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 [™] 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 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.

PANDUIT®

SPECIFICATION SHEET

LC OptiCam® Pre-Polished Connectors with Zirconia Ceramic Ferrules

10Gig[™] 50/125µm (laser optimized) FSCMCXAQ^^ simplex: 10Gig[™] 50/125µm (laser optimized) **FSCDMCXAQ** duplex: 50/125µm simplex: FSCMC5BL^^ 50/125µm duplex: FSCDMC5BL 62.5/125µm simplex: FSCMC6BL^^ 62.5/125µm duplex: FSCDMC6BL FSCSCBU^^ 9/125µm simplex:

SC OptiCam® Pre-Polished Connectors with Composite Ferrules

50/125μm simplex: FSCMPC5BL^^ 62.5/125μm simplex: FSCMPC6BL^^

OptiCam® 1.6/2.0mm Boot Assemblies

10Gig[™] 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

(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: CMDAQSC**

Multimode: CMDEISC**

Singlemode: CMSUSCZ**

**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 MM adapters: FAP6WEISC 6 simplex SM adapters: FAP6WBUSCZ

Opti-Core® SC Patch Cords

 Duplex LC to LC:
 F^D3-3M‡Y

 Simplex LC to LC:
 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: $6 = 62.5/125\mu m$ OM1, $5 = 50/125\mu m$ OM2, X = 10Gig[™] 50/125 μm OM3/OM4 or $9 = 9/125\mu m$ 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

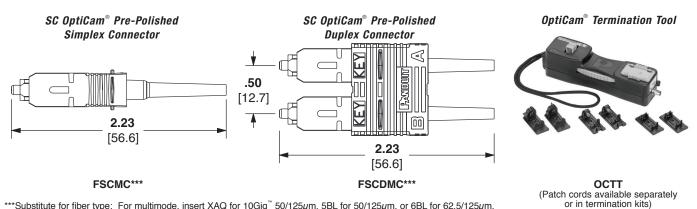
Test Parameter	Description	Result			
Qualification test suite (TIA/EIA-568-B.3 requirements)	Complete testing protocol per TIA/EIA-568-B.3 using TIA/EIA FOTPs that include mechanical, environmental and optical test sequences	Exceeds TIA/EIA-568-B.3 requirements			
Connector intermatability	Dimensional and material compliance to TIA/EIA standards	All connectors are FOCIS compatible 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	Backbone Color	Boot Color	Average Insertion Loss**	Return Loss
FSCMCXAQ	Simplex	Zirconia Ceramic	10 GbE 50/125µm (laser optimized) OM3/OM4	SPC	Aqua	Aqua	0.3dB	>26dB
FSCDMCXAQ	Duplex							
FSCMC5BL	Simplex	Zirconia Ceramic	50/125μm OM2	SPC	Black	Black	0.3dB	>20dB
FSCDMC5BL	Duplex							
FSCMPC5BL	Simplex	Composite						
FSCMC6BL	Simplex	Zirconia Ceramic	62.5/125μm OM1	SPC	Electric Ivory	Black	0.3dB	>20dB
FSCDMC6BL	Duplex							
FSCMPC6BL	Duplex	Composite						
FSCSCBU	Simplex	Zirconia Ceramic	9/125μm OS1/OS2	UPC	Blue	Blue	0.3dB	>50dB

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



^{***}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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