ZYXEL

Fiber Transceiver Accessories

The Zyxel transceiver family follows industry standards to assure compatibility with switches from other manufacturers without barrier set by proprietary technologies. The comprehensive product range including Gigabit and 10 Gigabit transceiver, also Direct Attached Cable 1 M/3 M allows users to plug the proper model onto the network to extend the physical coverage easily.

- Hot-Pluggable with maximum flexibility
- Low power dissipation, high network stability
- Industry standard compliance
- 802.3z SFP Multi-Source Agreement (MSA) compliance
- Compact size, high port density

Benefits

Hot-swappable design facilitates network maintenance

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

Bi-directional transceivers maximizes usage of existing fiber plant

Traditional fiber optic networking requires two strands of fiber to accomplish communications, in which one strand is reserved for sending signals, while the other is for receiving. On the other hand, bi-directional, dual-wavelength transceivers can establish communications over just one strand of fiber by using two separate optical wavelengths: one receives and the other transmits signals. Transmission capacity can be expanded immediately without additional cost laying new fiber.

Supporting Digital Diagnostics Monitoring Interface (DDMI) SFP enhances management capability

The enhanced digital interface enables a real time link to be established between the switch and the SFP transceiver. This enables the switch to access operating parameters within the fiber link. This includes digital features such as soft control and monitoring of SFP I/O signals.
In addition, the DDMI functionality enables the capability to implement digital alarms and warnings.
This feature ensures that the business can be proactive in preventative maintenance of the network and ensure business continuity.

DDMI Monitors:

- Temperature
- Supply voltage
- Transmitted bias current
- Transmitted power
- Received power

All features listed above include alarm and warning thresholds.

Specifications and Features

Transceiver Class	10GbE Transceiver Modules	
	10 Gigabit SFP+	
	SFP10G-SR	SFP10G-LR
Connector	Duplex LC	Duplex LC
Wavelength (nm)	850	1310
Max Transmission Distance (km/yd)	0.3/328	10/10936
Optical Fiber Type	Multi Mode	Single Mode
With DDMI Features	Yes	Yes
Optical Characteristics		
Transmit power range (dBm)	-1 to -5	+0.5 to -8.2
Receive power range (dBm)	+0.5 to -11.1	+0.5 to -12.6
Operational Ranges		
Supply voltage	3.14-3.46 V	3.14-3.46 V
Max current (mA)	250	285
Physical Specifications		
Dimensions (WxDxH)(mm/in.)	14.8 x 56.5 x 11.85/0.58 x 2.22 x 0.47	
Weight (g/lb.)	20/0.04	20/0.04
Environmental Specifications		
MTBF (hr)	5,160,000	3,390,000

Transceiver Class	GbE Transceiver Modules						
	Gigabit SFP						
	SFP-1000T	SFP-SX-D	SFP-LX-10-D	SFP-BX1310-10-D*	SFP-BX1490-10-D*	SFP-LHX1310-40-D	SFP-ZX-80-D
Connector	RJ-45	LC	LC	LC	LC	LC	LC
Wavelength (nm)	-	850	1310	1310 (TX) 1490 (RX)	1490 (TX) 1310 (RX)	1310	1550
Max Transmission Distance (km/yd)	0.1/109	0.55/601	10/10936	10/10936	10/10936	40/43744	80/87488
Optical Fiber Type	Multi Mode	Multi Mode	Single Mode	Single Mode	Single Mode	Single Mode	Single Mode
With DDMI Features	-	Yes	Yes	Yes	Yes	Yes	Yes
Optical Characteristics							
Transmit power range (dBm)	-	-4 to -9.5	-3 to -9.5	-3 to -9	-3 to -9	+3 to -2	+5 to 0
Receive power range (dBm)	-	-3 to -17	-3 to -20	-2 to -20	-2 to ~ -20	-2 to -23	-1 to -24
Operational Ranges							
Supply voltage	3.1-3.45 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	3.1-3.5 V
Max current (mA)	300	250	300	-	300	300	300
Physical Specifications							
Dimensions (WxDxH) (mm/in.)	13.40 x 56.00 x 12.40/0.53 x 2.20 x 0.49						
Weight (g/lb.)	24/0.05	24/0.05	16/0.04	17/0.04	17/0.04	17/0.04	18/0.04
Environmental Specifications							
MTBF (hr)	277,657	83,030	83,030	137,682	137,682	83,030	83,030

* SFP-BX1310-10-D and SFP-BX1490-10-D are must used in pairs.

Transceiver Class	Direct Attached Cable 10G Series	
	DAC10G	
	DAC10G-1M	DAC10G-3M
Connector	SFP+ to SFP+	SFP+ to SFP+
Max Transmission Distance (m/ft)	1/3.28	3/9.84
Operational Ranges		
Supply voltage	3.13-3.47 V	3.13-3.47 V
Max current (mA)	480	480
Physical Specifications		
Dimensions (WxDxH)(mm/in.)	14 x 58 x 11/0.55 x 2.30 x 0.43	
Weight (g/lb.)	85/0.19	164/0.36

Environmental Specifications

- Operating temperature: 0°C to 70°C (32°F to 158°F)
- Storage temperature: -40°C to 85°C (-40°F to 185°F)

Safety Certifications

- Class 1 Laser
- 21 CFR 1040.10 and 1040.11 compliant
- CSA (10 Gigabit XFP, Gigabit SFP and Fast Ethernet SFP Series)
- TUV
- CE (10 Gigabit SFP+ Series, DAC10G Series)
- FDA (10 Gigabit SFP+ Series)

Switch Compatibility List

Model		XGS4600 Series	XS3800-28	XGS3700 Series	XGS2210 Series	GS2210 Series
DAC10G	DAC10G-1M	Yes	Yes	Yes	Yes	-
	DAC10G-3M	Yes	Yes	Yes	Yes	-
10 Gigabit SFP+	SFP10G-SR	Yes	Yes	Yes	Yes	-
	SFP10G-LR	Yes	Yes	Yes	Yes	-
Gigabit SFP*	SFP-1000T	Yes	Yes	Yes	Yes	Yes
	SFP-SX-D	Yes	Yes	Yes	Yes	Yes
	SFP-LX-10-D	Yes	Yes	Yes	Yes	Yes
	SFP-BX1310-10-D	Yes	Yes	Yes	Yes	Yes
	SFP-BX1490-10-D	Yes	Yes	Yes	Yes	Yes
	SFP-LHX1310-40-D	Yes	Yes	Yes	Yes	Yes
	SFP-ZX-80-D	Yes	Yes	Yes	Yes	Yes

Model		XGS1930 Series	GS1920 Series	XS1920-12	GS1900 Series	GS1100-24
DAC10G	DAC10G-1M	Yes	-	Yes	-	-
	DAC10G-3M	Yes	-	Yes	-	-
10 Gigabit SFP+	SFP10G-SR	Yes	-	Yes	-	-
	SFP10G-LR	Yes	-	Yes	-	-
Gigabit SFP*	SFP-1000T	Yes	Yes	Yes	Yes	Yes
	SFP-SX-D	Yes	Yes	Yes	Yes	Yes
	SFP-LX-10-D	Yes	Yes	Yes	Yes	Yes
	SFP-BX1310-10-D	Yes	Yes	Yes	Yes	Yes
	SFP-BX1490-10-D	Yes	Yes	Yes	Yes	Yes
	SFP-LHX1310-40-D	Yes	Yes	Yes	Yes	Yes
	SFP-ZX-80-D	Yes	Yes	Yes	Yes	Yes

* The switch models featuring dual-rate (100 Mbps/1 Gbps) SFP transceiver support include the GS1900 Series, GS1920 Series, GS2210 Series.

For more product information, visit us on the web at www.zyxel.com

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