

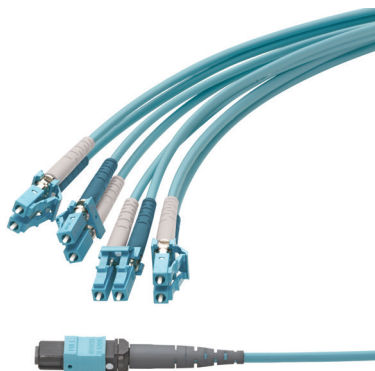
PRODUCT SPECIFICATIONS

OPT-X Engage Low Loss Fiber Harnesses

OPT-X™ Engage Low Loss Fiber Harnesses

APPLICATION

OPT-X Engage MTP® to discrete connector harnesses are pre-terminated, pre-tested, and can be used with fiber trunks and patch panels. Also can be used with brackets in place of MTP cassettes and enclosures to provide a zero rack-unit (zero RU) solution. Available in multimode and single-mode, harnesses can be customized with any connector style and in any length to meet specific applications.



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- or 12-fiber) connection shall use MTP rather than MPO connectors. Multimode and single-mode harnesses shall meet an optical connector insertion loss not to exceed 0.60 dB for 8- and 12-fiber harnesses. All discrete connectors (LC, SC) shall use ceramic ferrules and sleeves. Harnesses shall have a LSZH CPR rated jacket and shall be available in one MTP (8 or 12 strands) configuration, then broken out to discrete connectors (LC/SC) on the far end. All harnesses shall have polarities compatible with TIA methods. Harnesses will be available from 2 m - 15 m in lengths of 0.3 m increments. Harnesses shall be pre-terminated and pre-tested with test documentation provided with each harness.

WARRANTY INFORMATION

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

FEATURES

- Low-loss 8-, 12-, and 24-fiber MTP and discrete connectors for maximum network design flexibility
- Pre-terminated fiber eliminates the need for complicated and craft-sensitive field terminations and splices
- Every fiber component is factory terminated and pre-tested using automated procedures to ensure product quality
- All discrete connectors (LC, SC) are heat cured and use ceramic ferrules and sleeves for consistent performance
- Connector boots are color-coded for easy identification
- Highest performing LSZH Euroclass B2ca, s1a, d1, a1, and Eca options to meet the requirements of the Construction Product Regulation (CPR)
- Cable contains Aramid strength members
- Offered in OS2, OM3, OM4, and OM5
- Small diameter 8-fiber/12-fiber 3.0 mm and 24-fiber 3.7 mm array cable for highest density
- Custom staggering available
- Used in conjunction with fiber trunks, patch panels, and active equipment
- Used as direct connect into SAN equipment
- Harness cables have a sturdy breakout point, yet are flexible enough to allow for smooth curving of breakout cordage without kinking or creating sharp bends
- 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 MTP cassettes, adapter plates, panels, and brackets
- Standard breakout length is 0.5 m, other lengths can also be configured
- MTP – unpinned (female) for transceiver interface
- 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
- Harness length is measured from connector to connector
- Harnesses are supplied in a coil and packed in an individual bag

LABELING

- Standard labeling:
 - Harness label detailing end, length, polarity, and serial number
 - Leg label on each leg detailing the leg number and end
- Custom labeling also available and can be configured

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STANDARDS & REGULATIONS

- ANSI/TIA-568.3-E
- ANSI/TIA-942
- ISO/IEC 11801
- IEC 24764
- Supports IEEE 802.3xx standards applicable by connector and cable type
- 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

COUNTRY OF ORIGIN

Manufactured in USA and assembled across Leviton global manufacturing facilities

HARNESS LENGTH TOLERANCE

Length (m)	Tolerance (m)
1.0 – 3.0	+0.1/-0
3.1 – 10.0	+0.2/-0
10.1 – 15.0	+0.3/-0

B2CA, ECA FIBER HARNESSES 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)		

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	0.8	2.8	0.8	2.8	0.8	0.4	0.3

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

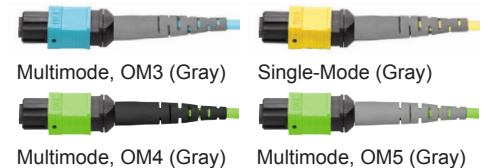
MTP Connector Boots

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

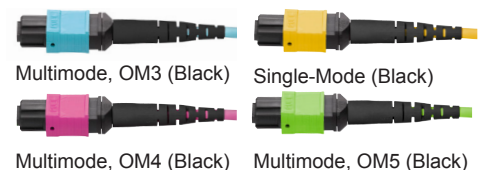
Single Fiber Connector Boots	OM3	OM4	OM5	OS2 PC OS2 APC
LC/SC Duplex	White/Aqua	White/ Heather Violet	White/ Lime Green	White/Blue White/Green

Color-Coded Boots on MTP

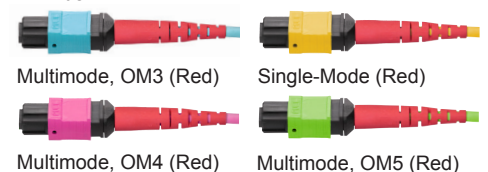
8-Fiber:



12-Fiber:



24-Fiber:



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ASSEMBLY PERFORMANCE (DB)

Second End Connector	8-, 12-, 24-fiber Multimode MTP®	8-, 12-, 24-fiber Single-mode MTP
LC	0.60	0.60
SC	0.60	0.60

PART NUMBER

Description	Part Number		
	OS2	OM3	OM4
8F OPT-X Engage Harness, 8F Female MTP to LC Duplex, Euroclass B2ca, 2.0 m	FH-AC008MR002005K-S	FH-EC008MR002005K-S	FH-FC008MR002005K-S
12F OPT-X Engage Harness, 12F Female MTP to LC Duplex, Euroclass B2ca, 2.0 m	FH-AC012LR002005BC-S	FH-EC012LR002005BC-S	FH-FC012LR002005BC-S
8F OPT-X Engage Harness, 8F Male MTP to LC Duplex, Euroclass B2ca, 2.0 m	FH-AC008NR002005K-S	FH-EC008NR002005K-S	FH-FC008NR002005K-S
12F OPT-X Engage Harness, 12F Male MTP to LC Duplex, Euroclass B2ca, 2.0 m	FH-AC012KR002005BC-S	FH-EC012KR002005BC-S	FH-FC012KR002005BC-S

Make-to-order!

OPT-X ENGAGE FIBER HARNESS OPTIONS

Fiber Type	Fiber Count	CPR Rating	Termination	Cable Length (m)	Breakout Length (m)	Polarity
• OS2 (A)	• 8	• B2ca (C)	FIRST END	• 2-15	• 0.5	• Method A (A)
• OM3 (E)	• 12	• Eca (A)	• 8F Male MTP (N)		• 0.9	• Method B Core (BC)
• OM4 (F)	• 24		• 8F Female MTP (M)		• 1.0	• Method B Edge (BE)
• OM5 (5)			• 12F Male MTP (K)		• 1.5	• Method C (C)
			• 12F Female MTP (L)			• 120G to 40G (S5)
			• 24F Male MTP (H)			• 40G to 10G (K)
			• 24F Female MTP (J)			

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



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