

SO-SFP-100BASE-L160D-CXX

SFP, 100Base, CWDM, DDM, 37dB, 160 km, 1470nm – 1610nm (8ch)

OVERVIEW

The SO-SFP-100BASE-L160D-Cxx is a CWDM transceiver for Fast Ethernet (100M) and STM-1/OC-3 services. The optical performance provides a bridgeable distance of up to 160 km.

The transceiver is available in 8 CWDM wavelength versions, 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

Technology	CWDM SFP
Transmission media	SM (2x LC)
Typical reach	160 km
Nominal wavelength	1470 nm - 1610 nm (8ch)
Bit rate range	125 – 155.5 Mbps
Protocols	Eth: 100M Ethernet (FE) SDH/SONET: STM-1/OC-3
Power budget	17 - 37 dB ¹⁾
Dispersion tolerance	3200 ps/nm
Dispersion penalty	1 dB
Temperature range	0°C to +70°C
Power consumption	< 1.0W

Transmitter data	Output power:	Min: +2.0 dBm Max: +7.0 dBm
	Tx wavelength:	1470 - 1610 nm in 20nm steps (G.694.2)
Receiver data	Minimum input power:	-35.0 dBm ¹⁾
	Overload (max power):	-10.0 dBm
	Wavelength range:	1260 - 1620 nm
DDM		Yes
MSA compliance		SFP-MSA SFF-8472

¹⁾ @ 155 Mbps

Regulatory compliance

EMC CE	EN 55022:2010 EN 55024:2010
UL/Safety	UL 60950-1
FCC	47 CFR PART 15 OCT, 2013
RoHS	RoHS 6
TUV	EN 60950-1:2006+A11+A1+A12+A2 EN 60825-1:2014 EN 60825-2:2004+A1+A2

Storage temp.	-40°C to +85°C
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Note! See "Definitions" below.

ORDERING INFORMATION

Part number	Description
SO-SFP-100Base-L160D-C47	SFP, 100Base, CWDM, DDM, 37dB, 160km, 1470nm
SO-SFP-100Base-L160D-C49	SFP, 100Base, CWDM, DDM, 37dB, 160km, 1490nm
SO-SFP-100Base-L160D-C51	SFP, 100Base, CWDM, DDM, 37dB, 160km, 1510nm
SO-SFP-100Base-L160D-C53	SFP, 100Base, CWDM, DDM, 37dB, 160km, 1530nm
SO-SFP-100Base-L160D-C55	SFP, 100Base, CWDM, DDM, 37dB, 160km, 1550nm
SO-SFP-100Base-L160D-C57	SFP, 100Base, CWDM, DDM, 37dB, 160km, 1570nm
SO-SFP-100Base-L160D-C59	SFP, 100Base, CWDM, DDM, 37dB, 160km, 1590nm
SO-SFP-100Base-L160D-C61	SFP, 100Base, CWDM, DDM, 37dB, 160km, 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.