OPT-X™ HDX Unity Ultra Low Loss Base12/24 MTP® Cassettes

APPLICATION

OPT-X HDX Unity Base12/24 MTP Cassettes are pre-terminated, pre-tested, and come with 12- or 24-fiber MTP connectors on the back that break out to single or array connectors on the front. MTP Connectors feature ultra low loss to support maximum distance and multiple connection points while staying within IEEE Ethernet application low-loss limits. Available with LC connectors featuring visible internal white shutters offering an IP5x dust rating, faster installation, and protection from eye exposure to laser light. Cassettes are custom-built to your configuration needs.

SPECIFICATION

All pre-terminated components, including trunks, cassettes, harnesses, brackets, patch panels, and enclosures, shall be provided and warranted by a single manufacturer. MTP connectors shall mate to key up/key down adapter on rear of cassette. LC adapters shall use ceramic ferrules and shall provide an option for IP5x-rated internal shutters, compliant with IEC 60529, that open and close automatically with the insertion and removal of an LC Connector. Multimode cassettes shall meet an optical insertion loss not to exceed 0.35 dB for Base12 MTP-to-LC cassettes, 0.50 dB for Base 24 MTP-to-LC cassettes, 0.55 dB for Base12 MTP-to-MTP cassettes, or 0.75 dB for Base24 MTP-to-MTP cassettes. Single-mode cassettes shall meet an optical insertion loss not to exceed 0.50 dB for Base12 and Base24 MTP-to-LC cassettes or 0.75 dB for Base24 MTP-to-MTP cassettes. Cassettes shall be pre-terminated and pre-tested with test documentation provided upon request. Cassettes available in method A, B, C, and Universal Polarity and shall allow for multiple cassettes to be connected in a channel.

COUNTRY OF ORIGIN

Please contact customer service

FEATURES

- Ultra Low-Loss Base12 and Base24 MTP Connectors for maximum network design flexibility
- Pre-terminated fiber eliminates the need for complicated and craft-sensitive field terminations and splices
- Patented internal shutters on LC adapters eliminate the need for dust plugs to reduce waste, accelerate deployment, and ensure safer installation
- One cassette supports up to 48 fibers (MTP to MTP)
- Select from a variety of fiber types including single-mode (OS2), laser-optimized multimode (OM3 and OM4), and SWDM Multimode (OM5)
- Discrete connectors are heat cured and use ceramic ferrules and sleeves for consistent performance
- Labeled to identify channel, wiring, and polarity

DESIGN CONSIDERATIONS

- Fits in all UHDX and HDX Enclosures and panels for 144 or 96 fibers per RU
- Fits in HDX Fiber Distribution Frame Patching Decks
- MTP adapters oriented key up/key down (or opposed) on back of cassette
- Leviton Base24 MTP connectors have a 20 N spring to provide max 0.35 dB insertion loss. If mated to another vendor's 24-fiber MPO connector with a 10 N spring, performance may result in >0.35 dB insertion loss.
- If selecting Method B Core, the other end of each channel needs to be Method B Edge
- 24-F and Legacy 12-F MTP Applications: Method B trunk links require one Core (black thumb latch) and one Edge (white thumb latch) MTP-LC cassette
- 12-F Applications: Universal Polarity MTP-to-LC Cassettes; require method B trunks with one cassette on each end
- Universal and Conversion Cassette options available

STANDARDS & REGULATIONS

- Supports data rates identified in multiple IEEE 802.3xx standards as applicable by connector type and cable grade
- ANSI/TIA-942 data center design guidelines
- ANSI/TIA-568.3-D for performance requirements
- ANSI/TIA-604-5 (MTP) and -10B (LC) for connector intermateability
- IEC 60529 IP5x dust protection (LC)

MECHANICAL SPECIFICATIONS

Dimensions:	See page three
Materials:	Gray polycarbonate
Temperature (Installation):	-10 °C to +60 °C
Temperature (Operating):	-10 °C to +60 °C

Copyright © 2023 Leviton Manufacturing Co., Inc. All rights reserved.
Leviton reserves the right to modify product specifications without notice.

E23 SS1105-GL ENv4
Revised May 2023

PERFORMANCE SPECIFICATION

FIBER CASSETTE INSERTION LOSS (DB)				
	Multimode		Single-mode	
	Base12 Max IL	Base24 Max IL	Base12 Max IL	Base24 Max IL
MTP-LC	0.35	0.50	0.50	0.50
MTP-MTP	0.55	0.75	—	0.75

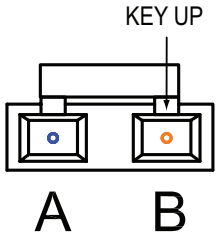
TYPICAL 12-FIBER WIRING CONFIGURATIONS			
Port ID	Discrete Connector Position	Fiber Color	MTP Connector Position
1	A	Blue	1
	B	Orange	2
2	A	Green	3
	B	Brown	4
3	A	Slate	5
	B	White	6
4	A	Red	7
	B	Black	8
5	A	Yellow	9
	B	Violet	10
6	A	Rose	11
	B	Aqua	12

COLOR CODES	
Adapters	
OM3/4	Aqua
OM4	Heather Violet
OM5	Lime Green
OS2	Blue

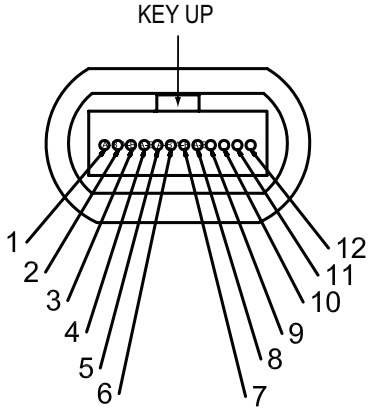
WARRANTY INFORMATION

For Leviton product warranties, go to leviton.com/ns/warranty

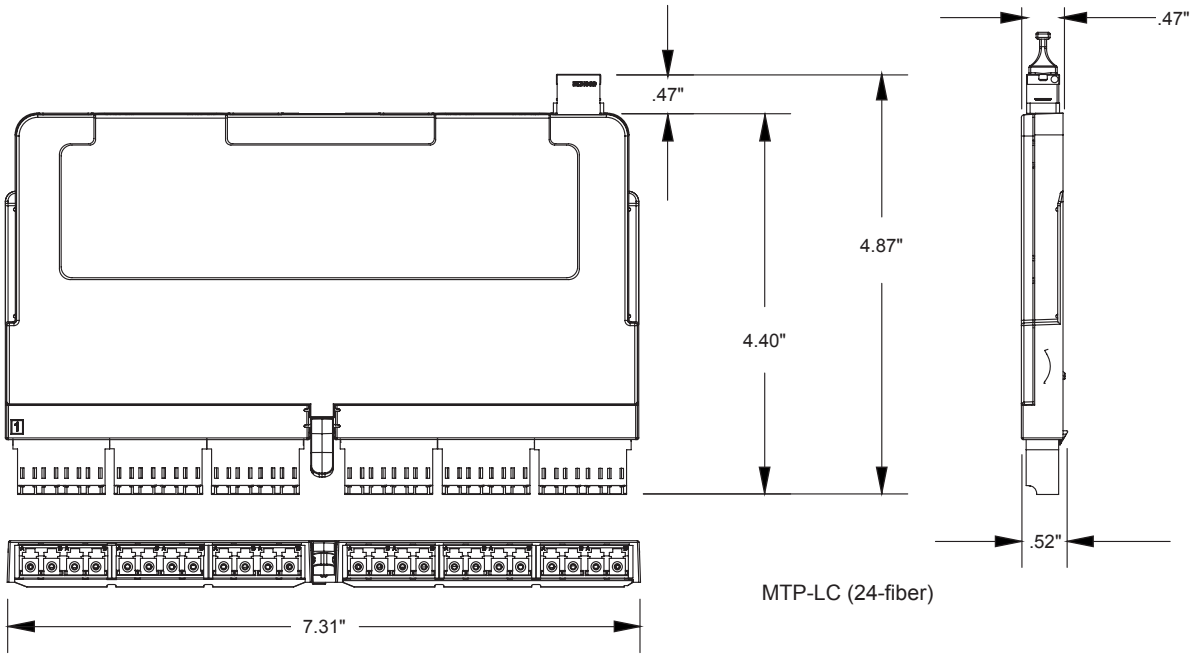
Discrete Duplex Connector



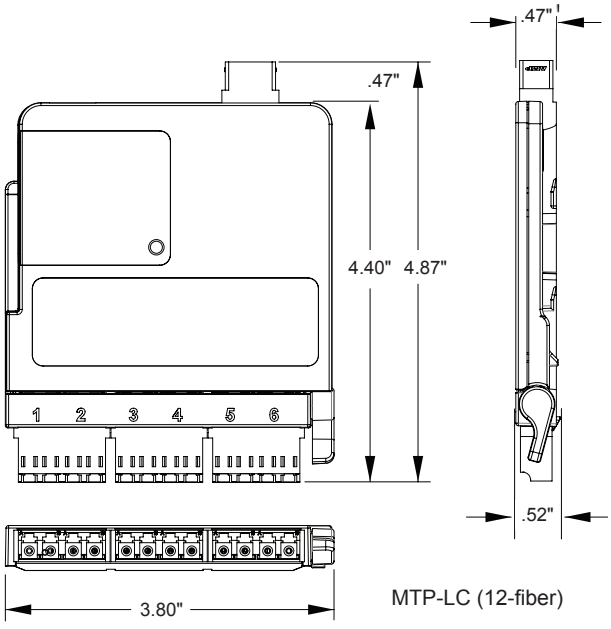
MTP Connector



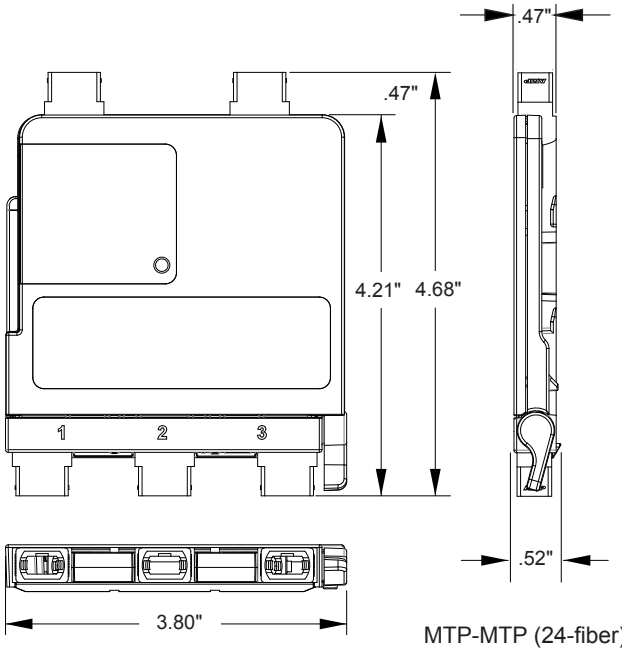
Copyright © 2023 Leviton Manufacturing Co., Inc. All rights reserved.
Leviton reserves the right to modify product specifications without notice.



MTP-LC (24-fiber)



MTP-LC (12-fiber)



MTP-MTP (24-fiber)

Copyright © 2023 Leviton Manufacturing Co., Inc. All rights reserved.
Leviton reserves the right to modify product specifications without notice.

LEVITON
Network Solutions

BASE12 CASSETTES — POPULAR CONFIGURATIONS

Description	Part No.
HDX OM3, 12-fiber MTP (male) to LC shuttered (aqua), Universal Polarity	31LSM4-UNN
HDX OM4, 12-fiber MTP (male) to LC shuttered (aqua), Universal Polarity	41LSM4-UNN
HDX OM4, 12-fber MTP (male) to LC shuttered (heather violet), Universal Polarity	41GSM4-UNN
HDX OM5, 12-fiber, MTP (male) to LC shuttered (lime green), Universal Polarity	M51GSM4-UNN
HDX OS2, 12-fiber MTP (male) to LC shuttered (blue), Universal Polarity	U1LSM4-UNN

BASE24 CASSETTES — POPULAR CONFIGURATIONS

Description	Part No.
HDX2 OM3, 1x24-fiber MTP (male) to LC shuttered (aqua), Universal Polarity	32LSM2-21C
HDX2 OM4, 1x24-fiber MTP (male) to LC shuttered (aqua), Universal Polarity	42LSM2-21C
HDX2 OM4, 1x24-fiber MTP (male) to LC shuttered (heather violet), Universal Polarity	42GSM2-21C
HDX2 OM5, 1x24-fiber MTP (male) to LC shuttered (lime green), Universal Polarity	M52GSM2-21C
HDX2 OS2, 1x24-fiber MTP (male) to LC shuttered (blue), Universal Polarity	U2LSM2-21C
HDX2 OM4, 1x24-fiber, MTP (male) to 3x8F MTP (female), Universal Polarity	42MM2-S5C
HDX2 OS2, 1x24-fiber, MTP (male) to 3x8F MTP (female), Universal Polarity	U2MM2-S5C

Make-to-order! HDX UNITY MTP CASSETTES OPTIONS

Fiber Type	Fiber Count	Connector Type (Front)	MTP Fiber Count (Rear)	Polarity
• OM3 (3) • OM4 (4) • OM5 (5) • OS2 (U)	• 12 • 24 • 48	• LC (L) • LC shuttered (LS) • 8F MTP male (N) • 8F MTP female (M) • LC Heather Violet (G) • LC shuttered heather violet and lime green (GS)	• Base12 (male) (M4) • Base24 (male) (M2)	• Method A (A) • Method B - Core (BC) • Method B - Edge (BE) • Method C (C) • Universal Base 12 (U) • Universal Base 24 for LC (21C) • Universal Base 24 for MTP (S5C)

For assistance customizing your pre-terminated trunks, please visit leviton.com/configurator or call Tech Support at 800-824-3005.

For further support information, visit leviton.com/ns/support

USA
Network Solutions Headquarters
+1 (800) 722 2082
infoUSA@leviton.com
Leviton Berk-Tek Cable: +1 (800) 237 5835
berktek.info@leviton.com

Asia Pacific
+852 3620 2602
infoAPAC@leviton.com

Canada
+1 (800) 461 2002
infoCanada@leviton.com

Europe
+44 (0) 1592 772124
infoEurope@leviton.com

Latin America
MX: +52 (55) 2128 6286
LATAM: +52 (55) 2333 5963
infoLATAM@leviton.com

Middle East & Africa
+971 (4) 247 9800
infoMEA@leviton.com

NETWORK SOLUTIONS PRODUCTS ARE AVAILABLE WORLDWIDE IN OVER 100 COUNTRIES. VISIT US ONLINE AT LEVITON.COM/NS TO LEARN MORE.

Copyright © 2023 Leviton Manufacturing Co., Inc. All rights reserved.
Leviton reserves the right to modify product specifications without notice.

E23 SS1105-GL ENv4
Revised May 2023