

### Overview

#### Models

HP X132 10G SFP+ LC SR Transceiver	J9150A
HP X132 10G SFP+ LC LR Transceiver	J9151A
HP X132 10G SFP+ LC LRM Transceiver	J9152A
HP X132 10G SFP+ LC ER Transceiver	J9153A

### Technical Specifications

#### HP X132 10G SFP+ LC SR Transceiver (J9150A)

A 10-Gigabit transceiver in SFP+ form-factor that supports the 10-Gigabit SR standard, providing 10-Gigabit connectivity up to 300 m on multimode fiber.

<b>Ports</b>	1 LC 10-GbE port (IEEE 802.3ae Type 10Gbase-SR); Duplex: full only
<b>Connectivity</b>	<b>Connector type</b> LC
<b>Physical characteristics</b>	<b>Wavelength</b> 850 nm
	<b>Dimensions</b> 2.19(d) x 0.54(w) x 0.47(h) in. (5.57 x 1.38 x 1.19 cm)
	<b>Weight</b> 0.04 lb. (0.02 kg)
	<b>Transceiver form factor</b> SFP+
<b>Environment</b>	<b>Operating temperature</b> 32°F to 158°F (0°C to 70°C)
	<b>Operating relative humidity</b> 0% to 85%, noncondensing
	<b>Nonoperating/Storage temperature</b> -40°F to 185°F (-40°C to 85°C)
	<b>Altitude</b> up to 10,000 ft. (3 km)
<b>Electrical characteristics</b>	<b>Power consumption typical</b> 0.6 W
	<b>Power consumption maximum</b> 0.8 W
<b>Cabling</b>	Cable type: 62.5/125 µm or 50/125 µm (core/cladding) diameter, graded-index, low metal content, multimode fiber optic, complying with ITU-T G.651 and ISO/IEC 793-2 Type A1b or A1a, respectively; Maximum distance: <ul style="list-style-type: none"><li>• 2-26m with 62.5 µm multimode cable @ 160 MHz*km</li><li>• 2-33m with 62.5 µm multimode cable @ 200 MHz*km</li><li>• 2-66m with 50 µm multimode cable @ 400 MHz*km</li><li>• 2-82m with 50 µm multimode cable @ 500 MHz*km</li><li>• 2-300m with 50 µm multimode cable @ 2000 MHz*km</li></ul>
	<b>Cable length</b> 2-300m
	<b>Fiber type</b> Multi Mode
<b>Notes</b>	For fiber patch cords, use Ultra Physical Contact (UPC) surface termination/polish. Angled Physical Contact (APC) is not recommended.
<b>Services</b>	Refer to the HP website at: <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

### Technical Specifications

#### HP X132 10G SFP+ LC LR Transceiver (J9151A)

A 10-Gigabit transceiver in SFP+ form-factor that supports the 10-Gigabit LR standard, providing 10-Gigabit connectivity up to 10 km on single-mode fiber.

<b>Ports</b>	1 LC 10-GbE port (IEEE 802.3ae Type 10Gbase-LR); Duplex: full only
<b>Connectivity</b>	<b>Connector type</b> LC
<b>Physical characteristics</b>	<b>Wavelength</b> 1310 nm
	<b>Dimensions</b> 2.19(d) x 0.54(w) x 0.47(h) in. (5.57 x 1.38 x 1.19 cm)
	<b>Weight</b> 0.04 lb. (.02 kg)
	<b>Transceiver form factor</b> SFP+
<b>Environment</b>	<b>Operating temperature</b> 32°F to 158°F (0°C to 70°C)
	<b>Operating relative humidity</b> 0% to 85%, noncondensing
	<b>Nonoperating/Storage temperature</b> -40°F to 185°F (-40°C to 85°C)
<b>Electrical characteristics</b>	<b>Altitude</b> up to 10,000 ft. (3 km)
	<b>Power consumption typical</b> 0.9 W
	<b>Power consumption maximum</b> 1 W
<b>Cabling</b>	<b>Cable type:</b> Low metal content, single-mode fiber-optic, complying with ITU-T G.652 and ISO/IEC 793-2 Type B1; Maximum distance: <ul style="list-style-type: none"><li>• 2m-10km with 9/125 µm single-mode cable</li></ul>
	<b>Cable length</b> 2m to 10km
	<b>Fiber type</b> Single Mode
<b>Notes</b>	Conditioning patch cord cables are not supported. For fiber patch cords, use Ultra Physical Contact (UPC) surface termination/polish. Angled Physical Contact (APC) is not recommended.
<b>Services</b>	Refer to the HP website at: <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

### Technical Specifications

<b>HP X132 10G SFP+ LC LRM Transceiver (J9152A)</b>	<b>Ports</b>	1 LC 10-GbE port (IEEE 802.3aq Type 10Gbase-LRM); Duplex: full only
	<b>Connectivity</b>	<b>Connector type</b> LC
A 10-Gigabit transceiver in SFP+ form-factor that supports the 10-Gigabit LRM standard, for 10-Gigabit connectivity up to 220 m on legacy multimode fiber.	<b>Physical characteristics</b>	<b>Wavelength</b> 1310 nm <b>Dimensions</b> 2.19(d) x 0.54(w) x 0.47(h) in. (5.57 x 1.38 x 1.19 cm)
	<b>Environment</b>	<b>Weight</b> 0.04 lb. (.02 kg) <b>Transceiver form factor</b> SFP+ <b>Operating temperature</b> 32°F to 158°F (0°C to 70°C) <b>Operating relative humidity</b> 0% to 85%, noncondensing <b>Nonoperating/Storage temperature</b> -40°F to 185°F (-40°C to 85°C) <b>Altitude</b> up to 10,000 ft. (3 km)
<b>Electrical characteristics</b>	<b>Power consumption typical</b>	0.7 W
<b>Cabling</b>	<b>Power consumption maximum</b>	1 W
<b>Notes</b>	<b>Cabling</b>	Cable type: 62.5/125 µm or 50/125 µm (core/cladding) diameter, graded-index, low metal content, multimode fiber optic, complying with ITU-T G.651 and ISO/IEC 793-2 Type A1b or A1a, respectively (a mode conditioning patch cord may be needed in some multimode fiber installations); Maximum distance: <ul style="list-style-type: none"> <li>● 0.5-220m with 62.5 µm multimode cable @ 160/500 MHz*km</li> <li>● 0.5-220m with 62.5 µm multimode cable @ 200/500 MHz*km</li> <li>● 0.5-100m with 50 µm multimode cable @ 400/400 MHz*km</li> <li>● 0.5-220m with 50 µm multimode cable @ 500/500 MHz*km</li> <li>● 0.5-220m with 50 µm multimode cable @ 1500/500 MHz*km</li> </ul> <b>Cable length</b> 0.5m to 220m <b>Fiber type</b> Multi Mode
<b>Services</b>	<b>Notes</b>	For OM3 cable (50 µm multimode @ 1500/500 MHz*km), a mode-conditioning patch cord is not required. Other multimode cables may require mode-conditioning patch cords to achieve the maximum distances listed above. For fiber patch cords, use Ultra Physical Contact (UPC) surface termination/polish. Angled Physical Contact (APC) is not recommended.
<b>Services</b>	<b>Services</b>	Refer to the HP website at: <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

### Technical Specifications

#### HP X132 10G SFP+ LC ER Transceiver (J9153A)

The SFP+ ER Transceiver will transmit 10Gbps over up to 40km using standard OM3 fiber cable. This product expands the HP Networking transceiver portfolio for connections from 0m to 40km. Use only genuine HP transceivers with your HP Networking equipment to ensure reliability and support.

<b>Ports</b>	1 LC 10-GbE port (IEEE 802.3ae Type 10Gbase-ER); Duplex: full only
<b>Connectivity</b>	<b>Connector type</b> LC
<b>Physical characteristics</b>	<b>Wavelength</b> 1550 nm
<b>Environment</b>	<b>Dimensions</b> 2.22(d) x 0.55(w) x 0.47(h) in. (5.65 x 1.39 x 1.19 cm)
<b>Electrical characteristics</b>	<b>Weight</b> .04 lb., Fully loaded
<b>Cabling</b>	<b>Transceiver form factor</b> SFP+
<b>Notes</b>	<b>Operating temperature</b> 32°F to 158°F (0°C to 70°C)
<b>Services</b>	<b>Operating relative humidity</b> 5% to 95%, noncondensing
	<b>Nonoperating/Storage temperature</b> -40°F to 185°F (-40°C to 85°C)
	<b>Nonoperating/Storage relative humidity</b> 5% to 95%, noncondensing
	<b>Altitude</b> up to 10,000 ft. (3 km)
	<b>Power consumption typical</b> 1.3 W
	<b>Power consumption maximum</b> 1.5 W
	<b>Cabling</b> Cable type: Single-mode fiber optic, complying with ITU-T G.652; Maximum distance: <ul style="list-style-type: none"><li>• 40km</li></ul>
	<b>Fiber type</b> Single Mode
	<b>Notes</b> Check switch release notes for minimum version of software required to support this transceiver. Some switches have limits as to how many of this particular transceiver can be installed. See the release notes of the switch software/firmware being used for more details.
	<b>Services</b> Refer to the HP website at: <a href="http://www.hp.com/networking/services">www.hp.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

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