

# SO-SFP-622M-L160D-Cxx

SFP, 622Mbps, CWDM, DDM, 41dB, 160km, 1470nm-1610nm (8ch)

## OVERVIEW

The SO-SFP-622M-L160D-Cxx is a CWDM high performance transceiver primarily for 622 Mbps SDH/SONET (STM-4/OC-12) services. The support extends down to 100M Fast Ethernet (FE) services. The optical performance provides a bridgeable distance of up to 160 km over a G.652 SM fiber. Note that the actual optical path attenuation must be taken into consideration to ensure that all channels can bridge the desired distance. The lower CWDM channel 1471nm will face a higher fiber attenuation.

The transceiver is available in 8 CWDM wavelengths, spanning from 1471nm to 1611nm in accordance with the G.694.2 standard. This transceiver provides digital diagnostic functions via a 2-wire serial interface as defined by the SFF-8472 specification.

## TECHNICAL DATA

Parameter	Value
Technology	CWDM SFP
Transmission media	SM (2x LC)
Typical reach	160km <sup>1)</sup>
Nominal wavelengths	1471 – 1610 nm (8ch)
Bit rate range	125 – 622.080 Mbps
Protocol support	FE STM-1 / OC3 STM-4 / OC12
Power budget	17 – 41 dB
Optical path penalty	1 dB
Power consumption	< 1 W
Operating temperature	0°C to +70°C
Storage temperature	-40°C to +85°C

<sup>1)</sup> Dependent on actual optical path attenuation.

Parameter	Value
<b>Transmitter data:</b>	
Output power	Min: +4.0 dBm <sup>2)</sup> Max: +7.0 dBm <sup>2)</sup>
Transmit wavelength	1471 to 1611nm (G.694.2)
<b>Receiver data:</b>	
Minimum input power	-37 dBm <sup>2)3)</sup> -38 dBm <sup>2)4)</sup> -39 dBm <sup>2)5)</sup>
Overload (max power)	-8.0 dBm <sup>2)</sup>
Wavelength range	1100 – 1650 nm
DDM	Yes
MSA compliance	SFP MSA SFF-8472

<sup>2)</sup> Average power

<sup>3)</sup> @ STM-4/OC12 & BER 10<sup>-12</sup>

<sup>4)</sup> @ STM-1/OC3 & BER 10<sup>-12</sup>

<sup>5)</sup> @ 100M FE & BER 10<sup>-12</sup>



## ORDERING INFORMATION

Ordering number	Description
SO-SFP-622M-L160D-C47	SFP, 622Mbps, CWDM, DDM, 41dB, 160km, 1470nm
SO-SFP-622M-L160D-C49	SFP, 622Mbps, CWDM, DDM, 41dB, 160km, 1490nm
SO-SFP-622M-L160D-C51	SFP, 622Mbps, CWDM, DDM, 41dB, 160km, 1510nm
SO-SFP-622M-L160D-C53	SFP, 622Mbps, CWDM, DDM, 41dB, 160km, 1530nm
SO-SFP-622M-L160D-C55	SFP, 622Mbps, CWDM, DDM, 41dB, 160km, 1550nm
SO-SFP-622M-L160D-C57	SFP, 622Mbps, CWDM, DDM, 41dB, 160km, 1570nm
SO-SFP-622M-L160D-C59	SFP, 622Mbps, CWDM, DDM, 41dB, 160km, 1590nm
SO-SFP-622M-L160D-C61	SFP, 622Mbps, CWDM, DDM, 41dB, 160km, 1610nm

## GENERAL DEFINITIONS

Technology:	Grey; Transceiver type for non-WDM applications. Electrical or optical. CWDM; Transceiver type for CWDM applications using G.694.2 channel grid. DWDM; Transceiver type for DWDM applications using G.694.1 channel grid. BiDi; Transceiver pair using two different wavelength channels operating on a single-fiber.
Transmission Media:	DAC: Direct Attach Cable (DAC). Electrical or optical cable with attached connectors. Type of fiber, e.g. Multimode (MM) or Singlemode (SM). Number of and connector type within brackets (e.g. 2x LC, 1x MPO).
Typical reach:	Nominal distance performance based on dispersion and power budget properties, i.e. w/o dispersion compensation and optical amplification.
Bit rate range:	Supported bit rate range in Gigabit or Megabit per second (Gbps or Mbps).
Protocols:	Protocols within supported bit rate range.
Nominal wavelength:	Typical wavelength from transmitter.
Interface standards:	Referenced interface standards e.g. IEEE 802.3 standard for 10GbE services.
Power budget:	Min and max power budget between Transmitter and Receiver.
Dispersion tolerance/penalty:	Maximum amount of tolerated dispersion and required reduction of power budget to maintain stipulated Bit Error Rate (BER) and at a given bit rate.
Temperature range:	Max operating case temperature range. Commercial temperature range (C-temp): 0°C to +70°C (32°F to +158°F) Extended temperature range (E-temp): typically -20°C to +75°C (-4°F to +167°F) Industrial temperature range (I-temp): -40°C to +85°C (-40°F to +185°F)
Power consumption:	Worst case power consumption. Will vary over temperature.
Transmitter Output power:	Average output power. Provided in min and max values.
Receiver minimum input power:	Minimum average input power at specified BER, normally 1E <sup>-12</sup> .
Receiver max input power:	Maximum average input power giving a BER, normally 1E <sup>-12</sup> .
DDM:	Digital Diagnostic Monitoring functionality as defined in SFF-8472 MSA.

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