EVO2 Ultra-High-Density Patch Panel & Cassette Solution

1U and 2U MPO/MTP fiber optic cabling system — up to 288 fibers per chassis

Overview

The EVO2 platform is an ultra-high-density MTP/MPO fiber optic wiring solution built for the data center. MTP/MPO is a miniaturized high-density connector standard in which a single connector carries multi-core ribbon fiber, delivering exceptional density with a stable, repeatable connection.

Termination and testing of the MTP/MPO connectors and ribbon cable are completed in the factory, so the assembly plugs and plays with equipment on site — supporting rapid data center deployment without field polishing or splicing.

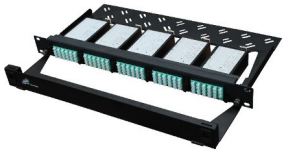
The result is an ideal answer to growing high-capacity cabling demand: simple installation, fast construction, a compact 19-inch design, high precision, and plug-and-play operation across both single-mode and multimode plant.



Key Features

- **Ultra-high density** — up to 1U-120F and 2U-288F fiber optic cabling in a single chassis
- **Standard 19-inch structure** — cabinet or rack mountable, front and rear cable management
- **Factory pre-terminated** — terminated and tested before shipment; plug and play at install
- **Modular cassettes** — 5 MPB2 module boxes per 1U, 12 per 2U, in any mix
- **Choice of front adapter** — 24-fiber LC or 12-fiber SC per cassette
- **Mixed media support** — LC, SC, MPO/MTP feed-through and CAT6A RJ45 panels in the same chassis
- **Fully passive** — no power required, no added heat load or cooling burden
- **Rugged construction** — SPCC cold-rolled steel, RAL9004 fine-sand texture finish

Product Models & Appearance



EVO2-1U

Up to 5 MPB2 cassettes — 120 fibers. Blind plates fill unused positions.



EVO2-2U

Up to 12 MPB2 cassettes — 288 fibers in two rack units.



MPB2 Cassette

Factory pre-terminated. 24F LC or 12F SC front adapter, MPO/MTP rear.



RJ45 Patch Panel

SPCC cold-rolled steel, modular jacks. Black finish.



12-Port MPO Feedthrough

12-port MPO Feedthrough Cassette



MPB2 Cassette — SC

12-fiber SC duplex front adapter option for legacy plant.

Chassis Structure

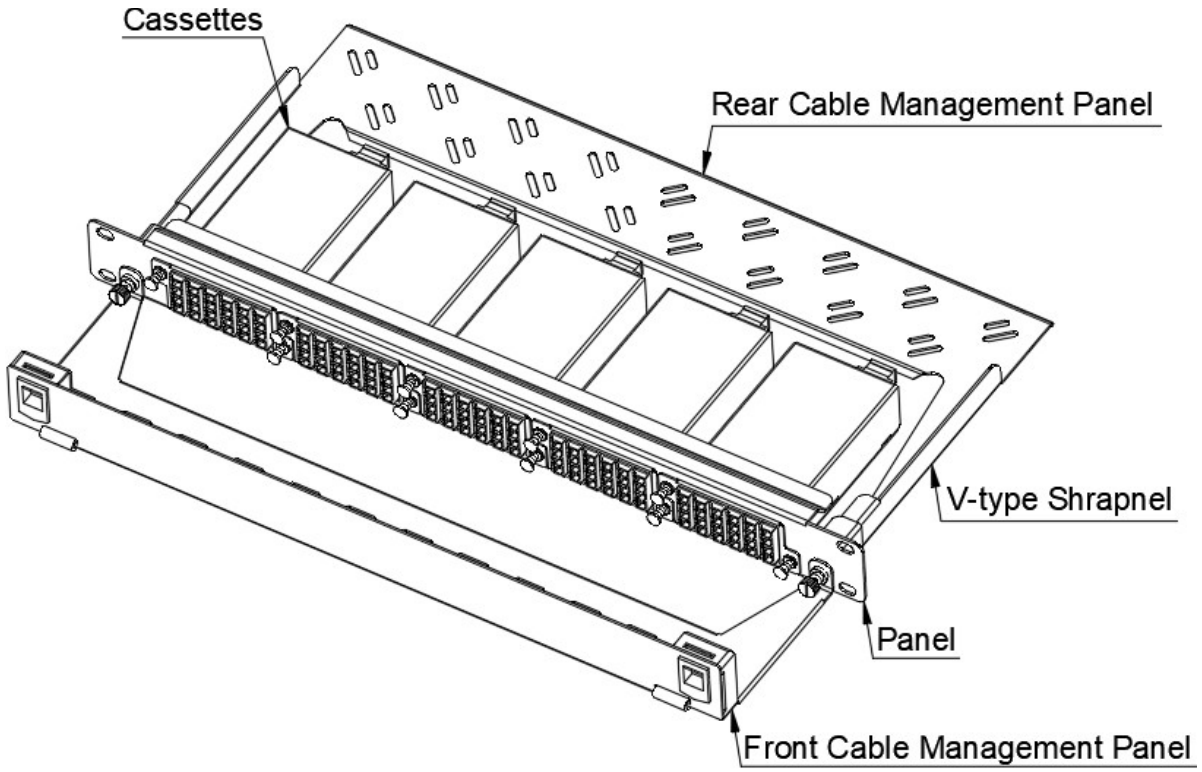


Figure 1 — EVO2 chassis assembly: cassette bay, front and rear cable management panels, V-type shrapnel retention, and front panel.

Chassis Specifications

Item	Description
Operating temperature	−20 °C to +55 °C
Storage temperature	−20 °C to +60 °C
Relative humidity	≤ 85% at +30 °C
Atmospheric pressure	70 kPa to 106 kPa
Chassis material	SPCC cold-rolled steel plate
Finish	Black, RAL9004 fine-sand texture spray
Dimensions (W × D × H)	483 mm × 364 mm × 1U (2U variant: 483 mm × 364 mm × 2U)
Fiber count	1U — 120F (5 cassettes); 2U — 288F (12 cassettes)
Rack mounting	19-inch standard, cabinet or open rack
Power	No power required — fully passive

MPB2 Cassettes (MPO/MTP to LC/SC)

Optical performance

Type	Wavelength	Module insertion loss (max.)
MTP-LC/SC (MM)	850 nm / 1300 nm	0.50 dB
MTP-LC/SC (SM)	1310 nm / 1550 nm	1.30 dB
MPO-LC/SC (MM)	850 nm / 1300 nm	0.75 dB
MPO-LC/SC (SM)	1310 nm / 1550 nm	1.50 dB

SM = single mode, MM = multimode.

Technical parameters

Item	Description
Fiber count	SC — 12F; LC — 24F
Fiber polarity	Type A
Front connector	LC straight quad (no ears) × 6 pcs, or SC duplex (no ears) × 6 pcs
Rear connector	SM — MPO/MTP (male) APC; MM — MPO/MTP (male) PC
Cassette material	SPCC cold-rolled steel sheet
Dimensions (W × D × H)	88 mm × 118 mm × 34 mm

Mechanical Drawings

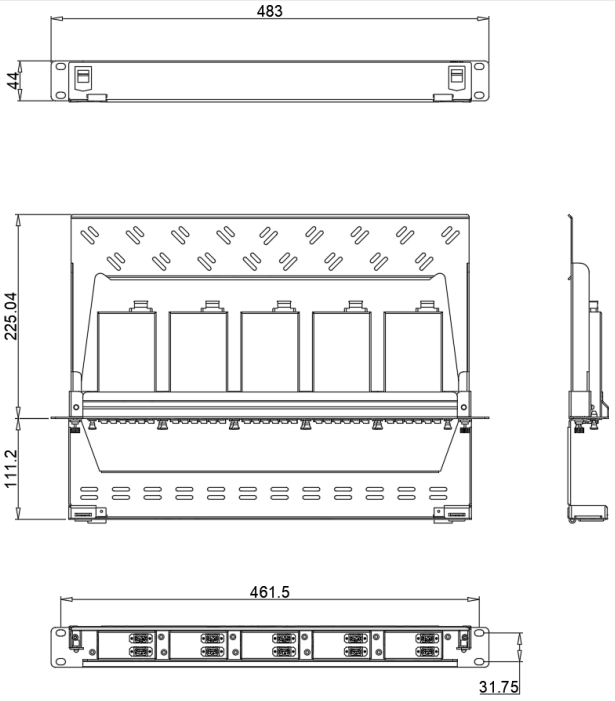


Figure 2 — EVO2-1U, 2D view

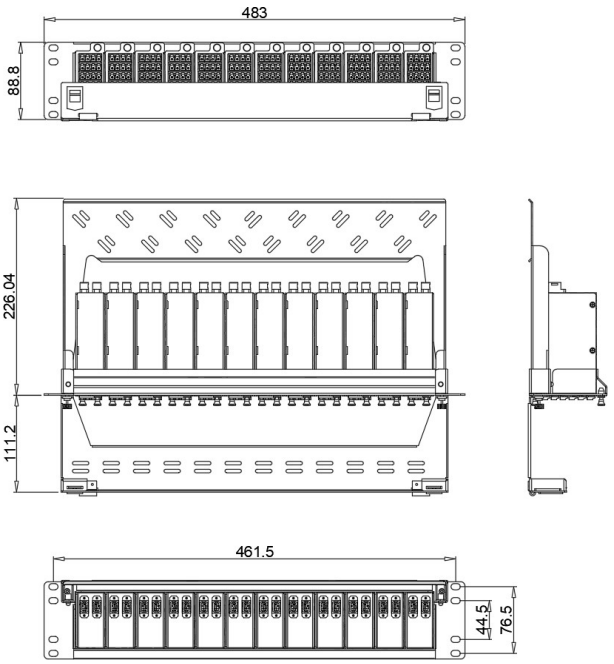


Figure 3 — EVO2-2U, 2D view

Ordering Information

Patch panel — EVO2

1	2	3	4	5	6
EVO2	EM	SP	B	9004	1U

Field	Options
1 — Model	EVO2
2 — Configuration	EM — empty chassis
3 — Main material	SP — cold-rolled steel plate
4 — Surface spraying	B — fine sand texture
5 — Spray color	9004 — RAL9004
6 — Chassis height	1U; 2U

EVO2-1U accommodates up to 5 cassettes and EVO2-2U up to 12. Blind plates fill any unpopulated position, so under normal circumstances cassettes + blind plates = 5 (1U) or 12 (2U).

Cassettes and panels — MPB2

1	2	3	4	5	6	7	8	9
MPB2	EM	SP	B	9004	2×12	MPO/PC	LC/UPC	OM3

Field	Options
1 — Model	MPB2

Field	Options
2 — Configuration	EM — empty box; AD — with adapter; AP — with adapter and jumper
3 — Main material	SP — cold-rolled steel sheet
4 — Surface spraying	B — fine sand texture
5 — Spray color	9004 — RAL9004
6 — Module jumpers	2×12 — two 12F cables; 1×24 — one 24F cable; 1×12 — one 12F cable
7 — Rear connector	MPO/PC; MPO/APC; MTP/PC; MTP/APC
8 — Front connector	LC/UPC; LC/APC; SC/UPC; SC/APC
9 — Fiber type	G657.A1; OM1; OM2; OM3; OM4; OM5

Adapter requirements
LC — inline quadruple short-ear type (asymmetric, plastic buckle). SC — duplex short-ear type. MPO — standard flange, one key facing up and the other facing down. MTP — standard flange, USCONEC specified, one key facing up and the other facing down.

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