Q40G-4S-DAC

QSFP+ 40G to 4 SFP+ Twinax cable DAC Passive 40GBase

1. Product overview

GLOBALfiber Q40G-4S-DAC is a passive direct attach copper cable assembly for short-distance host interconnection.

2. Key features

QSFP+ to 4 x SFP+; up to 10.3125 Gb/s per SFP+ channel. Power: 0.02 W typical.

3. Applications

10G/40G Ethernet; InfiniBand SDR/DDR/QDR; SAS/Fibre Channel; ATM/SDH/SONET; rack and shelf interconnects.

4. Technical data

Parameter	Specification
Min. Dielectric Withstand Voltage	300 VDC
Insulation Resistance	1000 Mohms
Current Rating	0.5 Amp Min/Signal Contact
Operating Temperature	0 to 70°C
Flammability Rating (Plastics)	UL 94
Green Features	RoHS, Lead-Free
Shield	Braid/Foil
Marking	Mfg Name, Part#, Date Code
Backshell Material	Nickel-Plated Zinc Diecast
Contact Material	PCB with Gold-Plated Pads
Latch	Positive Latching w/Pull Tab
Insertion Force	QSFP+: 40N Max. SFP+ 30N Max
Withdrawal Force	QSFP+: 30N Max. SFP+ 20N Max
Retention Force	90N Min
Durability	QSFP+: 250 Cycles Min. SFP+ 50 cycles Min.
Conductor	Solid
Wire Gauge	AWG30/AWG26/AWG24
Impedence	100± 5 ohms
Construction	Twin-axial
Cable OD	AWG 30 : 4.2mm
Cable OD (continued)	AWG 26 : 5.2mm
Cable OD (continued)	AWG 24 : 6.0mm
Jacket Type	PVC
Bend Radius	5X Cable OD -Single, 10X Cable OD - Repeated

Parameter	Specification
Differential impedance	24AWG: 100±5ohm @ TDR; 26AWG: 100±5ohm; 28AWG: 100±5ohm; 30AWG: 100±5ohm @ TDR
Mutual capacitance	All listed gauges: 14 pF/ft nominal
Time delay	24AWG: 1.31ns/ft nominal, (4.3ns/m) nominal; 26AWG: 1.35ns/ft nominal; 28AWG: 1.35ns/ft nominal; 30AWG: 1.35ns/ft nominal, (4.3ns/m) nominal
Time delay skew (within pairs)	24AWG: 80ps/10m maximum; 26AWG: 120ps/8.5m maximum; 28AWG: 120ps/7m maximum; 30AWG: 50ps/5.5m maximum
Time delay skew (between pairs)	24AWG: 350ps/10m maximum; 26AWG: 500ps/8.5m maximum; 28AWG: 500ps/7m maximum; 30AWG: 350ps/5.5m maximum
Attenuation	24AWG: 10dB/10m maximum @ 1.25Ghz; 26AWG: 10dB/8.5m maximum @ 1.25Ghz; 28AWG: 10dB/7m maximum @ 1.25Ghz; 30AWG: 8.4dB/5.5m maximum @ 1.25Ghz
Conductor DC Resistance	24AWG: 0.026ohm/ft maximum @20°C; 26AWG: 0.04ohm/ft maximum @20°C; 28AWG: 0.06ohm/ft maximum @20°C; 30AWG: 0.01ohm/ft maximum @20°C
Conductors(two pair)	24 / 26 / 28 / 30 AWG solid silver-plated copper, matching cable gauge
Insulation	All listed gauges: foam polyolefin
Pair drain wire	Cable 24 / 26 / 28 / 30 AWG: drain 26 / 28 / 30 / 30 AWG solid silver-plated copper
Overall cable shield	All listed gauges: aluminium/polyester tape, 125% coverage; tinned copper braid, 38 AWG, 85% coverage
Outer diameter	24AWG: 6.0mm; 26AWG: 5.2mm; 28AWG: 4.7mm; 30AWG: 4.2mm

5. Recommended operating conditions

Parameter	Specification
Power consumption	0.02 W typical
Operating Case Temperature	Min: 0; Max: 70; Unit: °C
Relative Humidity	Max: 85; Unit: %
Supply Voltage	Min: 3.135; Typ.: 3.3; Max: 3.465; Unit: v
Power Dissipation	Max: 1.5; Unit: W

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6. Optical characteristics

Not applicable. This is a passive copper cable; optical wavelength, launch power and receiver sensitivity do not apply.

7. Digital diagnostics and management

No optical diagnostics apply to this passive copper assembly.

8. Safety and regulatory

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

9. Ordering information

Parameter	Specification
GLOBALfiber product number	Q40G-4S-DAC
Product description	QSFP+ 40G to 4 SFP+ Twinax cable DAC Passive 40GBase
Selectable lengths	1 m, 1,5 m, 2 m, 3 m, 5 m
Available coding	Arista, Cisco, Custom, Dell, Extreme, Fortinet, 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
0.5m, 1m, 2m, 3m	Data Rate: Up to 40G; Wire Gauge: AWG30; Connector Type: QSFP+ to 4SFP+; Temp. Range: 0-70 °C; Cable Jack et: PVC
4m, 5m, 7m	Data Rate: Up to 40G; Wire Gauge: AWG26; Connector Type: QSFP+ to 4SFP+; Temp. Range: 0-70 °C; Cable Jack et: PVC