



## Active Fiber Empower Long-haul Network Access

- Industry Standard Compliance
- SFP MSA (Multi-Source Agreement) Compliance
- Hot-Pluggable with Maximum Flexibility
- Compact Size, High Port Density
- Single +3.3V Power Supply
- Low Power Dissipation



Small Form-factor Pluggable (SFP) Transceiver

ZYXEL  
TRANSCIEVERS  
FAMILY

### Benefits

#### Standard-based Design Assures Compatibility

ZyXEL transceiver family follows industry standards to assure compatibility with switches from other manufacturers without barriers set by proprietary technologies.

#### Comprehensive Portfolio for Different Connectivity Demands

With ZyXEL's comprehensive Fast and Gigabit transceiver product range, users can just plug in the proper model to extend the physical network coverage.

#### Swappable Design Facilitates Network Maintenance

Independent transceiver design provides the highest network maintenance flexibility. Transceivers can be added when required, and infrastructure upgrade or transceivers repair can be done easily by just replacing the transceiver instead of the whole device.

#### Bi-Directional Transceivers Maximizing Usage of Existing Fiber Plant

Two strands of fiber have been required for traditionally fiber optic networking to accomplish communications. In this case, one strand is reserved for transmitting, the other for receiving. However, bi-directional, dual wavelength transceivers can accomplish communications over just one strand of fiber by using two separate optical wavelengths, one to receive and the other to transmit the signal. Transmission capacity can be expanded immediately without additional cost of running new fiber, and the value of existing fiber plant can be maximized.

## Specifications

### Standard Compliance

- 125 Mbps IEEE 802.3u 100BASE-FX compliant (SFP-100FX-2)
- 125 Mbps IEEE 802.3ah 100BASE-LX10 compliant (SFP-100LX-20)
- 125 Mbps IEEE 802.3ah 100BASE-BX10-U compliant (SFP-100BX1310-20)
- 125 Mbps IEEE 802.3ah 100BASE-BX10-D compliant (SFP-100BX1550-20)

- 1.25 G IEEE 802.3ah 1000BASE-BX10-U compliant (SFP-BX1310-10)
- 1.25 G IEEE 802.3ah 1000BASE-BX10-D compliant (SFP-BX1490-10)

### Environmental Specifications

- Operating Temperature: 0°C ~ 70°C
- Storage Temperature: -40°C ~ 85°C
- Relative Humidity: 5% ~ 95%

### Safety Certification

- Class 1 Laser
- 21 CFR 1040.10 and 1040.11 compliant
- CSA
- TUV

## ZyXEL 1000 Mbps SFP Transceiver Family

Model	SFP-SX	SFP-LX-10	SFP-LHX1310-40	SFP-ZX-80	SFP-BX1310-10	SFP-BX1490-10
<b>Laser Transmitter Characteristics</b>						
Maximum Launch Power	-4 dBm	-3 dBm	+3 dBm	+5 dBm	-3 dBm	-3 dBm
Minimum Launch Power	-9.5 dBm	-9.5 dBm	-2 dBm	0 dBm	-9 dBm	-9 dBm
<b>Receiver Characteristics</b>						
Optical Receiver Sensibility	-17 dBm	-20 dBm	-23 dBm	-24 dBm	-20 dBm	-20 dBm
Maximum Input Power	-3 dBm	-3 dBm	-3 dBm	-3 dBm	-3 dBm	-3 dBm
<b>Optical Budget</b>	7.5 dB	10.5 dB	21 dB	24 dB	11 dB	11 dB
<b>Wavelength</b>	850 nm	1310 nm	1310 nm	1550 nm	1310 nm (TX) 1490 nm (RX)	1490 nm (TX) 1310 nm (RX)
<b>Connector</b>	LC	LC	LC	LC	LC	LC
<b>Transmission Distance vs Fiber Cable Specification</b>						
62.5 um MMF	220 m	220 m	N/A	N/A	N/A	N/A
50 um MMF	550 m	550 m	N/A	N/A	N/A	N/A
9 um SMF	N/A	10 km	40 km	80 km	10 km	10 km
<b>Operational Ranges</b>						
Supply Voltage	3.1 ~ 3.5 V	3.1 ~ 3.5 V	3.1 ~ 3.5 V	3.1 ~ 3.5 V	3.1 ~ 3.5 V	3.1 ~ 3.5 V
Max Current	250 mA	300 mA	300 mA	300 mA	300 mA	300 mA
<b>Dimensions (mm)</b>	56 x 13.4 x 12.4	56 x 13.4 x 12.4	56 x 13.4 x 12.4	56 x 13.4 x 12.4	56 x 13.4 x 12.4	56 x 13.4 x 12.4

## ZyXEL 100 Mbps SFP Transceiver Family

Model	SFP-100FX-2	SFP-100LX-20	SFP-100BX1310-20	SFP-100BX1550-20
<b>Laser Transmitter Characteristics</b>				
Maximum Launch Power	-14 dBm	-8 dBm	-8 dBm	-8 dBm
Minimum Launch Power	-20 dBm	-15 dBm	-14 dBm	-14 dBm
<b>Receiver Characteristics</b>				
Optical Receiver Sensibility	-32 dBm	-30 dBm	-34 dBm	-34 dBm
Maximum Input Power	-8 dBm	-5 dBm	0 dBm	0 dBm
<b>Optical Budget</b>	12 dB	15 dB	20 dB	20 dB
<b>Wavelength</b>	1310 nm	1310 nm	1310 nm (TX) 1550 nm (RX)	1550 nm (TX) 1310 nm (RX)
<b>Connector</b>	LC	LC	LC	LC
<b>Transmission Distance vs Fiber Cable Specification</b>				
62.5 um MMF	2 km	550 m	N/A	N/A
50 um MMF	2 km	550 m	N/A	N/A
9 um SMF	N/A	20 km	20 km	20 km
<b>Operational Ranges</b>				
Supply Voltage	3.1 ~ 3.5 V	3.1 ~ 3.5 V	3.1 ~ 3.5 V	3.1 ~ 3.5 V
Max Current	250 mA	250 mA	300 mA	300 mA
<b>Dimensions (mm)</b>	56 x 13.4 x 12.4	56 x 13.4 x 12.4	56 x 13.4 x 12.4	56 x 13.4 x 12.4

For more product information, visit us on the web [www.ZyXEL.com](http://www.ZyXEL.com)



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