## specifications

SC pre-polished fiber optic connectors shall be ANSI/TIA-604-FOCIS-3 compliant and contain a factory-terminated fiber, eliminating field polishing and adhesive. SC pre-polished connectors shall have an average insertion loss of 0.3dB per mated pair for multimode and singlemode fiber. SC 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:** | ANSI/TIA-604-FOCIS-3 compliant; exceeds ANSI/TIA-568.3-D requirements |
| **Fiber compatibility:** | 62.5/125µm OM1, 50/125µm OM2, 50/125µm OM3/OM4/OM5 and 9/125µm OS1/OS2 |
| **Fiber cable type:** | 900µm tight-buffered cable or 250µm cable with a 900µm build up |
| **Fiber cable size:** | 1.6mm - 2.0mm and 3.0mm jacketed cable with optional boots |
| **Ferrule type:** | Zirconia ceramic with a pre-polished stub |
| **Insertion loss:** | 0.3dB average (multimode and singlemode) |
| **Return loss:** | >20dB (multimode), >26dB (10Gig™ multimode), >50dB (singlemode) |

## key features and benefits

| | |
|---|---|
| **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** **PATENTED** | 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 inner housing assembly** | Facilitates inspection of the fiber termination quality; results in rapid installations, improved termination yields, and lower installed costs |
| **Non-optical disconnect** | Maintains data transmission under tensile loads for jacketed cable |
| **Mechanical cable retention** | Consistently provides higher than industry standard cable retention; requires no adhesive, speeding installation |
| **Zirconia ceramic ferrules** | Provide the highest durability for repeated matings |
| **Robust design** | FOCIS-3 compliant design with rear latch for easy deployment; operating temperature range of 32° to 140°F (0° to 60°C) |
| **OptiCam® 2 Termination Tool** | Provides calculated insertion loss value at the time of termination, improving termination yields and reducing installed costs |

## applications

SC fiber optic connectors are widely used in fiber optic backbone and horizontal applications for high-speed data transmission. Typical applications for SC 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.

SC 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.

### SC OptiCam® Pre-Polished Connectors

| | |
|---|---|
| **10Gig™ 50/125µm simplex:** | FSC2MCXAQ^^ |
| **10Gig™ 50/125µm duplex:** | FSC2DMCXAQ |
| **50/125µm simplex:** | FSC2MC5BL^^ |
| **50/125µm duplex:** | FSC2DMC5BL |
| **62.5/125µm simplex:** | FSC2MC6EI^^ |
| **62.5/125µm duplex:** | FSC2DMC6EI |
| **9/125µm simplex:** | FSC2SCBU^^ |

^^Add -C to simplex connector part numbers for bulk packs of 100 connectors.

### OptiCam® 1.6/2.0mm Boots

| | |
|---|---|
| **Multimode (aqua):** | FMCBT2AQ-X* |
| **Multimode (black):** | FMCBT2BL-X |
| **Singlemode (blue):** | FSCBT2BU-X |

### OptiCam® 3.0mm Boots

| | |
|---|---|
| **Multimode (aqua):** | FMCBT3AQ-X* |
| **Multimode (black):** | FMCBT3BL-X |
| **Singlemode (blue):** | FSCBT3BU-X |

*X = Bag of 10 boots; 100 per carton.

### OptiCam® 2 Termination Tooling

| | |
|---|---|
| **Precision kit:** | FOCTT2-PKIT2 |
| **General kit:** | FOCTT2-BKIT2 |
| **Basic kit:** | FOCTT2-KIT |
| **SC cradles:** | FSCC2 |

### SC Fiber Optic Adapters

| | |
|---|---|
| **Multimode (aqua):** | FADSCZAQ-L |
| **Singlemode (blue):** | FADSCZBU-L |

L = Bag of 50 adapters; 100 per carton.

### Mini-Com® SC Adapter Modules

| | |
|---|---|
| **Multimode (aqua):** | CMDAQSCZBL |
| **Multimode:** | CMDEISCZ** |
| **Singlemode:** | CMDBUSCZ** |

### 900µm Build Up

| | |
|---|---|
| **12-Fiber Fanout:** | FO12CB |
| **6-Fiber Fanout:** | FO6CB |
| **2" Build-Up Tube:** | F250BT-C |

### SC Duplex Clip

| | |
|---|---|
| **SC Duplex Clip:** | FSCCLIPBL-L |

**Substitute for module color: EI = Electric Ivory, BU = Blue, BL = Black, IW = Off White, AW = Arctic White.

### Opticom® SC Fiber Adapter Panels

| | |
|---|---|
| **10Gig™ Multimode:** | FAP6WAQSCZ FAP6WAQDSCZ |
| **Singlemode:** | FAP6WBUDSCZ |
| **Singlemode:** | FAP6WBUDSCZ |
| **Singlemode (APC):** | FAP6WAGDSCZ |

*Other options available. See Opticom® Fiber Adapter Panels Specification Sheet.
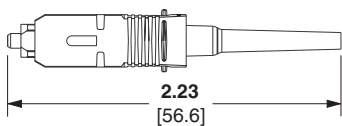
# SC OptiCam® Pre-Polished Fiber Optic Connectors

## performance information

| Test Parameter | Description | Result |
|---|---|---|
| Qualification test suite (ANSI/TIA-568.3-D requirements) | Complete testing protocol per ANSI/TIA-568.3-D using ANSI/TIA FOTPs that include mechanical, environmental, and optical test sequences | Exceeds ANSI/TIA-568.3-D requirements |
| Connector intermatability | Dimensional and material compliance to ANSI/TIA standards | All connectors are FOCIS compliant with ANSI/TIA-604-3-A |
| Repeated mating | 500 mate/unmate cycles<br>Max. insertion loss: 0.75dB<br>Min. return loss: 20dB | Exceeds ANSI/TIA-569.3-D test requirements: <0.1dB additional insertion loss |
| Cable retention (straight pull):<br>900µm tight-buffered fiber<br><br>Jacketed cable | ANSI/TIA-568.3-D requirement:<br>0.5 lb. load applied with <0.5dB increase in insertion loss after test<br>11.24 lbs. load applied with <0.5dB increase in insertion loss after test | ANSI/TIA-568.3-D requirements:<br>1.0 lb. avg. load applied with <0.2dB increase in insertion loss after test<br>11.24 lbs. load applied with <0.1dB increase in insertion loss after test* |

## selection information

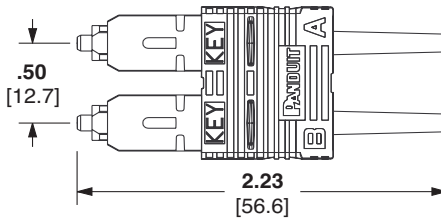| Part Number | Connector Type | Fiber | Ferrule Finish | Outer Housing Color | Backbone Color | Boot Color | Average Insertion Loss | Return Loss |
|---|---|---|---|---|---|---|---|---|
| FSC2MCXAQ | Simplex | 10GbE 50/125µm OM3/OM4/OM5 | SPC | Black | Aqua | Aqua | .03dB | >26dB |
| FSC2DMCXAQ | Duplex | 10GbE 50/125µm OM3/OM4/OM5 | SPC | Black | Aqua | Aqua | .03dB | >26dB |
| FSC2MC5BL | Simplex | 50/125µm OM2 | SPC | Black | Black | Black | .03dB | >20dB |
| FSC2DMC5BL | Duplex | 50/125µm OM2 | SPC | Black | Black | Black | .03dB | >20dB |
| FSC2MC6EI | Simplex | 62.5/125µm OM1 | SPC | Beige | Beige | Beige | .03dB | >20dB |
| FSC2DMC6EI | Duplex | 62.5/125µm OM1 | SPC | Beige | Beige | Beige | .03dB | >20dB |
| FSC2SCBU | Simplex | 9/125µm OS1/OS2 | UPC | Blue | Blue | Blue | .03dB | >50dB |



**SC OptiCam® Pre-Polished Simplex Connector**

2.23 [56.6]

**FSC2MC*****



**SC OptiCam® Pre-Polished Duplex Connector**

.50 [12.7]

2.23 [56.6]

**FSC2DMC*****



**OptiCam® 2 Termination Tool**

**FOCTT2-PKIT2**

***Substitute for fiber type: For multimode, insert XAQ for 50/125µm, 5BL for 50/125µm, or 6EI for 62.5/125µm.

Dimensions are in inches. [Dimensions in brackets are metric].

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