INDEPENDENT DATA SOLUTIONS

smartoptics

DATASHEET 5.3

SO-QSFP-40G-ACUXM

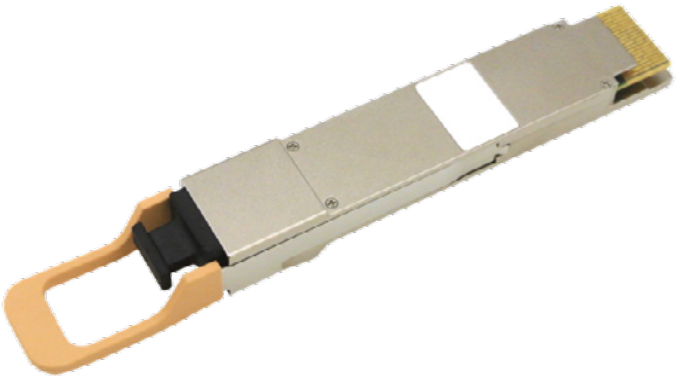
QSFP+, 40GBase, Direct Attach Cable (DAC), AWG30/28, 3 to 10m, active

OVERVIEW

The SO-QSFP-40G-ACUxM is an active Direct Attach Cable (DAC) solution of Twinax type, i.e. a copper cable similar to coaxial cable, but with two inner conductors instead of one. A typical application for a SO-QSFP-40G-ACUxM cables is to establish a 40 Gbps link between QSFP+ ports on switches within racks and across adjacent racks.

The SO-QSFP-40G-ACUxM is provided in lengths from 3 to 10 meters (9.8 to 32.8 ft).

The thickness of the cable is defined by the AWG (American Wire Gauge) rating value.

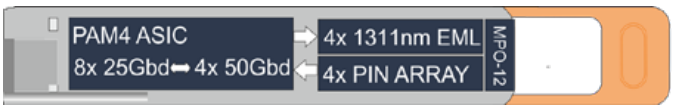


TECHNICAL DATA

Parameter	Value
Technology	Grey QSFP-DD
Transmission media	SM (1x MPO12)
Typical reach	500m
Nominal wavelengths	4x 1311 nm
Interface standards	400GBASE-DR4
Bit rate support	425 Gbps [1]
	53.125 Gbps [2]
Protocol support	400GbE
Power budget	0 – 3.0 dB
Power consumption	< 10W
Operating temperature	0°C to +70°C
Storage temperature	-40°C to +85°C

[1] Aggregated line rate 400GbE
[2] Line baud rate per lane
[3] Average power, per lane

Parameter	Value
Transmitter data:	
Output power, per lane	Min: -2.9 dB [3]
	Max: +4.0 dBm [3]
Transmit wavelength	1304.5 – 1317.5 nm
Receiver data:	
Minimum input power	-5.9 dBm 3)
Overload (max power)	+4.0 dBm 3)
Wavelength range	1304.5 – 1317.5 nm
DDM	Yes
MSA compliance	QSFP-DD MSA
	CMIS3.0 / CMIS4.0
Safety / regulatory compliance	
TUV/UL/FDA (contact Smartoptics for latest certification information)	
RoHS compliance	



GENERAL 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.
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): 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) ndustrial 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.
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.