



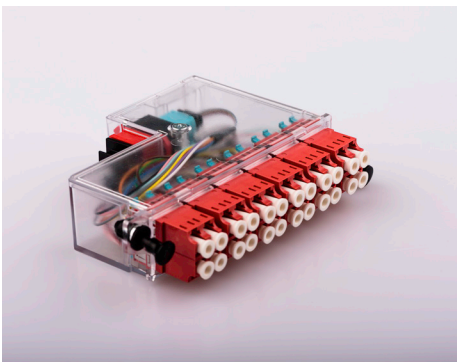
# SFO CASSETTE SYSTEM

Compact Secure MPO  
Cassettes & Patch Panels



# PRODUCT OVERVIEW

## Unique compact design suits many applications



Like so many of the products and solutions that SFO offers, the SFO Cassette System was born out of a customer request. We were given some specific requirements that had to be met along with a few other special requests that the customer hoped we could accommodate.

This led us to develop a highly versatile plug and play cassette solution that includes a secure connector keying system.

The solution is as equally well suited for use in high end data center environments as it is in any standard LAN environment. The unique MPO-LC cassette design is extremely compact and light weight. For more secure applications, the connector ports can be color coded and keyed to prevent unauthorized access.

The outer housing of each cassette is also transparent so that positive confirmation can be made that internal components have not been tampered with.

Prevents unauthorized access

### KEY FEATURES

- 1U panels can accommodate up to 96 fibers (4 cassettes)
- Desk/wall mount brackets can accommodate up to 24 fibers
- Factory terminated and 100% tested
- MPO input connector orientation can be adjusted to suit your application
- Color coded and keyed connector options
- Cassette body is made of light weight durable plastic
- Transparent cassette body ensures no tampering has taken place
- Custom designs available upon request
- Cassette body is transparent for high security applications
- Panels and enclosures are made of light weight anodized red or black aluminum

# PRODUCT OVERVIEW

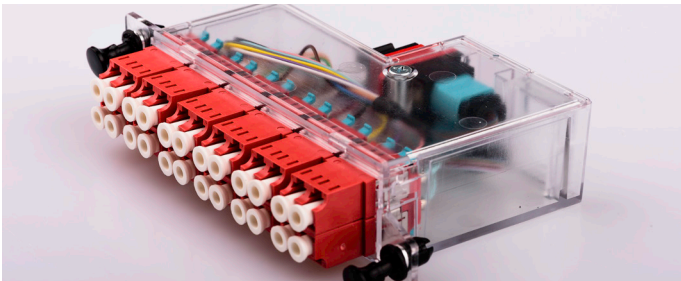
## DID YOU KNOW

MPO fiber refers to a type of fiber optic connector that has multiple fibers (usually 12 or 24) within a single connector. MPO stands for "Multi-Fiber Push-On"

The SFO system consists of 4 main components. Simply choose the options you need to suit your application.

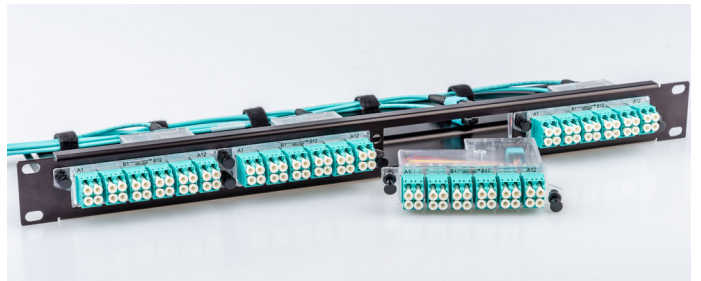
1.

Cassettes are available with LC input connections on the front face and MPO at the rear. Any standard fiber type is available with fiber counts of 12 or 24.



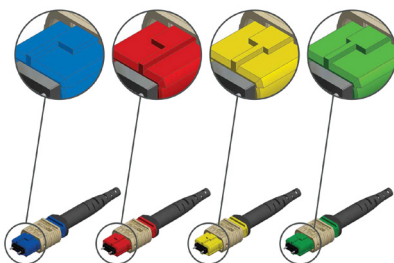
2.

Mounting options consist of a standard 19" 1U rack mountable bracket with cable management trays or a compact desk/wall mountable enclosure that is ideal for almost any type of remote location.



3.

MPO jumper cables for connection at rear of cassette can be color coded and keyed as required to match network security level.



4.

LC patch cords for connection at front of cassette can be color coded and keyed to match network security level.



# TECHNICAL OVERVIEW

## Cassette Ordering/Technical Information

KLC11589



Fiber Count	
A	12 Fiber
D	24 Fiber

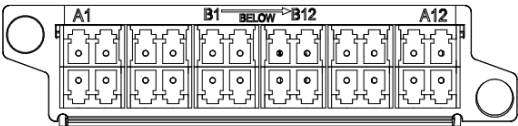
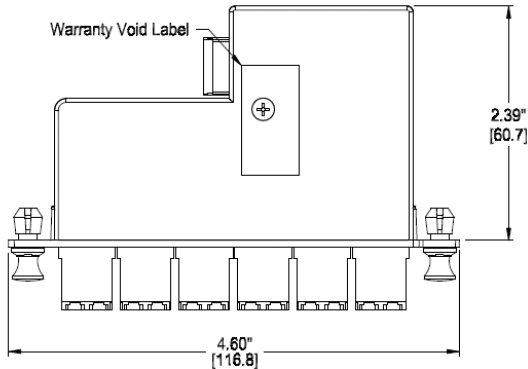
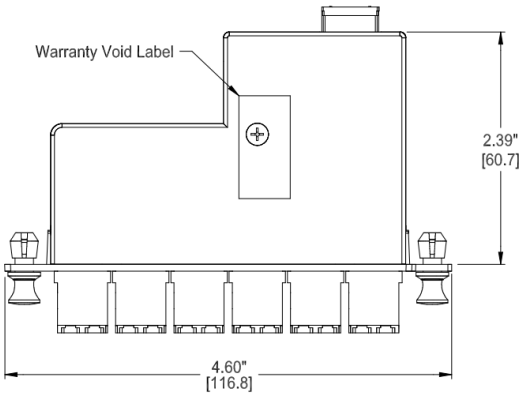
MPO Position	
R	Rear Position (default)
S	Side Position

Fiber Type	
1	OM1 (62.5/125)
A	OM4 (50/125)
2	OS2 (SM)
9	OM3 (50/125)

LC Adapter	
NK	Black NON-KEYED
RD	Red Keyed
CO	Cobalt Keyed
VI	Violet Keyed
GR	Slate Keyed
BR	Brown Keyed
TQ	Turquoise Keyed
MG	Magenta Keyed
OL	Olive Keyed
PK	Pink Keyed
WH	White Keyed
OR	Orange Keyed
YL	Yellow Keyed

MTP Adapter	
BK	Black NON-KEYED
RB	Red Keyed
YB	Yellow Keyed
GB	Green Keyed
BB	Blue Keyed

- Total insertion loss = 0.9db or better
- Cassettes are wired straight through (Method A) by default.



12f Face Upper Row

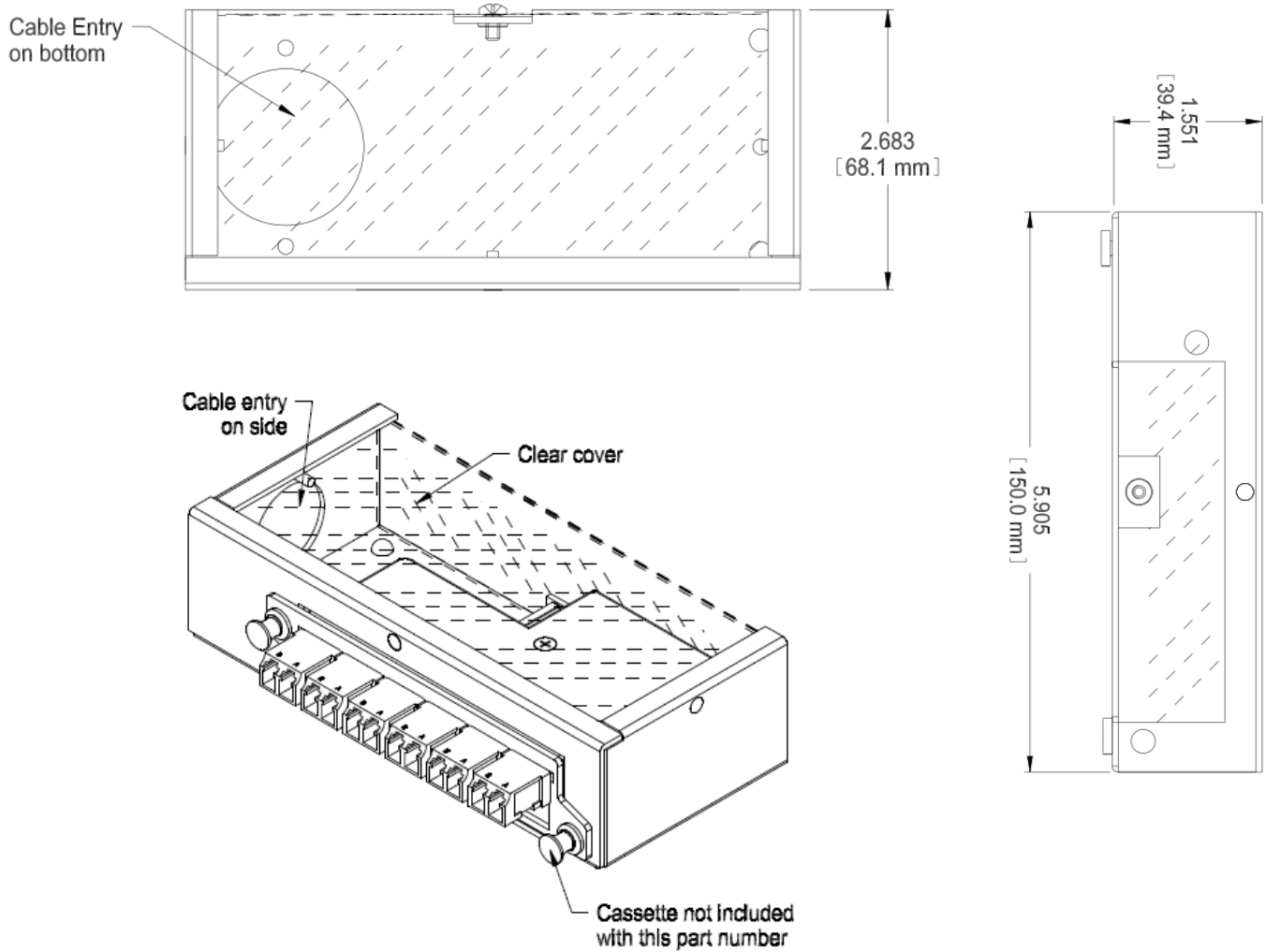


12f Face Lower Row

## Hardware Ordering/Technical Information

Part Number	Description
KLC11589-3B	1 Slot Desk/Wall Mount Enclosure Black
KLC11589-3R	1 Slot Desk/Wall Mount Enclosure Red
KLC11589-4B	2 Slot Desk/Wall Mount Enclosure Black
KLC11589-4R	2Slot Desk/Wall Mount Enclosure Red

### KLC11589-3x — 1 Slot Desk/Wall Enclosure

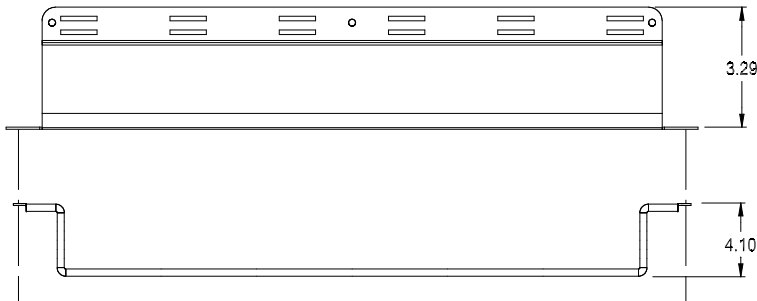


## Hardware Ordering/Technical Information

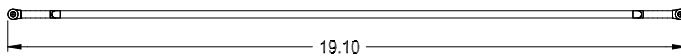
Part Number	Description
KLC11589-9B	1U 19" Rack Mount Bracket with Cable Management Trays - Black
KLC11589-9R	1U 19" Rack Mount Bracket with Cable Management Trays - Red

### KLC11589-9x —19" 1U Panel

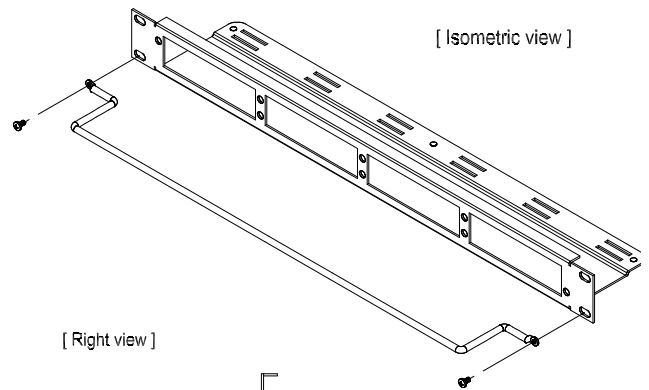
[ Top view ]



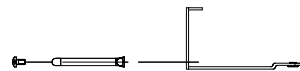
[ Front view ]



[ Isometric view ]



[ Right view ]

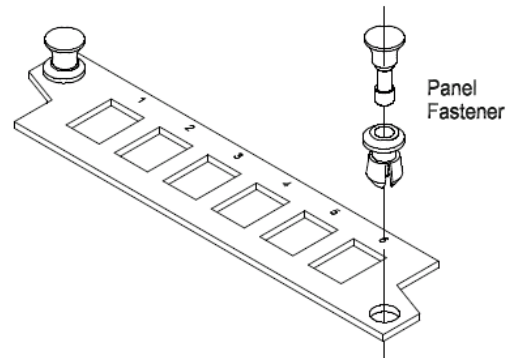
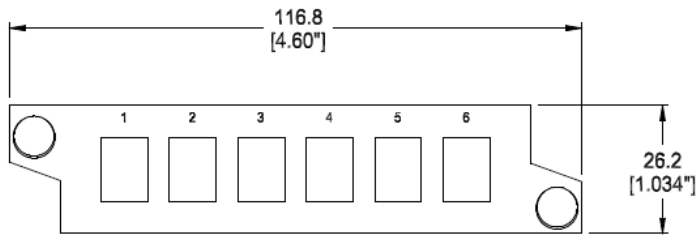


## Hardware Ordering/Technical Information

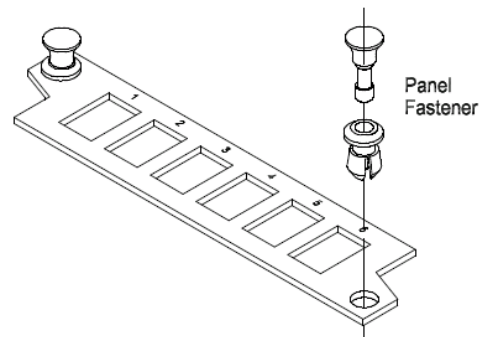
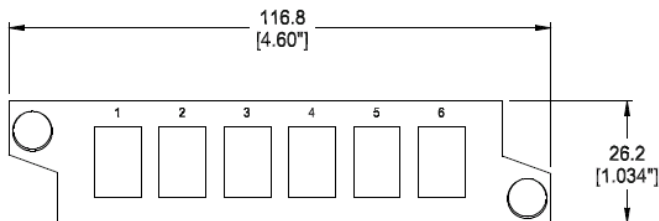
Part Number	Description
KLC12837B	Empty Adapter Plate for 6 x LC Duplex Adapters—Black
KLC12837R	Empty Adapter Plate for 6 x LC Duplex Adapters—Red
KLC12772B	Empty Adapter Plate for 6 x MPO Adapters—Black
KLC12772R	Empty Adapter Plate for 6 x MPO Adapters—Red

All plates shipped with plugs to filled unused holes

### KLC12837x —Empty LC Adapter Plate



### KLC12772x —Empty MTP Adapter Plate



## Hardware Ordering/Technical Information

### KLC12774xx —LC Duplex Adapters (singles)

Part Number	Description
KLC12774NP	LC Duplex Adapter Flangeless—No Key to Pink Key
KLC12774NW	LC Duplex Adapter Flangeless—No Key to White Key
KLC12774NY	LC Duplex Adapter Flangeless—No Key to Yellow Key
KLC12774NR	LC Duplex Adapter Flangeless—No Key to Red Key
KLC12774NO	LC Duplex Adapter Flangeless—No Key to Orange Key
KLC12774NV	LC Duplex Adapter Flangeless—No Key to Violet Key
KLC12774NG	LC Duplex Adapter Flangeless—No Key to Slate Key
KLC12774NC	LC Duplex Adapter Flangeless—No Key to Cobalt/Blue Key
KLC12774NB	LC Duplex Adapter Flangeless—No Key to Brown Key
KLC12774NT	LC Duplex Adapter Flangeless—No Key to Turquoise Key
KLC12774NM	LC Duplex Adapter Flangeless—No Key to Magenta Key
KLC12774NL	LC Duplex Adapter Flangeless—No Key to Olive Key
KLC12774BKBK	LC Duplex Adapter Flangeless—No Key to No Key (Black)

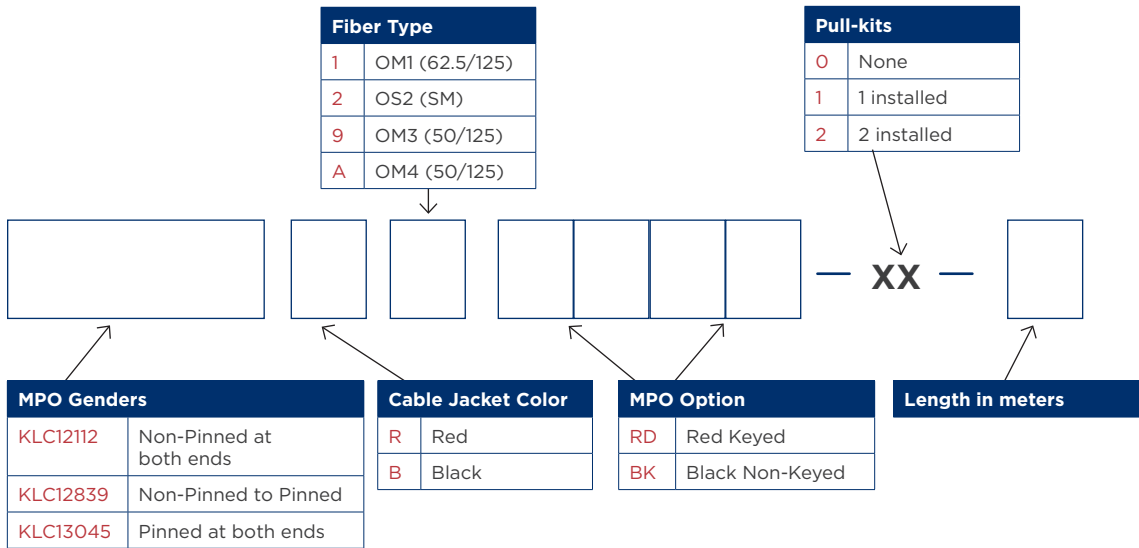


### KLC12775xx —MTP Adapters (singles)

Part Number	Description
KLC12775RR	MPO-MPO Adapter —Red Key to Red Key
KLC12775NN	MPO-MPO Adapter —No Key (Black) to No Key (Black)
KLC12775NR	MPO-MPO Adapter —No Key (Black) to Red Key



## SFO MPO Jumper Ordering/Technical Information



\*MTP jumpers are built with 12 fiber LSZH rated round 3mm mini-distribution style cable with Corning glass. Custom configurations are available upon request. Contact customer service for more information. Default polarity is Method A.

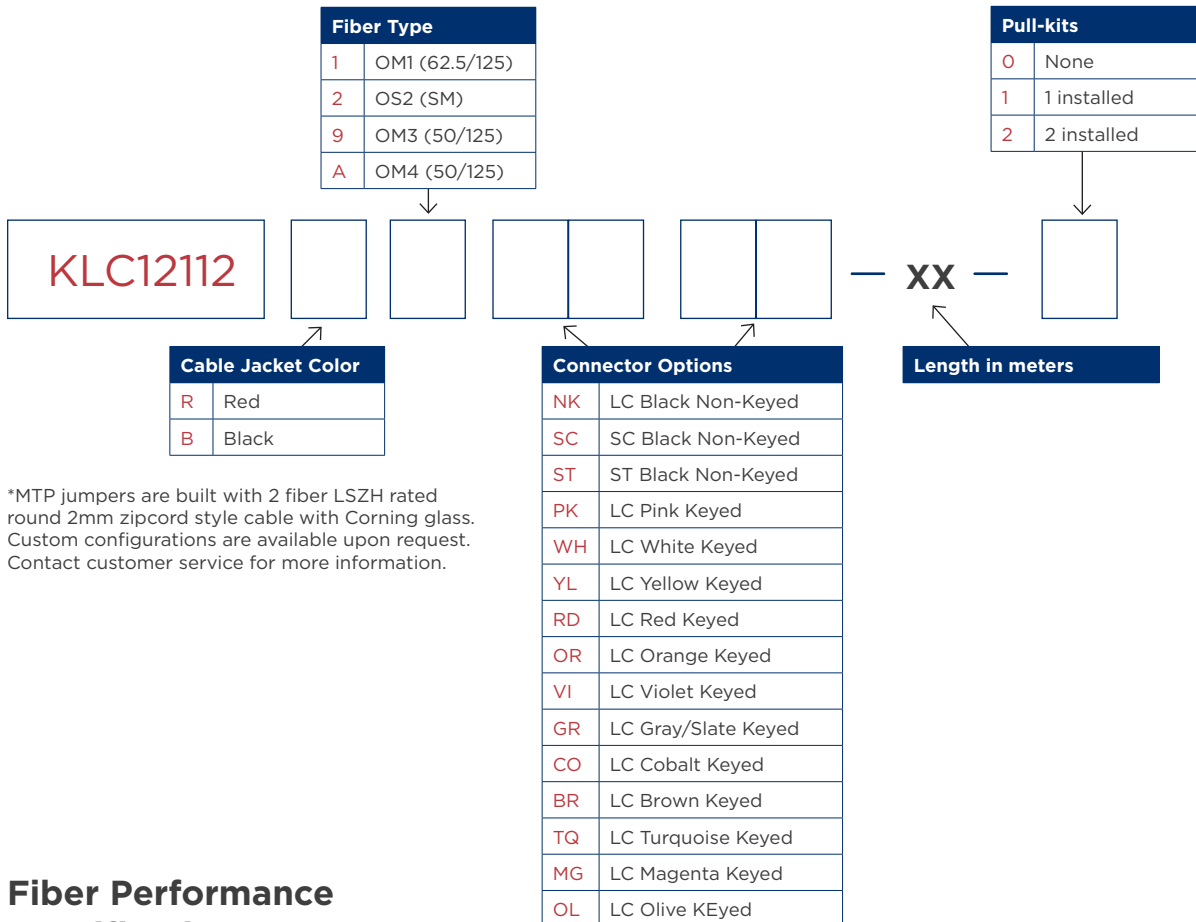
## Fiber Performance Specifications

Fiber Type	Maximum Attenuation (DB/km)		Min. Over Filled Launch (MHz.km)		Min. Effective Modal Bandwidth (MHz.km)		Serial 1 Gigabit Ethernet Distance (m)		Serial 10 Gigabit Ethernet Distance (m)	
	850nm	1300nm	850nm	1300nm	850nm	1300nm	850nm	1300nm	850nm	1300nm
OM1	3.4	1.0	200	500	220	-	300	550	33	-
OM3	3.0	1.0	1500	500	2000	-	1000	600	300	-
OM4	3.0	1.0	3500	500	4700	-	1100	600	550	-
	1310nm	1550nm	1310nm	1550nm	1310nm	1550nm	1310nm	1550nm	1310nm	1550nm
OS2	0.65	0.5	-	-	-	-	5000	-	10000	40000

## Connector Performance Specifications

Connector	Standard	Reflectance OS2 (dB)	Reflectance OM3/OM4 (dB)	Durability
MTP	0.4	< - 55	- 25	< 0.2dB

## SFO Patch Cord Ordering/Technical Information



### Fiber Performance Specifications

Fiber Type	Maximum Attenuation (DB/km)		Min. Over Filled Launch (MHz.km)		Min. Effective Modal Bandwidth (MHz.km)		Serial 1 Gigabit Ethernet Distance (m)		Serial 10 Gigabit Ethernet Distance (m)	
	850nm	1300nm	850nm	1300nm	850nm	1300nm	850nm	1300nm	850nm	1300nm
OM1	3.4	1.0	200	500	200	-	300	550	33	-
OM3	3.0	1.0	1500	500	2000	-	1000	600	300	-
OM4	3.0	1.0	3500	500	400	-	1100	600	550	-
	1310nm	1550nm	1310nm	1550nm	1310nm	1550nm	1310nm	1550nm	1310nm	1550nm
OS2	0.65	0.5	-	-	-	-	5000	-	10000	40000

### Connector Performance Specifications

Connector	Max Insertion Loss (dB)		Reflectance OS2 (dB)	Reflectance OM3/OM4 (dB)	Durability
	Low loss	Standard			
LC	0.2	0.4	< - 55	- 25	< 0.2dB
SC	0.2	0.4	< - 55	- 25	< 0.2dB
ST	0.2	0.4	< - 55	- 25	< 0.2dB



## Notes

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