

NEW! Keyed LC OptiCam® Pre-Polished Fiber Optic Connectors

PANDUIT® SPECIFICATION SHEET

specifications

Keyed LC small form factor (SFF) pre-polished connectors shall exceed TIA/EIA-568-B.3 performance requirements, and contain a factory-terminated fiber, eliminating field polishing and adhesive. Keyed LC pre-polished connectors shall be mechanically keyed with color-specific positive and negative keying features to prevent unintentional mating with unlike keyed or non-keyed adapters. Keyed LC pre-polished connectors shall have an average insertion loss 0.3dB per mated pair for multimode and singlemode fiber. Keyed LC pre-polished connectors shall captive fiber and buffer in one action allowing for up to two re-terminations with no degradation in performance.



technical information

Standards requirements:	Exceed TIA/EIA-568-B.3 performance requirements
Fiber compatibility:	62.5/125µm OM1, 50/125µm OM2, 50/125µm OM3/OM4, 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 with a pre-polished fiber stub
Insertion loss:	0.3dB average (multimode and singlemode)
Return loss:	>20dB (multimode), >26dB (10Gig™ multimode), >50dB (singlemode)

key features and benefits

Color-specific keys with positive and negative keying features	Mechanically and visually distinguish connections to prevent unintentional insertion into unlike keyed or non-keyed ports, allow network design flexibility and versatility, and accommodate more discrete networks
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
Translucent housing assembly (laser marked)	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
Non-optical disconnect design	Maintains data transmission under tensile loads for jacketed cable
Universal termination tool with integrated visual termination indicator (VTI)	Ensures fast, consistent, and optimal terminations of all OptiCam® Connectors with connector specific cradles; offers visual indication of proper termination after the cam step has been completed to virtually eliminate operator error to deliver a lower installed cost

applications

Secure networks require a level of visual and mechanical differentiation, and physical layer security that conventional LC connector solutions cannot provide. Typical applications for Keyed LC OptiCam® Connectors include maintenance or emergency restoration of secure fiber networks and retrofit/initial install of behind the wall (BTW) connections and the permanent side of interconnect

and cross-connect patch fields. Keyed LC OptiCam® Connectors eliminate the need for endface polishing and adhesive, enabling faster deployment, 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.

Keyed LC OptiCam® Pre-Polished Multimode Simplex Connectors

Keyed A (black):	FLCSMC [^] ABL
Keyed B (red):	FLCSMC [^] BRD
Keyed C (green):	FLCSMC [^] CGR
Keyed D (yellow):	FLCSMC [^] DYL
Keyed E (orange):	FLCSMC [^] EOR
Keyed F (dark blue):	FLCSMC [^] FDB

Keyed LC OptiCam® Pre-Polished Singlemode Simplex Connectors

Keyed A (black):	FLCSSCABL
Keyed B (red):	FLCSSCBRD
Keyed C (green):	FLCSSCCGR
Keyed D (yellow):	FLCSSCDYL
Keyed E (orange):	FLCSSCEOR
Keyed F (dark blue):	FLCSSCFDB

OptiCam® 1.6/2.0mm Boots

Black boots:	FMCBT2BL-X*
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OptiCam® 3.0mm Boots

Black boots:	FMCBT3BL-X*
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*X = Bag of 10 Boots; 100 per carton.

OptiCam® Termination Tooling

OptiCam® Termination Kit:	FCAMKIT
OptiCam® Conversion Kit (upgrades Opti-Crimp® Kit to also terminate OptiCam® Connectors):	FPPKIT-CVY

Field polish kit upgrade (upgrades field polish kit to also terminate OptiCam® Connectors): FIELDKITUPG
LC cradles (2 per pkg.): FLCC

Keyed LC Mini-Com® Duplex Adapter Modules (Ceramic Split Sleeves)

Keyed A (black):	CMDABLLCZ**
Keyed B (red):	CMDBRDLCZ**
Keyed C (green):	CMDCGRLCZ**
Keyed D (yellow):	CMDDYLLCZ**
Keyed E (orange):	CMDEORLCZ**
Keyed F (dark blue):	CMDFDBLCZ**

Keyed LC Opticom® Fiber Adapter Panels (Ceramic Split Sleeves)

Keyed A (black):	FAP+WABDLCLZ
Keyed B (red):	FAP+WBRDCLZ
Keyed C (green):	FAP+WCGRDLZ
Keyed D (yellow):	FAP+WYDLCLZ
Keyed E (orange):	FAP+WEOIDLZ
Keyed F (dark blue):	FAP+WFDLCLZ

LC Lock-in Duplex Clip

LC lock-in duplex clip:	FLCCLIW-X
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[^]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 module color: AW for Arctic White, BL for Black, BU for Blue, EI for Electric Ivory, or IW for Off White.

[‡]Substitute for number of adapters: 6, 8, or 12.

Keyed LC 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
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	TIA/EIA-568-B.3 requirement: 0.5 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
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.

ordering information

Key Type and Backbone Color (Adapter Key Shown)	Part Number	Fiber Type	Connector/ Cable Type	Boot Color	Ferrule Finish	Average Insertion Loss**	Return Loss
A - Black 	FLCSMCXABL	10Gig™ 50/125µm OM3/OM4	Simplex*/900µm tight-buffered cable	Black	SPC	0.3dB	>26dB
	FLCSMC5ABL	50/125µm OM2			SPC	0.3dB	>20dB
	FLCSMC6ABL	62.5/125µm OM1			SPC	0.3dB	>20dB
	FLCSSCABL	9/125µm OS1/OS2			UPC	0.3dB	>50dB
B - Red 	FLCSMCXBRD	10Gig™ 50/125µm OM3/OM4	Simplex*/900µm tight-buffered cable	Black	SPC	0.3dB	>26dB
	FLCSMC5BRD	50/125µm OM2			SPC	0.3dB	>20dB
	FLCSMC6BRD	62.5/125µm OM1			SPC	0.3dB	>20dB
	FLCSSCBRD	9/125µm OS1/OS2			UPC	0.3dB	>50dB
C - Green 	FLCSMCXCGR	10Gig™ 50/125µm OM3/OM4	Simplex*/900µm tight-buffered cable	Black	SPC	0.3dB	>26dB
	FLCSMC5CGR	50/125µm OM2			SPC	0.3dB	>20dB
	FLCSMC6CGR	62.5/125µm OM1			SPC	0.3dB	>20dB
	FLCSSCCGR	9/125µm OS1/OS2			UPC	0.3dB	>50dB
D - Yellow 	FLCSMCXDYL	10Gig™ 50/125µm OM3/OM4	Simplex*/900µm tight-buffered cable	Black	SPC	0.3dB	>26dB
	FLCSMC5DYL	50/125µm OM2			SPC	0.3dB	>20dB
	FLCSMC6DYL	62.5/125µm OM1			SPC	0.3dB	>20dB
	FLCSSCDYL	9/125µm OS1/OS2			UPC	0.3dB	>50dB
E - Orange 	FLCSMCXEOR	10Gig™ 50/125µm OM3/OM4	Simplex*/900µm tight-buffered cable	Black	SPC	0.3dB	>26dB
	FLCSMC5EOR	50/125µm OM2			SPC	0.3dB	>20dB
	FLCSMC6EOR	62.5/125µm OM1			SPC	0.3dB	>20dB
	FLCSSCEOR	9/125µm OS1/OS2			UPC	0.3dB	>50dB
F - Dark Blue 	FLCSMCXFDB	10Gig™ 50/125µm OM3/OM4	Simplex*/900µm tight-buffered cable	Black	SPC	0.3dB	>26dB
	FLCSMC5FDB	50/125µm OM2			SPC	0.3dB	>20dB
	FLCSMC6FDB	62.5/125µm OM1			SPC	0.3dB	>20dB
	FLCSSCFDB	9/125µm OS1/OS2			UPC	0.3dB	>50dB

*For duplex connectors, replace the first S in the part number with a D.

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

Keyed LC Mini-Com® Fiber Optic Adapter Modules



CMD***LCZIW

Keyed LC Opticom® Fiber Adapter Panels (FAPs)



FAP6W***DLCZ

Keyed LC Opti-Core® Patch Cords and Pigtaills



F^E10^~10^M‡

LC Lock-In Duplex Clip



FLCCLIW-X

***Substitute for key type and color: ABL for A – Black, BRD for B – Red, CGR for C – Green, DYL for D – Yellow, EOR for E – Orange, or FDB for F – Dark Blue.

^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 key type and color: A for A – Black, B for B – Red, C for C – Green, D for D – Yellow, E for E – Orange, or F for F – Dark Blue.

‡Substitute for length in meters: 1 – 10, 15, 20 or 30. Contact Customer Service for other available lengths or universal reference patch cords.

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