

# ST OptiCam™ Pre-Polished Fiber Optic Connectors

# PANDUIT™

## SPECIFICATION SHEET

### specifications

ST pre-polished fiber optic connectors shall be TIA/EIA-604 FOCIS-2 compliant and contain a factory-terminated fiber, eliminating field polishing and adhesive. ST pre-polished connectors shall have an average insertion loss of 0.3dB per mated pair for multimode and singlemode fiber. ST 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

<b>Standards requirements:</b>	TIA/EIA-604 FOCIS-2 compliant; exceeds TIA/EIA-568-B.3 requirements
<b>Fiber compatibility:</b>	62.5/125µm OM1, 50/125µm OM2, 10Gig 50/125µm laser optimized OM3/OM4 and 9/125µm OS1/OS2
<b>Fiber size and type:</b>	900µm tight-buffered fiber 250µm coated fiber, by using F250BT-C 250 micron fiber build-up tube kit or FO6CB or FO12CB fan-out kit
<b>Jacketed cable size:</b>	1.6mm – 2.0mm and 3.0mm jacketed cable with optional boots
<b>Ferrule type:</b>	Zirconia ceramic or composite ferrule with a pre-polished fiber stub
<b>Insertion loss:</b>	Ceramic: 0.3dB average (multimode and singlemode) Composite: 0.3dB average (multimode)
<b>Return loss:</b>	Ceramic: >20dB (multimode), >26dB (10Gig multimode), >50dB (singlemode) Composite: >20dB (multimode)

### key features and benefits

<b>ST OptiCam™ Connectors</b>	
<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
<b>PATENTED</b>	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>Translucent housing assembly</b>	Facilitates inspection of the fiber termination quality; results in rapid installations, improved termination yields, and lower installed costs
<b>Mechanical cable retention</b>	Consistently provides higher than industry standard cable retention; requires no adhesive, speeding installation
<b>Choice of zirconia ceramic or composite ferrules</b>	Provides material option with comparable performance to meet application requirements; zirconia ceramic provides the highest durability for repeated matings

#### OptiCam™ Termination Tool

<b>Universal termination tool</b>	Secures both fiber and buffer in one action for all OptiCam™ Connectors with connector specific cradles (included); ensures fast, consistent, and optimal terminations
<b>Integrated visual termination indicator (VTI)</b>	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

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

ST 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.

[www.panduit.com](http://www.panduit.com)

#### ST OptiCam™ Pre-Polished Connectors with Zirconia Ceramic Ferrules

<b>10Gig 50/125µm (laser optimized) simplex:</b>	FSTMCAQA*
<b>50/125µm simplex:</b>	FSTMC5BL*
<b>62.5/125µm simplex:</b>	FSTMC6BL*
<b>9/125µm simplex:</b>	FSTSCBU*

#### ST OptiCam™ Pre-Polished Connectors with Composite Ferrules

<b>50/125µm simplex:</b>	FSTMPC5BL*
<b>62.5/125µm simplex:</b>	FSTMPC6BL*

#### OptiCam™ 1.6/2.0mm Boot Assemblies

<b>10Gig multimode (aqua):</b>	FMCBT2AQ-X*
<b>Multimode (black):</b>	FMCBT2BL-X
<b>Singlemode (blue):</b>	FSCBT2BU-X

#### OptiCam™ 3.0mm Boot Assemblies

<b>10Gig 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™ Termination Tooling

<b>OptiCam™ Termination Kit:</b>	FCAMKIT
<b>OptiCam™ Conversion Kit (upgrades Opti-Crimp™ Kit to also terminate OptiCam™ Connectors):</b>	FPPKIT-CVY
<b>Field Polish Kit Upgrade (upgrades Field Polish Kit to also terminate OptiCam™ Connectors):</b>	FIELDKITUPG
<b>ST cradles (2 per pkg.):</b>	FSTC

#### Mini-Com™ ST Adapter Modules

<b>Multimode:</b>	CMST**
<b>Singlemode:</b>	CMSTZ**

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

#### Opticom™ ST Fiber Adapter Panels

<b>6 simplex MM adapters:</b>	FAP6WST
<b>6 simplex SM adapters:</b>	FAP6WSTZ
<b>8 simplex MM adapters:</b>	FAP8WST
<b>8 simplex SM adapters:</b>	FAP8WSTZ

#### Opti-Core™ ST Patch Cords

<b>Duplex ST to ST:</b>	FAD2-2M‡Y
<b>Simplex ST to ST:</b>	FAS2-2M‡Y
<b>Duplex ST to SC:</b>	FAD2-3M‡Y
<b>Simplex ST to SC:</b>	FAS2-3M‡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.

# ST 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-604-2-A
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): 900µm tight-buffered fiber  Jacketed cable	TIA/EIA-568-B.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-B.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 Color	Average Insertion Loss**	Return Loss
FSTMCXAQ	Simplex	Zirconia Ceramic	10 GbE 50/125µm (laser optimized) OM3/ OM4	SPC	Aqua	Aqua	0.3dB	>26dB
FSTMC5BL	Simplex	Zirconia Ceramic	50/125µm OM2	SPC	Black	Black	0.3dB	>20dB
FSTMPC5BL	Simplex	Composite						
FSTMC6BL	Simplex	Zirconia Ceramic	62.5/125µm OM1	SPC	Electric Ivory	Black	0.3dB	>20dB
FSTMPC6BL	Simplex	Composite						
FSTSCBU	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.

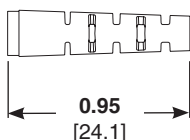
### OptiCam™ Boot Assemblies

For 1.6/2.0mm Jacketed Cable



FSCBT2BU-X

For 3.0mm Jacketed Cable



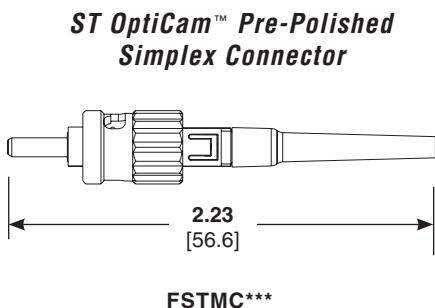
FSCBT3BU-X

### OptiCam™ Termination Tool



OCTT

(Patch cords available separately or in termination kits)



FSTMC\*\*\*

\*\*\*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. Singlemode boot assembly part numbers (blue) are shown. For multimode boot assemblies, replace S (Singlemode) in part number with M (Multimode) and replace BU (Blue) with AQ (Aqua) or BL (Black).

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

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