## ST OptiCam<sup>®</sup> Pre-Polished Fiber Optic Connectors



### 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.



Standards requirements:	TIA/EIA-604 FOCIS-2 compliant; exceeds TIA/EIA-568-B.3 requirements
Fiber compatibility:	62.5/125µm OM1, 50/125µm OM2, 10Gig <sup>™</sup> 50/125µm laser optimized OM3/OM4 and 9/125µm OS1/OS2
Fiber size and type:	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
Jacketed 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 <sup>™</sup> multimode), >50dB (singlemode) Composite: >20dB (multimode)

## key features and benefits

ST OptiCam <sup>®</sup> 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		
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		
<b>OptiCam®</b> Termination Tool			
Universal termination tool	Secures both fiber and buffer in one action for all OptiCam <sup>®</sup> 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

ST fiber optic connectors are widely used in fiber optic backbone and horizontal applications for high-speed data transmission. Typical applications for ST OptiCam<sup>®</sup> 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<sup>®</sup> 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>®</sup> Termination Tool gives installers the flexibility to terminate in very close proximity to the application without having to switch tools or find benchtop space.

ST OptiCam <sup>®</sup> Pre-Polisl	
with Zirconia Ceramic F	errules
10Gig <sup>™</sup> 50/125µm (laser	
optimized) simplex:	FSTMCXAQ*
50/125µm simplex: 62.5/125µm simplex:	FSTMC5BL <sup>▲</sup> FSTMC6BL <sup>▲</sup>
9/125µm simplex:	FSTSCBU*
ST OptiCam <sup>®</sup> Pre-Polisl	hed Connectors
with Composite Ferrules	
50/125µm simplex:	FSTMPC5BL*
62.5/125µm simplex:	FSTMPC6BL▲
OptiCam® 1.6/2.0mm Bo	oot Assemblies
10Gig™multimode (aqua	): FMCBT2AQ-
Multimode (black):	FMCBT2BL-X
Singlemode (blue):	FSCBT2BU-X
OptiCam <sup>®</sup> 3.0mm Boot	Assemblies
10Gig™multimode (aqua	): FMCBT3AQ-
Multimode (black):	FMCBT3BL-X
<pre>Singlemode (blue): *X = Bag of 10 Boots; 100 pe</pre>	FSCBT3BU-X
-	
OptiCam <sup>®</sup> Termination	
OptiCam <sup>®</sup> Termination K	
OptiCam <sup>®</sup> Conversion K (upgrades Opti-Crimp <sup>®</sup>	Μ
Kit to also terminate	
OptiCam <sup>®</sup> Connectors):	
Field Polish Kit Upgrade (upgrades Field Polish	2
Kit to also terminate	
OptiCam <sup>®</sup> Connectors):	
ST cradles (2 per pkg.):	
Mini-Com <sup>®</sup> ST Adapter	Modules
Multimode:	CMST**
Singlemode: **Substitute for module color:	CMSTZ**
BU = Blue, BL = Black, IW = 0	
AW = Arctic White.	
Opticom <sup>®</sup> ST Fiber Ada	
6 simplex MM adapters:	
6 simplex SM adapters:	
8 simplex MM adapters: 8 simplex SM adapters:	
Opti-Core® ST Patch Co	
Duplex ST to ST: Simplex ST to ST:	F^D2-2M‡Y F^S2-2M‡Y
Duplex ST to SC:	F^D2-3M‡Y
Simplex ST to SC:	F^S2-3M‡Y
Add -C to simplex connector	part numbers
for bulk packs of 100 connect	
$^{Substitute}$ for fiber type: 6 = 0	
5 = 50/125µm OM2, X = 10G OM3/OM4 or 9 = 9/125µm O	
of Lopin O	

\$Substitute for length in meters: 1, 2, 3, 5 or 10.

Contact Customer Service for other available lengths.

#### www.panduit.com

# ST OptiCam<sup>®</sup> Pre-Polished Fiber Optic Connectors

## performance information

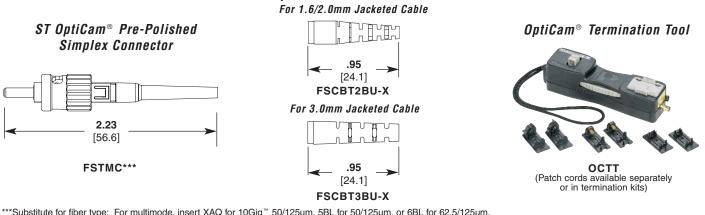
Test Parameter	Description	Result		
Qualification test suite (TIA/EIA-568-B.3 requirements)	Complete testing protocol per TIA/EIA-568-B.3 using TIA/EIA FOTPs that include mechanical, environmental, and optical test sequences	Exceeds TIA/EIA-568-B.3 requirements		
Connector intermatability	Dimensional 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: <pre>&lt;0.1dB additional insertion loss</pre>		
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	
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	Ceramic	SPC	Electric	Black	0.3dB	>20dB
FSTMPC6BL	Simplex	Composite		360	lvory	DIACK	0.300	>20UD	
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

\*\*\*Substitute for fiber type: For multimode, insert XAQ for 10Gig<sup>10</sup> 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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