LEVITON ®
Network Solutions

OPT-X™ HDX Engage Low Loss Base12 MTP® Cassettes

APPLICATION

HDX Base12 MTP Cassettes are pre-terminated, pre-tested, and come with 12-fiber MTP connectors on the back that break out to single or array connectors on the front. 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. Select from a variety of connectors, including LC, SC, and MTP. For more information, visit Leviton.com/configurator.

SPECIFICATION

All pre-terminated components including trunks, cassettes, harnesses, brackets, patch panels, and enclosures shall be provided and warranted by a single manufacturer. Components with modular (12-fiber) connection shall use MTP connectors. 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. Base12 multimode cassettes shall meet an optical insertion loss not to exceed 0.50 dB for MTP-to-LC or SC cassettes, and 0.75 dB for MTP-to-MTP cassettes. Base 12 single-mode cassettes shall meet an optical insertion loss not to exceed 0.90 dB for MTP-to-LC or SC cassettes, and 0.75 dB for MTP-to-MTP cassettes. Cassettes shall be preterminated and pre-tested with test documentation provided upon request. Cassettes available in method A, B, C, or Universal Polarity and shall allow for multiple cassettes to be connected in a channel.

COUNTRY OF ORIGIN

Please contact customer service

FEATURES

- Low-loss Base12 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 24 fibers
- 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 UHDX and HDX enclosures for 144 or 96 fibers per RU
- Fits in UHDX or HDX 1RU Flat and Angled Panels for 144 or 96 LC fibers per RU
- Fits in HDX Fiber Distribution Frame Patching Decks
- MTP adapters oriented key up/key down (or opposed) on back of cassette
- 8-fiber MTP connectors are unpinned (female) on front side of cassette
- 24-fiber and legacy 12-fiber MTP Applications: Method B trunk links require one Core (black thumb latch) and one Edge (white thumb latch) MTP-LC cassette
- 12-fiber applications: Universal Polarity MTP-to-LC Cassettes; require method B trunks with one cassette on each end

STANDARDS & REGULATIONS

- ANSI/TIA-942 data center design guidelines
- ANSI/TIA-568.3-D for performance requirements
- ANSI/TIA-604-5 (MTP), -3B (SC), -10B (LC) for connector intermateability
- IEC 60529 IP5x dust protection (LC)
- Supports data rates identified in multiple IEEE 802.3xx standards as applicable by connector type and cable grade

MECHANICAL SPECIFICATIONS

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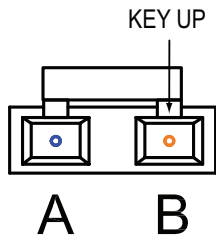Materials: Gray polycarbonate
Temperature (Installation): -10 °C to +60 °C
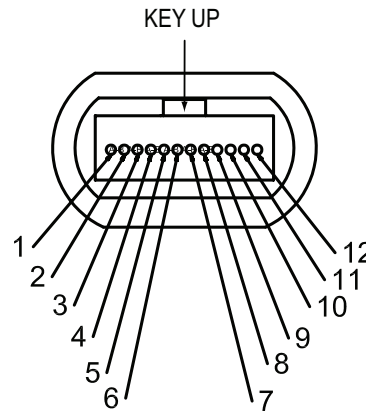Temperature (Operating):   -10 °C to +60 °C

E23 SS1110-GL ENv4
Revised May 2023

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Discrete Duplex Connector

KEY UP

A   B

MTP Connector

KEY UP

1
2
3
4
5
6
12
11
10
9
8
7

OPT-X HDX Engage Low Loss Base12 MTP Cassettes

FIBER CASSETTE INSERTION LOSS	Multimode	Single-mode
	Base 12 Max IL	Base 12 Max IL
MTP-LC	0.50	0.90
MTP-MTP	0.75	0.75
MTP-SC	0.50	0.90

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

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

MTP-LC (12-fiber)

MTP-MTP (24-fiber)

MTP-SC (12-fiber)

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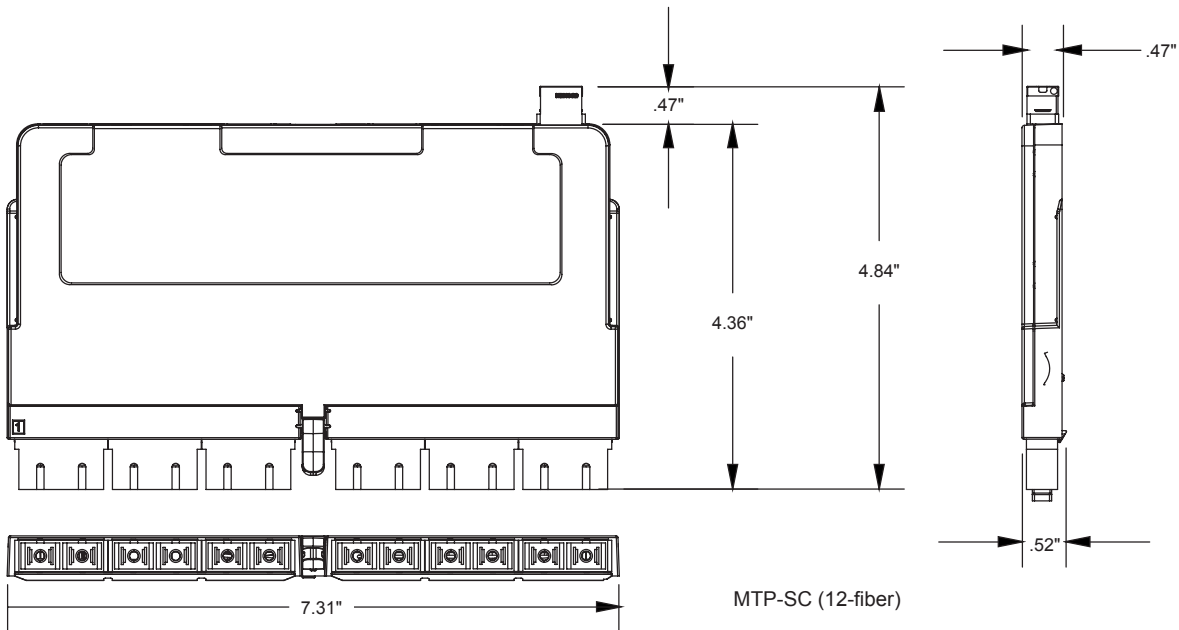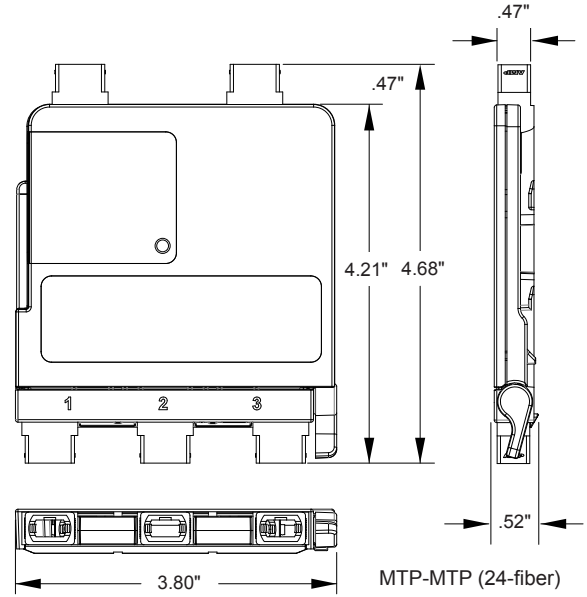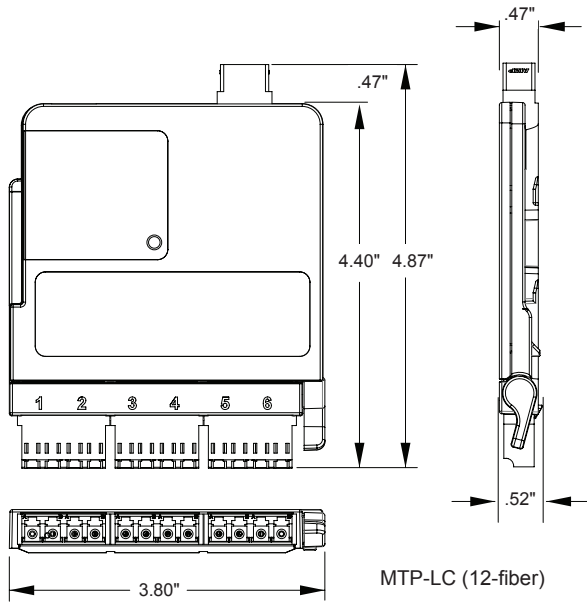
12-FIBER CASSETTES — POPULAR CONFIGURATIONS

Description	Part No.
HDX OM3, 12-fiber, MTP (male) to LC shuttered (aqua), Universal Polarity	31LSM1-UNN
HDX OM4, 12-fiber, MTP (male) to LC shuttered (aqua), Universal Polarity	41LSM1-UNN
HDX OM4, 12-fiber, MTP (male) to LC shuttered (heather violet), Universal Polarity	41GSM1-UNN
HDX OM5, 12-fiber, MTP (male) to LC shuttered (lime green), Universal Polarity	M51GSM1-UNN
HDX OS2, 12-fiber, MTP (male) to LC shuttered (blue), Universal Polarity	U1LSM1-UNN

24-FIBER CASSETTES — POPULAR CONFIGURATIONS

Description	Part No.
HDX2 OM3, 24-fiber, 2x12F MTP (male) to LC shuttered (aqua), Universal Polarity	32LSM1-UNN
HDX2 OM4, 24-fiber, 2x12F MTP (male) to LC shuttered (aqua), Universal Polarity	42LSM1-UNN
HDX2 OM4, 24-fiber, 2x12F MTP (male) to LC shuttered (heather violet), Universal Polarity	42GSM1-UNN
HDX2 OM5, 24-fiber, 2x12F MTP (male) to LC shuttered (lime green), Universal Polarity	M52GSM1-UNN
HDX2 OS2, 24-fiber, 2x12F MTP (male) to LC shuttered (blue), Universal Polarity	U2LSM1-UNN
HDX2 OM4, 24-fiber, 2x12F MTP (male) to 3x8F MTP (female), Method B Core	42MM1-BCN
HDX2 OM4, 24-fiber, 2x12F MTP (male) to 3x8F MTP (female), Method B Edge	42MM1-BEN
HDX2 OS2, 24-fiber, 2x12F MTP (male) to 3x8F MTP (female), Method B Core	U2MM1-BCN
HDX2 OS2, 24-fiber, 2x12F MTP (male) to 3x8F MTP (female), Method B Edge	U2MM1-BEN

Make to order!	OPT-X HDX ENGAGE DC LOW LOSS MTP CASSETTE OPTIONS			
Fiber Type	Fiber Count	Connector Type (Front)	MTP Fiber Count (Rear)	Polarity
• OM3 (3) • OM4 (4) • OM5 (M5) • OS2 (U) • OS2 (A for LC/APC)	• 12 • 24	• SC (S) • LC (L) • LC shuttered (LS) • LC (heather violet) (G) • LC shuttered (heather violet or lime green) (GS) • 8-Fiber MTP (female) (M)	• Base12 MTP (male) (M1) • Base12 MTP (female) (F1)	• Method A (A) • Method B (Core) (BC) • Method B (Edge) (BE) • Method C (C) • Universal (U)

Make to order!
leviton.com/configurator

For assistance customizing your pre-terminated trunks, please visit leviton.com/configurator or call Tech Support at 800.824.3005.

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

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