QuickNet™ PanMPO™ and MPO Small Diameter Trunk Cable Assemblies

**technical information**

PanMPO™ Trunk Assemblies are pre-terminated 12-fiber and 24-fiber cable assemblies. The unique design of the PanMPO™ Connector allows for rapid gender and polarity change in the field and enables a seamless, standards-compliant cable plant migration from duplex based applications (e.g. 10G Ethernet) to parallel optics based applications (e.g. 40/100G Ethernet). These small diameter trunk cable assemblies optimize cable routing requirements to ensure efficient use of pathway space and significantly reduce installation time and cost. All trunk cable assemblies are factory terminated and tested to deliver verified optical performance and reliability for improved network integrity.

**application**

High speed fiber backbone or permanent link when mated to QuickNet™ Cassettes or fiber adapter panels paired with MPO to LC breakout harnesses. Method A and Method B TIA-568-C compliant for 40G/100G parallel optics multimode applications. Allows system designers to tailor configuration, reach and breakout construction to application requirements; to minimize waste, optimize cable management, speed deployment, improve flexibility and manageability for lower installation costs. Small diameter trunk cable assemblies use 30 – 40% less space which is ideal for high cable density applications.

**construction**

<table>
<thead>
<tr>
<th>Cable type:</th>
<th>Indoor Small Diameter Trunk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable jacket ratings:</td>
<td>Optical Fiber Non-conductive Plenum (OFNP) Low Smoke Zero Halogen (LSZH)</td>
</tr>
<tr>
<td>Fiber types:</td>
<td>Multimode: OM3 50/125μm OM4 50/125μm Singlemode: OS2 9/125μm</td>
</tr>
<tr>
<td>Connector types end ‘A’:</td>
<td>PanMPO™ Female PanMPO™ Male LC duplex (12F only) MPO (singlemode)</td>
</tr>
<tr>
<td>Connector types end ‘B’:</td>
<td>PanMPO™ Female PanMPO™ Male LC duplex (12F only) MPO (singlemode)</td>
</tr>
<tr>
<td>Fiber count:</td>
<td>12 and 24</td>
</tr>
<tr>
<td>Jacket color:</td>
<td>OM3: Aqua OM4: Aqua OS2: Yellow</td>
</tr>
</tbody>
</table>

**physical properties**

<table>
<thead>
<tr>
<th>Cable outside diameter (OD):</th>
<th>12-fiber: 4.5mm 24-fiber: 5.4mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum bend radius:</td>
<td>30mm</td>
</tr>
<tr>
<td>Cable tensile strength:</td>
<td>12-fiber: 440N 24-fiber: 660N</td>
</tr>
<tr>
<td>Cable compressive load:</td>
<td>10 N/mm</td>
</tr>
<tr>
<td>Flex:</td>
<td>100 cycles at 4.9N</td>
</tr>
<tr>
<td>Connector cable retention:</td>
<td>50N</td>
</tr>
<tr>
<td>Connector durability:</td>
<td>500 mating cycles*</td>
</tr>
<tr>
<td>Breakout outside diameter:</td>
<td>3.0mm</td>
</tr>
<tr>
<td>Transition outside diameter:</td>
<td>12-fiber: 10mm 24-fiber: 10mm</td>
</tr>
<tr>
<td>Pulling eye diameter:</td>
<td>12-fiber: 19mm 24-fiber: 23mm</td>
</tr>
<tr>
<td>Twist:</td>
<td>10 cycles at 15N</td>
</tr>
<tr>
<td>Breakout length:</td>
<td>1m</td>
</tr>
</tbody>
</table>

**optical properties**

<table>
<thead>
<tr>
<th>Maximum cable attenuation:</th>
<th>Singlemode: 0.4dB/km at 1310nm 0.3dB/km at 1550nm Multimode: 3.0dB/km at 850nm 1.0dB/km at 1300nm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum connector insertion loss (per mated pair):</td>
<td>Singlemode: 0.5dB Standard IL: 0.35dB Multimode: 0.25dB</td>
</tr>
<tr>
<td>Minimum connector return loss:</td>
<td>Multimode: OM3 30dB minimum OM4 30dB minimum Singlemode: OS2 50dB minimum</td>
</tr>
</tbody>
</table>

**environmental properties**

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

**standards**

Meets or exceeds: ISO/IEC 11801, TIA/EIA-568-C.3, TIA-604-5 (FOCIS-5), TIA/EIA-568-C.1, GR-409-CORE, ICEA S-83-596 RoHS Complaint

*With proper cleaning and inspection

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part number

Example: FXUYP7575XNF030 = OM3, 24-fiber indoor trunk, plenum, PanMPO™ female to PanMPO™ female, Polarity A, Optimized IL, No pulling eye, 30-feet.

<table>
<thead>
<tr>
<th>CHARACTER</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>P</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXAMPLE</td>
<td>F</td>
<td>X</td>
<td>U</td>
<td>Y</td>
<td>P</td>
<td>7</td>
<td>5</td>
<td>7</td>
<td>5</td>
<td>X</td>
<td>N</td>
<td>F</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

1 – Fiber
F = Fiber

2 – Fiber Type
9 = OS2 9/125um
X = OM3 50/125µm
Z = OM4 50/125µm
S = OM4+ Signature Core 50/125um (Ultra IL only)

3 – Fiber Count
T = 12 fiber
U = 24 fiber

4 – Cable Type
Y = Indoor small diameter trunk cable

5 – Jacket Type
L = Low Smoke Zero Halogen (LSZH)
P = Plenum (OFNP)

6 – Connector Type (End ‘A’)
5 = Singlemode MPO Female
6 = Singlemode MPO Male
7 = Multimode PanMPO Female
8 = Multimode PanMPO Male

7 – Connector Variant (End ‘A’)
5 = 39" Breakout with transition

8 – Connector Type (End ‘B’)
5 = Singlemode MPO Female
6 = Singlemode MPO Male
7 = Multimode PanMPO Female
8 = Multimode PanMPO Male

9 – Connector Variant (End ‘B’)
5 = 39" Breakout with transition

10 – Construction/Performance
A = Singlemode Polarity A - Standard IL
X = Multimode Polarity A - Optimized IL
Y = Multimode Polarity B - Optimized IL
K = Multimode Polarity A - Ultra Low IL
L = Multimode Polarity B - Ultra Low IL

11 – Other
N = No pulling eye (15 - 100ft, 5 - 30m)
A = Pulling eye end A (>100ft, >30m)

12 – Unit of Length
F = Feet (OFNP)
M = Meters (LSZH)

13, 14, 15 – Cable Assembly Length
015 - 300ft 1ft increments to 100ft,
5ft increments to 300ft
005 – 100m, 1m increments

Small diameter trunk cable assembly detail

24-Fiber Trunk

12-Fiber Female MPO Connector

Overall Length Between Connectors

[1 meter]

12-Fiber Female MPO Connector

24-Fiber Trunk

[1 meter]

12-Fiber Female MPO Connector

12-Fiber Trunk

Overall Length Between Connectors

[1 meter]

12-Fiber Female MPO Connector

24-Fiber Trunk

[1 meter]

12-Fiber Female MPO Connector

Please contact Panduit customer service for information on additional part number options.

For more information
Visit us at www.panduit.com
Contact Customer Service by email: cs@panduit.com
or by phone: 800.777.3300

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