBL-6a-MU-xx.xM-BU/N		CBL-6a-MF-xx.xM-BU/LN

COPPER CABLE

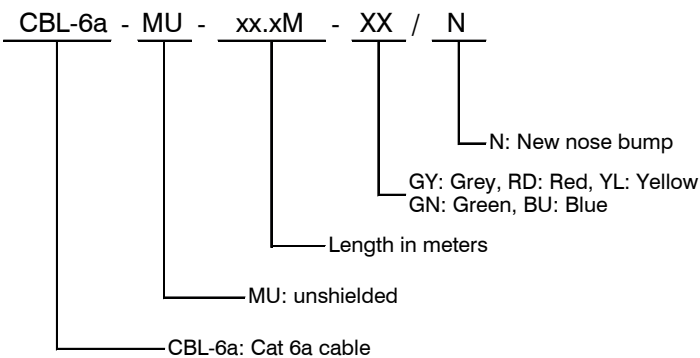
Cat 6a Standard Patch Cords

OPTIONS

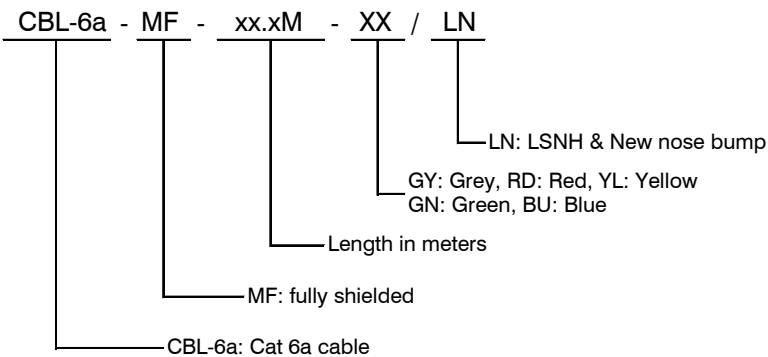
- Cable length: Replace "xx.x" by cable length in meter
(example: 01.0 = 1 meter cable)
- Standard cable lengths: 0.5, 1, 1.5, 2, 3, 5, 7, 10 meters (others on request)
- Standard colors: Grey (GY), Red (RD), Yellow (YL), Green (GN),
Blue (BU)
Others on request

ORDERING CODE STRUCTURE

Cat 6a unshielded:



Cat 6a fully shielded:



COPPER CABLE PATCH PANELS

Patch Panels

E-tec Interconnect Ltd offers high reliability patch panels for Cat5e and Cat6 requirements for copper cable management, as well as mixed copper & fiber optic patch cable management.

1. Universal dual plate patch panel for keystone jacks & fiber optical adapters (unshielded)



For vertical & horizontal keystone jacks:

12-port: **PLK-D-12-1U-0-M**

16-port: **PLK-D-16-1U-0-M**

Only for slim horizontal keystone jacks & slim inline couplers:

24-port: **PLK-D-24-1U-0-M**

Blank patch panel only / black color
Adapters & jacks to be ordered separately

Universal patch panel assembly examples:

Copper cable assembly



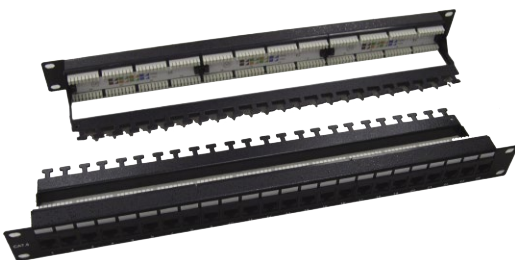
Mixed copper & fiber optic assembly



Fiber optic assembly



2. Horizontal Cat 5e & Cat 6 patch panel (unshielded)



Cat 5e - 24-port: **PLH-5-U-24-D-0-0-M**

Cat 6 - 24-port: **PLH-6-U-24-D-0-0-M**

Mounted with dual type jacks / black color

3. Vertical Cat 5e & Cat 6 patch panel (shielded)



Cat 5e - 24-port: **PLV-5-F-24-D-0-1**

Cat 6 - 24-port: **PLV-6-F-24-D-0-1**

Mounted with dual type jacks / Black color

COPPER CABLE ACCESSORIES

Patch Panel Accessories

- 1 Slim Horizontal Keystone Jacks – Unshielded type for 24-port patch plate (16.3mm)



Cat 5e : **KSJ-5-H-U-D-1-W**

Cat 6: **KSJ-6-H-U-D-1-W**

Keystone jack type: Dual / unshielded / white color

- 2 Slim Horizontal Keystone Jacks –shielded type for 24-port patch plate (16.3mm)

Cat 5e : **KSJ-5-H-S-D-1-M**

Cat 6: **KSJ-6-H-S-D-1-M**

Keystone jack type: Dual / shielded / metal color

- 3 Vertical Keystone Jacks – Unshielded type

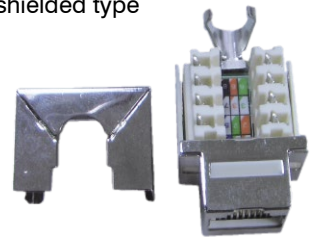


Cat 5e : **KSJ-5-V-U-D-1-W**

Cat 6: **KSJ-6-V-U-D-1-W**

Keystone jack type: Dual / unshielded / white color

- 4 Vertical Keystone Jacks –shielded type



Cat 5e : **KSJ-5-V-S-D-1-M**

Cat 6: **KSJ-6-V-S-D-1-M**

Keystone jack type: Dual / shielded / metal color

- 5 Slim in-line coupler RJ45– unshielded type for 24-port patch plate



Cat 5e : **ILC-5-U-KT-S-B**

Cat 6: **ILC-6-U-KT-S-B**

RJ45 coupler: unshielded / slim type / BLACK color

- 6 Blank plates
(inserts to close holes in patch panel)

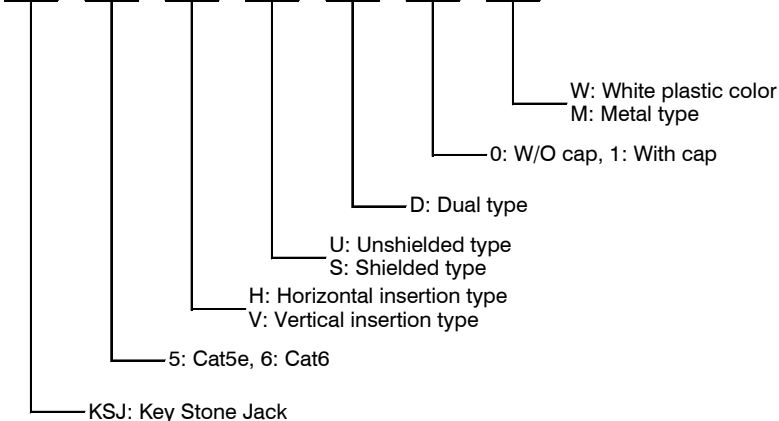


Order code: **FAD-KT-BK-W**

Plate type: Blank / white color

ORDERING CODE STRUCTURE

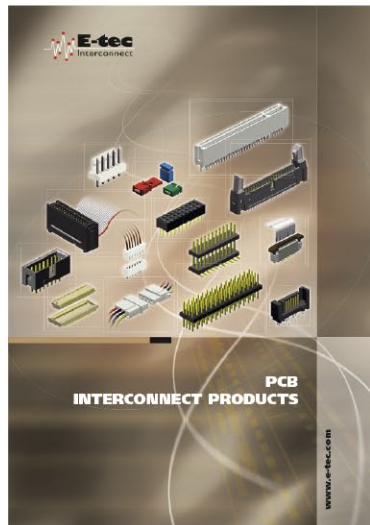
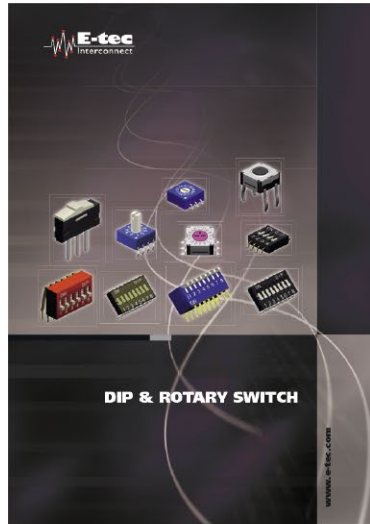
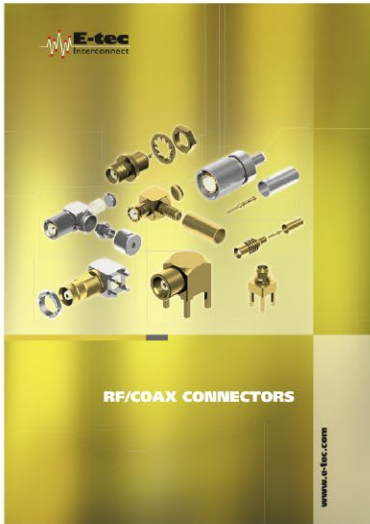
KSJ - 5 - H - U - D - x - W



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