SO-QSFP28-SR4

QSFP28, 100GBASE-SR4, 850nm, MM, DDM, 4.3dB, 100m@OM4, MPO

OVERVIEW

The SO-QSFP28-SR4 is a QSFP28 form-factor transceiver for 100 Gbps Ethernet (100GBASE-SR4) 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-SR standard, i.e. for optical distances up to 100m over a MultiMode (MM) OM4-grade ribbon fiber.

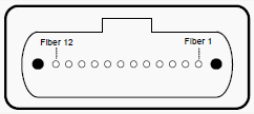
SO-QSFP28-SR4 uses 4x channels @ 25.78 Gbps to transport a 100G Ethernet signal. The transceiver has a single 12 lane optical fiber MPO/MTP-connector interface.

TECHNICAL DATA

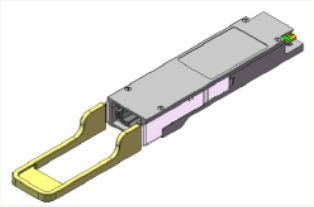
Technology		Grey QSFP28
Transmission media		MM (1x MPO)
Typical reach		70 m @ OM3 100 m @ OM4
Nominal wavelength		850 nm
Interface standards		100GBASE-SR4
Bit rate range		103.125 Gbps [1] 25.78 Gbps [2]
Protocols	Eth:	100GbE
Power budget		0 - 4.3 dB
Temperature range		0°C to +70°C
Power consumption		< 3.5W

Transmitter data	Output power, per lane	Min: -6.0 dBm [3] Max: +2.4dBm [3]
	Wavelength range:	840 – 860 nm [3]
Receiver data	Minimum input power:	-10.3 dBm [3]
	Overload (max power):	+2.4 dBm [3]
	Wavelength range:	840 – 860 nm [3]
DDM		Yes
MSA compliance		QSFP28 MSA

[1] Aggregated line rate (100GbE)
[2] Per channel line rate
[3] Per channel/lane



MPO/MPT connector



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

Note! See "Definitions" below.

MPO (Multi-fiber Push On) is an optical connector for ribbon cables with four to twenty-four fibers.
MTP is a specific brand of an MPO connector.

Note: IEEE 802.3bx stipulates that 100GBASE-SR4 interfaces requires FEC. Host equipment normally enable FEC automatically when using SR4' type transceivers.

ORDERING INFORMATION

Part number	Description
SO-QSFP28-SR4	QSFP28, 100GBASE-SR4, 850nm, MM, DDM, 4.3dB, 100m@OM4, MPO

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. 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 giving a BER, normally $1E^{-12}$.
DDM:	Digital Diagnostic Monitoring functionality as defined in SFF-8472 MSA.