



# 155 to 622Mbps SFP Transceiver 80km OC-3/12 LR2 CWDM P/N AL23P0x-CWyy (80km LR2)



## Description

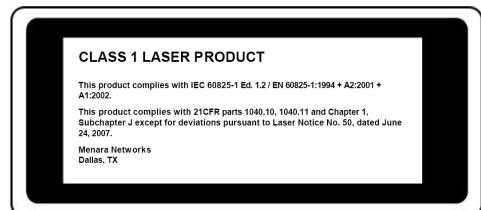
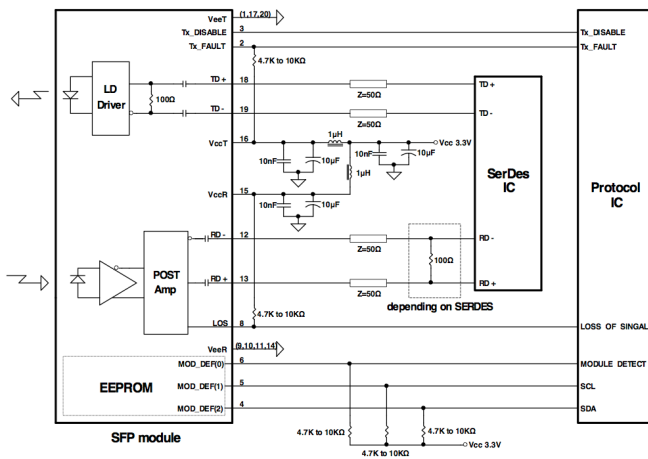
Menara Networks' 155 to 622Mb/s AL23P0x-CWyy CWDM SFP is designed for use in OC-3/12 SONET LR2 and STM-1/4 L-4.2 1550nm links up to 80km over 9/125µm singlemode fiber. The use of a 1550nm transmitter provides a high performance transport optic option for SONET/SDH transport. Digital Optical Monitoring interfaces are provided via the SFP SFF-8472 standards compliant I<sup>2</sup>C interface.

## Applications

- 155 to 622Mb/s CWDM 80km transmission distance over 9/125µm singlemode fiber
- SONET/SDH transport

## Features

- Hot-pluggable SFP footprint
- 155 to 622Mb/s bit rates
- CWDM transmitter supporting 18 CWDM channels per fiber pair
- Single 3.3V power supply
- Power dissipation < 1W
- 0°C to +70°C or -40°C to +85°C
- Duplex LC fiber connectors
- SONET OC-12 LR-2 compliance
- SDH STM-4 L-4.2
- 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 over 9/125µm singlemode fiber



## Transmitter E-O Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Support data rate (OC-3/STM1)	-	-	155	-	Mb/s	-
Support data rate (OC-12/STM4)	-	-	622	-	Mb/s	-
Center Wavelength	$\lambda$	$\lambda_c - 6.5$	$\lambda_c$	$\lambda_c + 6.5$	nm	
Spectral Width (RMS)	$\Delta\lambda$	-	-	1	nm	-
Side Mode Suppression Ratio	SMSR	30			dB	
Average Optical Output Power	P <sub>o</sub>	0	-	5	dBm	
Extinction Ratio	E <sub>r</sub>	10	-	-	dB	
Eye Mask Margin	-	10	-	-	%	
Output Eye Diagram	Compliant with Telcordia GR-253-CORE					

## Receiver O-E Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Support data rate (OC-3/STM1)	-	-	155	-	Mb/s	-
Support data rate (OC-12/STM4)	-	-	622	-	Mb/s	-
Operating Wavelength	-	1260	-	1620	nm	-
Receiver sensitivity (OC-3/STM1)	S <sub>en</sub>	-	-	-30	dBm	1
Receiver sensitivity (OC-12/STM4)	S <sub>en</sub>	-	-	-28	dBm	2
Saturation	P <sub>sat</sub>	-3	-	-	dBm	
LOS Assert	LOS <sub>A</sub>	-35				
LOS Deassert	LOS <sub>D</sub>			-30	dBm	
LOS Hysteresis		1		4	dB	

Notes:

1. Measured with a PRBS 2<sup>23</sup>-1 test pattern @ 622Mbps, BER ≤ 1×10<sup>-10</sup>
2. Measured with a PRBS 2<sup>23</sup>-1 test pattern @ 155Mbps, BER ≤ 1×10<sup>-10</sup>

## Ordering Information

Part Number	ROHS Compliant	Operating Case Temperature
AL23P0x-CWyy	ROHS-6	0 ~ +70°C
AL23P1x-CWyy		-5 ~ +85°C
AL23P2x-CWyy		-40 ~ +85°C

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

x = 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

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