# SC OptiCam® Pre-Polished Fiber Optic Connectors



## specifications

SC pre-polished fiber optic connectors shall be TIA/EIA-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 captivate 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 FOCIS-3 compliant; exceeds TIA/EIA-568-B.3 requirements   |  |  |  |  |
|-------------------------|---|--|--|--|--|
| Fiber compatibility:    | 62.5/125μm OM1, 50/125μm OM2, 10Gig <sup>™</sup> 50/125μm laser optimized OM3/OM4 and 9/125μm OS1/OS2       |  |  |  |  |
| Fiber cable type:       | 900µm tight-buffered cable only   |  |  |  |  |
| Fiber cable size:       | 1.6mm – 2.0mm and 3.0mm jacketed cable with optional boots  |  |  |  |  |
| Ferrule type:           | Zirconia ceramic or composite ferrule with a pre-polished fiber stub  |  |  |  |  |
| Insertion loss:         | Ceramic: 0.3dB average (multimode and singlemode) Composite: 0.3dB average (multimode)                      |  |  |  |  |
| Return loss:            | Ceramic: >20dB (multimode), >26dB (10Gig™ multimode),<br>>50dB (singlemode)<br>Composite: >20dB (multimode) |  |  |  |  |

## key features and benefits

| SC 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   |
| PATENTED   | 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  |
| Choice of zirconia ceramic or composite ferrules | Provides material option with comparable performance to meet application requirements; zirconia ceramic provides the highest durability for repeated matings  |
| OptiCam® Termination Tool                        |   |
| Universal termination tool                       | Secures both fiber and buffer in one action for all OptiCam® Connectors with connector specific cradles (included); ensures fast, consistent, and optimal terminations  |
| Integrated visual termination indicator (VTI)    | Offers visual indication of proper termination after the cam step has been completed; virtually eliminates operator error to deliver  |

a higher yield for a lower installed cost

## 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® 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 with Zirconia Ceramic Ferrules

10Gig™ 50/125μm (laser optimized) simplex:

FSCMCXAQ\*

10Gig™ 50/125µm (laser optimized) duplex:

**FSCDMCXAQ** 

50/125µm simplex: 50/125µm duplex: 62.5/125µm simplex: 62.5/125µm duplex: FSCDMC6BL 9/125µm simplex: FSCSCBU\*

FSCMC5BL<sup>▲</sup> FSCDMC5BL FSCMC6BL\*

SC OptiCam® Pre-Polished Connectors with Composite Ferrules

50/125µm simplex: FSCMPC5BL A 62.5/125µm simplex: FSCMPC6BL\*

OptiCam® 1.6/2.0mm Boot Assemblies

10Gig™ multimode (aqua): FMCBT2AQ-X Multimode (black): FMCBT2BL-X Singlemodè (blué): FSCBT2BU-X

#### OptiCam® 3.0mm Boot Assemblies

10Gig™ multimode (aqua): FMCBT3AQ-X\* FMCBT3BL-X FSCBT3BU-X Multimode (black): Singlemode (blué): \*X = Bag of 10 Boots; 100 per carton.

#### OptiCam® Termination Tooling

OptiCam® Termination Kit: **FCAMKIT** 

OptiCam® Conversion Kit (upgrades Opti-Crimp Kit to also terminate

OptiCam® Connectors): FPPKIT-CVY

Field Polish Kit Upgrade (upgrades Field Polish Kit to also terminate

OptiCam® Connectors): FIELDKITUPG

SC cradles (2 per pkg.): FSCC

### SC Fiber Optic Adapters

10Gig<sup>™</sup> multimode: Multimode: FADSCAQ-L\* FADSCFI-L FADSCZBU-L Singlemode: \*L = Bag of 50 adapters; 100 per carton

#### Mini-Com® SC Adapter Modules

10Gig<sup>™</sup> multimode: CMDAQSC\*\* Multimode: CMDEISC\*\* Singlemode: CMSBUSCZ\*\* \*\*Substitute for module color: EI = Electric Ivory, BU = Blue, BL = Black, IW = Off White,

#### Opticom® SC Fiber Adapter Panels

3 duplex MM adapters: **FAP3WEIDSC** 3 duplex SM adapters: FAP3WBUDSCZ 6 simplex MM adapters: **FAP6WEISC** 6 simplex SM adapters: FAP6WBUSCZ

#### Opti-Core® SC Patch Cords

AW = Arctic White.

Duplex SC to SC: F^D3-3M‡Y Simplex SC to SC: F^S3-3M±Y Duplex SC to LC: F^D3-10M±Y Simplex SC to LC: F^S3-10M‡Y

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

\*\*Substitute for fiber type: 6 = 62.5/125µm OM1, 5 = 50/125µm OM2, X = 10Gig\*\* 50/125µm OM3/OM4 or 9 = 9/125µm OS1/OS2.

‡Substitute for length in meters: 1, 2, 3, 5 or 10. Contact Customer Service for other available lengths.

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# SC OptiCam® Pre-Polished Fiber Optic Connectors

## performance information

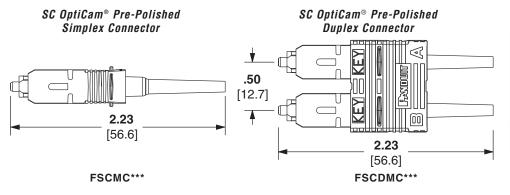
| Test Parameter  | Description  | Result   |  |  |
|---|--|--|--|--|
| Qualification test suite (TIA/EIA-568-B.3 requirements) | Complete testing protocol per TIA/EIA-568-B.3 using TIA/EIA FOTPs that include mechanical, environmental, and optical test sequences | Exceeds TIA/EIA-568-B.3 requirements   |  |  |
| Connector intermatability                               | Dimensional and material compliance to TIA/EIA standards   | All connectors are FOCIS compliant with TIA/EIA-604-3                        |  |  |
| Repeated mating   | 500 mate/unmate cycles<br>Max. insertion loss: 0.75dB<br>Min. return loss: 20dB  | Exceeds TIA/EIA-568-B.3 test requirements: <0.1dB additional insertion loss  |  |  |
| Cable retention (straight pull):                        | TIA/EIA-568-B.3 requirement:   | Exceeds TIA/EIA-568-B.3 requirements:  |  |  |
| 900µm tight-buffered fiber                              | 0.5 lbs. load applied with <0.5dB increase in insertion loss after test  | 1.0 lbs. avg. load applied with <0.2dB increase in insertion loss after test |  |  |
| Jacketed cable  | 11.24 lbs. load applied with <0.5dB increase in insertion loss after test  | 11.24 lbs. load applied with <0.1dB increase in insertion loss after test*   |  |  |

<sup>\*</sup>Jacketed cable retention tensile load may vary based on specific manufacturer's jacketed cable diameter and aramid yarn count.

### selection information

| Part Number | Connector<br>Type | Ferrule<br>Material              | Fiber   | Ferrule<br>Finish | Housing<br>Color  | Backbone<br>Color | Boot<br>Color | Average<br>Insertion Loss** | Return<br>Loss |
|-------------|-------------------|----------------------------------|---|-------------------|-------------------|-------------------|---------------|-----------------------------|----------------|
| FSCMCXAQ    | Simplex           | Zirconia<br>Ceramic              | 10 GbE 50/125µm<br>(laser optimized)<br>OM3/OM4 | SPC               | Black             | Aqua              | Aqua          | 0.3dB                       | >26dB          |
| FSCDMCXAQ   | Duplex            |                                  |   |                   |                   |                   |               |                             |                |
| FSCMC5BL    | Simplex           | Zirconia<br>Ceramic<br>Composite | 50/125µm OM2                                    | SPC               | Black             | Black             | Black         | 0.3dB                       | >20dB          |
| FSCDMC5BL   | Duplex            |                                  |   |                   |                   |                   |               |                             |                |
| FSCMPC5BL   | Simplex           |                                  |   |                   |                   |                   |               |                             |                |
| FSCMC6BL    | Simplex           | Zirconia<br>Ceramic              | 62.5/125μm OM1                                  | SPC               | Electric<br>Ivory | Electric<br>Ivory | Black         | 0.3dB                       | >20dB          |
| FSCDMC6BL   | Duplex            |                                  |   |                   |                   |                   |               |                             |                |
| FSCMPC6BL   | Simplex           |                                  |   |                   |                   |                   |               |                             |                |
| FSCSCBU     | Simplex           | Zirconia<br>Ceramic              | 9/125µm OS1/OS2                                 | UPC               | Blue              | Blue              | Blue          | 0.3dB                       | >50dB          |

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



OptiCam® Termination Tool



OCTT
(Patch cords available separately or in termination kits)

\*\*\*Substitute for fiber type: For multimode, insert XAQ for 10Gig<sup>™</sup> 50/125µm, 5BL for 50/125µm, or 6BL for 62.5/125µm.

For composite ferrules, insert a P after the M in the part number. For singlemode, insert BU for 9/125µm, and replace M with S.

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

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