12-Series Tight Buffered Breakout All Dielectric Riser-Rated Indoor/Outdoor Fiber Optic Cable

Cable Cross Section

(Representation of a standard 12 fiber construction)

Scope
This document establishes the specification requirements for a riser rated breakout indoor/outdoor, all dielectric fiber optic cable. This cable consists of a tight-buffer fiber in a sub-unit construction design.

Applications
Indoors in the riser space and Tray Installations

Applicable Documents
- TIA/EIA FOTP Standards 455
- Color Coding of Fiber Optic Cables TIA/EIA-598
- UL 1666
- GR-409-CORE
- Compliant with ANSI/TIA-568-C.3 standard

Cable Construction Details
• Tight Buffered Fiber
  Dimension: 900µm, Nominal
• Tight Buffer/Sub Unit Color Code:
  As per TIA/EIA-598 standard or per customer requirement
• Sub Unit Construction:
  Thermoplastic Elastomeric Material
  Water swellable aramid yarns are pulled in with tight buffered fibers under a sub-unit jacket.
  Dimension: 2.4 mm
• Dielectric Central Strength Member:
  Epoxy Glass Rod (up-coated as required per construction)
  No Epoxy Rod on 12 fiber cable
• Cable Core:
  The sub-units and fillers are stranded around the CSM, using reverse oscillation.
• Overall Sheath: Pressure Extruded UV Resistant Riser Rated Polyvinyl Chloride
  A ripcord applied under the overall sheath.

Continued
### Nominal Cable Dimensions & Weights

<table>
<thead>
<tr>
<th>Remee Products Part Number</th>
<th>Number of Fibers</th>
<th>Number of Fibers Per Sub Unit</th>
<th>Cable OD in (mm)</th>
<th>Weight lb/1000ft (kg/km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-002-XXX-GXSAxF</td>
<td>2</td>
<td>1</td>
<td>0.320 (8.1)</td>
<td>37 (55)</td>
</tr>
<tr>
<td>12-004-XXX-GXSAxF</td>
<td>4</td>
<td>1</td>
<td>0.320 (8.1)</td>
<td>35 (53)</td>
</tr>
<tr>
<td>12-006-XXX-GXSAxF</td>
<td>6</td>
<td>1</td>
<td>0.381 (9.7)</td>
<td>57 (85)</td>
</tr>
<tr>
<td>12-008-XXX-GXSAxF</td>
<td>8</td>
<td>1</td>
<td>0.440 (11.2)</td>
<td>71 (105)</td>
</tr>
<tr>
<td>12-012-XXX-GXNAxF</td>
<td>12</td>
<td>1</td>
<td>0.490 (12.5)</td>
<td>77 (115)</td>
</tr>
<tr>
<td>12-024-XXX-GXSAxF</td>
<td>24</td>
<td>1</td>
<td>0.685 (17.4)</td>
<td>162 (241)</td>
</tr>
<tr>
<td>12-036-XXX-GXSAxF</td>
<td>36</td>
<td>1</td>
<td>0.778 (19.8)</td>
<td>198 (295)</td>
</tr>
</tbody>
</table>

*Cables printed in meters will have a “-MR” suffix on the part number.

### Jacket Color

<table>
<thead>
<tr>
<th>Designation</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Black</td>
</tr>
<tr>
<td>Y</td>
<td>Yellow</td>
</tr>
<tr>
<td>Z</td>
<td>Orange</td>
</tr>
<tr>
<td>A</td>
<td>Aqua</td>
</tr>
<tr>
<td>M</td>
<td>Violet</td>
</tr>
</tbody>
</table>

### Fiber Type (P/N) Specifications

<table>
<thead>
<tr>
<th>Fiber Type (P/N)</th>
<th>Maximum Attenuation dB/km</th>
<th>Overfill Launch Min Bandwidth ( MHz-km)</th>
<th>EMBc (MHz-km)</th>
<th>Gigabit Ethernet Minimum Link Distance (Meters)</th>
<th>10 Gigabit Ethernet Minimum Link Distance (Meters)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>850 nm 1300 nm 1310 nm 1550 nm</td>
<td>850 nm 1300 nm</td>
<td>850 nm 1300 nm</td>
<td>850 nm 1300 nm</td>
<td>850 nm 1300 nm</td>
</tr>
<tr>
<td>62.5µm OM1 1GIG (22J)</td>
<td>3.2 1.0 N/A N/A</td>
<td>200 600 N/A</td>
<td>300 550 32 -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50µm OM2 10GIG (12D)</td>
<td>3.0 1.0 N/A N/A</td>
<td>750 500 N/A</td>
<td>800 550 150 -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50µm OM3 10GIG (12N)</td>
<td>3.0 1.0 N/A N/A</td>
<td>1500 500 2000</td>
<td>1000 550 300 -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50µm OM4 10GIG (12V)</td>
<td>3.0 1.0 N/A N/A</td>
<td>3500 500 4700</td>
<td>1040 550 550 -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SM OS2 G.652.D (76K)</td>
<td>N/A N/A 0.40 0.30</td>
<td>N/A N/A N/A</td>
<td>N/A N/A 5000 N/A 10000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SM OS2 G.652.D (74K)</td>
<td>N/A N/A 0.35 0.25</td>
<td>N/A N/A N/A</td>
<td>N/A N/A 5000 N/A 10000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SM OS2 G.652.D/G.657.A1 BIF (76U)*</td>
<td>N/A N/A 0.40 0.30</td>
<td>N/A N/A N/A</td>
<td>N/A N/A 5000 N/A 10000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SM OS2 G.652.D/G.657.A2, B2 BIF (76F)**</td>
<td>N/A N/A 0.40 0.30</td>
<td>N/A N/A N/A</td>
<td>N/A N/A 5000 N/A 10000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* G.657.A1 (76U) Mandrel Radius of 10mm, 1 turn at 1550nm with an induced attenuation of ≤0.50dB

** G.657.A2,B2 (76F) Mandrel Radius of 7.5mm, 1 turn at 1550nm with an induced attenuation of ≤0.40dB

Please call the factory for all other fiber types
Mechanical & Environmental Performance

• Maximum Tensile Load
  Installation: 2&4 fiber 1900N / 427lbf
  6 to 36 fiber 2700N / 600lbf
  Long Term: 2&4 fiber 760N / 171lbf
  6 to 36 fiber 600N / 135lbf

• Minimum Bending Radius
  Loaded: 20 x Diameter
  Unloaded: 10 x Diameter

• Crush Resistance
  100 N/cm

• Impact Resistance (min.)
  25 Impacts

• Flexing ± 90° (min.)
  25 Cycles

• Temperature Rating
  Operation: -40°C to +85°C
  Installation: 0°C to +75°C
  Storage: -55°C to +85°C

Warranty Information
All warranty information can be viewed at www.remee.com.
This product is RoHS compliant and is directive 2002/95/EC. It is the sole responsibility of the user to have the most current specification. Specifications are subject to change without notice.

Preparation for Shipment
The cable shall be packaged to preclude the inducement of damage due to handling and transportation, and shall be in accordance with the best commercial practices available. Shipping containers shall be constructed as to eliminate any possible damage to the cables due to shipment.

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Spec Approval (Custom Designs Only)
Your signature constitutes that you have read and agreed to this specification sheet and upon confirmation of your order: this item may be non-cancelable and non-returnable.

Signature: ______________________ Date: ________________