



## Inspection Adapter Tips

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### FOCIS Lightning Adapter Tips

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

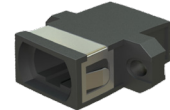
The adapter tips listed in this section are used to inspect MPO bulkhead connectors. These adapters are typically found in fiber panels or pre-term fiber modules.



MPO Adapter Panel



Fiber Module



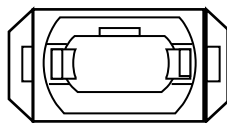
MPO adapter

**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

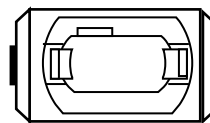
MPO adapters are keyed to ensure that the correct polarity is maintained. To ensure that “Base-12” MPOs are not inadvertently connected with “Base-16” MPOs, unique keying standards have been developed. As shown below, MPO-12 keys are centered while MPO-16 keys are offset.

Centered Key







MPO-12/24

Offset Key



MPO-16/32

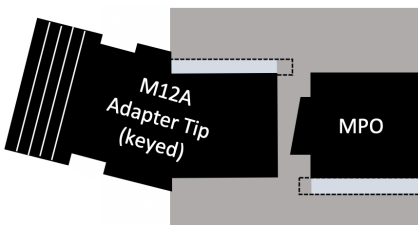
As shown below, FOCIS Lightning adapter tips are available with full keys (specifically for MPO-12 and MPO-16) “partial keys” which enable keyed alignment with MPO-12 and MPO-16 keyed adapters, and without keys

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)

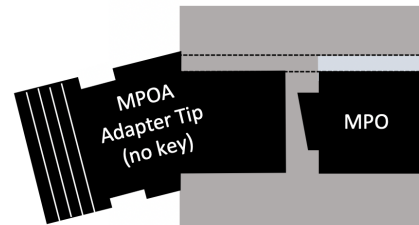
#### Angled Connectivity (Single-mode)

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 Lightning 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 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 APC bulkhead (partial key)	MPA	Partial Key fits both 12/24 and 16/32 fiber	FLTNG-01-MPA
	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 can be 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 – can be used for 12/24 and 16/32 fiber	FLTNG-01-MPOU







### FOCIS Lightning 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

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.





IMAGE	DESCRIPTION	TIP ID	AFL NO.
	MPO Extender barrel	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 ASSEMBLY		
	Adapter tip for MPO-12 APC cable		M12AC	FLTNG-01-M12AC
	Adapter tip for MPO-12 UPC cable		M12UC	FLTNG-01-M12UC
	Adapter tip for MPO-16 UPC cable		M16UC	FLTNG-01-M16UC

### FOCIS Lightning Adapter Tips for Single-Fiber Connector Inspection

Listed in the table below are the LC single-fiber adapter tips can be used and mounted directly on the FOCIS Lightning 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 single fiber adapter tips	SFA	FLTNG-01-SFA

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






### 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	X AFC	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

### FOCIS Duel Adapter Tips

IMAGE	DESCRIPTION	PORT USAGE	TIP ID	AFL NO.
	SC/APC ferrule adapter tip, single-slotted female "click-in"	2	SASC	FDUO-01-ASC
	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  E2000/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  E2000/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	FFLX-01-LC
	Extended LC UPC Adapter Tip	 LC/UPC	ULCE	FFLX-01-ULCE*
	LC/PC/UPC adapter tip		LCNGU	FFLX-01-ULCHD
	LC/APC bulkhead adapter tip, quad-slotted		XALC	FFLX-4S-ALC
	Extended LC APC bulkhead adapter tip, quad-slotted	 LC/APC	ALC3	FFLX-4S-ALC3*

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

### 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'		
	E2000/PC bulkhead adapter tip, quad-slotted (~60 mm)		E2K	FFLX-4S-E2K
	E2000/APC bulkhead adapter tip, quad-slotted (~60 mm)		E2KA	FFLX-4S-E2KA
	ST®/UPC bulkhead adapter tip		ST	FFLX-01-ST
	OptiTap® (SC/APC) bulkhead adapter tip, quad-slotted		OTA	FFLX-4S-OTA

### 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

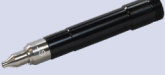



### Adapter Tips for FOCIS Series (Flex, Duel Port 1, WiFi2) and DFS1 Probe

IMAGE	DESCRIPTION	FOCIS SERIES	DFS1	TIP ID	AFL NO.
<b>PC Ferrule Connector Adapter Tips</b>					
	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
	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




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

IMAGE	DESCRIPTION	FOCIS SERIES	DFS1	TIP ID	AFL NO.
	SMA 905	◆	◆	SMA	DFS1-00-0009MR
<b>SC/PC AND FC/PC BULKHEAD ADAPTER TIPS</b>					
	SC/PC and FC/PC		◆	FS	DFS1-00-0003MR
	Medium (~100 mm) extended tip for SC/PC and FC/PC bulkhead adapter	◆	◆	FS	DFS1-00-0011MR
	Long (~150 mm) extended tip for SC/PC and FC/PC bulkhead adapter	◆	◆	FS	DFS1-00-0012MR
	60° angled tip for SC/PC bulkhead adapter		◆	SC, A6	DFS1-00-0040MR
<b>ST/PC Bulkhead Adapter Tips</b>					
	ST/PC	◆	◆	ST	DFS1-00-0014MR

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

IMAGE	DESCRIPTION	FOCIS SERIES	DFS1	TIP ID	AFL NO.
	Short (~60 mm) extended tip for ST/PC bulkhead adapter	◆	◆	ST	DFS1-00-0015MR
	Medium (~100 mm) extended tip for ST/PC bulkhead adapter	◆	◆	ST	DFS1-00-0016MR
	Long (~150 mm) extended tip for ST/PC bulkhead adapter	◆	◆	ST	DFS1-00-0017MR
	60° angled tip for ST/PC bulkhead adapter		◆	ST, A6	DFS1-00-0018MR

### LC/PC/UPC Bulkhead Adapter Tips

	LC/PC		◆	LC	DFS1-00-0004MR
	Medium (~100 mm) extended tip for LC/PC bulkhead adapter	◆	◆	LC	DFS1-00-0020MR
	Long (~150 mm) extended tip for LC/PC bulkhead adapter	◆	◆	LC	DFS1-00-0021MR

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

IMAGE	DESCRIPTION	FOCIS SERIES	DFS1	TIP ID	AFL NO.
	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
	LC/UPC female style adapter tip	◆	◆		DFS1-00-0062MR
MU/PC BULKHEAD ADAPTER TIPS					
	Tip for MU/PC bulkhead adapter	◆	◆	MU	DFS1-00-0026MR
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 <sup>a</sup>	DFS1-00-0037MR
	Front end tip for MTP/PC ferrule and bulkhead adapter	◆	◆	MTP <sup>b</sup>	DFS1-00-0041MR

#### 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 MPO-16 UPC connectors and bulkheads	◆	◆	MTP16 <sup>b</sup>	DFS1-00-0058MR
	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 <sup>a,b</sup>	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 <sup>a,b</sup>	DFS1-00-0050MR
	Multi-row MTP/PC ferrule and bulkhead adapter extended tip - base	◆	◆	MTP <sup>a,b</sup>	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 <sup>a,b</sup>	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 <sup>a</sup>	DFS1-01-0012MR
	Front end for angled MPO-16/MTP-16 connector and bulkhead adapter	◆	◆	MTPA16 <sup>a,b</sup>	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

**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 1.6 mm termini bulkhead adapter		◆	T16F	DFS1-00-0034MR
	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					
	Universal 1.25 mm tip for APC ferrule connector		◆	U12A	DFS1-01-0001MR

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

IMAGE	DESCRIPTION	FOCIS SERIES	DFS1	TIP ID	AFL NO.
	Universal 2.5 mm tip for APC ferrule connector	◆	◆	U25A	DFS1-01-0002MR
	Tip for SC/APC and FC/APC bulkhead adapter		◆	FSA	DFS1-01-0003MR
	Tip for SC/APC bulkhead adapter	◆	◆	SCA	DFS1-01-0011MR
	Tip for LC/APC bulkhead adapter		◆	LCA	DFS1-01-0004MR
	Short (~60 mm) extended tip for SC/APC bulkhead adapter	◆	◆	SCAX	DFS1-01-0005MR
	60° angled tip for SC/APC bulkhead adapter		◆	A6A	DFS1-01-0006MR
	Tip for hardened SC/APC (OptiTap®) bulkhead adapter	◆	◆	OTAPA	DFS1-01-0007MR

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

IMAGE	DESCRIPTION	FOCIS SERIES	DFS1	TIP ID	AFL NO.
	Tip for LX.5/APC bulkhead adapter		◆	LXA	DFS1-01-0009MR
	Tip for OptiTip® APC ferrule and bulkhead adapter		◆	OTIPA	DFS1-01-0013MR
	Short (~60 mm) extended tip for LC/APC bulkhead adapter	◆	◆	LCA-S	DFS1-01-0014MR
	LC/APC female style	◆		LCAM	DFS1-01-0016MR



## Inspection Adapter Tips