

SO-QSFP-SR4

QSFP+, 40GBase, 850nm, MM, 4.5dB, 100m@OM3, 150m@OM4, MPO

OVERVIEW

The SO-QSFP-SR4 is a QSFP+ (Quad Small Form-factor Pluggable Plus) transceiver for 40 Gbps applications where the transport is made using four channels at 10 Gbps. It is intended for use in intra-connect applications in data centers between switches, routers, storage equipment etc. The transceiver can also be used for 10GbE-LAN interconnect applications, providing a higher density as compared to four individual 10G connections using e.g. SFP+ transceivers.

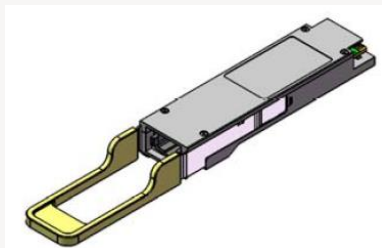
The SO-QSFP-SR4 provides transport over an MPO/MTP 12 or 8 ribbon fiber cable up to 150 m when using an OM4-grade MultiMode (MM) fiber.

TECHNICAL DATA

Technology	Grey QSFP+
Transmission media	MM (1x MPO)
Typical reach	150 m @ OM4 fiber 100 m @ OM3 fiber
Nominal wavelength	850 nm
Interface standards	40GBASE-SR4
Bit rate range	4x 10.3125 Gbps
Protocols	Eth: 40GbE 4x 10GbE-LAN
Power budget	0 - 4.5 dB
Dispersion penalty	3,5 dB
Temperature range	0°C to +70°C
Power consumption	< 1.5W

Transmitter data	Output power:	Min: -5.0 dBm ¹⁾ Max: +2.4 dBm ¹⁾
	Tx wavelength:	Min: 840 nm Max: 860 nm
Receiver data	Minimum input power:	-9.5 dBm ¹⁾
	Overload (max power):	+2.4 dBm
	Wavelength range:	840 - 860 nm
DDM		Yes
MSA compliance		QSFP+ MSA SFF-8436

¹⁾ Per lane



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.

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.

ORDERING INFORMATION

Part number	Description
SO-QSFP-SR4	QSFP+, 40GBase, 850nm, MM, 4.5dB, 100m@OM3, 150m@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. 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.