

## OPT-X™ Unity Ultra Low Loss LSZH Euroclass Array Cords

### APPLICATION

OPT-X Unity Ultra Low Loss MPO®/MTP Array Cords are designed to cross connect from structured cabling directly into active equipment with an MPO transceiver interface. They are also used as direct interconnect cables for point-to-point connections. MPO/MTP Connectors feature ultra low loss to support maximum distance and multiple connection points while staying within IEEE low-loss limits.



### SPECIFICATION

All pre-terminated solution components, including arrays, trunks, cassettes, modules, harnesses, brackets, patch panels, and enclosures, shall be provided and warranted by a single manufacturer. Components with modular (8-, 12-, and 24-fiber) connections shall use MPO/MTP connectors that meet TIA-604-5. Multimode array cords shall meet an optical connector insertion loss not to exceed 0.20 dB for 8- and 12-fiber per mated pair. Multimode and single-mode 24-fiber array cords shall meet an optical connector insertion loss not to exceed 0.35 dB per mated pair. The cords shall be pretested with test documentation provided with each assembly. The cords shall be compliant with ANSI/TIA-568.3-E and IEEE 802.3xx standards as applicable.

### STANDARDS & REGULATIONS

- ISO/IEC 11801-1
- ANSI/TIA-568.3-E
- ANSI/TIA-942
- Supports data rates identified in multiple IEEE 802.3xx standards as applicable by connector type and cable grade
- OM3, OM4, OM5 Meet ITU-T G651.1
- OM5 Meets TIA 492-AAAE for SWDM
- OS2 Meets ITU-T 652.D and ITU-T 657.A1
- Detailed Fiber Specifications in PS 0309 Data Sheet

### FEATURES

- Ultra-Low-Loss 8-, 12- and 24-fiber MPO/MTP Connectors for maximum network design flexibility
- Offered in OS2, OM3, OM4, and OM5
- 8-, 12- and 24-fiber array cords offer migration path from 10 GbE to 40/100 GbE and higher data rates
- Connector boots are color-coded for easy identification
- Used in Base8, Base12 and Base24 cabling systems
- Small diameter 12-fiber 3.0 mm and 24-fiber 3.7 mm array cable for highest density
- Highest performing LSZH Euroclass B2ca, s1a, d1, a1 and Eca options to meet the requirements of the Construction Product Regulation (CPR)
- Every fiber component is factory terminated and pre-tested using automated procedures to ensure product quality
- Pre-terminated fiber eliminates the need for complicated and craft-sensitive field terminations and splices
- Fiber-on-demand manufacturing and logistics allows Leviton to deliver plug-n-play solutions with significantly reduced lead times

### DESIGN CONSIDERATIONS

- For use with Leviton HDX, E2XHD, and SDX cassettes, adapter plates, panels, and enclosures
- For use in connecting directly into QSFP, QSFP 28, QSFP-DD or OSFP transceivers
- Array cords typically have unpinned (female) connector on first end and unpinned (female) connector on second end
- When plugging directly to transceivers, array cord connector should have no pins (female)
- Standard polarity ANSI/TIA is Method B. Method A and C polarities are also available
- Method B array required for Universal Polarity Cassettes
- Leviton 24-fiber connectors have a 20 N spring to provide max 0.35 dB insertion loss. If mated to another 24-fiber MPO connector with a 10 N spring, performance may result in >0.35 dB insertion loss.
- Array length is measured from connector to connector
- Array cords are supplied in a coil and packed in an individual bag

### WARRANTY INFORMATION

For Leviton product warranties, go to [Leviton.com/ns/warranty](http://Leviton.com/ns/warranty)

**PRODUCT SPECIFICATIONS**  
**OPT-X™ Unity Ultra Low Loss LSZH Euroclass Array Cords**

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**B2CA, ECA ARRAY CORDS PHYSICAL SPECIFICATIONS**

Fiber Count	CPR Rating	Nominal Outside Diameter mm (in)	Weight kg/km (lb./kft)	Max Installation Tention	Minimum Bend Radius mm (in)		Temperature Range (°C)	
					Installation	Long Term	Operating	Storage
8	B2ca, s1a, d1, a1	3.0 (0.118)	9 (6)	300	60 (2.4)	30 (1.2)	-10 °C to +60 °C	-10 °C to +60 °C
8	Eca	3.0 (0.118)	9 (6)	300	60 (2.4)	30 (1.2)		
12	B2ca, s1a, d1, a1	3.0 (0.118)	9 (6)	300	60 (2.4)	30 (1.2)		
12	Eca	3.0 (0.118)	9 (6)	300	60 (2.4)	30 (1.2)		
24	B2ca, s1a, d1, a1	3.7 (0.146)	12 (8)	600	74 (2.9)	56 (2.2)		

**ARRAY CORD LENGTH TOLERANCE**

Length (m)	Tolerance (m)
1.0 – 3.0	+0.1/-0
3.1 – 10.0	+0.2/-0
10.1 – 50.0	+0.3/-0

**FIBER INSERTION LOSS PERFORMANCE (DB)**

Connector Mated Pairs	Max. IL Multimode	Max. IL Single-mode
8-fiber	0.20	0.35
12-fiber	0.20	0.35
24-fiber	0.35	0.35

PERFORMANCE SPECIFICATIONS	MULTIMODE SYSTEM (OM3)		MULTIMODE SYSTEM (OM4)		MULTIMODE SYSTEM (OM5)		SINGLE-MODE SYSTEM (OS2)	
	850 nm	1300 nm	850 nm	1300 nm	850 nm	1300 nm	1310 nm	1550 nm
Maximum Attenuation (dB/km)	2.8	1.0	2.8	1.0	2.8	1.0	0.4	0.4

**COLOR CODES**

**Cable Jackets**

OS2	Yellow
OM3	Aqua
OM4	Heather Violet
OM5	Lime Green

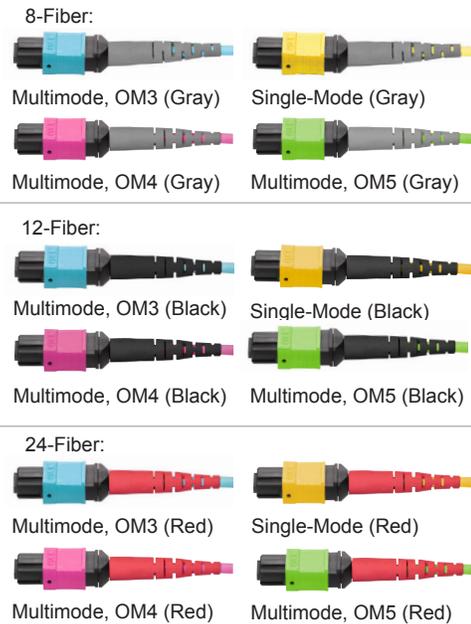
**Connectors**

OS2	Yellow
OM3	Aqua
OM4	Heather Violet
OM5	Lime Green

**MPO/MTP Connector Boots**

8-fiber	Gray
12-fiber	Black
24-fiber	Red

**Color-Coded Boots on MPO/MTP®**



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PART NUMBER			
Description	Part Number		
	OS2	OM3	OM4
8F OPT-X Unity Array, 8F Female MPO/MTP to 8F Female MPO/MTP, Euroclass B2ca, 1.0 m	ULUP8CMM-B0010-S	UL5L8CMM-B0010-S	UL548CMM-B0010-S
12F OPT-X Unity Array, 12F Female MPO/MTP to 12F Female MPO/MTP, Euroclass B2ca, 1.0 m	ULUP2CLL-B0010-S	UL5L2CLL-B0010-S	UL542CLL-B0010-S
24F OPT-X Unity Array, 24F Female MPO/MTP to 24F Female MPO/MTP, Euroclass B2ca, 1.0 m	ULUP4CJJ-B0010-S	UL5L4CJJ-B0010-S	UL544CJJ-B0010-S
8F OPT-X Unity Array, 8F Male MPO/MTP to 8F Male MPO/MTP, Euroclass B2ca, 1.0 m	ULUP8CNN-B0010-S	UL5L8CNN-B0010-S	UL548CNN-B0010-S
12F OPT-X Unity Array, 12F Male MPO/MTP to 12F Male MPO/MTP, Euroclass B2ca, 1.0 m	ULUP2CKK-B0010-S	UL5L2CKK-B0010-S	UL542CKK-B0010-S
24F OPT-X Unity Array, 24F Male MPO/MTP to 24F Male MPO/MTP, Euroclass B2ca, 1.0 m	ULUP4CHH-B0010-S	UL5L4CHH-B0010-S	UL544CHH-B0010-S

Make-to-order!		OPT-X UNITY MPO/MTP ARRAY CORD OPTIONS				
Fiber Type	Fiber Count	CPR Rating	Termination		Cable Length (m)	Polarity
<ul style="list-style-type: none"> <li>OS2 (UP)</li> <li>OM3 (5L)</li> <li>OM4 (54)</li> <li>OM5 (M5)</li> </ul>	<ul style="list-style-type: none"> <li>8</li> <li>12</li> <li>24</li> </ul>	<ul style="list-style-type: none"> <li>B2ca (C)</li> <li>Eca (A)</li> </ul>	<b>FIRST END</b> <ul style="list-style-type: none"> <li>8F MPO/MTP Male (N)</li> <li>8F MPO/MTP Female (M)</li> <li>12F MPO/MTP Male (K)</li> <li>12F MPO/MTP Female (L)</li> <li>24F MPO/MTP Male (H)</li> <li>24F MPO/MTP Female (J)</li> </ul>	<b>SECOND END</b> <ul style="list-style-type: none"> <li>8-Fiber MPO/MTP Male (N)</li> <li>8-Fiber MPO/MTP Female (M)</li> <li>12-Fiber MPO/MTP Male (K)</li> <li>12-Fiber MPO/MTP Female (L)</li> <li>24-Fiber MPO/MTP Male (H)</li> <li>24-Fiber MPO/MTP Female (J)</li> </ul>	<ul style="list-style-type: none"> <li>1-50*</li> </ul>	<ul style="list-style-type: none"> <li>Method A (A)</li> <li>Method B (B)</li> <li>Method C (C)</li> </ul>



For assistance customizing your array cables, please visit [levitonemea.com/mto](http://levitonemea.com/mto) or call Tech Support at +44 (0) 1592 778494

\*Length up to 100 m available on request

For further support information, visit [Leviton.com/ns/support](http://Leviton.com/ns/support)

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