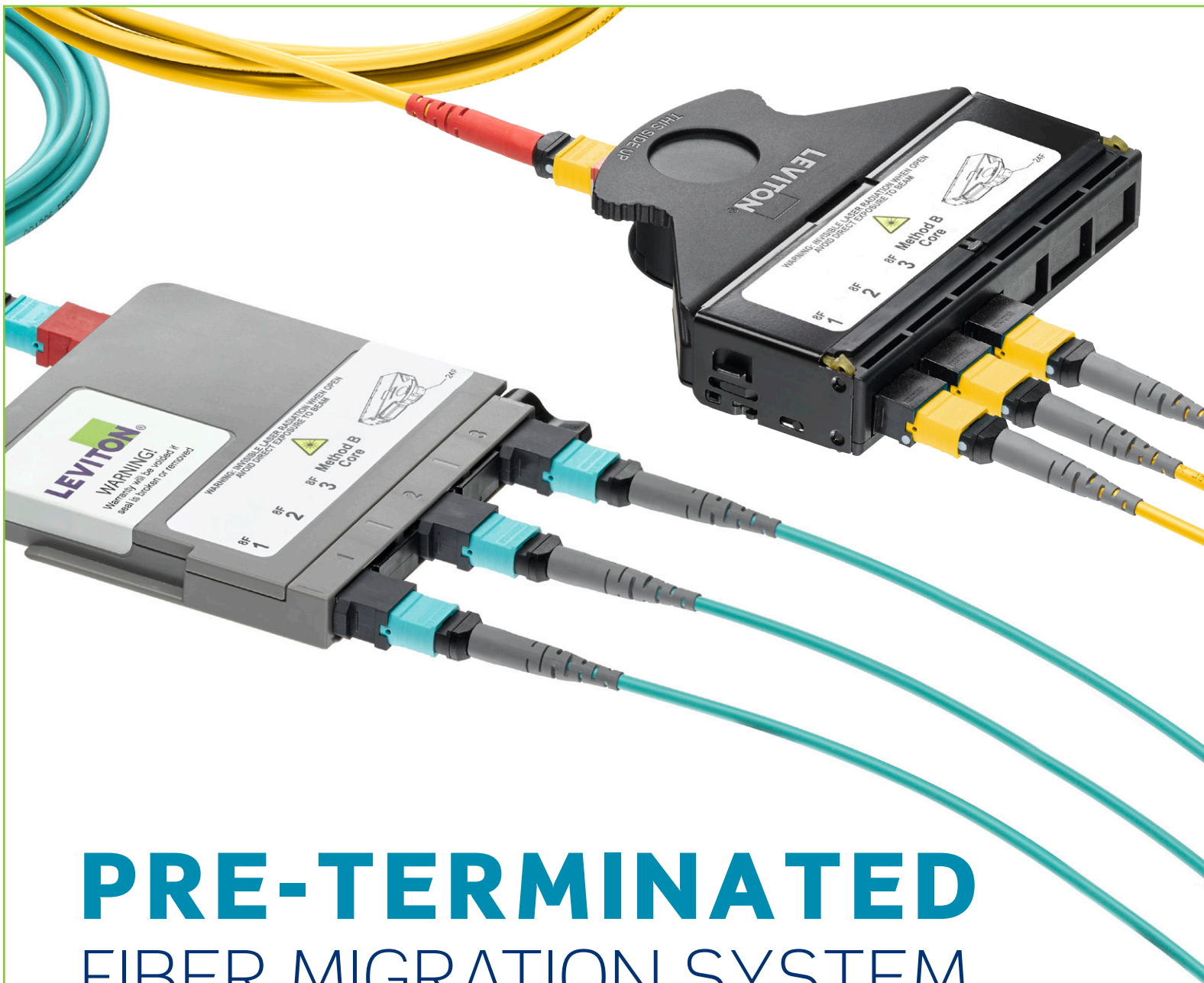


# Opt-X™ Unity

Fiber Optic Migration System





# PRE-TERMINATED FIBER MIGRATION SYSTEM

The Opt-X™ Unity Ultra Low Loss System offers an ideal migration path to 40, 100, 200, and 400 Gb/s and beyond. The system features pre-terminated trunks, harnesses, array cords, and MTP® cassettes to help you future-proof your networks.

- Industry-leading 24-fiber MTP system
- Trunks, harnesses, cassettes, and array cords use MTP multi-fiber connectors with best-in-class Ultra Low Loss optical performance
- Cassettes available in two Leviton platforms: e2XHD and HDX
- Available in laser optimized multimode and single-mode (OM3/OM4/OS2)
- Third-party verification of 40/100G channel performance
- Meets IEEE and MSA standards

Contact the Data Center Design Team for assistance:  
**(800) 824 3005** or [dcteam@leviton.com](mailto:dcteam@leviton.com)



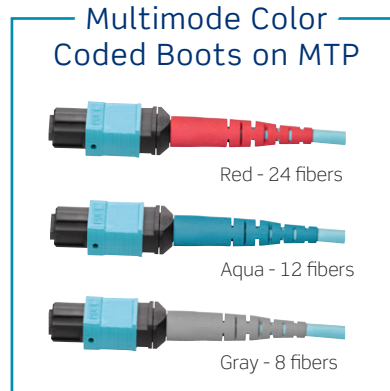
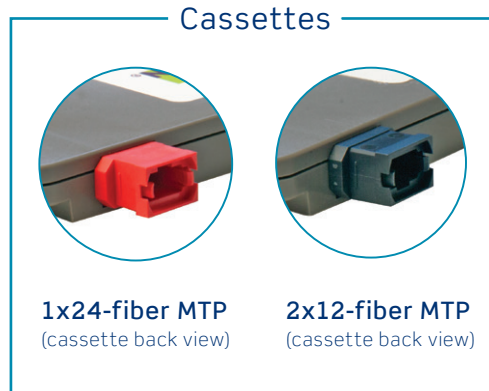
MTP® is a registered trademark of US Conec Ltd.

## Opt-X™ Unity 40/100/200/400G Solutions

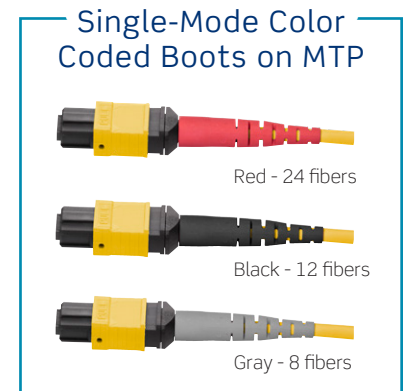
- 24-fiber MTP® trunks
- 24-fiber MTP harnesses
- 24-fiber MTP array patch cords
- 24-fiber MTP cassettes

## Opt-X Unity Solutions for Migrating from Existing 10G Networks

- 8- and 12-fiber MTP trunks
- 8- and 12-fiber MTP harnesses
- 8- and 12-fiber array patch cords
- 8- and 12-fiber MTP cassette

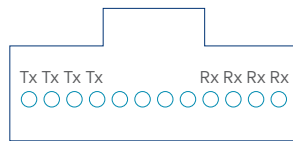


In Europe, 12-fiber OM3 boot = Aqua, 12-fiber OM4 boot = Heather Violet

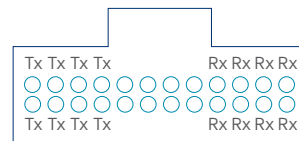


In Europe, 12-fiber OS2 boot = Yellow

## MTP Lane Assignments for 40, 100, 200, 400 Gb/s



QSFP 40GBASE-SR4  
QSFP28 100GBASE-SR4  
100G-PSM4  
200G-SR4  
400G-DR4  
400G-SR4.2



2x100G-PSM4  
2x100G-SR4

## Opt-X Unity Ultra Low Loss (ULL) Performance

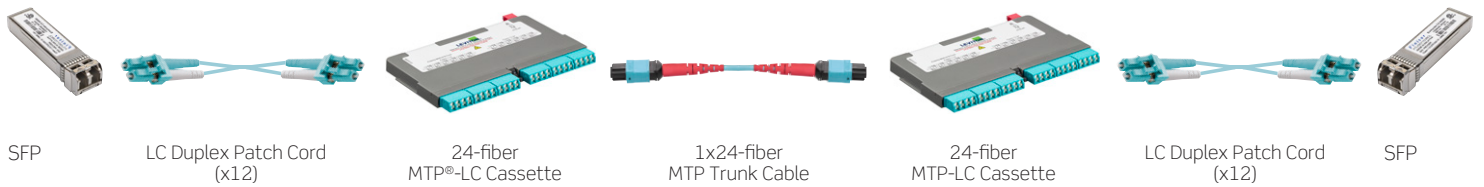
CONNECTOR MATED PAIRS	MULTIMODE		SINGLE-MODE
	8- & 12-FIBER ULL	24-FIBER MAX IL	8-, 12- & 24-FIBER MAX IL
MTP	0.20 dB	0.35 dB	0.35 dB

## Commercially Available 40/100G Transceivers

TRANSCEIVER	FORM FACTOR	FIBER TYPE	# OF FIBERS	CONNECTOR
40G-SR4	QSFP+	OM3/OM4	8	MPO12
40G-BIDI	QSFP+	OM3/OM4	2	LC
40G-PLRL4	QSFP+	OS2	8	MPO12
40G-LR4	QSFP+	OS2	2	LC
100G-SR10	CFP/CFP2/CPAK	OM3/OM4	20	MPO24
100G-SR4	QSFP28	OM3/OM4	8	MPO12
100G-CWDM4	QSFP28	OS2	2	LC
100G-LR4	CFP2/CPAK/QSFP28	OS2	2	LC
10x10-LR	CPAK	OS2	20	MPO24
100G-PSM4	QSFP28	OS2	8	MPO12
100G-BIDI	QSFP28	OM3/OM4	2	LC
2x100G-SR4	QSFP-DD	OM3/OM4	16	MPO24
2x100G-PSM4	QSFP-DD	OS2	16	MPO24
400G-FR4	QSFF-DD/OSFP	OS2	2	LC
400G-DR4	QSFF-DD/OSFP	OS2	8	LC
400G-SR4.2	QSFP-DD	OM3/OM4	8	MPO12

Common commercially available transceivers as of 1/1/2021. This list is subject to change. Please check with Application Engineering for the latest list.

## 10, 40, 100 Gb/s Channel Configuration

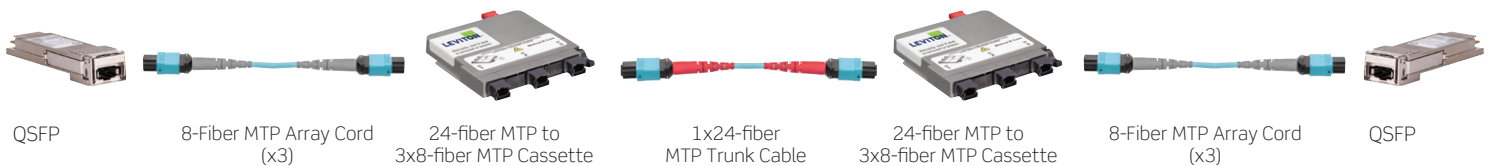


- 24-fiber MTP backbone
- Provides Duplex (2-fiber) connections at equipment
- Universal polarity cassettes allow for the same interchangeable cassette on both ends of a Method B trunk in a fiber channel

### Will support the following optics:

- ✓ Juniper 40G-LX4
- ✓ Arista 40G Universal
- ✓ Cisco 40G-BIDI and 40/100G-SRBD
- ✓ 40G-SWDM4

## 40, 100, 400 Gb/s Channel Configuration

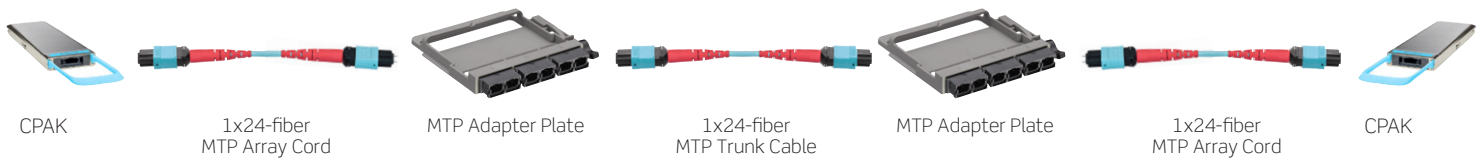


- Same 24-fiber MTP Backbone stays in place
- Swap out MTP-LC cassettes for MTP-MTP conversion cassettes
- Provides Parallel (8-fiber) connections at equipment
- Universal polarity cassettes allow for the same interchangeable cassette on both ends of a Method B trunk in a fiber channel

### Will support the following optics:

- ✓ 40G-SR4, C/X/ESR4
- ✓ 100G-SR4, XSR4

## 100G Channel Configuration



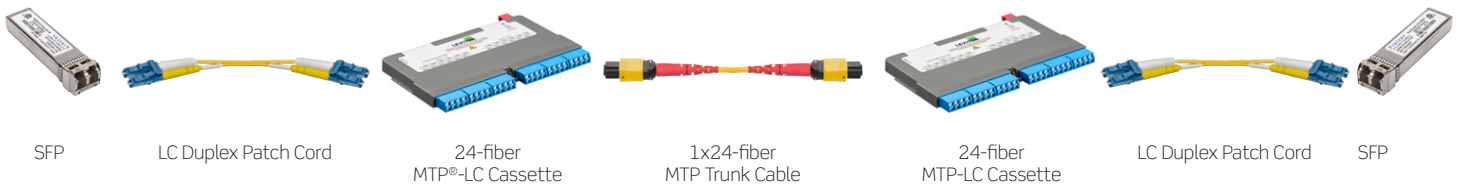
- Same 24-fiber MTP Backbone stays in place
- Swap out MTP-LC/MTP-MTP cassettes with MTP pass-thru cassettes
- Provides Parallel (20- and 24-fiber) connections at equipment

### Will support the following optics:

- ✓ 100G-SR10, SR10 MXP, XSR10

24-fiber MTP Trunk Cables available in 24-, 48-, 72-, 96-, and 144-fiber count.

## 2-Fiber Channels: 10, 40, 100, 200, 400 Gb/s

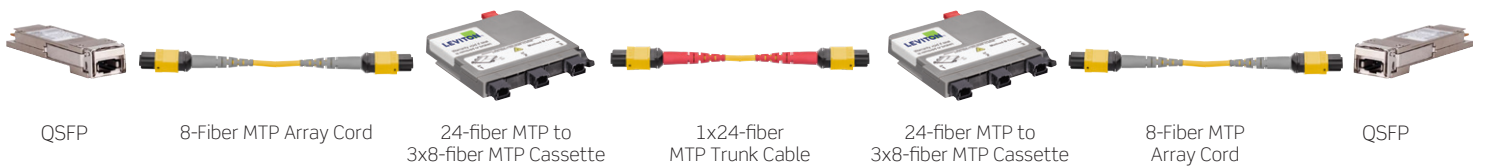


- 24-fiber MTP backbone
- Provides Duplex (2-fiber) connections at equipment
- Universal polarity cassettes allow for the same interchangeable cassette on both ends of a Method B trunk in a fiber channel

### Will support the following optics:

- ✓ 40G-LR4, LRL4/IR4
- ✓ 100G-LRL4, CWDM4, LR4, DR
- ✓ 200G-FR4, FR8
- ✓ 400G-FR8

## 8-Fiber Channels: 40, 100, 200, 400 Gb/s

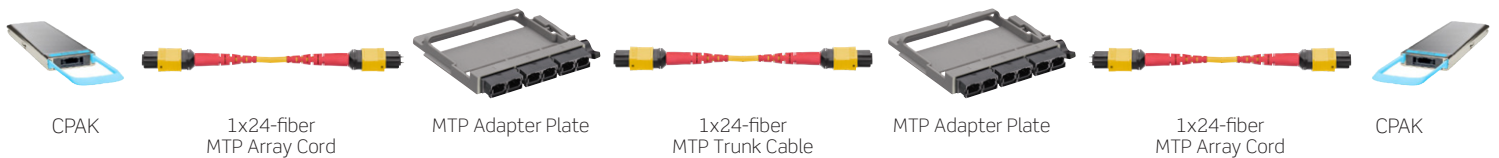


- Same 24-fiber MTP Backbone stays in place
- Swap out MTP-LC cassettes for MTP-MTP conversion cassettes
- Provides Parallel (8-fiber) connections at equipment
- Universal polarity cassettes allow for the same interchangeable cassette on both ends of a Method B trunk in a fiber channel

### Will support the following optics:

- ✓ 4x10G-IR, LR, PLR4
- ✓ 40G-PLRL4
- ✓ 100G-PSM4,
- ✓ 200G-DR4, SR4
- ✓ 400G-DR4

## 20-Fiber Channel: 100G



- Same 24-fiber MTP Backbone stays in place
- Swap out MTP-LC/MTP-MTP cassettes with MTP pass-thru cassettes
- Provides Parallel (20-fiber) connections at equipment

### Will support the following optics:

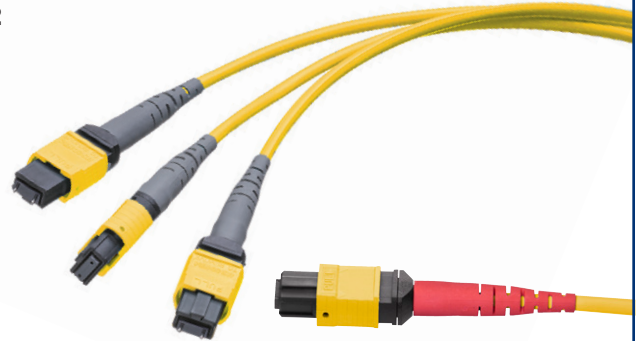
- ✓ 10x10-LR
- ✓ 2x100-SR4
- ✓ 2x100-PSM4

# Opt-X™ Unity System Components



## Pre-Terminated MTP® Trunk Cables

- Up to 70% faster installation than field-terminated trunks
- MTP polarity options are TIA methods A, B, or C (Method B is standard)
- 100% factory tested, with test results included for each assembly
- All assemblies labeled with serial number and length for traceability and easy re-order
- 12- to 144-fiber count trunks available in OM3, OM4, and OS2

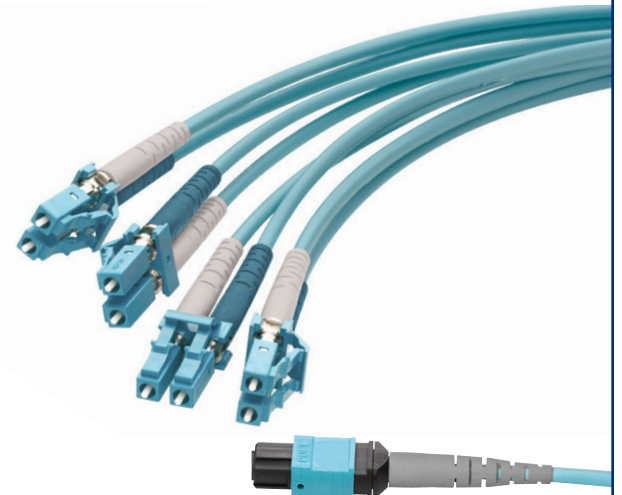


## Pre-Terminated MTP-MTP Array Harnesses

- For use in attaching directly to 40/100G transceivers
- MTP polarity options are TIA method A, B, or C (Method B Standard)
- 100% factory tested, with test results included for each assembly
- All assemblies labeled with serial number and length for traceability and easy re-order
- Available in OM3, OM4, and OS2

## MTP-LC Array Harnesses

- QSFP to SFP+ transceiver interface
- Creates 10G duplex channels using a 40G parallel array transceiver
- Breakout lengths and staggering available
- Available in OM3, OM4, and OS2



## MTP Array Cords

- 8-, 12-, and 24-fiber MTP array cords offer migration path from 10G to 40/100/200/400G
- For use in attaching directly to transceivers
- Available in OM3, OM4, and OS2

## MTP Cassettes and Adapter Plates

- Available in e2XHD and HDX style footprints
- Each cassette supports up to 48 fibers using MTP, or 24 fibers using LC
- MTP-MTP cassettes are used with MTP array cords
- Cassettes with Universal polarity designed for use with Method B trunks
- Available in OM3, OM4, and OS2



# Enclosure and Panel Options

## HDX System

Developed to maximize density in the given space, the Leviton HDX system can patch up to 144 LC fibers per RU in UHDX enclosures, panels, or 3,168 LC fibers on one data center tile with the HDX Distribution Frame. Ideal for service providers, central office facilities, large enterprise, and data centers, the HDX system reduces patching footprint, frees up space, and saves money.



UHDX 4RU Enclosure



12- or 24-fiber  
MTP® Cabling, Method B Polarity



UHDX 1RU Enclosure



MTP-LC Conversion Cassette



MTP-LC Conversion Cassette

## e2XHD System

Designed to support fast deployment and simple maintenance, the Leviton e2XHD Fiber Patching System is an easy-to-connect, high-density solution for enterprise and data center applications. The system includes 1RU high-density panels, fiber snap-in MTP cassettes for simple migration to 40, 100, 200, and 400 Gb/s networks, and accessories for additional cable protection and management.



e2XHD 1RU Patch Panel



12- or 24-fiber  
MTP Cabling, Method B Polarity



e2XHD 1RU Patch Panel



MTP-LC Conversion Cassette



MTP-LC Conversion Cassette

Today's networks must be fast and reliable, with the flexibility to handle ever-increasing data demands. Leviton can help expand your network possibilities and prepare you for the future. Our end-to-end cabling systems feature robust construction that reduces downtime, and performance that exceeds standards. We offer quick-ship make-to-order solutions from our US and UK factories. We even invent new products for customers when the product they need is not available. All of this adds up to the **highest return on infrastructure investment.**

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