

# FST2MCXAQ Datasheet

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DiGi Electronics Part Number	FST2MCXAQ-DG
Manufacturer	<a href="#">Panduit Corp</a>
Manufacturer Product Number	FST2MCXAQ
Description	FIBER ST2 SIMPLEX MULTIMODE OPTI
Detailed Description	Fiber Optic Plug Connector ST Simplex Natural

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## Purchase and inquiry

Manufacturer Product Number:

FST2MCXAQ

Series:

OptiCam®

Connector Style:

ST

Simplex/Duplex:

Simplex

Fiber Core Diameter:

-

Cable Diameter:

-

Fastening Type:

-

Boot Color:

Aqua

Features:

-

Reflection:

-

Ferrule Material:

-

Operating Temperature:

-

Base Product Number:

FST2

Manufacturer:

Panduit Corp

Product Status:

Active

Connector Type:

Plug

Mode:

Multimode OM3, OM4

Fiber Cladding Diameter:

-

Mounting Type:

-

Housing Color:

Natural

Ingress Protection:

-

Attenuation - Typ:

-

Housing Material:

-

Body Material:

-

Mating Cycles:

-

## Environmental & Export classification

RoHS Status:

Not applicable

REACH Status:

REACH Unaffected

HTSUS:

8536.70.0000

Moisture Sensitivity Level (MSL):

Not Applicable

ECCN:

EAR99

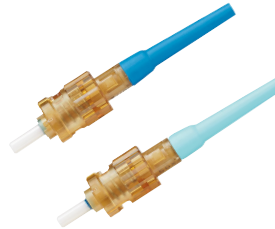
# ST2 OptiCam™ Pre-Polished Fiber Optic Connectors

# PANDUIT™

## SPECIFICATION SHEET

### 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

<b>Standards requirements:</b>	TIA/EIA-604 FOCIS-2 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>	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
<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

#### ST2 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>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

**PATENTED**

#### OptiCam™ 2 Termination Tool

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

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.

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#### ST2 OptiCam™ Pre-Polished Connectors with Zirconia Ceramic Ferrules

<b>50/125µm simplex:</b>	FST2MCXAQ <sup>▲</sup>
<b>50/125µm simplex:</b>	FST2MC5BL <sup>▲</sup>
<b>62.5/125µm simplex:</b>	FST2MC6E1 <sup>▲</sup>
<b>9/125µm simplex:</b>	FST2SCBU <sup>▲</sup>

#### 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</b>	
<b>Termination Kits:</b>	FOCTT2-KIT FOCTT2-BKIT
<b>ST cradles:</b>	FSTC2

#### 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

<sup>▲</sup>Add -C to simplex connector part numbers for bulk packs of 100 connectors.

<sup>▲</sup>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 intermatibility	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.

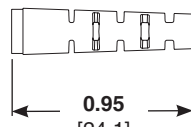
### OptiCam™ Boot Assemblies

For 1.6/2.0mm Jacketed Cable



FSCBT2BU-X

For 3.0mm Jacketed Cable

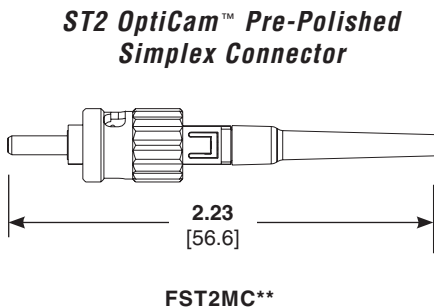


FSCBT3BU-X

### OptiCam™ 2 Termination Kit



FOCT2-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.]

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