

UHD MPO-LC OPTICAL MODULAR CHASSIS

1U/2U/4U 19" PATCH PANEL -LOADING WITH 12 CORES MPO-LC CASSETTES



Description

The UHD MPO-LC series is a family of high-density, modular fiber distribution patch panels designed for 19-inch (482.6 mm) rack mounting. Each panel accepts standardized 12-core MPO-LC cassette modules: a multi-fiber MPO trunk interface on the rear is fanned out internally to duplex LC interfaces on the front, providing a compact and orderly transition between high-density MPO backbone cabling and conventional LC patching.

Three rack-heights cover a full range of densities:

1U panel — 12 module slots, up to 144 fibers (12 × 12-core modules);

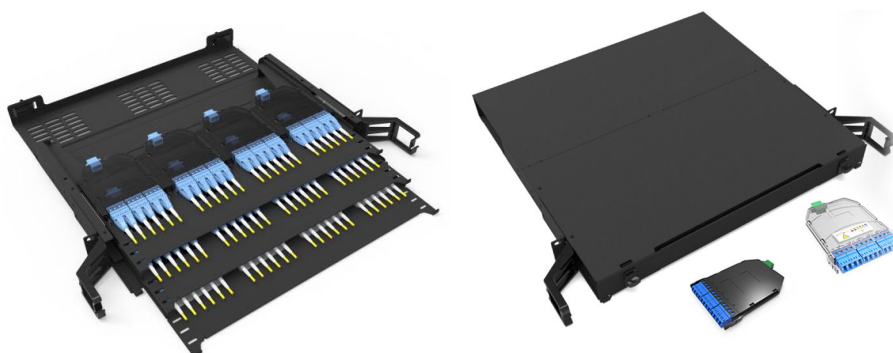
2U panel — 24 module slots, up to 288 fibers (24 × 12-core modules);

4U panel — 48 module slots, up to 576 fibers (48 × 12-core modules).

The chassis is manufactured from aluminum alloy for a light weight, high mechanical strength and good grounding performance. The series supports OS1, OS2, OM3, OM4 and OM5 fiber classes as well as UPC or APC polish options, making it suitable for single-mode and multimode networks from enterprise LAN to hyperscale data centers.

Technical Specifications

Products Details-1U



Product name	1U 144F UHD MPO&MTP-LC Slide Drawer Rack mount patch panel	Part No	UHD1S1-12
Enclosure Type	Rack Mountable	Fiber Count	Max.144 Fibers
Installation	Standard EIA 19" Rack	Material	Aluminum alloy
Compliant	TIA/EIA-568-C.3	Dimensions (WxDxH)	537mmx424.6mmx44mm

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Technical Specifications

Products Details-2U



Product name	2U 288F UHD MPO&MTP-LC Slide drawer Rack mount patch panel	Part No	UHD1S2-24
Enclosure Type	Rack Mountable	Fiber Count	Max.288Fibers
Installation	Standard EIA 19" Rack	Material	Aluminum alloy
Compliant	TIA/EIA-568-C.3	Dimensions (WxDxH)	537mmx424.6mmx89mm

Products Details-4U



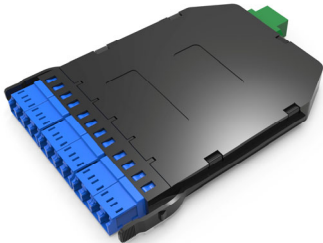
Product name	4U 576F UHD MPO&MTP-LC Slide drawer Rack mount patch panel	Part No	UHD1S3-48
Enclosure Type	Rack Mountable	Fiber Count	Max. 576Fibers
Installation	Standard EIA 19" Rack	Material	Aluminum alloy
Compliant	TIA/EIA-568-C.3	Dimensions (WxDxH)	537mmx424.6mmx177mm

UHD MPO-LC OPTICAL MODULAR CHASSIS

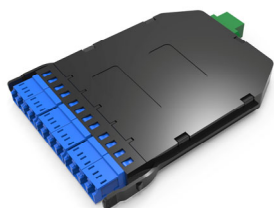
1U/2U/4U 19" PATCH PANEL -LOADING WITH 12 CORES MPO-LC CASSETTES



MPO-LC Modular Cassette

1 x 12F MPO to 6x LC duplex	Front ports	Rear port	Material	Dimension(mm)
	6x LC duplex adapters HD Type	1 x MPO-12	ABS	95x124.5x12

1 x 12F MPO to 6x LC duplex	Front ports	Rear port	Material	Dimension(mm)
	6x HDLC duplex adapters with Inner dust-proof auto shutter HD Type	1 x MPO-12	ABS	95x124.5x12



BLACK Color
MPO/MTP-LC Cassette



TRANSPARENT
MPO/MTP-LC Cassette

Other Accessories

MPO Adapter	Keyway	Footprint	Insertion Loss	Color
	Opposed (Up-Down) Aligned (Up-Up)	MPO/MTP standard	$\leq 0.2\text{dB}$	Black

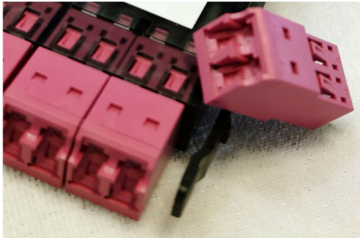
LC DX Reduced flange Adapter	Keyway	Footprint	Insertion Loss	Color
	Aligned (Up-Up)	SC Footprint	$\leq 0.2\text{dB}$	SM:BLUE OM3:AQUA OM4:MAGENTA OM5:LIME GREEN

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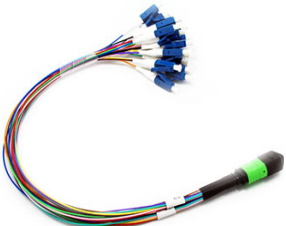


Other Accessories

LC DX Reduced flange Adapter	Keyway	Footprint	Insertion Loss	Color
	Aligned (Up-Up)	SC Footprint	$\leq 0.2\text{dB}$	SM:BLUE OM3:AQUA OM4:MAGENTA OM5:LIME GREEN

8F MPO-LC 0.9mm fanout 30cm	End A	End B	Optical Performance
	1x8F MPO&MTP (Male) with Pin	8x LC simplex 0.9 connectors	Standard MPO IL<0.5dB Super low loss MPO IL<0.35dB LC 's IL<0.3dB

12F MPO-LC 0.9mm fanout 30cm	End A	End B	Optical Performance
	1x12F or 16F MPO&MTP(Male) with Pin	12x LC simplex 0.9 connectors	Standard MPO IL<0.5dB Super low loss MPO IL<0.35dB LC 's IL<0.3dB

24F MPO-LC 0.9mm fanout 30cm	End A	End B	Optical Performance
	1x24F MPO&MTP (Male) with Pin	24x LC simplex 0.9 connectors	Standard MPO IL<0.5dB Super low loss MPO IL<0.35dB LC 's IL<0.3dB

Design Principles

High-Density MPO-to-LC Transition

The panel converts dense MPO trunk cabling (12 or 24 fibers per connector) into individual duplex LC connections. Up to 144 fibers can be terminated in a single 1U of rack space, reducing rack footprint and cabling volume compared with conventional LC patch panels.

Modular and Scalable Architecture

Modules are installed into the panel only as required and can be added, replaced or reconfigured without disturbing adjacent circuits. This front-accessible, tool-less design shortens deployment time and simplifies future upgrades.

Design Principles

Polarity Management

MPO-based links follow the polarity methods (Type A, Type B and Type C) defined in ANSI/TIA-568.3-D. Modules, trunk cables and patch cords are selected together to maintain end-to-end polarity consistency.

Fiber Protection and Cable Management

The internal fan-out fiber is factory terminated and protected within the module. Front and rear cable-management features enforce the minimum bend radius and provide strain relief, protecting fibers against micro-bending loss and accidental damage.

Material and Thermal Design

The aluminum alloy chassis combines low weight with high rigidity and provides an effective grounding path. Ventilated front/rear openings allow natural airflow through the panel, helping to keep modules within their operating temperature range in dense racks.

Standards-Based Mechanical Design

All panels follow the 19-inch equipment practice (482.6 mm mounting width, 44.45 mm per rack unit) in accordance with EIA-310-E / IEC 60297-3-100, ensuring drop-in compatibility with standard data-center and telecom racks.

Order Index

Unloaded patch panel

Part no.	Products Details
UHD1S1-12	1U 144F UHD MPO&MTP-LC Slide Drawer Rack mount patch panel
UHD1S2-24	2U 288F UHD MPO&MTP-LC Slide drawer Rack mount patch panel
UHD1S3-48	4U 576F UHD MPO&MTP-LC Slide drawer Rack mount patch panel

Full loaded MPO/MTP-LC Cassette

Cassette	Material	Adapter Type	MPO/MTP Quality level	Fiber mode
UHD1S	1-BLACK Color Cassette	1-HD type LC DX adapter +MPO(Opposed)	1-Standard loss MPO Male Senko	1- G657A1
	2-Transparent Cassette	2-HD type LC DX with Inner dust-proof auto shutter adapter +MPO(Opposed)	2-Super low loss MPO Male Senko	2-G657A2/B2
		3-HD type LC DX adapter +MPO(Aligned)	3-Standard loss MTP Male	3-G657B3
		4-HD type LC DX with Inner dust-proof auto shutter adapter +MPO(Aligned)	4-Super low loss Elite MTP Male	4-BIF OM1
			5-Standard loss MPO Male OMC	5-BIF OM2
			6-Super low loss MPO Male OMC	6-BIF OM3
				7-BIF OM4
				8-BIF OM5

For Example:UHD1S-1-1-1-1