SO-QSFP-IR4-PSM

QSFP+, 40G Ethernet IR4, SM, 1310nm, 2km, 7.4dB, MPO

OVERVIEW

The SO-QSFP-IR4-PSM is a QSFP+ (Quad Small Form-factor Pluggable Plus) transceiver for 40 Gbps applications such as inter- and intra-connect within and between data centers between switches, routers, storage equipment etc.

The SO-QSFP-IR4-PSM converts 4x 10 Gbps flows into four channels at 1310nm up to 2 km over a SingleMode (SM) fiber.

The transceiver provides digital diagnostic functions via a 2-wire serial interface as defined by the SFF-8472 specification.
The SO-QSFP-IR4-PSM provides transport over an MPO/MTP 12 or 8 ribbon fiber cable.

TECHNICAL DATA

Technology		Grey QSFP+
Transmission media		SM (1x MPO)
Typical reach		2 km
Nominal wavelength		1310 nm
Interface standards		40GBASE-IR4
Bit rate range		41.25 Gbps [1] 10.3125 Gbps [2]
Protocols	Eth:	40GbE
Power budget		0 – 7.4 dB
Temperature range		0°C to +70°C
Power consumption		< 3.5W

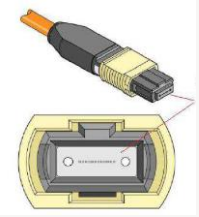
Transmitter data	Output power, per lane	Min: -5.2 dBm [3] Max: + 0.5dBm [3]
	Tx wavelength (nm):	1260 – 1360
Receiver data	Minimum input power:	-12.6dBm [3]
	Overload (max power):	+0.5 dBm [3]
	Wavelength range:	1260 – 1360
DDM		Yes
MSA compliance		QSFP+ MSA SFF-8436

[1] Aggregated line rate
[2] Per channel line rate
[3] Per lane

Regulatory compliance
The product complies with the RoHS, CE, TUV, and FCC certifications

Storage temp.	-40°C to +85°C

Note! See “Definitions” below.



8-degree contact face

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: An MPO/MTP connector with 8-degree Angled Physical Contact (APC) shall be used with this product to minimize MPO/MTP connection induced reflections.

ORDERING INFORMATION

Part number	Description
SO-QSFP-IR4-PSM	QSFP+, 40G Ethernet IR4, SM, 1310nm, 2km, 7.4dB, 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.