# PanMPO<sup>™</sup> and MPO Round Harness Cable Assemblies



PanMPO<sup>™</sup> and MPO Round Harness Cable Assemblies are pre-terminated 8 or 12-fiber cable assemblies. The unique design of the PanMPO<sup>™</sup> Connector allows for rapid gender and polarity change in the field and enables a seamless, standards-compliant migration from duplex based applications (e.g. 10G Ethernet) to parallel optics based applications (e.g. 40/100G Ethernet). LC push-pull connectors reduce cable density by 40% and allow easy removal in high density installation. All cable assemblies are factory terminated and tested to deliver verified optical performance and reliability for improved network integrity.



SPECIFICATION SHEET

### <u>application</u>

Connect multiple MPO-based infrastructure components to LC-based components, such as LAN switches, servers, patch panels, and zone distribution areas. Eight fiber, 4-to-1 conversion harnesses connect four 10G LCs to a single 40G MPO. 12-fiber breakout harnesses connect (6) LCs to (1) MPO using traditional fanout wiring.

#### <u>construction</u>

Cable type:	3.0mm round indoor
Cable jacket ratings:	Optical Fiber Nonconductive Plenum (OFNP) Low Smoke Zero Halogen (LSZH)
Fiber types:	OS2 OM3 OM4
Connector types end 'A':	MPO female (Singlemode) MPO male (Singlemode) PanMPO <sup>™</sup> female (Multimode) PanMPO <sup>™</sup> male (Multimode)
Fiber count:	8 = 8-fiber 12 = 12-fiber
Jacket color:	OS2: Yellow OM3: Aqua OM4: Aqua
Connector types end 'B':	LC Connector (Push-Pull) LC Duplex Connector

# physical properties

Cable outside diameter (OD):	3.0mm
Minimum bend radius:	30mm
Flex:	100 cycles at 4.9N
Twist:	10 cycles @15N
Cable retention strength:	50N
Connector durability:	500 mating cycles*

# optical properties

Maximum cable attenuation:	Multimode:	3.5dB/km at 850nm, 1.5dB/km at 1300nm			
Maximum connector insertion loss:	Standard MPO: Optimized MPO: Standard LC: Optimized LC:	0.50dB 0.35dB 0.25dB 0.15dB			
Minimum connector Return Loss:	Singlemode: Multimode:	55dB minimum 26dB minimum			

#### environmental properties

Operating temperature:	0°C to 60°C
Storage and shipping temperature:	-40°C to 70°C
Installation temperature:	0°C to 60°C

#### <u>standards</u>

Meets or exceeds ISO/IEC 11801, TIA/EIA-568-C.3, TIA-604-5 (FOCIS-5), TIA/EIA-604-10 (FOCIS-10), TIA/EIA-568-C.1

**RoHS** Compliant

\*With proper cleaning and inspection

# $\ensuremath{\mathsf{PanMP0}^{\ensuremath{^{\mbox{\tiny MP0}}}}$ and MPO Round Harness Cable Assemblies

#### <u>part number</u>

Example: FZTRP8QQSSNF003 = Fiber OM4, 12-fiber, round, plenum rated, PanMPO male to LC duplex LC harness with 61cm equal breakout, standard IL, no pulling eye, 3 feet

CHARACTER123EXAMPLEFZT	4     5     6     7     8     9       R     P     8     N     Q     S	10     11     12     13     14     15       S     N     F     0     0     3
<ul> <li>1 - Fiber Product <ul> <li>F = Fiber</li> </ul> </li> <li>2 - Fiber Type <ul> <li>9 = Singlemode</li> <li>X = OM3</li> <li>Z = OM4</li> </ul> </li> <li>3 - Fiber Count <ul> <li>T = 12-fiber</li> <li>8 = 8-fiber</li> </ul> </li> <li>4 - Cable Type <ul> <li>R = Round</li> </ul> </li> <li>5 - Jacket Type <ul> <li>L = Low Smoke Zero Halogen <ul> <li>(LSZH)</li> <li>P = Optical Fiber Nonconductive Plenum (OFNP)</li> </ul> </li> </ul></li></ul>	<ul> <li>6 - Connector Type End "A"</li> <li>5 = Singlemode MPO Female</li> <li>6 = Singlemode MPO Male</li> <li>7 = Mulitmode PanMPO<sup>™</sup> Female</li> <li>8 = Multimode PanMPO<sup>™</sup> Male</li> <li>7 - Connector Variant</li> <li>N = No variant</li> <li>8 - Connector Type End "B"</li> <li>Q = Push/Pull Duplex LC</li> <li>L = LC Duplex</li> <li>9 - Connector Variant</li> <li>S = 24-inch (61 cm)</li> <li>10- Performance/Construction</li> <li>S = Standard IL / Standard Fanout (Singlemode)</li> <li>O = Optimized IL / Standard Fanout (Multimode)</li> </ul>	Q = Standard IL / 4-to-1 Conversion (Singlemode) V = Optimized IL / 4-to-1 Conversion (Multimode N = Ultra Low IL/Standard Fanout (OM4 Only) <b>11 – Other</b> N = No variant <b>12 – Unit of Length</b> M = Meters F = Feet <b>13, 14, 15 – Length</b> Meters: 001 to 010, 1.5, 2.5, 3.5, 4.5 Feet: 003 to 030

#### harness assembly detail



## 8 Fiber Harness



				8 Fil	oer Star	dard Ha	arness					
MPO End/LC End	Fiber Position From MPO End to LC End											
MPO	n/a	n/a	3	4	5	6	7	8	9	10	n/a	n/a
LC	n/a	n/a	1	2	3	4	5	6	7	8	n/a	n/a
8 Fiber 4 to 1 Conversion Harness												
MPO End/LC End	Fiber Position From MPO End to LC End											
MPO	1	2	3	4	n/a	n/a	n/a	n/a	9	10	11	12
LC	1	3	5	7	n/a	n/a	n/a	n/a	8	6	4	2

#### **12 Fiber Harness**



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