

SO-CFP-SR10

CFP, 100GBASE-SR10, MM, DDM, 1.9dB, 100m, MPO

TC0005-M85C-SO

The SO-CFP-SR10 is a CFP (C Form-factor Pluggable) transceiver for 100Gbps Ethernet (100GBASE-SR10) applications. It is intended for use in inter- and intra-connect applications within data centers between switches, routers, storage equipment etc. The optical performance is in accordance with the 100GBASE-SR10 standard, i.e. for optical distances up to 150m over a MultiMode (MM) OM4-grade ribbon fiber.

SO-CFP-SR10 uses 10x channels @ 10.3125Gbps to transport an 100G Ethernet. These lanes can also be used to transport 10x 10GbE services via a break-out cable. The transceiver has a single 24/20 lane optical fiber MPO-connector.

TECHNICAL DATA

Parameter	Value
Technology	Grey CFP
Transmission media	MM (1x MPO)
Typical reach	100m @ OM3, 150m @ OM4
Nominal wavelength	10x 850nm
Interface standards	100GBASE-SR10
Bit rate support	103.125Gbps ¹⁾ 10.3125Gbps ²⁾
Protocol support	100GbE 10x 10GbE
Power budget	0 – 1.9dB
Power consumption	< 8W
Operating temperature	0°C to +70°C
Storage temperature	-40°C to +85°C

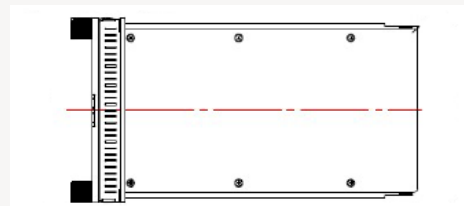
¹⁾ Aggregated line rate 100GbE

²⁾ Per lane

³⁾ Average power

⁴⁾ Specified at BER 1x10⁻¹²

Parameter	Value
Transmitter data:	
Output power, per lane 100GbE	Min: -7.6dBm ³⁾ Max: +2.4dBm ³⁾
Transmit wavelength	840 – 860nm
Receiver data:	
Minimum input power, per lane 100GbE	-9.5dBm ^{3) 4)}
Overload (max power)	+2.4dBm ^{3) 4)}
Wavelength range	840 – 860nm
DDM	Yes
MSA compliance	CFP MSA's



Safety/regulatory compliance:

TUV/UL/FDA (contact Smartoptics for latest certification information)

RoHS compliance

ORDERING INFORMATION

Ordering number	Description
SO-CFP-SR10	CFP, 100G Ethernet SR10, MM 10x 850nm, 100m, 1.8dB, MPO

GENERAL DEFINITIONS

Parameter	Description
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 cable with attached connectors. AOC: Active Optical Cable. 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 typical fiber dispersion, fiber loss and power budget properties, i.e. w/o dispersion compensation and optical amplification. Actual distance is dependent on actual optical path loss and dispersion properties.
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(s) from transmitter.
Interface standards	Referenced interface standards or MSA's, e.g. IEEE 802.3 standard for 10GbE services or 100G 4WDM-10 etc.
Power budget	Min and max power budget between Transmitter and Receiver w/o optical path penalties.
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. Standard 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 $1E^{-12}$. Note that some protocols require FEC to achieve sufficient BER.
Receiver max input power	Maximum average input power giving a BER, normally $1E^{-12}$.
DDM	Digital Diagnostic Monitoring functionality as defined in e.g. SFF-8472 MSA.

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