ST2 OptiCam™ Pre-Polished Fiber Optic Connectors
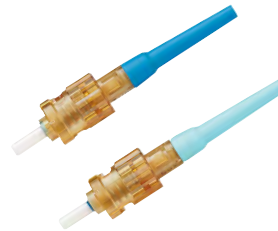
specifications

ST2 pre-polished fiber optic connectors shall be TIA/EIA-604 FOCIS-2 compliant and contain a factory-terminated fiber, eliminating field polishing and adhesive. ST2 pre-polished connectors shall have an average insertion loss of 0.3dB per mated pair for multimode and singlemode fiber. ST2 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:	TIA/EIA-604 FOCIS-2 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:	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
Insertion loss:	0.3dB average (multimode and singlemode)
Return loss:	>20dB (multimode), >26dB (10Gig multimode), >50dB (singlemode)

key features and benefits

ST2 OptiCam™ 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

OptiCam™2 Termination Tool

Universal termination tool	The OptiCam™ 2 Termination Tool is designed to offer certainty of termination of Opti-Cam 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

ST2 fiber optic connectors are widely used in fiber optic backbone and horizontal applications for high-speed data transmission. Typical applications for ST2 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.

ST2 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.

ST2 OptiCam™ Pre-Polished Connectors with Zirconia Ceramic Ferrules

50/125µm simplex:	FST2MCXAQ▲
50/125µm simplex:	FST2MC5BL▲
62.5/125µm simplex:	FST2MC6EI▲
9/125µm simplex:	FST2SCBU▲

OptiCam™ 1.6/2.0mm Boot Assemblies

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

OptiCam™ 3.0mm Boot Assemblies

Multimode (aqua):	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 Kits:	FOCTT2-KIT FOCTT2-BKIT
ST cradles:	FSTC2

Mini-Com™ ST Adapter Modules

Multimode:	CMST**
Singlemode:	CMSTZ**

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

Opticom™ ST Fiber Adapter Panels

6 simplex MM adapters:	FAP6WST
6 simplex SM adapters:	FAP6WSTZ
8 simplex MM adapters:	FAP8WST
8 simplex SM adapters:	FAP8WSTZ

▲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.

ST2 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 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-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.
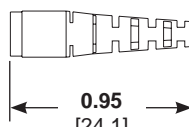
selection information

Part Number	Connector Type	Ferrule Material	Fiber	Ferrule Finish	Backbone Color	Boot Color	Average Insertion Loss**	Return Loss
FST2MCXAQ	Simplex	Zirconia Ceramic	50/125µm OM3/OM4	SPC	Natural	Aqua	0.3dB	>26dB
FST2MC5BL	Simplex	Zirconia Ceramic	50/125µm OM2	SPC	Natural	Black	0.3dB	>20dB
FST2MC6EI	Simplex	Zirconia Ceramic	62.5/125µm OM1	SPC	Natural	Electric Ivory	0.3dB	>20dB
FST2SCBU	Simplex	Zirconia Ceramic	9/125µm OS2	UPC	Natural	Blue	0.3dB	>50dB

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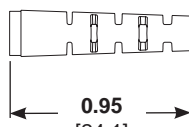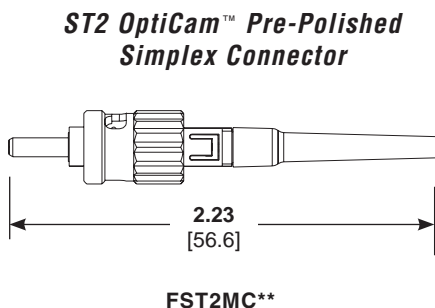
OptiCam™ Boot Assemblies

ST2 OptiCam™ Pre-Polished Simplex Connector

2.23
[56.6]

FST2MC**

For 1.6/2.0mm Jacketed Cable

0.95
[24.1]

FSCBT2BU-X

For 3.0mm Jacketed Cable

0.95
[24.1]

FSCBT3BU-X

OptiCam™2 Termination Kit

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

***Substitute for fiber type: For multimode, insert XAQ for 10Gig 50/125µm, 5BL for 50/125µm, or 6BL for 62.5/125µm.
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.]

For more information

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