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.

FOCIS-3 rield re de

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 [™] 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), >50dB (singlemode) 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: 9/125µm simplex: FSCMC5BL^A FSCMC5BL FSCMC6BL^A

FSCDMC6BL

FSCSCBU*

SC OptiCam® Pre-Polished Connectors with Composite Ferrules

50/125μm simplex: FSCMPC5BL⁴ 62.5/125μm simplex: FSCMPC6BL⁴

OptiCam® 1.6/2.0mm Boot Assemblies

10Gigi" multimode (aqua): FMCBT2AQ-X Multimode (black): FMCBT2BL-X Singlemode (blue): FSCBT2BU-X

OptiCam® 3.0mm Boot Assemblies

10Gig™ multimode (aqua): FMCBT3AQ-X* **Multimode (black):** FMCBT3BL-X **Singlemode (blue):** FSCBT3BU-X
*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™ multimode:FADSCAQ-L*Multimode:FADSCEI-LSinglemode:FADSCZBU-L*L = Bag of 50 adapters; 100 per carton.

Mini-Com® SC Adapter Modules

10Gig™ multimode:
Multimode:
Singlemode:
**Substitute for module color: EI = Electric Ivory,
BU = Blue, BL = Black, IW = Off White,
AW = Arctic White.

Opticom® SC Fiber Adapter Panels

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

Opti-Core® SC Patch Cords

 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.

SC OptiCam® Pre-Polished Fiber Optic Connectors

performance information

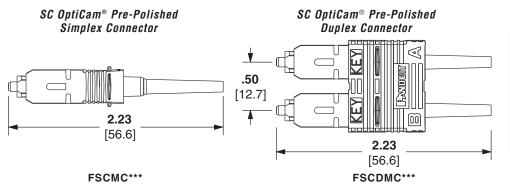
Test Parameter	Description	Result		
Qualification test suite (TIA/EIA-568-B.3 requirements)	Complete testing protocol per TIA/EIA-568-B.3 using TIA/EIA FOTPs that include mechanical, environmental, and optical test sequences	Exceeds TIA/EIA-568-B.3 requirements		
Connector intermatability	Dimensional and material compliance to TIA/EIA standards	All connectors are FOCIS compliant with TIA/EIA-604-3		
Repeated mating	500 mate/unmate cycles Max. insertion loss: 0.75dB 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*		

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

selection information

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

^{**}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[™] 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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