

DS-16G-ER-CXX

SFP+, 16/8/4 Gbps FC/FICON, CWDM, DDM, 13dB, 40km, 1470nm-1610nm (8ch)



OVERVIEW

The DS-16G-ER-Cxx is a versatile CWDM transceiver in SFP+ form-factor supporting a wide range of Fiber Channel (FC) services (4G to 16G). The transceiver has been layer-1 tested and approved by Cisco.

The transceiver is provided in 8 channel versions at the CWDM grid as specified in the ITU-T 694.2 standard.

The optical performance provides a bridgeable distance of up to 40km (without dispersion compensation) for 16G FC. This transceiver provides digital diagnostic functions via a 2-wire serial interface as defined by the SFF-8472 specification.

The transceiver module is compliant to RoHS-6/6.

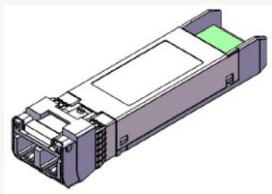
TECHNICAL DATA

Technology	CWDM SFP+
Transmission media	SM (2x LC)
Typical reach	40 km
Nominal wavelength	1470 - 1610 nm (8ch)
Bit rate range	4.25 – 14.025 Gbps
Protocols	FC: 16G FC 8G FC 4G FC
Power budget	2 – 13 dB ¹⁾²⁾
Dispersion tolerance	800 ps/nm
Dispersion penalty	Max: 2 dB
Temperature range	0°C to +70°C
Power consumption	< 1.9 W

Transmitter data	Output power (avg):	Min: -1.0 dBm Max: +3.0 dBm
	Tx wavelength:	1471 - 1611 nm in 20nm steps (G.694.2)
Receiver data	Minimum input power:	-14.0 dBm ¹⁾²⁾
	Max input power:	+1.0 dBm
	Wavelength range:	1260 – 1620 nm
DDM		Yes
MSA compliance		SFF+ MSA

¹⁾ @ 14.025 Gbps (16G FC)

²⁾ @ BER < 1E-12 using PRBS 2³¹-1



Regulatory compliance

RoHS	RoHS 6
Safety	EN 60825-1 Class 1 laser product

Storage temp.	-40°C to 85°C
----------------------	---------------

ORDERING INFORMATION

Part number	Description
DS-16G-ER-C47	SFP+, 16/8/4 Gbps FC/FICON, CWDM 1470nm, DDM, 13dB, 40km
DS-16G-ER-C49	SFP+, 16/8/4 Gbps FC/FICON, CWDM 1490nm, DDM, 13dB, 40km
DS-16G-ER-C51	SFP+, 16/8/4 Gbps FC/FICON, CWDM 1510nm, DDM, 13dB, 40km
DS-16G-ER-C53	SFP+, 16/8/4 Gbps FC/FICON, CWDM 1530nm, DDM, 13dB, 40km
DS-16G-ER-C55	SFP+, 16/8/4 Gbps FC/FICON, CWDM 1550nm, DDM, 13dB, 40km
DS-16G-ER-C57	SFP+, 16/8/4 Gbps FC/FICON, CWDM 1570nm, DDM, 13dB, 40km
DS-16G-ER-C59	SFP+, 16/8/4 Gbps FC/FICON, CWDM 1590nm, DDM, 13dB, 40km
DS-16G-ER-C61	SFP+, 16/8/4 Gbps FC/FICON, CWDM 1610nm, DDM, 13dB, 40km

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. 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. 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.