



# 155M to 2.67Gbps SFP Transceiver

## 40km, CWDM EX/IR-2

### P/N AL26P00-CWxx



### Description

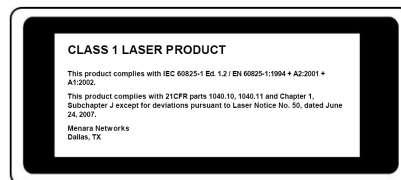
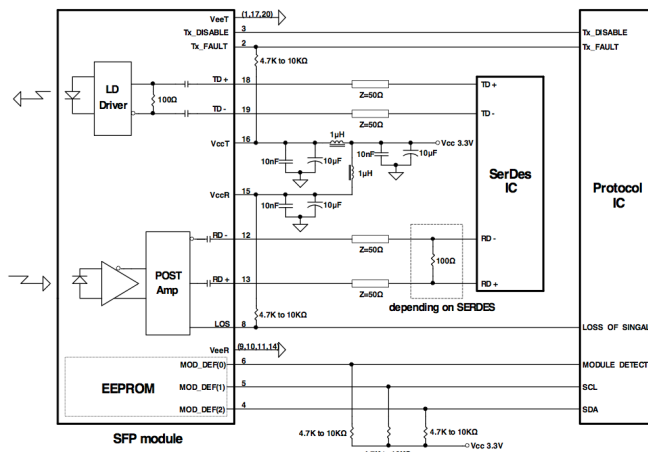
Menara Networks' AL26P00-CWxx transceivers are designed for use in OC-3/12, 1Gbps, OC-48 and OTU-1 CWDM links up to 40km over single mode fiber. The SFP module supports IEEE 802.3ae 1000BASE-EX applications along with SONET OC-3/12/48 IR-2 and Fiber Channel 1x SM-LC-L FC-PI applications for Ethernet Switches or IP Router optical interfaces. Digital Optical Monitoring interfaces are provided via the SFP SFF-8472 standards compliant I<sup>2</sup>C interface.

### Applications

- 40km GbE, OC-3/12/48 or OTU-1 DWDM switch transmission interconnection
- Long distance, multi-channel Ethernet Switch or IP Router bandwidth expansion

### Features

- Hot-pluggable SFP footprint
- Up to 2.67Gbps bit rates
- CWDM transmitter supporting 18 CWDM channels per fiber pair
- APD receiver for greater range
- 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
- 1000BASE-EX
- SONET OC-3/12/48 IR-2
- 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 40km or 120km 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	-	0.155		2.67	Gb/s	-
Center Wavelength	$\lambda_c$	1270		1610	nm	
Wavelength Stability after Startup	$\Delta\lambda_{EOL}$	$\lambda_c - 6.5$	$\lambda_c$	$\lambda_c + 6.5$		
Spectral Width (RMS)	$\Delta\lambda$	-	-	1	nm	-
Side Mode Suppression Ratio	SMSR	30			dB	
Average Optical Output Power	Po	0	-	5	dBm	
Extinction Ratio	Er	9	-	-	dB	
Eye Mask Margin	-	10	-	-	%	
Output Eye Diagram	Compliant with SFP MSA					

## Receiver O-E Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Support data rate	-	0.155		2.67	Gb/s	-
Operating Wavelength	-	1260	-	1620	nm	-
Receiver sensitivity @ 1.25Gbps	S <sub>en1</sub>	-	-	-21	dBm	1
Receiver sensitivity @ 2.67Gbps	S <sub>en2</sub>	-	-	-18	dBm	1
Saturation (120km)	P <sub>sat</sub>	-3	-	-	dBm	
Receiver Optical Return Loss	-	-	-	-27	dB	-
LOS Asserted		-30	-	-	dBm	
LOS Hysteresis		1.0	-	5.0	dB	

### Notes:

1. Measured with a PRBS 2<sup>23</sup>-1 test pattern at 10<sup>-12</sup> BER

## Ordering Information

Part Number	ROHS Compliant	Operating Case Temperature
AL26P0y-CWxx	ROHS-6	0 ~ +70°C
AL26P1y-CWxx		-5 ~ +85°C
AL26P2y-CWxx		-40 ~ +85°C

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

y = Compatibility; J = Juniper, A = AlcatelLucent, C = Cisco, O = Cisco ONS, N = Ciena, F or 9 = Fujitsu

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

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

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

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