



CONNECTOR INSPECTION ADAPTER TIPS

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FOCIS Lightning[®]2 Adapter Tips

FOCIS Lightning2 Adapter Tips for MPO/MTP[®] Connector Inspection

The adapter tips listed in this section are used to inspect MPO bulkhead connectors. These adapters are typically found in fiber panels or pre-term fiber modules.



MPO Adapter Panel



Fiber Module

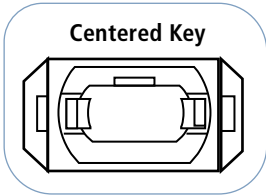


MPO adapter

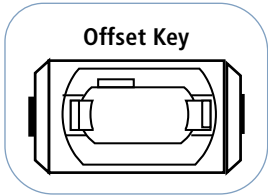
Note: these adapters can also be used to inspect MPO trunk cables and patchcords by using a separate MPO adapter with the adapter tip. The following considerations should be made to select the correct MPO adapter tip.

Keys

MPO adapters are keyed to ensure that the correct polarity is maintained. To ensure that “Base-12” MPOs are not inadvertently connected with “Base-16” MPOs, unique keying standards have been developed. As shown below, MPO-12 keys are centered while MPO-16 keys are offset.



MPO-12/24



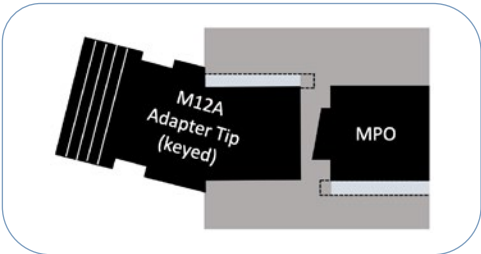
MPO-16/32

As shown below, FOCIS Lightning2 adapter tips are available with full keys (specifically for MPO-12 and MPO-16) “partial keys” which enable keyed alignment with MPO-12 and MPO-16 keyed adapters, and without keys

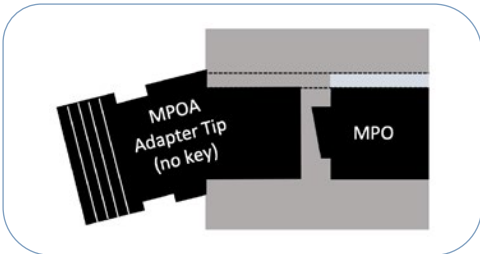
FULL KEY		PARTIAL	NO KEY
Centered key (MPO-12/24)	Offset key (MPO-16/32)	Partial key (MPO-12/24 and MPO-16/32)	No key (MPO-12/24 and MPO-16/32)

Angled Connectivity (Single-mode)

The MPO connectors on single-mode MPO trunk cables and single-mode fiber modules use an 8° angle to optimize return loss. To enable inspection of angled MPOs, FOCIS Lightning2 uses inspection tips with a matching angle. As shown below it is important to match the adapter angle with the angle of the single-mode trunk.



MPO Adapter with Opposing keys (key up/ key down)



MPO Adapter with Aligned keys (key up/ key up)

FOCIS Lightning®/FOCIS Lightning2 Adapter Tips for MPO/MTP® Connector Inspection

IMAGE	DESCRIPTION	TIP ID	KEYS	AFL NO.
	Adapter tip for MPO-12/24 APC bulkhead (with key)	M12A	Keyed for 12/24 fiber	FLTNG-01-M12A
	Adapter tip for MPO-12/24 UPC bulkhead (with key)	M12U	Keyed for 12/24 fiber	FLTNG-01-M12U
	Adapter tip for MPO-16/32 UPC bulkhead (with key)	M16U	Keyed for 16/32 fiber	FLTNG-01-M16U
	Adapter tip for MPO-12/16/24/32 UPC bulkhead (partial key)	MPU	Partial Key fits both 12/24 and 16/32 fiber	FLTNG-01-MPU
	Adapter tip for MPO-12/16/24/32 APC bulkhead (no key)	MPOA	No Key – used for 12/24 and 16/32 fiber	FLTNG-01-MPOA
	Adapter tip for MPO-12/16/24/32 UPC bulkhead (no key)	MPOU	No key – used for 12/24 and 16/32 fiber	FLTNG-01-MPOU
	Adapter tip for Large Field of View - UPC MPO (FOCIS Lightning2 only)	RU	No key – used for 12/24 and 16/32 fiber	FLTNG2-01-LVU

FOCIS Lightning®2 Miscellaneous Adapter Tips

TIP IMAGE	TIP DESCRIPTION AND 'WHERE USED'		TIP ID	AFL NO.
	DESCRIPTION	CONNECTOR		
	Adapter Tip for OptiTip female (unpinned) connector		OPTF	FLTNG-01-OPTF
	Adapter Tip for OptiTip male (pinned) connector		OPTM	FLTNG-01-OPTM
	Adapter tip for unpinned Q-ODC connector		HSAP	FLTNG-01-HSAP
	Adapter tip for pinned Q-ODC connector		HSAS	FLTNG-01-HSAS
	Adapter Tip for MMC APC connector patchcords		MMCA	FLTNG-01-MMCA
	Adapter tip for MMC APC bulkhead		MMCE	FLTNG-01-MMCE

IMAGE	DESCRIPTION	TIP ID	AFL NO.
	MPO Extender Barrel - The MPE provides an extension of 4.8 inches (12.3 cm) to enable inspection of MPOs in a crowded patch field or recessed MPO	MPE	FLTNG-01-MPE

The following adapter tips have been optimized for inspecting MPO trunks and patch cords. They include MPO adapters for directly inspecting MPO cable assemblies. These adapters can accept pinned and un-pinned MPO cable assemblies.

IMAGE	TIP DESCRIPTION AND 'WHERE USED'		TIP ID	AFL NO.
	DESCRIPTION	CABLE ASSY		
	Adapter tip for MPO-12 APC cable		M12AC	FLTNG-01-M12AC
	Adapter tip for MPO-12 UPC cable		M12UC	FLTNG-01-M12UC

FOCIS Lightning2 Adapter Tips for Single-Fiber Connector Inspection

Listed below are the LC single-fiber adapter tips can be used and mounted directly on the FOCIS Lightning®2 without the use of the Single Fiber Adapter.

IMAGE	TIP DESCRIPTION AND 'WHERE USED'		TIP ID	AFL NO.
	DESCRIPTION	CONNECTOR		
	Extended adapter tip for LC/APC bulkhead		ALCM	FLTNG-01-ALCM
	Extended adapter tip for LC/UPC bulkhead		ULCM	FLTNG-01-ULCM

Inspecting all other single fibers requires the use of the Single Fiber Adapter.

IMAGE	DESCRIPTION	TIP ID	AFL NO.
	Coupler for most 'FFLX' single fiber connector adapter tips - FOCIS Lightning2 only	SFC	FLTNG2-01-SFC

All other single fiber adapter tips listed in section ["Adapter Tips for FOCIS Series \(Flex, Lightning \(with SFA\), Duel Port 1, WiFi2\)" on page 9](#) must be used with the Single Fiber Adapter (FLTNG2-01-SFC).

FOCIS Duel Adapter Tips

The Port 1 of FOCIS Duel (identical to FOCIS Flex) uses both the APC adapter tips listed below as well as the full set of adapter tips qualified for FOCIS Flex and FOCIS WiFi2 listed in section ["Adapter Tips for FOCIS Series \(Flex, Duel Port 1, WiFi2\) and DFS1 Probe" on page 12.](#)

The Port 2 of FOCIS Duel uses very specific tips (listed below) used only for Port 2 of FOCIS Duel.

IMAGE	DESCRIPTION	PORT USAGE	TIP ID	AFL NO.
	SC/APC bulkhead adapter tip, quad-slotted	1	XASC	FFLX-4S-ASC
	FC/APC bulkhead adapter tip, quad-slotted	1	XAFC	FFLX-4S-AFC
	LC/APC bulkhead adapter tip, quad-slotted	1	XALC	FFLX-4S-ALC
	LC/UPC ferrule adapter tip, single-slotted female "click-in"	2	SULC	FDUO-01-ULC
	LC/APC ferrule adapter tip, single-slotted female "click-in"	2	SALC	FDUO-01-ALC
	SC/UPC ferrule adapter tip, single-slotted female "click-in"	2	SUSC	FDUO-01-USC
	SC/APC ferrule adapter tip, single-slotted female "click-in"	2	SASC	FDUO-01-ASC

FOCIS Duel Adapter Tips

IMAGE	DESCRIPTION	PORT USAGE	TIP ID	AFL NO.
	Universal 1.25 mm UPC ferrule adapter tip, single-slotted	2	U1	FDUO-01-U125
	Universal 1.25 mm APC ferrule adapter tip, single-slotted	2	A1	FDUO-01-A125
	Universal 2.5 mm UPC ferrule adapter tip, single-slotted	2	U2	FDUO-01-U25
	Universal 2.5 mm APC ferrule adapter tip, single-slotted	2	A2	FDUO-01-A25

Adapter Tips for FOCIS Series (Flex, Lightning (with SFA), Duel Port 1, WiFi2)

Ferrule Inspection

IMAGE	TIP DESCRIPTION AND 'WHERE USED'		TIP ID	AFL NO.
	DESCRIPTION	CABLE ASSEMBLY 'WHERE USED'		
	Universal 1.25 mm, UPC ferrule adapter tip	 LC/UPC	U125	FFLX-01-U125
	Universal 2.5 mm, UPC ferrule adapter tip	 SC/UPC  FC/UPC	U25	FFLX-01-U25
	Universal 1.25 mm, APC ferrule adapter tip	 LC/APC	A125	FFLX-01-A125
	Universal 2.5 mm, APC ferrule adapter tip	 SC/APC  FC/APC	A25	FFLX-01-A25

Bulkhead Adapter Inspection

IMAGE	TIP DESCRIPTION AND 'WHERE USED'		TIP ID	AFL NO.
	DESCRIPTION	ADAPTER 'WHERE USED'		
	SC/UPC bulkhead adapter tip	 SC/UPC	SC	FFLX-01-SC
	FC/UPC bulkhead adapter tip	 FC/UPC	FC	FFLX-01-FC

Adapter Tips for FOCIS Series (Flex, Lightning (with SFA), Duel Port 1, WiFi2)

IMAGE	TIP DESCRIPTION AND 'WHERE USED'		TIP ID	AFL NO.
	DESCRIPTION	ADAPTER 'WHERE USED'		
	SC/APC bulkhead adapter tip, quad-slotted	 SC/APC	XASC	FFLX-4S-ASC
	FC/APC bulkhead adapter tip, quad-slotted	 FC/APC	XAFC	FFLX-4S-AFC
	LC/UPC bulkhead adapter tip	 LC/UPC	LC	FFLX-01-LC
	Extended LC UPC Adapter Tip		ULCE	FFLX-01-ULCE*
	LC/APC bulkhead adapter tip, quad-slotted	 LC/APC	XALC	FFLX-4S-ALC
	Extended LC APC bulkhead adapter tip, quad-slotted		ALC3	FFLX-4S-ALC3*
	E2000/PC bulkhead adapter tip, quad-slotted (~60 mm)		E2K	FFLX-4S-E2K

* Incompatible with FOCIS Lightning2. Refer to section ["FOCIS Lightning2 Adapter Tips for Single-Fiber Connector Inspection"](#) on page 6

Adapter Tips for FOCIS Series (Flex, Lightning (with SFC), Duel Port 1, WiFi2)

IMAGE	TIP DESCRIPTION AND 'WHERE USED'		TIP ID	AFL NO.
	DESCRIPTION	ADAPTER 'WHERE USED'		
	MDC/ UPC bulkhead adapter tip, quad-slotted		DCU	FFLX-4S-DCU
	SN/ UPC bulkhead adapter tip, quad-slotted		SNU	FFLX-4S-SNU
	ST®/UPC bulkhead adapter tip		ST	FFLX-01-ST
	E2000/APC bulkhead adapter tip		AE2K	FFLX-4S-AE2K
	OptiTap® (SC/APC) bulkhead adapter tip, quad-slotted		OTA	FFLX-4S-OTA
	EVLV® bulkhead		EVA	FFLX-4S-EVA
	NG4 UPC bulkhead adapter tip		LC6U	FFLX-4S-LC6U
	NG4 APC bulkhead adapter		LC6A	FFLX-4S-LC6A

Extensions

The following extension adapters provide an extended range inspection capability for accessing crowded patch panels and difficult to access bulkhead connectors.

IMAGE	DESCRIPTION	AFL NO.
	FOCIS Flex adapter extension tube, straight, 46 mm	FFLX-01-EXTS46
	FOCIS Flex adapter extension tube, straight, 80 mm	FFLX-01-EXTS80

Adapter Tips for FOCIS Series (Flex, Duel Port 1, WiFi2) and DFS1 Probe

IMAGE	DESCRIPTION	FOCIS SERIES	DFS1	TIP ID	AFL NO.
PC Ferrule Connector Adapter Tips					
	Universal 1.25 mm	◆	◆	U125	DFS1-00-0001MR
	Universal 2.5 mm	◆	◆	U25	DFS1-00-0002MR
	Universal 2.0 mm	◆	◆	U20	DFS1-00-0005MR
	Universal 1.6 mm (for termini)	◆	◆	T16M	DFS1-00-0006MR

Adapter Tips for FOCIS Series (Flex, Duel Port 1, WiFi2) and DFS1 Probe

IMAGE	DESCRIPTION	FOCIS SERIES	DFS1	TIP ID	AFL NO.
	Slim 1.25 mm (for LuxCis and termini)	◆	◆	T12M	DFS1-00-0038MR
	Slim 2.5 mm (for ELIO and termini)	◆	◆	T25M	DFS1-00-0039MR
	ELIO 1.25 mm	◆	◆	E12M	DFS1-00-0008MR
	SMA 905	◆	◆	SMA	DFS1-00-0009MR
SC/PC AND FC/PC BULKHEAD ADAPTER TIPS					
	SC/PC and FC/PC		◆	FS	DFS1-00-0003MR
	Long (~150 mm) extended tip for SC/PC and FC/PC bulkhead adapter	◆	◆	FS	DFS1-00-0012MR

Adapter Tips for FOCIS Series (Flex, Duel Port 1, WiFi2) and DFS1 Probe

IMAGE	DESCRIPTION	FOCIS SERIES	DFS1	TIP ID	AFL NO.
LC/PC/UPC Bulkhead Adapter Tips					
	Medium (~100 mm) extended tip for LC/PC bulkhead adapter		◆	LC	DFS1-00-0020MR
	60° angled tip for LC/PC bulkhead adapter		◆	LC, A6	DFS1-00-0022MR
	Short (~60 mm) extended tip for LC PC/UPC bulkhead adapter	◆	◆	LCP-S	DFS1-00-0059MR
ODC BULKHEAD ADAPTER TIPS					
	Guide and socket tip for ODC-2 bulkhead connectors	◆	◆	ODC-2	DFS1-00-0065MR
	Guide and socket tip for QODC-2 bulkhead connector	◆	◆	Q-ODC-2	DFS1-00-0066MR
	Guide and socket tip for ODC-4 bulkhead connectors	◆	◆	ODC-4	DFS1-00-0067MR
MU/PC BULKHEAD ADAPTER TIPS					
	Tip for MU/PC bulkhead adapter	◆	◆	MU	DFS1-00-0026MR

Adapter Tips for FOCIS Series (Flex, Duel Port 1, WiFi2) and DFS1 Probe

IMAGE	DESCRIPTION	FOCIS SERIES	DFS1	TIP ID	AFL NO.
MTP/MPO MULTI-FIBER ADAPTER TIPS (ferrule and bulkhead)					
	MTP/PC ferrule and bulkhead adapter extended tip; includes base and MTP/PC front end tip	◆	◆	MTP ^a	DFS1-00-0037MR
	Front end tip for MTP/PC ferrule and bulkhead adapter	◆	◆	MTP ^b	DFS1-00-0041MR
	MTP/PC and MTP/APC ferrule and bulkhead adapter extended tip kit; includes base and MTP/PC and MTP/APC front end tips	◆	◆	MTP, MTPA ^{a,b}	DFS1-00-0042MR
	Multi-row MTP/PC ferrule and bulkhead adapter extended tip kit; includes base and multi-row MTP/PC front end tip	◆	◆	MTP ^{a,b}	DFS1-00-0050MR
	Multi-row MTP/PC ferrule and bulkhead adapter extended tip - base	◆	◆	MTP ^{a,b}	DFS1-00-0060MR
	MTP/MPO-UPC female style		◆	MTM	DFS1-00-0061MR
	MTP/APC ferrule & bulkhead adapter extended tip kit; includes base and MTP/APC front end tip	◆	◆	MTPA ^{a,b}	DFS1-01-0010MR

Notes:

a. MTP extended tip marking includes S/N since these have moving parts.

b. Base plus tip is required to inspect MPO/MTP connectors. All MPO/MTP connectors are inspected through bulkhead adapter.

Adapter Tips for FOCIS Series (Flex, Duel Port 1, WiFi2) and DFS1 Probe

IMAGE	DESCRIPTION	FOCIS SERIES	DFS1	TIP ID	AFL NO.
	Front end tip for MTP/APC ferrule and bulkhead adapter	◆	◆	MTPA ^a	DFS1-01-0012MR
	Front end for angled MPO-16/MTP-16 connector and bulkhead adapter	◆	◆	MTPA16 ^{a,b}	DFS1-01-0015MR
	MTP/MPO-APC female style		◆	MTMA	DFS1-01-0017MR
MISCELLANEOUS ADAPTER TIPS					
	Universal 60-degree angled extender adapter	◆	◆	A6A, U-A6	DFS1-00-0056MR
	Tip for LEMO 2.0 mm bulkhead adapter	◆	◆	LEMO	DFS1-00-0031MR
	Tip for 2.0 mm termini bulkhead adapter	◆	◆	T20F	DFS1-00-0033MR
	Tip for 1.6 mm termini bulkhead adapter	◆	◆	T16F	DFS1-00-0034MR

Notes:

a. MTP extended tip marking includes S/N since these have moving parts.

b. Base plus tip is required to inspect MPO/MTP connectors. All MPO/MTP connectors are inspected through bulkhead adapter.

Adapter Tips for FOCIS Series (Flex, Duel Port 1, WiFi2) and DFS1 Probe

IMAGE	DESCRIPTION	FOCIS SERIES	DFS1	TIP ID	AFL NO.
	Tip for ELIO 1.25 mm bulkhead adapter	◆	◆	E12F	DFS1-00-0036MR
	Tip for SMA 905 bulkhead adapter	◆	◆	SMAF	DFS1-00-0046MR
	TFOCA II ferrule and bulkhead adapter guide only		◆	TFO-G	DFS1-00-0048MR
	TFOCA II ferrule and bulkhead adapter tip only		◆	TFO-U	DFS1-00-0049MR
	Adapter for Viavi / Westover tips	◆	◆	WOA	DFS1-00-0057MR
APC TIPS					
	60° angled tip for SC/APC bulkhead adapter	◆	◆	A6A	DFS1-01-0006MR
	Tip for OptiTip® APC ferrule and bulkhead adapter	◆	◆	OTIPA	DFS1-01-0013MR

Resources

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