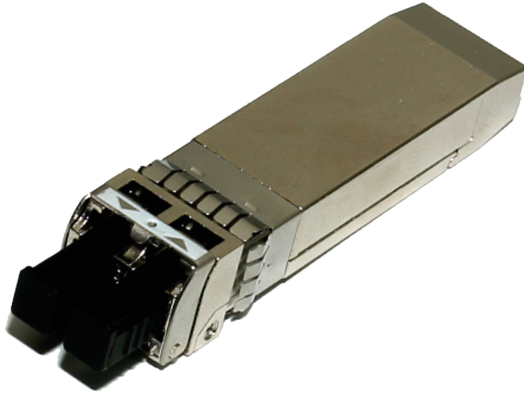




1.25Gbps SFP Transceiver

80km and 120km, DWDM (E)ZX

P/N AZX0P0x-DWyy (80km ZX)
P/N AEZ0A0x-DWyy (120km EZX)



Description

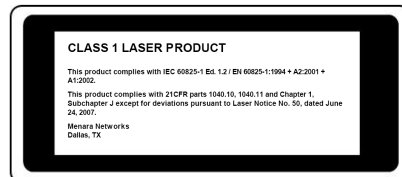
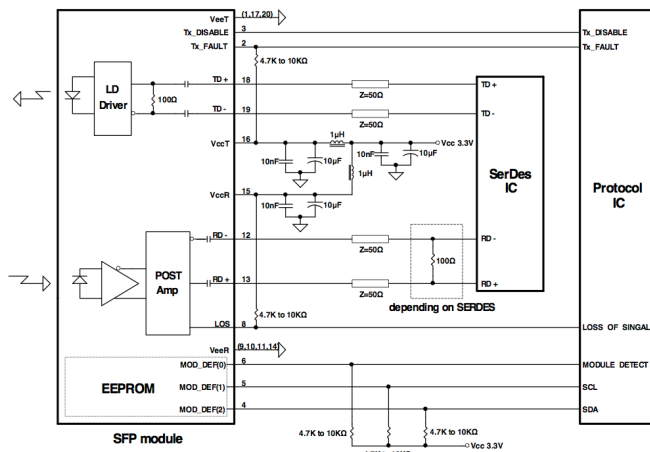
Menara Networks' AZX0P00-DWxx and AEZ0A00-DWxx transceivers are designed for use in 1Gbps DWDM 100GHz links up to 80km or 120km over single mode fiber. The SFP module supports IEEE 802.3ae 1000BASE-(E)ZX applications along with Fiber Channel 1x SM-LC-L FC-PI applications for Ethernet Switches or IP Router optical interfaces. Digital Optical Monitoring interfaces are provided via the SFP SFF-8472 standards compliant I²C interface.

Applications

- 80km or 120km GbE or 1G FC DWDM switch transmission interconnection
- Long distance, multi-channel Ethernet Switch or IP Router bandwidth expansion

Features

- Hot-pluggable SFP footprint
- Up to 1.25Gbps bit rates
- 100GHz DWDM transmitter supporting 42 DWDM channels per fiber pair
- APD receiver for greater range (120km)
- Single 3.3V power supply
- Power dissipation < 1.3W
- 0°C to +70°C and -40°C to +85°C Temperature Ranges
- Duplex LC fiber connectors
- IEEE 802.3ae 1000BASE-(E)ZX
- 1G FC SM-LC-L FC-PI
- Full Digital Optical Monitoring
- Metal enclosure for lower EMI
- Complies with RoHS directive (2002/95/EC)
- Compliant with SFP MSA SFF-8472 and SFF-8074
- Laser Class 1 IEC/CDRH compliant
- Links of 80km or 120 km with 9/125 μm single mode fiber (SMF) of maximum interconnect distances



Transmitter E-O Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Support data rate	-	1	1.25	1.35	Gb/s	
Center Wavelength	λ	1528.77	to	1561.42	nm	100 GHz
Wavelength Accuracy	λ_{EOL}	-100		+100	pm	
Spectral Width (RMS)	$\Delta\lambda$			0.3	nm	
Average Optical Output Power	P _o	0	-	+4	dBm	
Side Mode Suppression Ratio	SMSR	30			dB	
Extinction Ratio	ER	8.2	-	-	dB	
Output Eye Diagram	Compliant with IEEE 802.3					

Receiver O-E Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Support data rate	-	1	1.25	1.35	Gb/s	
Operating Wavelength	-	1500	-	1580	nm	
Receiver sensitivity (120km)	S _{en1}			-31	dBm	1
Receiver sensitivity (80km)	S _{en2}			-27	dBm	1
Saturation (120km)	P _{sat1}	-9			dBm	
Saturation (80km)	P _{sat2}	0			dBm	
Receiver Optical Return Loss	-			-27	dB	
LOS Asserted	LOS _A	-40			dBm	
LOS Deassert	LOS _D			-28	dBm	
LOS Hysteresis (EOL)	-	0.5			dB	

1. Measured with PRBS 2²³-1 at 10⁻¹² BER

Ordering Information

Part Number	ROHS Compliant	Operating Case Temperature
AZX0P0y-DWxx (80km ZX)	ROHS-6	0 ~ +70°C
AZX0P1y-DWxx (80km ZX)		0 ~ +85°C
AZX0P2y-DWxx (80km ZX)		-40 ~ +85°C
AEZ0A0y-DWxx (120km EZX)	ROHS-6	0 ~ +70°C
AEZ0A1y-DWxx (120km EZX)		0 ~ +85°C
AEZ0A2y-DWxx (120km EZX)		-40 ~ +85°C

xx = DWDM Wavelength. See table below for details.

y = Router compatibility; J = Juniper, A = AlcatelLucent, C = Cisco, O = Cisco ONS, N = Ciena

Freq (THz)	Wave (nm)	ITU Ch	Freq (THz)	Wave (nm)	ITU Ch	Freq (THz)	Wave (nm)	ITU Ch
196.10	1528.77	61	194.70	1539.77	47	193.30	1550.82	33
196.00	1529.55	60	194.60	1540.56	46	193.20	1551.72	32
195.90	1530.33	59	194.50	1541.35	45	193.10	1552.52	31
195.80	1531.12	58	194.40	1542.14	44	193.00	1553.33	30
195.70	1531.90	57	194.30	1542.94	43	192.90	1554.13	29
195.60	1532.68	56	194.20	1543.73	42	192.80	1554.94	28
195.50	1533.47	55	194.10	1544.53	41	192.70	1555.75	27
195.40	1534.25	54	194.00	1545.32	40	192.60	1556.55	26
195.30	1535.04	53	193.90	1546.12	39	192.50	1557.36	25
195.20	1535.82	52	193.80	1546.92	38	192.40	1558.17	24
195.10	1536.61	51	193.70	1547.72	37	192.30	1558.98	23
195.00	1537.40	50	193.60	1548.51	36	192.20	1559.79	22
194.90	1538.19	49	193.50	1549.32	35	192.10	1560.61	21
194.80	1538.98	48	193.40	1550.12	34	192.00	1561.42	20