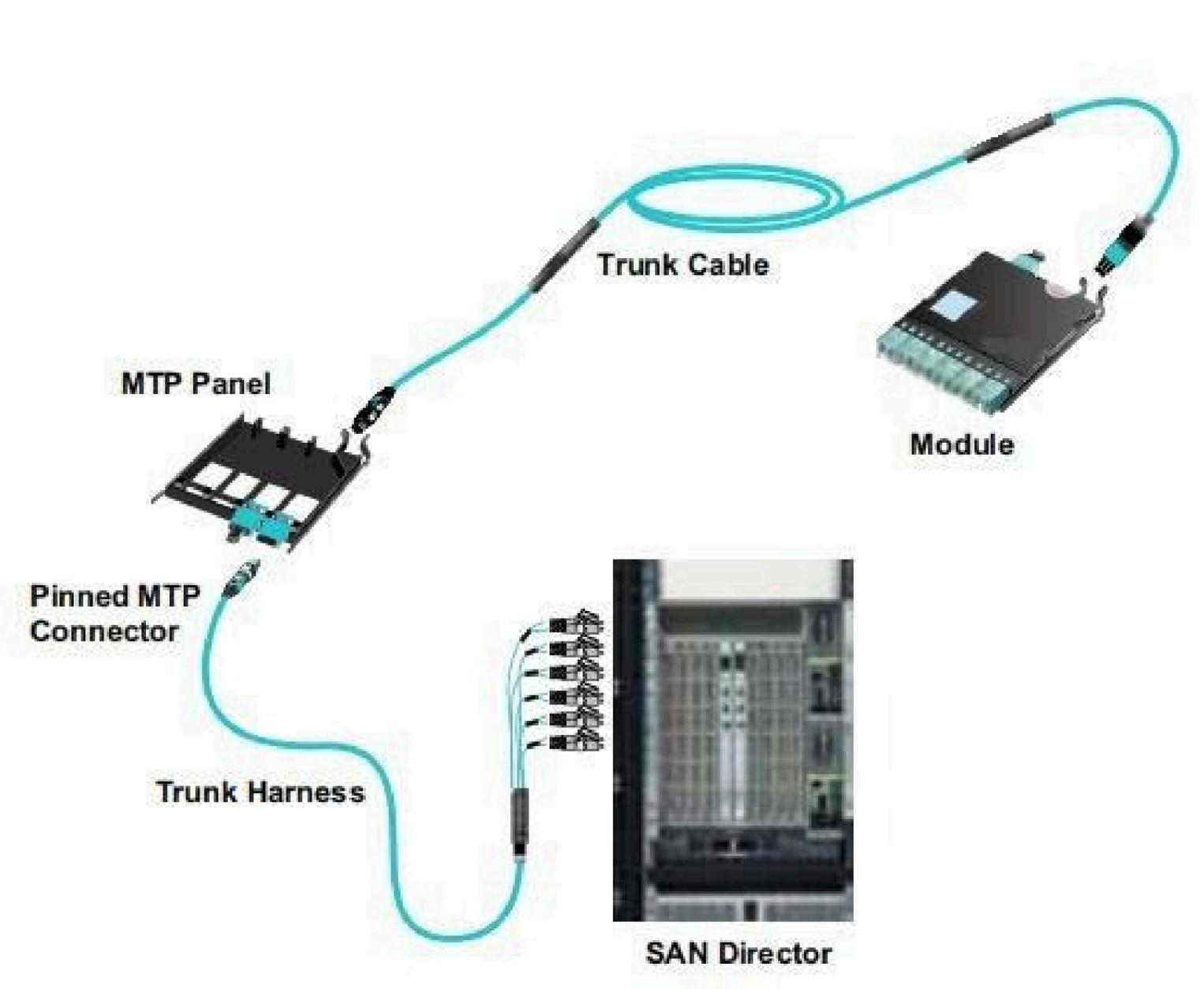


TMM
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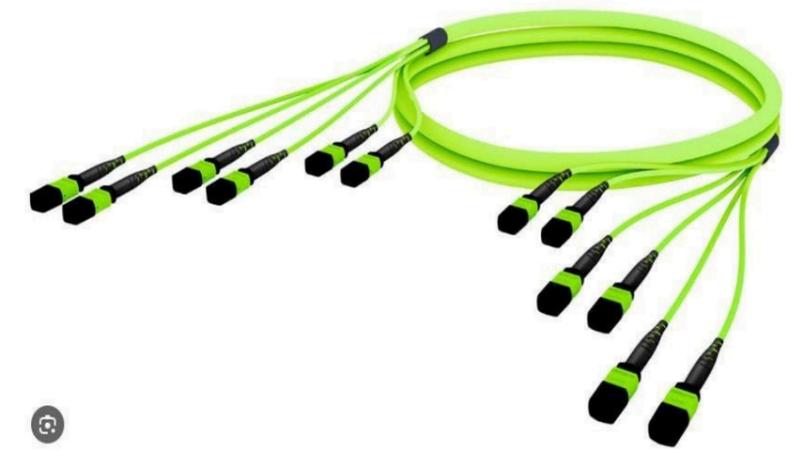
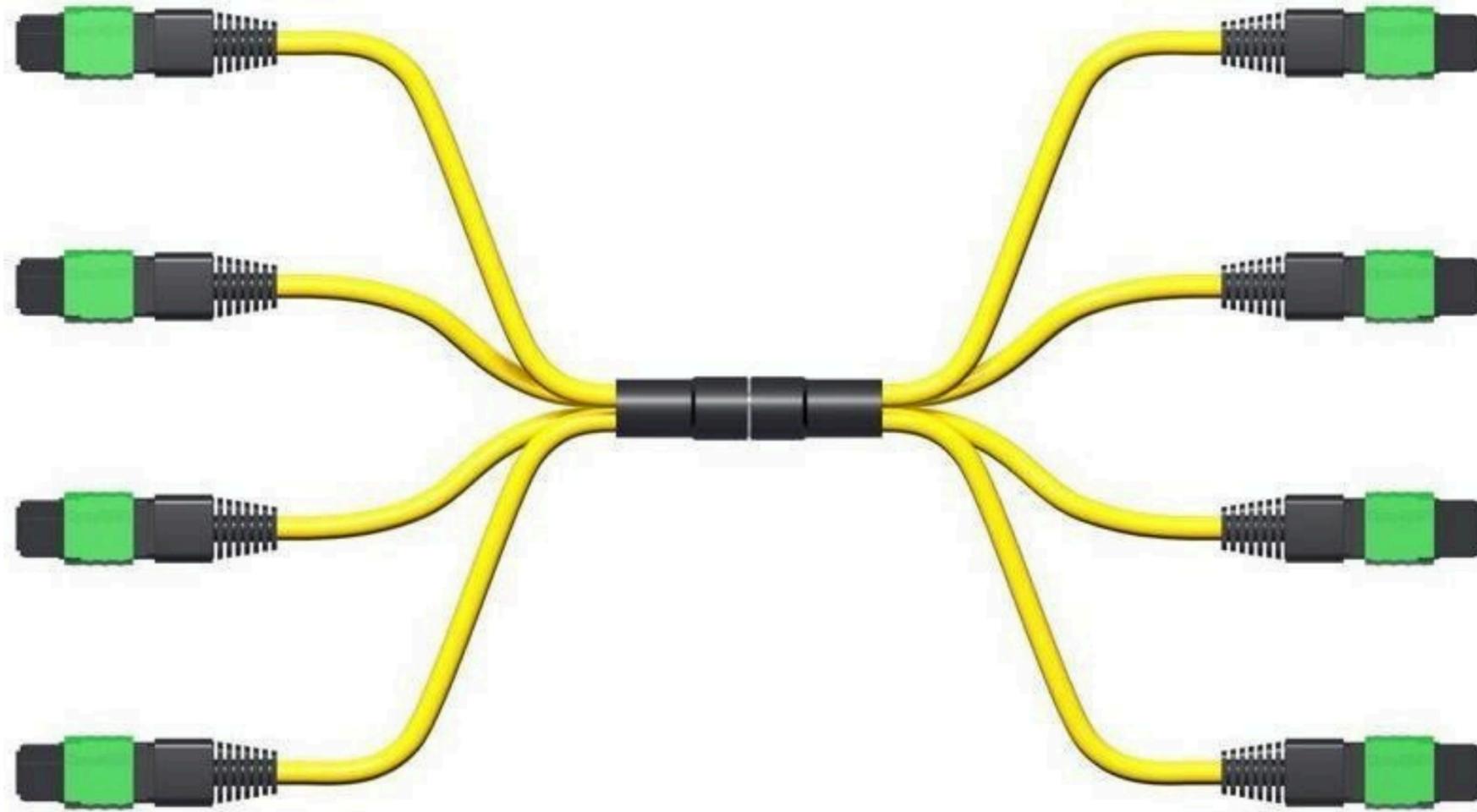
MPO / MTP universal system



Plug & Play Trunk Harness



MPO Trunk Cable (Plenum Rated)



MPO Trunk Cable (Plenum Rated)



MPO-24, MPO-12, MPO-8 configurations

MTP® Assemblies For 40G/100G

Features and Applications

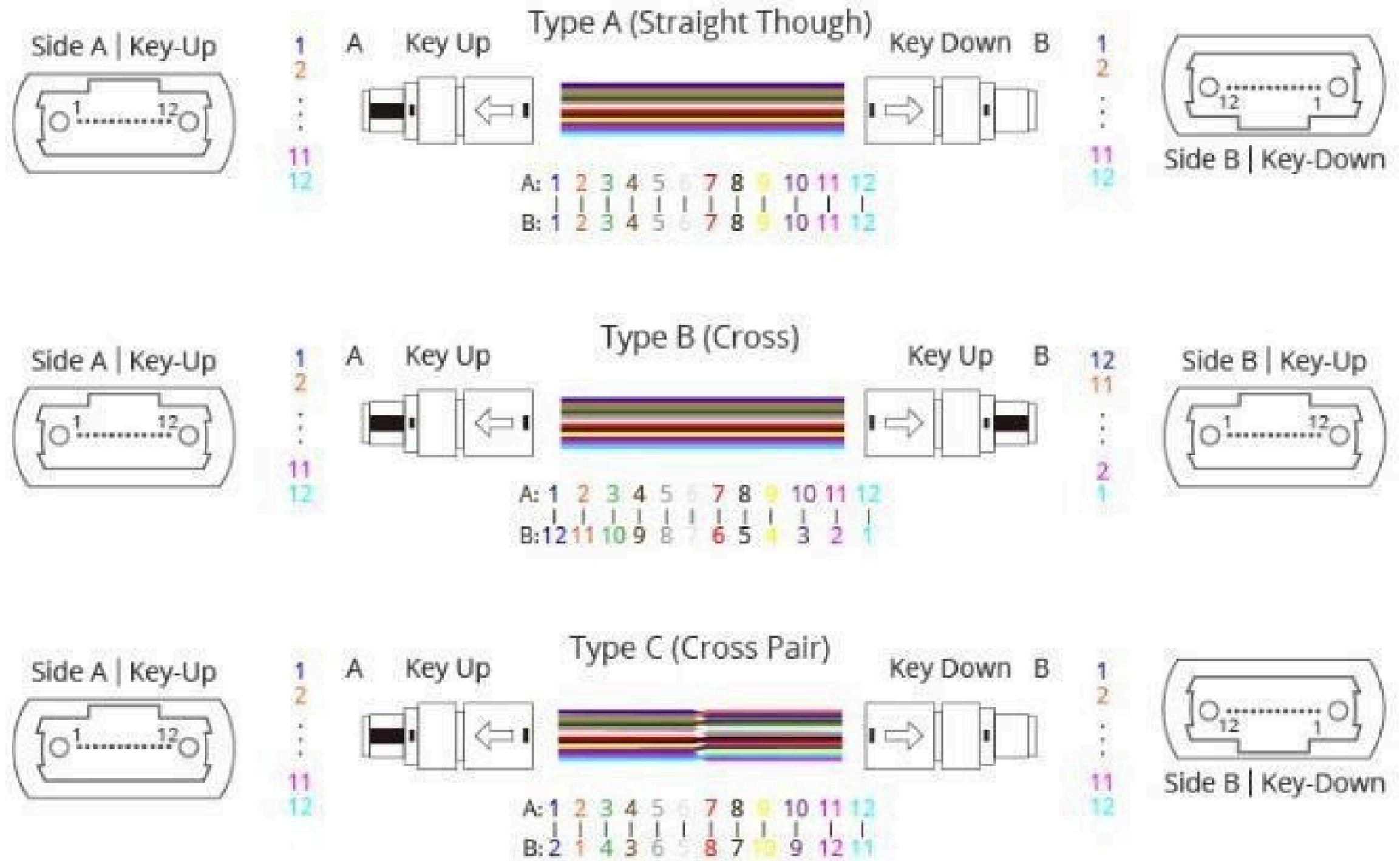
Comply TelcordiaGR-326 Core, TIA 604-18 and IEC(61754-3) standards
 Ultra high fiber count cabling solution Support 400G transmission for Hyperscale Data Center Pre-terminated 12-fiber or 24-fiber MTP® solutions offered in customized configurations.
 Effective solution for getting 40G/100G transmissions for short reach systems.

MTP® Assemblies that specially designed for laser optimized 40G/100G structured cabling system that employs parallel optics transmission. For 40G Ethernet, 4Tx and 4 Rx fibers are transmitted at 10G for an aggregate of 40G by utilizing a 12-fiber MTP® connector

Specification	
Unique Fiber Channeling for 40G/100G Ethernet	40G on 12-fiber MTP® Connector
	Channel #1~4 for Rx
	Channel #9~12 for Tx
	Channel #5~8 unused
100G on 24-fiber MTP® Connector	Channel #2~11 for Rx
	Channel #14~23 for Tx
	Channel #1,12,13,24 unused
	100G on 2pcs of 12-fiber MTP® Connector
Channel #2~11 for Tx to the firstly connector	Channel #2~11 for Rx to the second connector
	Channel #1 & #12 unused for both end connector
Cable Structure	12 or 24 Mini-fibers Cable
Cable Jacket Colors	Aqua - Multimode (OM3)
	Heather Violet - Multimode (OM4)
Conector Type	MTP® connector with PIN (Male Type)
	MTP® connector without PIN(Female Type)
Fiber Type	Singlemode / Multimode (OM3 & OM4)
Material of Jacket	Riser (OFNR)
	Low Smoke Zero Halogen (LSZH) Plenum (OFNP)

Optical Performance		
Type	Standard MTP® Connector	Emited Loss MTP® Connector
Fiber Mode	Multimode	Multimode 850nm ≤0.35dB
Wavelength	850nm	≤0.10dB ≥20dB
Insertion Loss (Max)	≤0.60dB	
Insertion Loss (Typical)	≤0.25dB	
Return Loss	≥20dB	

MTP / MPO Trunk cables (Plenum Rated)



MTP / MPO Trunk cables(Plenum Rated)



MTP® Breakout cable

Feature

- High Performance in IL & RL;
- Available in 8,12 and 24 fiber;
- Precise dimension;
- 100% in-house tested;
- Customized furcation length to cater for different installation situations;
- Single-fiber connector interface available in SC & LC in forms of Simplex or Duplex channel;
- Support higher speed Ethernet and Fibre Channel applications (OM3, OM4 and SM fibers).

Applications

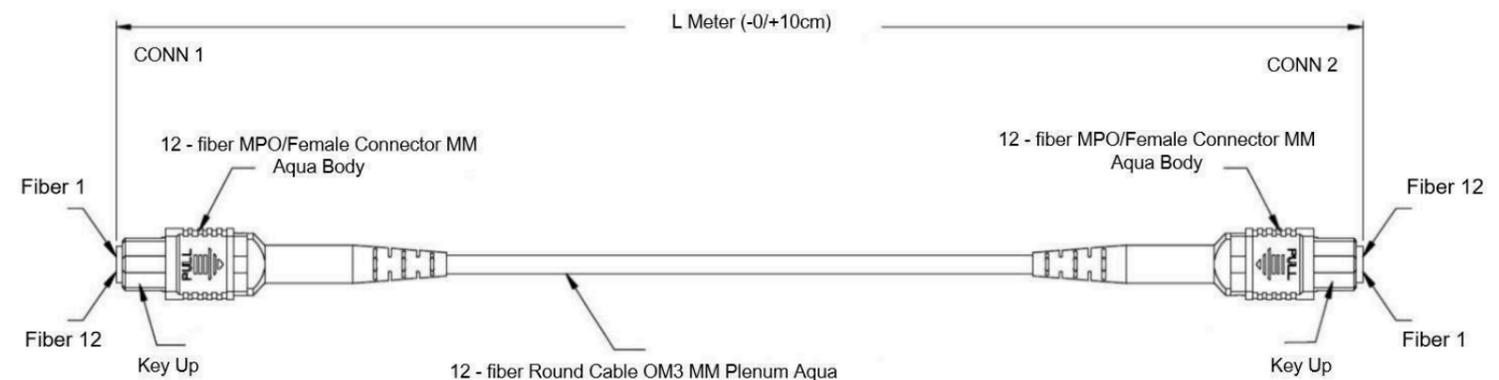
- Data Centre Infrastructure;
- Storage Area Network-Fiber Channel;
- Emerging 40G & 100Gps Protocols

Products Overviews :

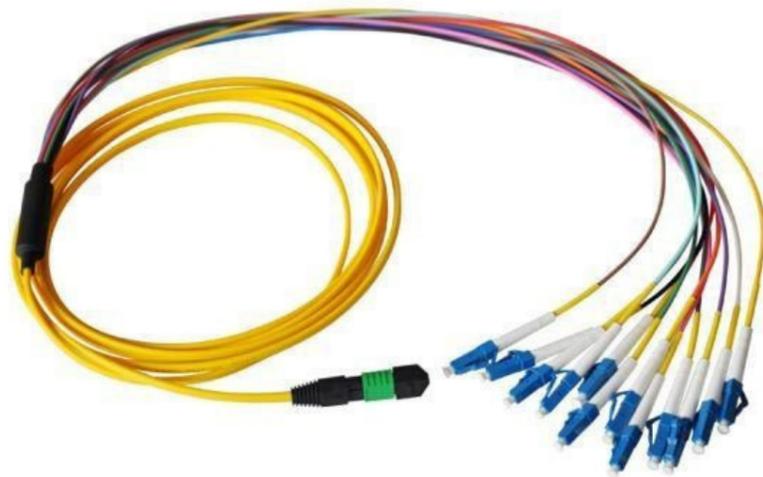
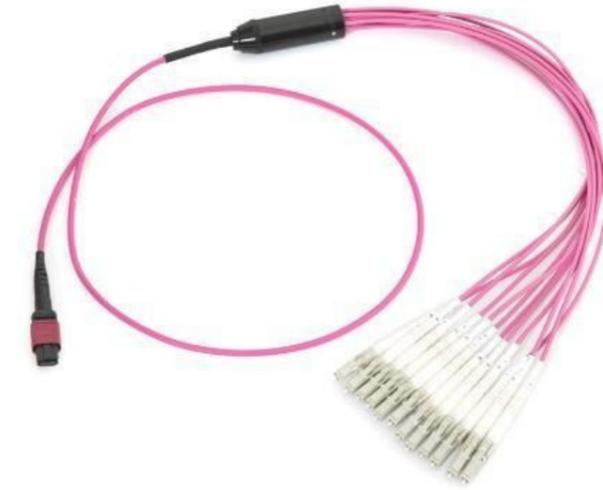
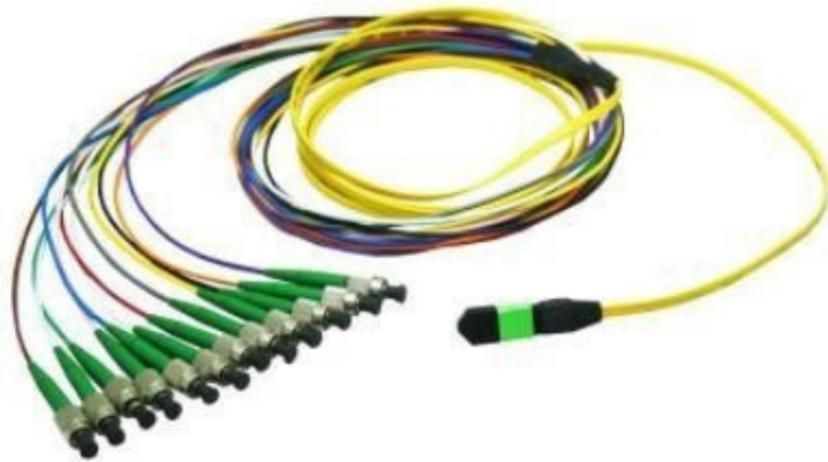
Pre-connector MTP® Trunk Cable Assemblies are made up of 12, 24, 48 fiber LSZH jacketed micro cables terminated at both ends with MTP® Connectors (without pins). These are used as backbone or horizontal cable interconnections . These plug and play solutions with micro core cable maximize bend radius and minimize cable weight and size. MTP® Trunk Cable are factory pre-terminated, tested and packed along with the test reports. These assemblies are available in OM3, OM4 and SM fiber. Standard lengths of 5, 10, 25 meters are available. Custom lengths are also available on request. The MTP® Trunk cables are packed as coils in lengths up to 50m long and on reels . OM3 and OM4 cables are available in aqua and SM cables are in yellow color .

MPO&MTP Optical Characteristics

Item	Parameter				Reference
	Single mode		Multimode		
	Standard	Elite	Standard	Elite	
Insertion loss	Typical ≤ 0.30 dB , Max ≤ 0.75 dB	Typical ≤ 0.15 dB , Max ≤ 0.35 dB	Typical ≤ 0.35 dB , Max ≤ 0.60 dB	Typical ≤ 0.15 dB , Max ≤ 0.35 dB	IEC 61300-3-34
Return loss	≥ 50 dB (PC) ≥ 60 dB (APC)	≥ 55 dB (PC) ≥ 65 dB (APC)	≥ 30 dB (PC)	≥ 30 dB (PC)	IEC 61300-3-6



Pre-Terminated Trunk Cable



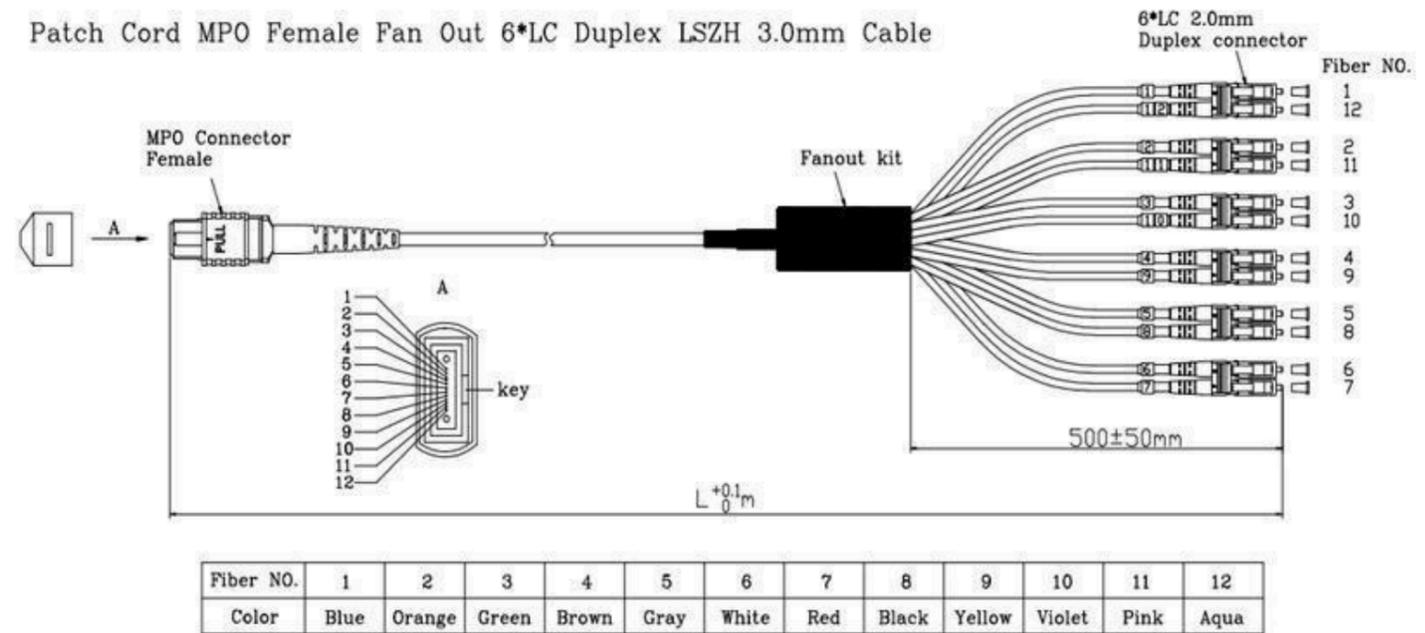
MTP® / MPO TO LC HARNESS / FANOUT

Feature

100% per-terminated and tested in factory to ensure transfer performance
 Rapid configuration and networking , reduce installation time
 Supports 40G and 100G network applications
 Jack material : LSZH , OFNR , OFNP available
 Supports up to 8F , 12F , 24F , 48F , 96F , 144F , customized products are available

Applications

Data Center network
 Optical system access network
 Storage area networking fiber
 channel High density architectures



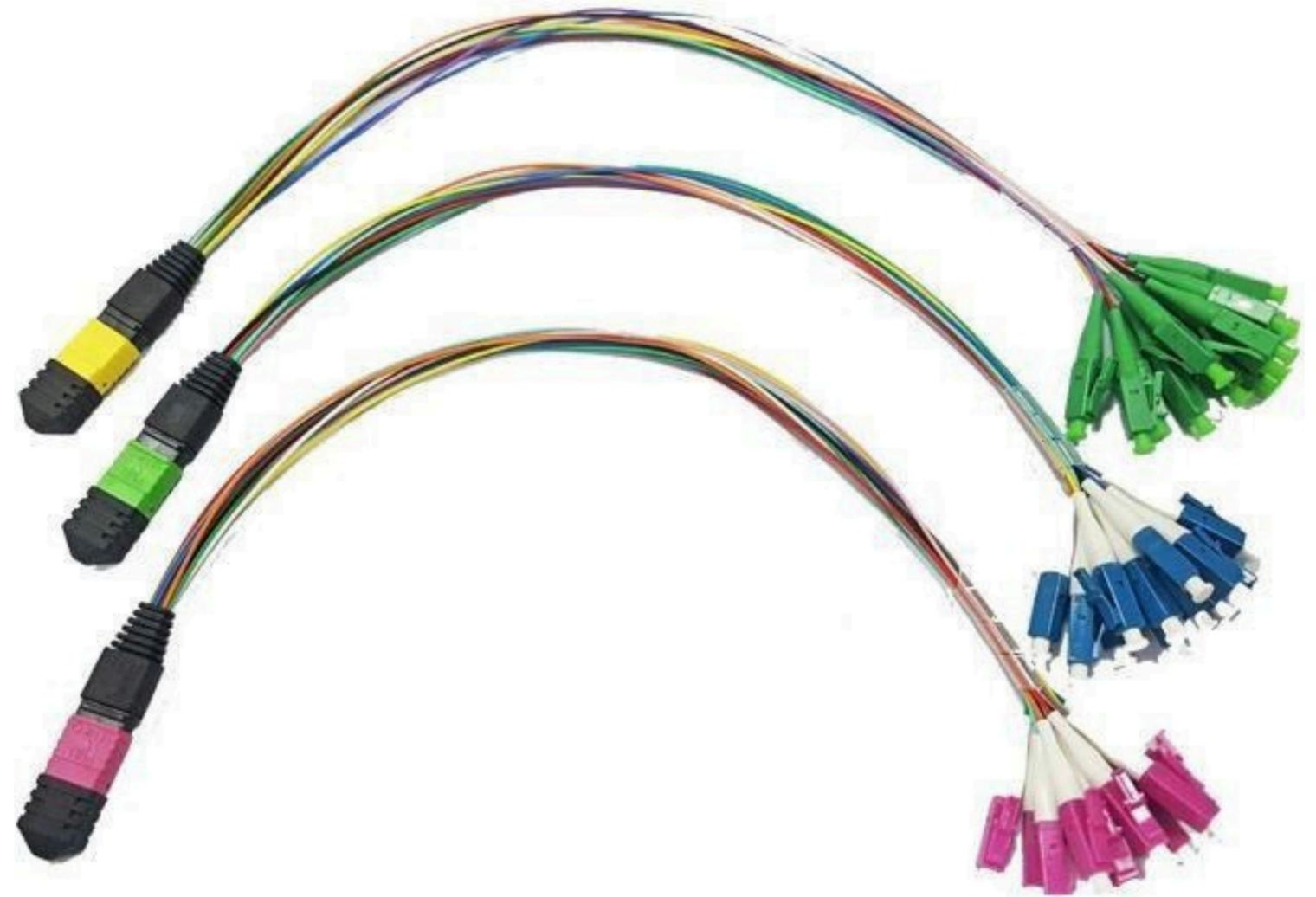
MPO&MTP Optical Characteristics

LC/SC/FC/ST Optical Characteristics

Item	Parameter		Reference
	Single mode	Multimode	
Insertion loss	Typical value ≤ 0.15 dB; Maximum ≤ 0.30	Typical value ≤ 0.15 dB; Maximum ≤ 0.30	IEC 61300-3-34
Return loss	≥ 60 dB (APC); ≥ 50 dB (UPC)	≥ 30 dB (UPC)	IEC 61300-3-6

Item	Parameter				Reference
	Single mode		Multimode		
	Standard	Elite	Standard	Elite	
Insertion loss	Typical ≤ 0.30 dB , Max ≤ 0.75 dB	Typical ≤ 0.15 dB , Max ≤ 0.35 dB	Typical ≤ 0.35 dB , Max ≤ 0.60 dB	Typical ≤ 0.15 dB , Max ≤ 0.35 dB	IEC 61300-3-34
Return loss	≥ 50 dB (PC) ≥ 60 dB (APC)	≥ 55 dB (PC) ≥ 65 dB (APC)	≥ 30 dB (PC)	≥ 30 dB (PC)	IEC 61300-3-6

MTP / MPO Fan out 0.9mm Patch Cords



MTP / MPO Fan out 0.9mm Patch Cords

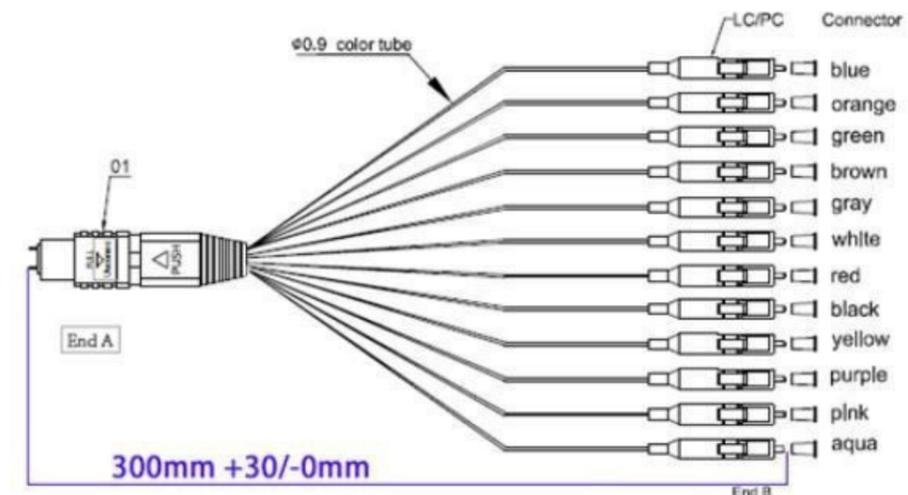
Pre-connector MTP® Fan-Out Hydra Cable Assemblies are designed for high density applications which require high performance and speedy installation without onsite termination. MTP® Fan-Out Hydra Cable Assembly is made up of 12 LSZH jacketed cable terminated at one end in MTP® connectors, through a bifurcation unit, to SC or LC connectors terminated on 2mm OD simplex cables. These are used to connect equipment in racks to MTP® terminated backbone cables. MTP® fan-out cables are numbered for full traceability. Available in 12 core configuration, these space saving assemblies comes with either MTP® Male or MTP® Female Connectors on one end and LC or SC Connectors on the other end. They are available in OM3, OM4 or SM fiber in lengths of 5, 10, 25 meters, custom lengths are available on request.

Application

Date center network
 Optical system access
 network High density
 architectures

Feature

- High Performance in IL & RL;
- 8,12 and 24 fiber connector terminations and assemblies;
- Ruggedized round cable, oval cable and bare ribbon options available;
- Economical solution for mass-termination of fiber;
- Color coded housings available to differentiate fiber type, polish type and/or connector grade;
- 100 % house tested;
- Support higher speed ethernet and fibre channel applications for OM3 ,OM4 & SM fibers.

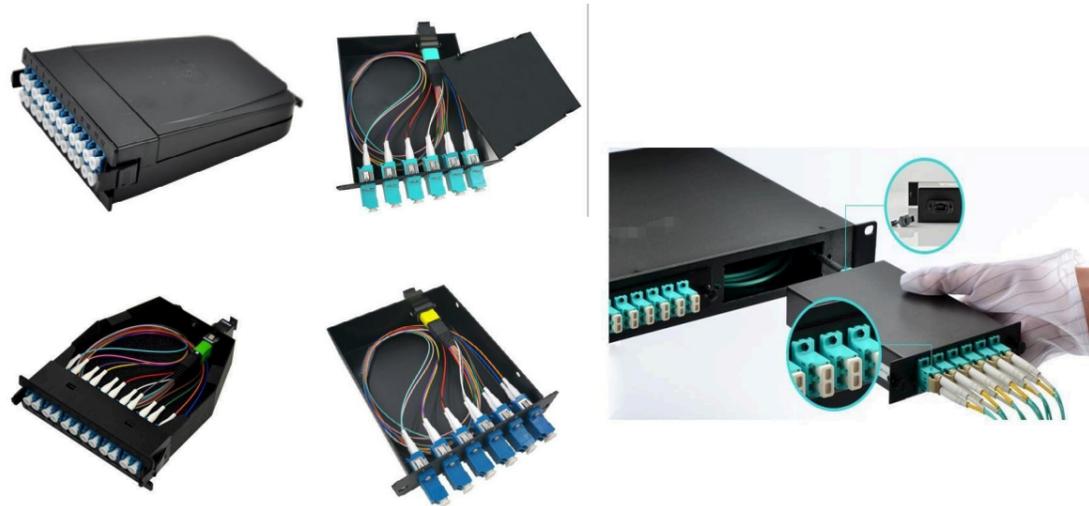


Product Specification			
Connector A	US Conec MTP® Female (Pinless)	Connector B	US Conec MTP® Female (Pinless)
Fiber Mode	OM4 50/125µm	W avelength	850/1300nm
40/100G Ethernet Distance	150m at 850nm	10G Ethernet Distance	400m at 850nm
Polish Type	UPC to UPC	RoHS Compliancy Status	Compliant
Insertion Loss	0.35dB Max (0.15dB Typ.)	Return Loss	≥20dB
Attenuation at 850nm	≤2.3 dB/km	Attenuation at 1300nm	≤0.6 dB/km
Jacket OD	3.0mm	Cable Jacket	Plenum (OFNP)

LC/SC/FC/ST Optical Characteristics

Item	Parameter		Reference
	Single mode	Multimode	
Insertion loss	Typical value≤0.15dB;Maximum≤0.30	Typical value≤0.15dB;Maximum≤0.30	IEC 61300-3-34
Return loss	≥ 60dB (APC); ≥ 50dB (UPC)	≥30dB (UPC)	IEC 61300-3-6

High Density Fiber Optic MTP/ MPO cassette module



Features:

- □ Standard size, light weight and reasonable structure
- □ FC, SC, ST, LC adapter for option
- Front access panel design for easy operation
- Snap in Lock Design for easy change
- Suitable for 19" standard optic distribution cabinets
- Max. capacity 144 fibers
- 4 fiber cable entry ports at rear side
- Materials: aluminum

Application:

Telecommunications
 Fiber to the home (FTTH)
 LAN/WAN
 CATV

Mechanical characteristics

Product color	Black
Splices trays	1- 6 cassettes
Adapter	LC / SC / ST / FC / E2000 / MPO
Curvature radius	≥ 40mm
Lateral pressure-resistance	500N
Accessories	Tie , splice tube , screw
Working temperature	-40°C ~ + 60°C
Design standard	TIA/EIA568.C, ISO/IEC 11801, En50173, IEC60304, IEC61754, EN-

Technical Parameters

ITEM	Parameter
Fiber Capacity of panel	12-144 fiber (12 24 48 port usually)
Panel Connector	SC LC ST FC E2000 MPO MTP
Type	Sliding Fixed
Dimension	19" 1U / 2U / 3U / 4U...
Material	Aluminum
Color	Black
Standard accessory package	Cable ties, mounting ear screws, and splice tube
Operating temperature	-25°C~+40°C
Storage temperature	-25°C~+55°C

High Density Fiber Optic Patch Panel

1U Pre-terminated Fiber Optic Patch Panel



Model	Fiber quantity	Height	Dimension	Weight	Remark
ODF-1U12SC	12	1U	430*362.4*44mm	4.6kg	splice trays inside

Features:

- Standard size, light weight and reasonable structure
- FC, SC, ST, LC adapter patch panel for option
- Front access panel design for easy operation
- Snap in Lock Design for easy change
- Suitable for 19" standard optic distribution cabinets
- Max. capacity 24 fibers
- 4 fiber cable entry ports at rear side
- Materials: SPCC (black coating)

Application:

Telecommunications
 Fiber to the home (FTTH)
 LAN/WAN
 CATV

Technical

ITEM	Parameter
Fiber Capacity of panel	12-144 fiber (12 24 48 port usually)
Panel Connector	SC LC ST FC E2000 MPO MTP
Type	Sliding Fixed
Dimension	19" 1U / 2U / 3U / 4U...
Material	Aluminum
Color	Black
Standard accessory package	Cable ties, mounting ear screws, and splice tube
Operating temperature	-25°C~+40°C
Storage temperature	-25°C~+55°C

LC/SC/FC/ST Characteristic

Parameter	Unit	LC, SC, FC, ST			
		SM			MM
		PC	UPC	APC	PC
Insertion Loss (Typical)	dB	≤0.2	≤0.2	≤0.2	≤0.2
Return Loss	dB	≥45	≥50	≥60	≥30
Exchangeability	dB	≤0.2			
Repeatability	dB	≤0.2			
Durability	Time	>1000			
Operating Temperature	°C	-40~75			
Storage Temperature	°C	-45~85			

High Density Fiber Optic Patch Panel

2U Pre-terminated Fiber Optic Patch Panel



Flexible and changeable, the panel can be used in any combination

Model	Fiber quantity	Height	Dimension	Weight	Remark
ODF-2U36SC	36	2U	430*362.4*88mm	9.2kg	splice trays inside

Features:

- Standard size, light weight and reasonable structure
- FC, SC, ST, LC adapter patch panel for option
- Front access panel design for easy operation
- Snap in Lock Design for easy change
- Suitable for 19" standard optic distribution cabinets
- Max. capacity 96 fibers
- 4 fiber cable entry ports at rear side
- Materials: aluminum

Application:

Telecommunications
 Fiber to the home (FTTH)
 LAN/WAN

Mechanical characteristics

Product color	Black / RAL7035
Splices trays	1- 4 cassettes
Adapter	LC / SC / ST / FC / E2000 / MPO
Curvature radius	≥ 40mm
Lateral pressure-resistance	500N
Accessories	Tie , splice tube , screw
Working temperature	-40°C ~ + 60°C
Design standard CATV	TIA/EIA568.C, ISO/IEC 11801, En50173, IEC60304, IEC61754, EN-297-1

ITEM	Parameter
Fiber Capacity of panel	12-144 fiber (12 24 48 port usually)
Panel Connector	SC LC ST FC E2000 MPO MTP
Type	Sliding Fixed
Dimension	19" 1U / 2U / 3U / 4U...
Material	Aluminum
Color	Black
Standard accessory package	Cable ties, mounting ear screws, and splice tube
Operating temperature	-25°C~+40°C
Storage temperature	-25°C~+55°C

High Density Fiber Optic Patch Panel HODF-RS144-1U

Description:

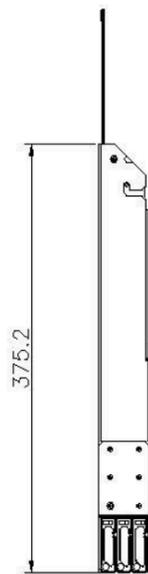
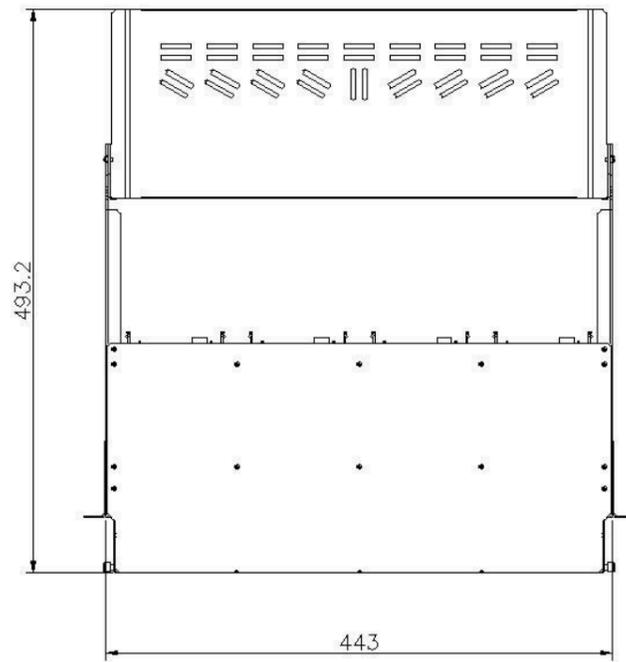
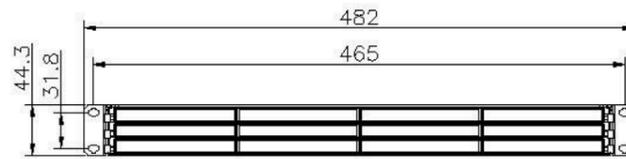
HODF-RS144-1U is a high density fiber optic patch panel that made by high quality cold roll steel material, the surface is with electrostatic powder spraying. It is sliding type 1U height for 19inch rack mounted application. It has 3pcs plastic sliding trays, each sliding tray is with 4pcs MPO cassettes. It can load 12pcs MPO cassettes HD-08 for max. 144 fiber connection and distribution. There are cable management plate with fixing holes at back side of patch panel.

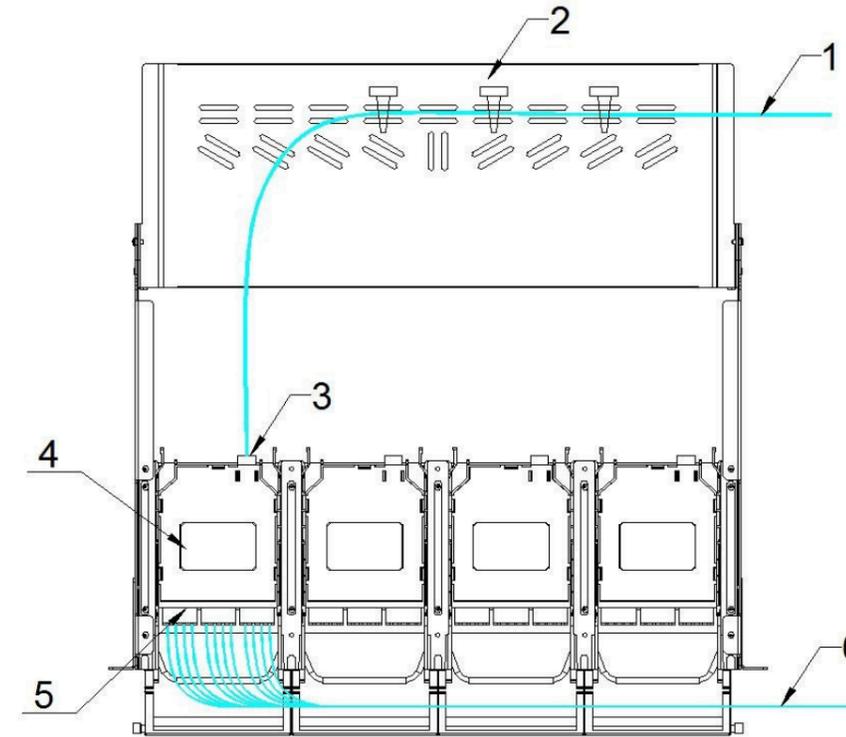


Features:

- Standard 1U height, 19inch rack mounted, suitable for cabinet, rack installation.
- Made by high strength cold roll steel
- Electrostatic power spraying can pass 48 hours salt spray test
- Mounting hanger can be adjusted forward and backward
- With sliding rails, smooth sliding design, convenient for operating
- With cable management plate at rear side, reliable for optical cable management

Drawings: (mm)





- 1.MPO/MTPpatchcord 2.Cablefixingholeandcabletie 3.MPOadapter
4. MPO cassette HD-08 5. LC or SC adapter 6. LC or SC patch cord

Accessories:

Item Name	Specification	Qty	
1	Mounting hanger	67*19.5*44.3mm	2pcs
2	Countersunk head screw	M3*6/metal/Black zinc	12pcs
3	Nylon cable tie	3mm*120mm/white	12pcs

Packing information:

Carton	Size	Net weight	Gross weight	Packing qty	Remark
Innercarton	48x41x6.5cm			1pc	Innercarton0.4kgs
Mastercarton	50x43x36cm	4.2kgs	4.6kgs	5pcs	Mastercarton1.3kgs
		23kgs	24.3kgs		

Note: Above weight is not included the MPO cassette HD-08. Each HD-08 is 0.0542kgs.

Photos:

