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SFP 1G Hot-Pluggable Transceivers Quick Start Guide

This guide helps you install and use your SFP 1G transceiver for the first time.

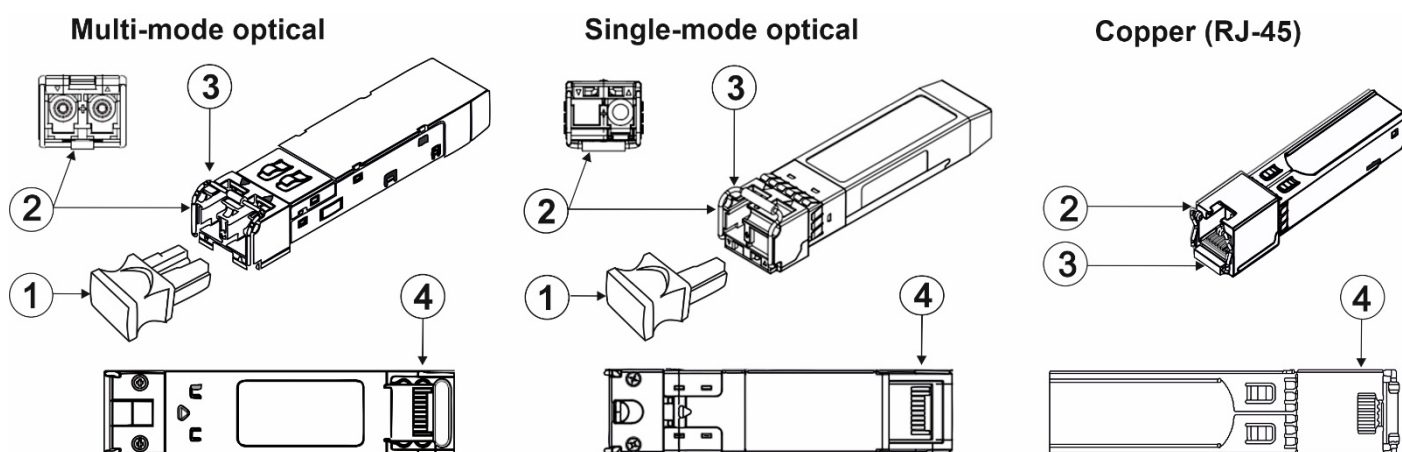
For more information, or to download a copy of this guide:

- SFP1-SMa-S and SFP1-SMb-S: www.kramerav.com/product/SFP1-SMa-S/SFP1-SMb-S
- SFP1-SM-D: www.kramerav.com/product/sfp1-sm-d
- SFP1-MM-D: www.kramerav.com/product/sfp1-mm-d
- SFP1-C: www.kramerav.com/product/sfp1-c

Step 1: Check what's in the box

- ✓ SFP 1G Hot-Pluggable Transceiver
- ✓ 1 Quick Start Guide

Step 2: Get to know your SFP 1G



#	Feature	Function
1	Dust Plug	Protects fiber optic connectors from dust. Note: When transporting or storing an unconnected fiber-optic transceiver, keep the plug on to protect against dust.
2	Optical / Copper Cable Connection Point	For connecting fiber optic or RJ-45 copper cables. Multi-Mode optical transceivers transmit on one side and receive on the other.
3	Bale Clasp	Pull down the bale clasp for easy removal of connectors from the transceiver.
4	SFP Interface Plug	Insert into the device's SFP port.

Step 3: Safety Instructions

Warning: Class 1 Laser Product



- Invisible laser radiation present.
- Avoid long-term viewing of laser.
- Avoid the use of magnifying viewing aids or instruments (such as binoculars, telescopes, microscopes and magnifying lenses, but not spectacles or contact lenses).
- Avoid placing optical devices in the emitted beam that could cause the concentration of the laser radiation to be increased.

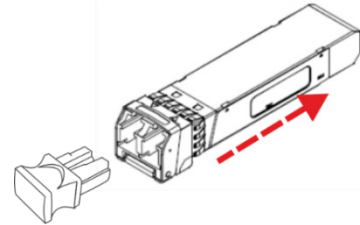
Step 4: Operation and Installation Warnings

- SFPs are designed to be used for fiber connection with LC/PC connectors (Lucent Connector / Physical Contact) and LC UPC connectors (Lucent Connector, Ultra Polished Contact, usually blue). Using an LC APC connector (Angled Physical Contact, usually green) causes poor performance and can damage the connector (never rely on color alone to determine the connector type). SFP with RJ-45 is used to connect copper ethernet cable.
- Always inspect and clean the connectors before you make a connection.
- Always use the connector housing to plug or unplug a fiber.
- Never touch the end face of the fiber connectors.

Step 5: Install the SFP

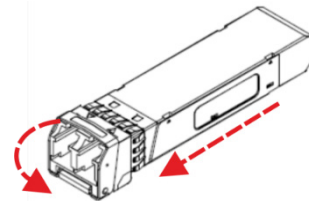
To install the SFP transceiver:

- Make sure the bale clasp is pushed up, in the closed position.
- Insert the SFP transceiver into the relevant device's SFP slot and push it in until it clicks.
- Remove the protective cap and store it in a safe place for future use.



To remove the SFP transceiver:

- Pull the bale clasp down to release the transceiver unit.
- Pull the transceiver unit out by the bale clasp.
- If needed, put the protective cap back on.



For optimum range and performance use the recommended Kramer cables available at www.kramerav.com/product/SFP-1G.
Using third-party cables may cause damage!

Step 6: Technical Specifications

Transceiver name		SFP1-SMa-S*	SFP1-SMb-S*	SFP1-SM-D	SFP1-MM-D	SFP1-C
Cable type		Optical	Optical	Optical	Optical	Cat5
Optical Fiber	Type	Single-Mode	Single-Mode	Single-Mode	Multi-Mode	—
	Strands	Simplex	Simplex	Duplex	Duplex	
Transceiver Wavelength		TX: 1310nm RX: 1550nm	TX: 1550nm RX: 1310nm	1310nm	850nm	—
Transfer Rate (speed)		1.25 Gbps	1.25 Gbps	1.25 Gbps	1.25 Gbps	1000BASE-T
Transmission Range (max)		10km	10km	10km	550m	100m
Connector Type		LC	LC	LC	LC	RJ-45
Optical Typical Transmit Power [dBm]		-9	-9	-9	--9.5	—
Optical Maximum Transmit Power [dBm]		-3	-3	-3	-3	
Optical Maximum Receiver Sensitivity [dBm]		-21	-21	-21	-17	
Optical Maximum Loss Budget [dB]		18	18	18	14	
Standards Compliance	IEEE	802.3ah-2004		802.3z	802.3z	802.3ab
	SFF	SFF-8472		SFF-8472	SFP MSA	—
Regulatory Certifications	TUV	R50135086			R50135086	R50135086
	UL	E317337			E317337	E317337
	EMC CE AE	50285865 0001			50384190 0001	50285865 0001
	FCC	WTF14F0514417E			WTF14F0514417E	WTF14F0514417E
Laser Safety Compliance		Laser Class 1 FDA, IEC60825-1				
Operating Temperature		0° to 70°C				
Storage Temperature		-40° to 85°C				
Specifications are subject to change without notice at www.kramerav.com						

*SFP1-SMa-S and SFP1-SMb-S are designed to operate as a pair.