

Q40G-4S-AOC

QSFP+ to 4 SFP+ 40G Active Optical Cable 40GBase AOC

1. Product overview

GLOBALfiber Q40G-4S-AOC is an active optical cable assembly for optical interconnection between compatible host ports.

2. Key features

QSFP+ to 4 x SFP+; 850 nm VCSEL / PIN; up to 300 m OM3. Power: QSFP+ <1.4 W; SFP+ <0.8 W.

3. Applications

40G Ethernet breakout; Fibre Channel; InfiniBand QDR/SDR/DDR; servers, storage and HPC.

4. Technical data

Parameter	Specification
QSFP+ interface	SFF-8436 / SFF-8472; 40 Gb/s; BER <10 ⁻¹² ; supply 3.3 V; 180 mA per end typical
SFP+ interface	SFF-8431/8432/8472; 1-10.3125 Gb/s; BER <10 ⁻¹² ; supply 3.3 V; 455 mA maximum

5. Recommended operating conditions

Parameter	Specification
Power consumption	QSFP+ <1.4 W; SFP+ <0.8 W
Maximum Supply Voltage	Min: 3.135; Typ.: 3.3; Max: 3.465; Unit: V
Operating Case Temperature	Min: 0; Max: 70; Unit: °C



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6. Optical characteristics

Parameter	Specification
TX Center Wavelength	Min: 840; Typ.: 850; Max: 860; Unit: nm
RMS spectral width	Min: -7.5; Max: 0.65; Unit: nm
Average launch power, each lane	Max: 2.5; Unit: dBm
Difference in launch power between any two lanes (OMA)	Max: 4; Unit: dB
Extinction Ratio	Min: 3; Unit: dB
TX Peak power, each lane	Max: 4; Unit: dBm
Transmitter and dispersion penalty (TDP), each lane	Max: 3.5; Unit: dB
Average launch power of OFF transmitter, each lane	Max: -30; Unit: dB
Stressed receiver sensitivity in OMA, each lane	Min: 840; Typ.: 850; Max: 860; Unit: nm
Maximum Average power at receiver input, each lane	Max: -5.4; Unit: dBm
Receiver Reflectance	Max: 2.4; Unit: dBm
RX Peak power, each lane	Max: -12; Unit: dB
LOS Assert	Unit: dBm
LOS De-Assert - OMA	Max: -7.5; Unit: dBm
LOS Hysteresis	Unit: dB; value not specified

7. Digital diagnostics and management

I2C management and DDM; receiver output pre-emphasis.

8. Safety and regulatory

QSFP+ SFF-8436; SFP+ SFF-8431/8432; SFF-8472; RoHS-6. Use ESD-safe handling and observe the stated cable bend limits.

9. Ordering information

Parameter	Specification
GLOBALfiber product number	Q40G-4S-AOC
Product description	QSFP+ to 4 SFP+ 40G Active Optical Cable 40GBase AOC
Selectable lengths	1 m, 2 m, 3 m, 5 m, 7 m, 10 m
Available coding	Arista, Cisco, Custom, Dell, Extreme, Generic, Huawei, Juniper, NVIDIA-Mellanox(ETH)

Confirm equipment model, port mode and software version when ordering. Coding availability does not guarantee support for every platform or mode.

Cable variants documented in the technical source:

Parameter	Specification
1m, 2m, 3m, 5m, 7m, 10m, 15m, 20m, 25m, 30m	Data Rate: Up to 40G; Wire Gauge: AOC Cable; Connector Type: QSFP+ to 4SFP+; Temp. Range: 0-70 °C; Cable Jacket: OFNP