# SC2 OptiCam® Pre-Polished Fiber Optic Connectors



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

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

## key features and benefits

#### SC2 OptiCam® Connectors

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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 Terminati	on Tool					
Universal termination tool	The OptiCam® 2 Termination Termination Tool is designed to offer certainty of terminations of OptiCam connectors					
LCD Display	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					
Calculated Insertion Loss	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<sup>o</sup>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.

#### www.panduit.com



SPECIFICATION SHEET

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

50/125µm simplex: FSC2MCXAO^^ 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 Boot Assemblies

Multimode (aqua): FMCBT2AQ-X\* Multimode (black): FMCBT2BL-X FSCBT2BU-X Singlemode (blue):

#### OptiCam® 3.0mm Boot Assemblies

Multimode (agua): FMCBT3AQ-X\* Multimode (black): FMCBT3BL-X Singlemode (blue): FSCBT3BU-X

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

#### **OptiCam® 2 Termination Tooling**

OptiCam®2

Termination Kit:

FOCTT2-KIT FOCTT2-BKIT

SC cradles: FSCC2

#### SC Fiber Optic Adapters

Multimode: FADSCAO-L\* Multimode: FADSCFI-I FADSCZBU-L Singlemode: \*L = Bag of 50 adapters; 100 per carton.

#### Mini-Com® SC Adapter Modules

Multimode: CMDAQSC\*\* CMDEISC\*\* Multimode: Singlemode: CMSBUSCZ\*\* \*\*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

^^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,  $X = 50/125 \mu m$ OM3/OM4 or  $9 = 9/125 \mu m$  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):	TIA/EIA-568-D.3 requirement:	Exceeds TIA/EIA-568-D.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*		

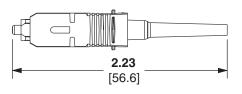
<sup>\*</sup>Jacketed cable retention tensile load may vary based on specific manufacturer's jacketed cable diameter and aramid yarn count.

### selection information

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

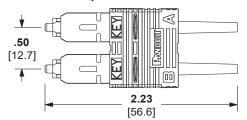
<sup>\*</sup>All connector insertion loss values calculated from tests taken with precision launch jumper assemblies per TIA/EIA-FOTP-171.





FSC2MC\*\*\*

#### SC2 OptiCam<sup>®</sup> Pre-Polished Duplex Connector



OptiCam' 2 Termination Tool



**FOCTT2-BKIT** (Patch cords available separately or in termination kits)

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

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