

PRODUCT SPECIFICATIONS

OPT-X Engage Low Loss LSZH Euroclass Array Cords

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APPLICATION

OPT-X Engage 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.



SPECIFICATION

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

LABELING

- Standard labeling:
 - Label detailing end, length, polarity, and serial number
- Custom labeling also available

WARRANTY INFORMATION

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

FEATURES

- Low-loss 8- and 12-fiber MPO/MTP connectors for network design flexibility
- Offered in OS2, OM3, OM4, and OM5
- 8- and 12-fiber array cords offer migration path from 10 GbE to 40/100 GbE
- Connector boots are color-coded for easy identification
- Used in Base8 and Base12 cabling systems
- Small diameter 3.0 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 40 Gb/s or 100 Gb/s transceivers
- Array Cords can be ordered with or without pins. Leviton cassettes typically have pins inside
- Other gender configurations are available
- 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
- Array length is measured from connector to connector
- Array cords are supplied in a coil and packed in an individual bag

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

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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)		

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 Single-Mode	Max. IL Multimode
8-fiber	0.35	0.35
12-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

Color-Coded Boots on MPO/MTP®



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PART NUMBER			
Description	Part Number		
	OS2	OM3	OM4
8F OPT-X Engage Array, 8F Female MPO/MTP® to 8F Female MPO/MTP, Euroclass B2ca, 1.0 m	UP8CMM-B0010-S	5L8CMM-B0010-S	548CMM-B0010-S
12F OPT-X Engage Array, 12F Female MPO/MTP to 12F Female MPO/MTP, Euroclass B2ca, 1.0 m	UP2CLL-B0010-S	5L2CLL-B0010-S	542CLL-B0010-S
8F OPT-X Engage Array, 8F Male MPO/MTP to 8F Male MPO/MTP, Euroclass B2ca, 1.0 m	UP8CNN-B0010-S	5L8CNN-B0010-S	548CNN-B0010-S
12F OPT-X Engage Array, 12F Male MPO/MTP to 12F Male MPO/MTP, Euroclass B2ca, 1.0 m	UP2CKK-B0010-S	5L2CKK-B0010-S	542CKK-B0010-S

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



For assistance customizing your array cables, please visit 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