



1.25Gbps SFP Transceiver 80km CWDM ZX

P/N AZX0P0y-CWxx (80km ZX)



Description

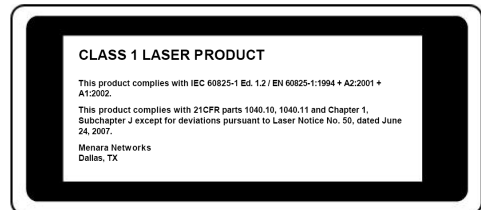
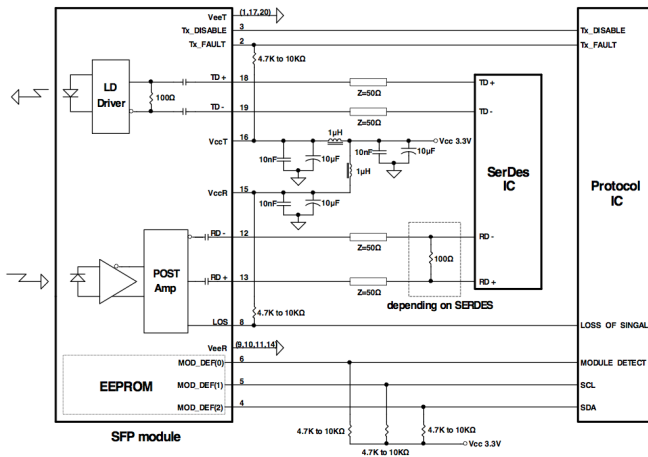
Menara Networks' AZX0P0y-CWxx transceivers are designed for use in 1Gbps CWDM links up to 80km over single mode fiber. The SFP module supports 1000BASE-ZX applications along with Fiber Channel 1x SM-LC-L FC-PI applications for Ethernet Switches or IP Router optical interfaces. Digital Optical Monitoring interfaces are provided via the SFP SFF-8472 standards compliant I²C interface.

Applications

- 80km GbE or 1G FC CWDM 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
- CWDM transmitter supporting 18 CWDM channels per fiber pair
- PIN receiver
- Single 3.3V power supply
- Power dissipation < 1W
- 0°C to +70°C and -40°C to +85°C Temperature Ranges
- Duplex LC fiber connectors
- IEEE 1000BASE-ZX compliant
- 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 with 9/125 μm single mode fiber (SMF)



Transmitter E-O Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Support data rate	-	1	1.25	1.35	Gb/s	
Center Wavelength	λ_c	1270		1610	nm	
Wavelength Stability after Startup	$\Delta\lambda_{EOL}$	$\lambda_c - 5.5$	λ_c	$\lambda_c + 7.5$	nm	
Spectral Width (RMS)	$\Delta\lambda$	-	-	1	nm	
Side Mode Suppression Ratio	SMSR	30			dB	
Average Optical Output Power	P _o	0	-	5	dBm	1
Extinction Ratio	Er	9	-	-	dB	
Output Eye Diagram	Compliant with IEEE 802.3ae					
Optical Rise/Fall Time (20%~80%)	tr/tf			180	ps	
Data Input Swing Differential	V _{IN}	400		1800	mV	2
Input Differential Impedance	Z _{IN}	90	100	110	Ω	
TX Disable	Disable	2.0		V _{CC}	V	
	Enable	0		0.8	V	
TX Fault	Fault	2.0		V _{CC}	V	
	Normal	0		0.8	V	

1. The optical power is launched into SMF
2. PECL input, internally AC-coupled and terminated

Receiver O-E Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Support data rate	-	1	1.25	1.35	Gb/s	
Operating Wavelength	-	1200	-	1620	nm	
Receiver sensitivity	S _{en}	-	-	-23	dBm	3
Saturation	P _{sat}	-3	-	-	dBm	3
LOS Assert	LOS _A	-35	-	-	dBm	
LOS Deassert	LOS _D	-	-	-24	dBm	
LOS Hysteresis		1	-	4	dB	
Data Output Swing Differential	V _{OUT}	370		1800	mV	4
LOS	High	2.0		V _{CC}	V	
	Low	0		0.8	V	

1. Measured with a PRBS 2⁷-1 test pattern @ 1250Mbps, BER $\leq 1 \times 10^{-12}$
2. Internally AC coupled

Ordering Information

Part Number	ROHS Compliant	Operating Case Temperature
AZX0P0y-CWxx	ROHS-6	0 ~ +70°C
AZX0P1y-CWxx		-10 ~ +85°C
AZX0P2y-CWxx		-40 ~ +85°C

xx = CWDM Wavelength. See bold in table below for details.

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

CWDM Wavelength	Latch Color
1270	Grey
1290	Violet
1310	Blue
1330	Green
1350	Yellow
1370	Orange

CWDM Wavelength	Latch Color
1390	Red
1410	Brown
1430	Black
1450	Gold
1470	Gray
1490	Violet

CWDM Wavelength	Latch Color
1510	Blue
1530	Green
1550	Yellow
1570	Orange
1590	Red
1610	Brown