

# SC2 OptiCam® Pre-Polished Fiber Optic Connectors

# PANDUIT®

SPECIFICATION SHEET

## specifications

SC2 pre-polished fiber optic connectors shall be TIA/EIA-604 FOCIS-3 compliant and contain a factory-terminated fiber, eliminating field polishing and adhesive. SC2 pre-polished connectors shall have an average insertion loss of 0.3dB per mated pair for multimode and singlemode fiber. SC2 2pre-polished connectors shall capture fiber and buffer in one action allowing for up to two re-terminations with no degradation in performance.



## technical information

<b>Standards requirements:</b>	TIA/EIA-604 FOCIS-3 compliant; exceeds TIA/EIA-568-D.3 requirements
<b>Fiber compatibility:</b>	62.5/125µm OM1, 50/125µm OM2, 50/125µm OM3/OM4 and 9/125µm OS2
<b>Fiber size and type:</b>	1.6mm - 2.0mm and 3.0mm jacketed cable with optional boots 900µm tight-buffered cable only
<b>Ferrule type:</b>	Zirconia ceramic
<b>Insertion loss:</b>	0.3dB average (multimode and singlemode)
<b>Return loss:</b>	>20dB (multimode), >26dB (10Gig™ multimode), >50dB (singlemode)

## key features and benefits

### SC2 OptiCam® Connectors

<b>Factory pre-polished fiber stub endface</b>	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
<b>Dual cam design with fiber and buffer clamps</b>	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
<b>PATENTED</b>	
<b>Translucent inner housing assembly</b>	Facilitates inspection of the fiber termination quality; results in rapid installations, improved termination yields, and lower installed costs
<b>Non-optical disconnect</b>	Maintains data transmission under tensile loads for jacketed cable
<b>Mechanical cable retention</b>	Consistently provides higher than industry standard cable retention; requires no adhesive, speeding installation
<b>OptiCam® 2 Termination Tool</b>	
<b>Universal termination tool</b>	The OptiCam® 2 Termination Termination Tool is designed to offer certainty of terminations of OptiCam connectors
<b>LCD Display</b>	Guides the user through the termination process with simple step-by- step prompts and on-screen visuals. Indicates the field fiber and fiber stub are in proper alignment before camming
<b>Calculated Insertion Loss</b>	Provides calculated insertion loss value on completion of the camming process

## applications

SC2 fiber optic connectors are widely used in fiber optic backbone and horizontal applications for high-speed data transmission. Typical applications for SC2 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.

SC2 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.

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### SC2 OptiCam® Pre-Polished Connectors with Zirconia Ceramic Ferrules

<b>50/125µm simplex:</b>	FSC2MCXAQ^^
<b>50/125µm duplex:</b>	FSC2DMCXAQ
<b>50/125µm simplex:</b>	FSC2MC5BL^^
<b>50/125µm duplex:</b>	FSC2DMC5BL
<b>62.5/125µm simplex:</b>	FSC2MC6EI^^
<b>62.5/125µm duplex:</b>	FSC2DMC6EI
<b>9/125µm simplex:</b>	FSC2SCBU^^

### OptiCam® 1.6/2.0mm Boot Assemblies

<b>Multimode (aqua):</b>	FMCBT2AQ-X*
<b>Multimode (black):</b>	FMCBT2BL-X
<b>Singlemode (blue):</b>	FSCBT2BU-X

### OptiCam® 3.0mm Boot Assemblies

<b>Multimode (aqua):</b>	FMCBT3AQ-X*
<b>Multimode (black):</b>	FMCBT3BL-X
<b>Singlemode (blue):</b>	FSCBT3BU-X

\*X = Bag of 10 Boots; 100 per carton.

### OptiCam® 2 Termination Tooling

<b>OptiCam® 2 Termination Kit:</b>	FOCTT2-KIT FOCTT2-BKIT
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**SC cradles:** FSCC2

### SC Fiber Optic Adapters

<b>Multimode:</b>	FADSCAQ-L*
<b>Multimode:</b>	FADSCEI-L
<b>Singlemode:</b>	FADSCZBU-L

\*L = Bag of 50 adapters; 100 per carton.

### Mini-Com® SC Adapter Modules

<b>Multimode:</b>	CMDAQSC**
<b>Multimode:</b>	CMDEISC**
<b>Singlemode:</b>	CMSBUSZC**

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

### Opticom® SC Fiber Adapter Panels

<b>3 duplex MM adapters:</b>	FAP3WEIDSC
<b>3 duplex SM adapters:</b>	FAP3WBUDSCZ
<b>6 simplex MM adapters:</b>	FAP6WEISC
<b>6 simplex SM adapters:</b>	FAP6WBUSCZ

^^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 = 50/125µm OM3/OM4 or 9 = 9/125µm OS2.

# SC2 OptiCam® Pre-Polished Fiber Optic Connectors

## performance information

Test Parameter	Description	Result
Qualification test suite (TIA/EIA-568-D.3 requirements)	Complete testing protocol per TIA/EIA-568-D.3 using TIA/EIA FOTPs that include mechanical, environmental and optical test sequences	Exceeds TIA/EIA-568-D.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-D.3 test requirements: <0.1dB additional insertion loss
Cable retention (straight pull): 900µm tight-buffered fiber  Jacketed cable	TIA/EIA-568-D.3 requirement:  0.5 lbs. load applied with <0.5dB increase in insertion loss after test  11.24 lbs. load applied with <0.5dB increase in insertion loss after test	Exceeds TIA/EIA-568-D.3 requirements:  1.0 lbs. avg. load applied with <0.2dB increase in insertion loss after test  11.24 lbs. load applied with <0.1dB increase in insertion loss after test*

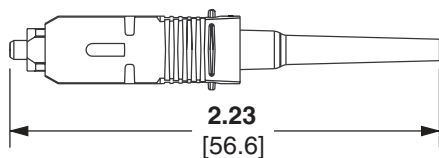
\*Jacketed cable retention tensile load may vary based on specific manufacturer's jacketed cable diameter and aramid yarn count.

## selection information

Part Number	Connector Type	Ferrule Material	Fiber	Ferrule Finish	Backbone Color	Boot/Housing Color	Average Insertion Loss**	Return Loss
<b>FSC2MCXAQ</b>	Simplex	Zirconia Ceramic	50/125µm OM3/OM4	SPC	Natural	Aqua/Black	0.3dB	>26dB
<b>FSC2DMCXAQ</b>	Duplex							
<b>FSC2MC5BL</b>	Simplex	Zirconia Ceramic	50/125µm OM2	SPC	Natural	Black/Black	0.3dB	>20dB
<b>FSC2DMC5BL</b>	Duplex							
<b>FSC2MC6EI</b>	Simplex	Zirconia Ceramic	62.5/125µm OM1	SPC	Natural	Electric Ivory/ Electric Ivory	0.3dB	>20dB
<b>FSC2DMC6EI</b>	Duplex							
<b>FSC2SCBU</b>	Simplex	Zirconia Ceramic	9/125µm OS2	UPC	Natural	Blue/Blue	0.3dB	>50dB

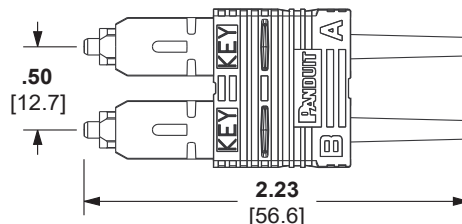
\*\*All connector insertion loss values calculated from tests taken with precision launch jumper assemblies per TIA/EIA-FOTP-171.

**SC2 OptiCam® Pre-Polished Simplex Connector**



**FSC2MC\*\*\***

**SC2 OptiCam® Pre-Polished Duplex Connector**



**FSC2DMC\*\*\***

**OptiCam 2 Termination Tool**



**FOCOT2-BKIT**  
(Patch cords available separately or in termination kits)

\*\*\*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 in millimeters].

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12/2017