ST2 OptiCam™ Pre-Polished Fiber Optic Connectors

Specifications
ST2 pre-polished fiber optic connectors shall be TIA/EIA-604 FOCS-2 compliant and contain a factory-terminated fiber, eliminating field polishing and adhesive. ST2 pre-polished connectors shall have an average insertion loss of 0.3dB per mated pair for multimode and singlemode fiber. ST2 pre-polished connectors shall capture fiber and buffer in one action allowing for up to two re-terminations with no degradation in performance.

Technical Information

| Standards requirements: | TIA/EIA-604 FOCS-2 compliant; exceeds TIA/EIA-568-D.3 requirements |
| Fiber compatibility: | 62.5/125µm OM1, 50/125µm OM2, 50/125µm OM3/OM4 and 9/125µm OS2 |
| Fiber size and type: | 900µm tight-buffered fiber 250µm coated fiber, by using F250BT-C 250 micron fiber build-up tube kit or FO6CB or FO12CB fan-out kit |
| Jacketed cable size: | 1.6mm – 2.0mm and 3.0mm jacketed cable with optional boots |
| Ferrule type: | Zirconia ceramic |
| Insertion loss: | 0.3dB average (multimode and singlemode) |
| Return loss: | >20dB (multimode), >26dB (10Gig multimode), >50dB (singlemode) |

Key Features and Benefits

ST2 OptiCam™ Connectors
Factory pre-polished fiber stub endface
Eliminates inconsistent and time-consuming field polishing to deliver required optical performance; reduces termination time (less than half the time of field polish connectors) and the number of installation tools required.

Dual cam design with fiber and buffer clamps
Secures both the fiber and the buffer during the camming step to facilitate consistent termination results; reduces the termination time compared to conventional termination methods
Allows up to two re-terminations to achieve optimum termination results; reduces the number of rejected connectors and terminations to provide yield rates approaching 100% for lower installed costs

Translucent housing assembly
Facilitates inspection of the fiber termination quality; results in rapid installations, improved termination yields, and lower installed costs

Mechanical cable retention
Consistently provides higher than industry standard cable retention; requires no adhesive, speeding installation

OptiCam™ 2 Termination Tool
Universal termination tool
The OptiCam™ 2 Termination Tool is designed to offer certainty of termination of Opti-Cam connectors

LCD Display
Guides the user through the termination process with simple step-by-step prompts and on-screen visuals. Indicates the field fiber and fiber stub are in proper alignment before camming

Calculated Insertion Loss
Provides calculated insertion loss value on completion of the camming process

Applications
ST2 fiber optic connectors are widely used in fiber optic backbone and horizontal applications for high-speed data transmission. Typical applications for ST2 OptiCam™ Connectors include maintenance or emergency restoration of fiber networks and retrofit/initial install in both behind-the-wall (BTW) and in the permanent side of panelized interconnect and cross-connect.

ST2 OptiCam™ Connectors eliminate the need for end face polishing and adhesive providing easier, faster installation, especially in remote areas and confined spaces. The hand-held OptiCam™ 2 Termination Tool gives installers the flexibility to terminate in very close proximity to the application without having to switch tools or find benchtop space.

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## Performance Information

<table>
<thead>
<tr>
<th>Test Parameter</th>
<th>Description</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualification test suite (TIA/EIA-568-D.3 requirements)</td>
<td>Complete testing protocol per TIA/EIA-568-D.3 using TIA/EIA FOTPs that include mechanical, environmental, and optical test sequences</td>
<td>Exceeds TIA/EIA-568-D.3 requirements</td>
</tr>
<tr>
<td>Connector intermatability</td>
<td>Dimensional and material compliance to TIA/EIA standards</td>
<td>All connectors are FOCIS compliant with TIA/EIA-604-2-A</td>
</tr>
<tr>
<td>Repeated mating</td>
<td>500 mate/unmate cycles</td>
<td>Exceeds TIA/EIA-568-D.3 test requirements: &lt;0.1dB additional insertion loss</td>
</tr>
<tr>
<td>Cable retention (straight pull): 900µm tight-buffered fiber</td>
<td>TIA/EIA-568-D.3 requirement: 0.5 lbs. load applied with &lt;0.5dB increase in insertion loss after test</td>
<td>Exceeds TIA/EIA-568-D.3 requirements: 1.0 lbs. avg. load applied with &lt;0.2dB increase in insertion loss after test</td>
</tr>
<tr>
<td>Jacketed cable</td>
<td>11.24 lbs. load applied with &lt;0.5dB increase in insertion loss after test</td>
<td></td>
</tr>
</tbody>
</table>

*Jacketed cable retention tensile load may vary based on specific manufacturer’s jacketed cable diameter and aramid yarn count.

## Selection Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Connector Type</th>
<th>Ferrule Material</th>
<th>Fiber</th>
<th>Ferrule Finish</th>
<th>Backbone Color</th>
<th>Boot Color</th>
<th>Average Insertion Loss**</th>
<th>Return Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>FST2MCXAQ</td>
<td>Simplex</td>
<td>Zirconia Ceramic</td>
<td>50/125µm OM3/OM4</td>
<td>SPC</td>
<td>Natural</td>
<td>Aqua</td>
<td>0.3dB</td>
<td>&gt;26dB</td>
</tr>
<tr>
<td>FST2MC5BL</td>
<td>Simplex</td>
<td>Zirconia Ceramic</td>
<td>50/125µm OM2</td>
<td>SPC</td>
<td>Natural</td>
<td>Black</td>
<td>0.3dB</td>
<td>&gt;20dB</td>
</tr>
<tr>
<td>FST2MC6EI</td>
<td>Simplex</td>
<td>Zirconia Ceramic</td>
<td>62.5/125µm OM1</td>
<td>SPC</td>
<td>Natural</td>
<td>Electric Ivory</td>
<td>0.3dB</td>
<td>&gt;20dB</td>
</tr>
<tr>
<td>FST2SCBU</td>
<td>Simplex</td>
<td>Zirconia Ceramic</td>
<td>9/125µm OS2</td>
<td>UPC</td>
<td>Natural</td>
<td>Blue</td>
<td>0.3dB</td>
<td>&gt;50dB</td>
</tr>
</tbody>
</table>

**All connector insertion loss values calculated from tests taken with precision launch jumper assemblies per TIA/EIA-FOTP-171.

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### OptiCam™ Boot Assemblies

**For 1.6/2.0mm Jacketed Cable**

- **FSCBT2BU-X**

**For 3.0mm Jacketed Cable**

- **FSCBT3BU-X**

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### OptiCam™ 2 Termination Kit

- **FOCTT2-BKIT**

(Patch cords available separately or in termination kits)

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### ST2 OptiCam™ Pre-Polished Simplex Connector

- **FST2MC**

- Dimensions in inches. [Dimensions in brackets are in millimeters.]

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