

# SO-SFP-155M-L270D-CXX

SFP, 100/155Mbps, CWDM, DDM, 50dB, 270 km, 1470nm-1610nm (8ch)

## OVERVIEW

The SO-SFP-155M-L270D-Cxx is a high performance CWDM transceiver for 155 Mbps SDH/SONET and Fast Ethernet services (100M). The optical performance provides a bridgeable distance of up to 270 km. The power budget is 50dB.

The transceiver is available in 8 CWDM wavelengths, spanning from 1470nm to 1610nm 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

<b>Technology</b>	CWDM SFP
<b>Transmission media</b>	SM (2x LC)
<b>Typical reach</b>	270 km
<b>Nominal wavelength</b>	1470 nm - 1610 nm (8ch)
<b>Bit rate range</b>	125 – 155.5 Mbps
<b>Protocols</b>	Eth: 100M Ethernet (FE) SDH/SONET: STM-1/OC-3
<b>Power budget</b>	18 - 50 dB <sup>1)</sup>
<b>Temperature range</b>	0°C to +70°C
<b>Power consumption</b>	< 1.0W

<b>Transmitter data</b>	<b>Output power:</b>	Min: +5.0 dBm Max: +8.0 dBm
	<b>Tx wavelength:</b>	1470 - 1610 nm in 20nm steps (G.694.2)
<b>Receiver data</b>	<b>Minimum input power:</b>	-45.0 dBm <sup>1)</sup>
	<b>Overload (max power):</b>	-10.0 dBm
	<b>Wavelength range:</b>	1260 - 1620 nm
<b>DDM</b>		Yes
<b>MSA compliance</b>		SFP-MSA SFF-8472

<sup>1)</sup> @ 155 Mbps and BER 1E-10

### Regulatory compliance

<b>UL/Safety</b>	IEC-60825, FDA 21 CFR 1040.10 & 1040.11 Class 1 laser.
<b>RoHS</b>	Compliant

<b>Storage temp.</b>	-40°C to +85°C
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**Note! See “Definitions” below.**

## ORDERING INFORMATION

Part number	Description
SO-SFP-155M-L270D-C47	SFP STM1/OC3 100M Eth CWDM 270km 1470nm
SO-SFP-155M-L270D-C49	SFP STM1/OC3 100M Eth CWDM 270km 1490nm
SO-SFP-155M-L270D-C51	SFP STM1/OC3 100M Eth CWDM 270km 1510nm
SO-SFP-155M-L270D-C53	SFP STM1/OC3 100M Eth CWDM 270km 1530nm
SO-SFP-155M-L270D-C55	SFP STM1/OC3 100M Eth CWDM 270km 1550nm
SO-SFP-155M-L270D-C57	SFP STM1/OC3 100M Eth CWDM 270km 1570nm
SO-SFP-155M-L270D-C59	SFP STM1/OC3 100M Eth CWDM 270km 1590nm
SO-SFP-155M-L270D-C61	SFP STM1/OC3 100M Eth CWDM 270km 1610nm

## 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. DAC: Direct Attach Cable. Electrical or optical cable with attached connectors.
Transmission Media:	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. Excluding any dispersion penalty.
Dispersion tolerance/penalty:	Maximum amount of tolerated dispersion and required reduction of power budget to maintain BER better than $1E^{-12}$ . Defined at a specific bit rate.
Temperature range:	Max operating case temperature range. Standard temperature range: Typically 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.
Transmitter Output power:	Average output power. Provided in min and max values.
Receiver minimum input power:	Minimum average input power at specified BER, normally $1E^{-12}$ .
Receiver max input power:	Maximum average input power at specified BER, normally $1E^{-12}$ .
DDM:	Digital Diagnostic Monitoring functionality as defined in SFF-8472 MSA.