

SO-SFP-622M-L120D-Cxx

SFP, 622Mbps, CWDM, DDM, 34dB, 120 km, 1470nm-1610nm (8ch)

OVERVIEW

The SO-SFP-622M-L120D-Cxx is a CWDM 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 120 km on SM G.652 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 channels 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. A 1310nm version is also provided for Optical Supervisory Channel (OSC) applications. 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 | 120km ¹⁾ |
| Nominal wavelengths | 1311, 1471 – 1610 nm (8+1ch) |
| Bit rate range | 125 – 622.080 Mbps |
| Protocol support | FE STM-1 / OC3 STM-4 / OC12 |
| Power budget | 15 – 34 dB |
| Optical path penalty | 1 dB |
| Power consumption | < 1 W |
| Operating temperature | 0°C to +70°C |
| Storage temperature | -40°C to +85°C |

¹⁾ Dependent on actual optical path attenuation.

| Parameter | Value |
|--------------------------|--|
| Transmitter data: | |
| Output power | Min: +2.0 dBm ²⁾ Max: +7.0 dBm ²⁾ |
| Transmit wavelength | 1311, 1471 to 1611nm (G.694.2) |
| Receiver data: | |
| Minimum input power | -32 dBm ^{2) 3)} -33 dBm ^{2) 4)} -34 dBm ^{2) 5)} |
| Overload (max power) | -8.0 dBm ²⁾ |
| Wavelength range | 1100 – 1650 nm |
| DDM | Yes |
| MSA compliance | SFP MSA SFF-8472 |

²⁾ Average power

³⁾ @ STM-4/OC12 & BER 10⁻¹²

⁴⁾ @ STM-1/OC3 & BER 10⁻¹²

⁵⁾ @ 100M FE & BER 10⁻¹²



ORDERING INFORMATION

| Ordering number | Description |
|-----------------------|--|
| SO-SFP-622M-L120D-C31 | SFP, 622Mbps, CWDM, DDM, 34dB, 120km, 1310nm |
| SO-SFP-622M-L120D-C47 | SFP, 622Mbps, CWDM, DDM, 34dB, 120km, 1470nm |
| SO-SFP-622M-L120D-C49 | SFP, 622Mbps, CWDM, DDM, 34dB, 120km, 1490nm |
| SO-SFP-622M-L120D-C51 | SFP, 622Mbps, CWDM, DDM, 34dB, 120km, 1510nm |
| SO-SFP-622M-L120D-C53 | SFP, 622Mbps, CWDM, DDM, 34dB, 120km, 1530nm |
| SO-SFP-622M-L120D-C55 | SFP, 622Mbps, CWDM, DDM, 34dB, 120km, 1550nm |
| SO-SFP-622M-L120D-C57 | SFP, 622Mbps, CWDM, DDM, 34dB, 120km, 1570nm |
| SO-SFP-622M-L120D-C59 | SFP, 622Mbps, CWDM, DDM, 34dB, 120km, 1590nm |
| SO-SFP-622M-L120D-C61 | SFP, 622Mbps, CWDM, DDM, 34dB, 120km, 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. DAC: Direct Attach Cable (DAC). 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. |
| 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 ⁻¹² . |
| Receiver max input power: | Maximum average input power giving a BER, normally 1E ⁻¹² . |
| DDM: | Digital Diagnostic Monitoring functionality as defined in SFF-8472 MSA. |

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