SC OptiCam® Pre-Polished Fiber Optic Connectors

PANDUIT®
SPECIFICATION SHEET

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.
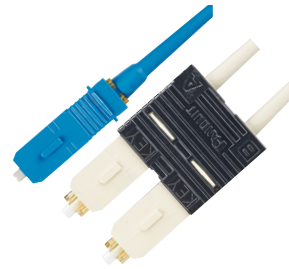
TECHNICAL INFORMATION

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:	0.062 in. - 0.078 in. (1.6mm - 2.0mm) and 0.118 in. (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
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+
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
OptiCam 2 Termination Tooling	
Precision kit:	FOCTT2-PKIT2
General kit:	FOCTT2-BKIT2
Basic kit:	FOCTT2-KIT
SC cradles:	FSCC2
900µm Build Up	
12-Fiber Fanout:	FO12CB
6-Fiber Fanout:	FO6CB
2" Build-Up Tube:	F250BT-C
SC Duplex Clip	
SC Duplex Clip:	FSCCLIP-L

+Add -C to indicate bulk packages of 100 pieces to reduce single-use plastic
-L indicates bulk packages of 50 pieces to reduce single-use plastic

TAA Compliant

All listed part numbers are compliant with the U.S. Trade Agreements Act (TAA) for purchases shipped to customers in the United States.

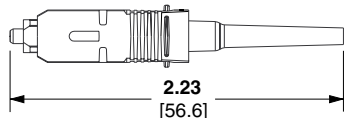# SC OptiCam® Pre-Polished Fiber Optic Connectors

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 Max. insertion loss: 0.75dB Min. return loss: 20dB	Exceeds ANSI/TIA-569.3-D test requirements: <0.1dB additional insertion loss
Cable retention (straight pull): 900μm tight-buffered fiber	ANSI/TIA-568.3-D requirement: 0.5 lb. (0.22 kg) load applied with <0.5dB increase in insertion loss after test	ANSI/TIA-568.3-D requirements: 1.0 lb. (0.45 kg) avg. load applied with <0.2dB increase in insertion loss after test
Jacketed cable	11.24 lbs. (5.09 kg) load applied with <0.5dB increase in insertion loss after test	11.24 lbs. (5.09 kg) 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	0.03dB	>26dB
FSC2DMCXAQ	Duplex							
FSC2MC5BL	Simplex	50/125μm OM2			Black	Black		>20dB
FSC2DMC5BL	Duplex							
FSC2MC6EI	Simplex	62.5/125μm OM1		Beige	Beige	Beige		
FSC2DMC6EI	Duplex							
FSC2SCBU	Simplex	9/125μm OS1/OS2	UPC	Blue	Blue	Blue		>50dB

SC OptiCam Pre-Polished Simplex Connector

2.23
[56.6]

FSC2MC*

SC OptiCam Pre-Polished Duplex Connector

0.5
[12.7]

2.23
[56.6]
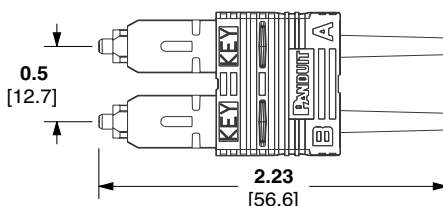
FSC2DMC*

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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