

HD1U Rack Mount Enclosure

Modular 1U · 4x HD modules · Loose tube 48F · Ribbon LC 96F · 144F CTO

Loose tube build, 48F: 4x 12-port SC/UPC plates, 3 m loose-tube pigtails with color-coded 900 μ m ends, looped twice around the guides into black metallic splice trays.

OVERVIEW

One 1U chassis, three ways to build it

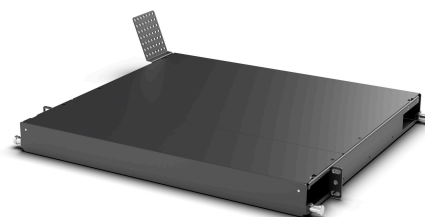
The One Optics HD1U is a modular 1U rack mount fiber enclosure. It holds 4 swappable HD style adaptor modules (adaptor plates), so the same chassis can be built for loose tube or ribbon fiber, SC or LC connectors, and UPC or APC polish.

Standard builds come loaded with pigtails and black metallic splice trays: loose tube up to 48F for single fusion, or ribbon LC up to 96F for mass fusion. A 144F ultra high density build with LC quad plates and splice chips is configured to order.

1U 19 in
RACK MOUNT**4x**
HD ADAPTOR
MODULES**48F**
LOOSE TUBE MAX**96F**
RIBBON LC MAX**144F**
ULTRA HD (CTO)**17 lb**
APPROX. WEIGHT

FEATURES & APPLICATIONS

- ✓ **Modular design:** 4x HD adaptor module capacity in 1U
- ✓ **19 in rack mount, 1U:** 1.77 in H x 17.72 in W x 16.06 in D (19.01 in W with rack ears)
- ✓ **Loose tube** up to 48F with 900 μ m pigtails; **ribbon LC** up to 96F with mass fusion pigtails
- ✓ Black metallic splice trays; splice chips on the 144F build only
- ✓ Singlemode and multimode; SC/UPC, SC/APC, LC/UPC and LC/APC
- ✓ Corning fiber pigtails, 100% cleaned and inspected end faces
- ✓ Removable magnetic front door and front / rear lids
- ✓ Sliding tray with spring-latch removal; rear cable entry with strain relief
- ✓ Accepts MPC-24-LC pass-through and OOF-24 / -36 splice cassettes
- ✓ IEC and TIA/EIA compliant; RoHS and REACH
- ✓ **Made in USA:** HD1U enclosure (MPC cassettes excluded)
- ✓ **Applications:** data center, enterprise, carrier, OSP

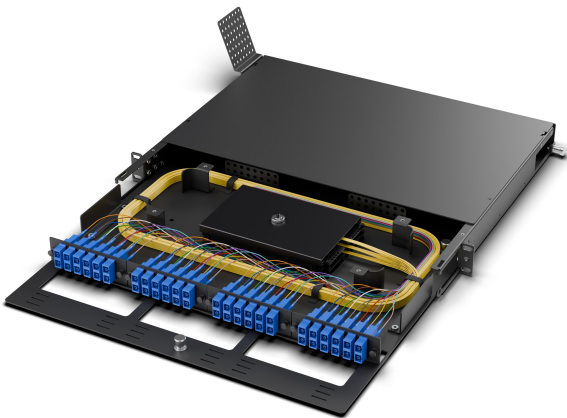


Closed for the rack. Lids on and tray in.

CONFIGURATION

Three ways to build it

Same chassis, same 4 HD adaptor positions. The build you choose sets the plates, the pigtails and how the fiber is spliced.

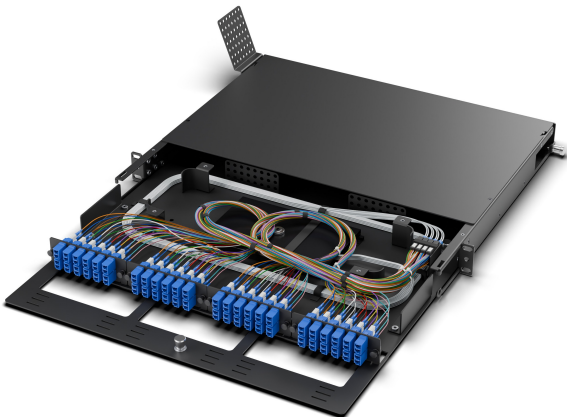


BUILD 01

Loose tube · up to 48F

Loose tube build, 48F: 4x 12-port SC/UPC plates, 900 µm loose tube singlemode pigtails, and black metallic splice trays.

PLATES	4x 12-port SC plates (SC/UPC shown), or 4x 12-port LC plates (6x LC duplex, LC/UPC or LC/APC)
PIGTAILS	3 m 900 µm single fusion, Corning fiber
SPLICING	Black metallic splice tray stack
EXAMPLE	HD1U-L-SC-48, HD1U-L-SA-24

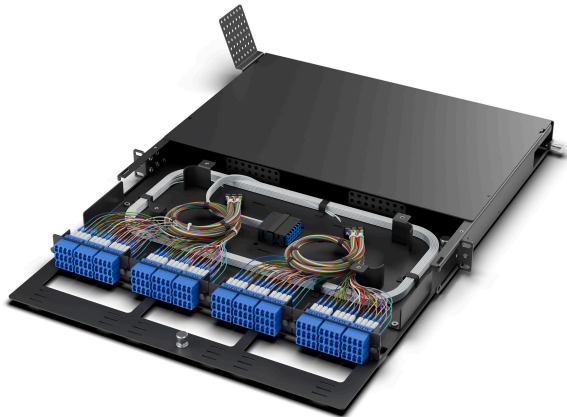


BUILD 02

Ribbon LC · up to 96F

Ribbon LC build, 96F: 4x 24-port LC/UPC plates, ribbon singlemode pigtails, and black metallic splice trays.

PLATES	4x 24-port LC plates (LC/UPC shown); LC/APC also available
PIGTAILS	Ribbon mass fusion, Corning fiber
SPLICING	Black metallic splice tray
EXAMPLE	HD1U-R-LC-96, HD1U-R-LA-96



BUILD 03

144F ultra high density [CONFIGURE TO ORDER](#)

Ribbon LC build, 144F: 4x 36-port LC quad plates (LC/UPC), ribbon singlemode pigtails, and splice chips (no splice tray).

PLATES	4x LC quad 36-port plates (LC/UPC shown); LC/APC also available
PIGTAILS	Ribbon mass fusion, Corning fiber
SPLICING	Splice chips, no splice tray
EXAMPLE	HD1U-R-LC-144, HD1U-R-LA-144

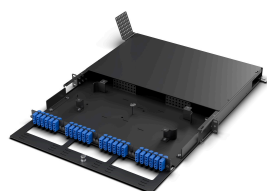
EVERY BUILD

CONNECTOR	POLISH	FIBER TYPE	FIBER
SC or LC (LC only on 144F)	UPC or APC	Singlemode or multimode	Corning; ribbon, loose tube and 250 µm pigtails

BUILD OPTIONS AT A GLANCE

BUILD	ADAPTOR PLATES	PIGTAILS	SPLICING	MAX FIBERS
Loose tube	4x 12-port SC or 12-port LC	900 μ m single fusion	Black metallic splice tray stack	48F
Ribbon LC	4x 24-port LC	Ribbon mass fusion	Black metallic splice tray	96F
Ribbon SC	4x 12-port SC	Ribbon mass fusion	Black metallic splice tray	48F
144F ultra high density	4x LC quad 36-port	Ribbon mass fusion	Splice chips (no tray)	144F CTO

ORDER IT UNLOADED

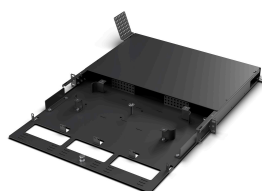


OPTION A

Adaptors only

The chassis ships with HD adaptor plates loaded in the connector and polish you choose, with no pigtails and no splice trays. Example:

HD1U-A-LC-96



OPTION E

Empty

The bare chassis, with no adaptor plates, pigtails or splice trays. All 4 HD adaptor positions are open for the plates, MPC or OOFc cassettes you add. Order as **HD1U-E**

HD ADAPTOR PLATE OPTIONS



LC/UPC



LC/APC



SC/UPC



SC/APC



LC quad
144F BUILD



MTP
ALSO AVAILABLE



RJ45
ALSO AVAILABLE



Blank
ALSO AVAILABLE

HOW THE MODULAR CHASSIS WORKS

01

Start with the 1U chassis

19 in rack mount, 1U: 1.77 in H x 17.72 in W x 16.06 in D (19.01 in W with rack ears), with removable front and rear lids, a removable magnetic front door and a sliding tray.

02

Choose a build

Loose tube up to 48F, ribbon LC up to 96F, or the 144F ultra high density build. Then pick connector (SC or LC), polish (UPC or APC) and fiber type.

03

Splice on the tray

Pigtails route to black metallic splice trays on the sliding tray for single fusion (900 μ m) or ribbon mass fusion. The 144F build uses splice chips instead. Cables enter at the rear, with strain relief.

04

Order a configuration

Choose a part number on page 4, or send us your fiber count and connector and we'll configure the HD1U to order.

Included in the box: strain relief bracket, laser light warning sticker, rack screws (4), 4 in zip ties (6), 8 in zip ties (4), Velcro, and a port ID chart.

ACCESSORY

Compatible: MPC-24-LC pass-through and OOFc-24 / -36 splice cassettes

An MPO-to-LC pass-through cassette for the HD adaptor positions, with no field splicing: two MTP-12 APC adaptors at the rear and 12 LC/UPC duplex adaptors (24 fibers) at the front. OS2 singlemode, Type A (-A) or Universal (-U) polarity. OOFc-24 and OOFc-36 splice cassettes also fit, 4 per HD1U.

MPC-24-LC-A

2x MTP-12 APC (rear) to 12 LC/UPC duplex (front), 24F OS2, Type A

MPC-24-LC-U

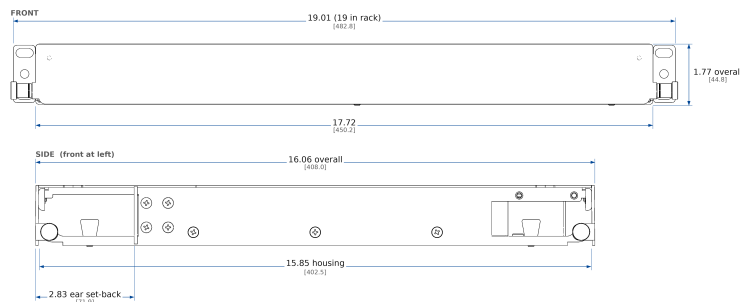
Same, Method B / Universal polarity



MPC-24-LC-A / -U MPO pass-through cassette.

Companion wall mounts: WMHD2X-L-SC-12 (12 SC ports) and WMHD2X-L-SC-24 (24 SC ports). Matching jumpers: singlemode LC and SC duplex (DX-) and simplex (SX-), UPC or APC, in 21 standard lengths from 1 to 100 m; multimode (OM3) and custom lengths on request.

DIMENSIONS



Front and side views. Dimensions in inches [mm].

ENCLOSURE SPECIFICATIONS

Rack units	1U, 19 in rack mount
Dimensions (H x W x D)	1.77 x 17.72 x 16.06 in (19.01 in W with rack ears)
Weight	Approx. 17 lb [7.8 kg], empty
Material	16 ga galvaneal steel, black powder coat
Capacity	Loose tube 48F; ribbon LC 96F (ribbon SC 48F); 144F LC quad to order
Splicing	Black metallic splice trays; splice chips on 144F only

Slot type	HD bulkheads (4x HD adaptor modules)
Fiber access	Removable doors, front / rear lids and sliding tray
Access type	Front, top and rear access
Front cable management	Hinged door with integrated cable manager
Cable entry direction	Rear
Compatible cassettes	MPC-24-LC MPO; OOF-24 / -36 splice

ORDERING & CONFIGURATION EXAMPLES

Part number format **HD1U-[L/R/A]-[LC/LA/SC/SA]-[count]** or **HD1U-E** fiber style · connector/polish · count

PART NUMBER	DESCRIPTION	PRICING
HD1U-L-LC-12	Loose tube, 12 ports LC/UPC, 3 m 900 µm single fusion pigtailed and splice tray	Contact sales
HD1U-L-LA-12	Loose tube, 12 ports LC/APC, 3 m 900 µm single fusion pigtailed and splice tray	Contact sales
HD1U-L-LC-48	Loose tube, 48 ports LC/UPC, 3 m 900 µm single fusion pigtailed and splice tray stack	Contact sales
HD1U-L-SA-24	Loose tube, 24 ports SC/APC, 3 m 900 µm single fusion pigtailed and splice trays	Contact sales
HD1U-L-SC-48	Loose tube, 48 ports SC/UPC, 3 m 900 µm single fusion pigtailed and splice tray stack	Contact sales
HD1U-R-SC-24	Ribbon, 24 ports SC/UPC, 3 m ribbon mass fusion pigtailed and splice tray	Contact sales
HD1U-R-SA-24	Ribbon, 24 ports SC/APC, 3 m ribbon mass fusion pigtailed and splice tray	Contact sales
HD1U-R-SC-48	Ribbon, 48 ports SC/UPC, 3 m ribbon mass fusion pigtailed and splice tray	Contact sales
HD1U-R-LC-48	Ribbon, 48 ports LC/UPC on 12-port plates, 3 m ribbon mass fusion pigtailed and splice tray	Contact sales
HD1U-R-LC-96	Ribbon, 96 ports LC/UPC on 24-port plates, 3 m mass fusion pigtailed and splice tray	Contact sales
HD1U-R-LA-96	Ribbon, 96 ports LC/APC on 24-port plates, 3 m mass fusion pigtailed and splice tray	Contact sales
HD1U-R-LC-144	144 ports LC/UPC on LC quad plates, ribbon pigtailed, splice chips (configure to order)	Contact sales
HD1U-R-LA-144	144 ports LC/APC on LC quad plates, ribbon pigtailed, splice chips (configure to order)	Contact sales
HD1U-A-LC-96	Adaptors only: 96 ports LC/UPC (4x 24-port LC plates); no pigtailed, no splice trays	Contact sales
HD1U-E	Empty chassis: no adaptor plates, pigtailed or splice trays	Contact sales
Custom	Any build, connector, polish, fiber type and port count within capacity, configured to order	Contact sales

HOW TO READ THE PART NUMBER · HD1U-L-SC-48

FIBER STYLE

L = 900 µm loose tube pigtailed
R = ribbon pigtailed
A = adaptor plates only, no pigtailed or trays
E = empty chassis (**HD1U-E**, no suffix)

Singlemode is standard; multimode available on request.

CONNECTOR / POLISH

LC = LC/UPC · **LA** = LC/APC
SC = SC/UPC · **SA** = SC/APC

LAST NUMBER

Fiber count
 (12 to 144);
 port count on A builds

Contact sales for pricing. Test data and certificate of conformance available on request. Specifications subject to change. Rev A · 2026-10.