

Q40G-DAC

QSFP+ 40G Copper Twinax cable DAC Passive 40GBase

1. Product overview

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

2. Key features

QSFP+ to QSFP+; four channels; 1-10.3 Gb/s per channel; 41.2 Gb/s aggregate. Power: <2 W.

3. Applications

10G/40G Ethernet; 2G/4G/8G/10G Fibre Channel; storage and data center networking.

4. Technical data

Parameter	Specification	Parameter	Specification
Min. Dielectric Withstand Voltage	300 VDC	Bend Radius (continued)	10X Cable OD -Repeated
Insulation Resistance	1000 Mohms	Differential impedance	24AWG: 100±5ohm @ TDR; 26AWG: 100±5ohm; 28AWG: 100±5ohm; 30AWG: 100±5ohm @ TDR
Current Rating	0.5 Amp Min/Signal Contact	Mutual capacitance	All listed gauges: 14 pF/ft nominal
Operating Temperature	0 to 70°C	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
Flammability Rating (Plastics)	UL 94	Time delay skew (within pairs)	24AWG: 80ps/10m maximum; 26AWG: 120ps/8.5m maximum; 28AWG: 120ps/7m maximum; 30AWG: 50ps/5.5m maximum
Green Features	RoHS, Lead-Free	Time delay skew (between pairs)	24AWG: 350ps/10m maximum; 26AWG: 500ps/8.5m maximum; 28AWG: 500ps/7m maximum; 30AWG: 350ps/5.5m maximum
Shield	Braid/Foil	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
Marking	Mfg Name, Part#, Date Code	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
Backshell Material	Nickel Plated Zinc Diecast	Conductors (two pair)	24 / 26 / 28 / 30 AWG solid silver-plated copper, matching cable gauge
Contact Material	PCB with Gold-Plated Pads	Insulation	All listed gauges: foam polyolefin
Plastic Material	PA66	Pair drain wire	Cable 24 / 26 / 28 / 30 AWG: drain 26 / 28 / 30 / 30 AWG solid silver-plated copper
Latch	Positive Latching w/Pull Tab	Overall cable shield	All listed gauges: aluminium/polyester tape, 125% coverage; tinned copper braid, 38 AWG, 85% coverage
Insertion Force	40N Max.	Outer diameter	24AWG: 6.0mm; 26AWG: 5.2mm; 28AWG: 4.7mm; 30AWG: 4.2mm
Withdrawal Force	30N Max.		
Retention Force	90N Min.		
Durability	50 Cycles		
Conductor	Solid		
Wire Gauge	AWG30, AWG28, AWG26, AWG24		
Impedence	100 +/-5 ohms		
Construction	Twinaxial		
Cable OD	AWG 30 : 4.2mm		
Cable OD (continued)	AWG 28 : 4.7mm		
Cable OD (continued)	AWG 26 : 9.2±0.3mm		
Cable OD (continued)	AWG 24 : 6.0mm		
Jacket Type	PVC		
Bend Radius	5X Cable OD -Single		

5. Recommended operating conditions

Parameter	Specification
Power consumption	<2 W
Operating Case Temperature	Min: 0; Max: 70; Unit: °C
Relative Humidity	Max: 85; Unit: %
Supply Voltage	Min: -0.3; Typ.: 3.3; Max: 3.6; Unit: v
Data Rate Per Lane	Min: 1; Max: 10.3; Unit: Gb/s

Subject to change without notice.
For more information visit globalfiber.no.

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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 MSA; SFF-8436; RoHS / lead-free. Use ESD-safe handling and observe the stated cable bend limits.

9. Ordering information

Parameter	Specification
GLOBALfiber product number	Q40G-DAC
Product description	QSFP+ 40G Copper Twinax cable DAC Passive 40GBase
Selectable lengths	0,5 m, 1 m, 2 m, 3 m, 5 m, 7 m
Available coding	Arista, Cisco, Custom, Dell, Extreme, Fortinet, Generic, HP, 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, 1.5m, 2m	Data Rate: Up to 40G; Wire Gauge: AWG30; Connector Type: Passive Copper; Temp. Range: 0-70°C; Cable Jacket: PVC
3m, 5m	Data Rate: Up to 40G; Wire Gauge: AWG26; Connector Type: Passive Copper; Temp. Range: 0-70°C; Cable Jacket: PVC
6m, 7m	Data Rate: Up to 40G; Wire Gauge: AWG24; Connector Type: Passive Copper; Temp. Range: 0-70°C; Cable Jacket: PVC