

Q400G-DAC4Q

QSFP-DD 400G to 4x100G QSFP56 Twinax Passive Breakout DAC

1. Product overview

GLOBALfiber Q400G-DAC4Q is a passive direct attach copper cable assembly for short-distance host interconnection.

2. Key features

QSFP-DD to 4 x QSFP56; passive copper breakout; PVC jacket. Power: <0.1 W.

3. Applications

400G to 4 x 100G Ethernet breakout.

4. Technical data

Parameter	Specification	Parameter	Specification
Current	0.5A per Contact	Mating Forces	No.: 1; Test Condition: A rate of 10mm per minute; QSFP-DD<90N, QSFP<60N
Voltage	30 vDC per Contact	Un-mating Forces	No.: 2; Test Condition: A rate of 10mm per minute; QSFP-DD<50N,QSFP<30N
LLCR	Test Condition: EIA 364-23, 20mVdc, 100mA; Less Than 2 ohms.	Latch strength	No.: 3; Test Condition: Pull to separate module from cage , Test with connector, cage & module (latch engaged); Minimum of an 125N force
Insulation Resistance	Test Condition: 100 Vdc; 10 Mohms Minimum between Adjacent Contacts	Bulk cable retention in module	No.: 4; Test Condition: Pull to separate bulk cable from module,Test with cable assembly only; Minimum of an 90N force
Dielectric Withstanding Voltage	Test Condition: 300 VDC Minimum for 1 Minutes; No Defect or Breakdown between Adjacent Contacts	Wire Flex	No.: 5; Test Condition: Flex cable 180°for 10 cycles at X/Y axis, 20 times/minutes, with an 1kg suspended weight. Type C EIA 364-41, test condition I.; No microsecond discontinuities are allowed.
Temperature Rise	Test Condition: Measure the Temperature Rise at the Rated Current after 96 hours(45 minutes ON/15 minutes OFF per hour).; Temperature Rise: +30°C _{MAX} .	Durability	No.: 6; Test Condition: Perform 50 unplug/plug cycles; No evidence of physical damage
Continuity	Test Condition: Verify the Continuous Electrical Path; No Open, Short, or High Resistance.	Cable Minimum Bend Radius	No.: 7; Test Condition: The cable is bent on time over the correct mandrel with 5 perpendicular, the Minimum bend Radius is 10x OD.; 1.No physical damage 2.Verify continuity and SI
SDD21&SDD12	-17.16 dB Min. @13.28 GHz; Notes: From 0.01 GHz-19GHz		
SDD11&SDD22	-16.5+2*sqrt(f)dB Max. @0.05GHz~4.1GHz -10.66+14*log(f/5.5)dB Max.@4.1GHz~10GHz; Notes: From 0.01 GHz-19GHz		
SCD21-SDD21	-10 dB Max. @0.01 GHz~12.89 GHz-27+(29/22)*f dB Max. @12.89 GHz~15.7 GHz -6.3 dB Max. @15.7 GHz~19 GHz; Notes: From 0.01 GHz-19GHz		

5. Recommended operating conditions

Parameter	Specification
Power consumption	<0.1 W
Operating case temperature	0 to +70°C
Supply voltage	3.3 V nominal



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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

CMIS revision 4.0 management.

8. Safety and regulatory

QSFP-DD MSA; SFF-8665; SFF-8436; CMIS 4.0; IEEE 802.3cd; RoHS2. Use ESD-safe handling and observe the stated cable bend limits.

9. Ordering information

Parameter	Specification
GLOBALfiber product number	Q400G-DAC4Q
Product description	QSFP-DD 400G to 4x100G QSFP56 Twinax Passive Breakout DAC
Selectable lengths	0,5 m, 1 m, 2 m, 3 m
Available coding	Arista, Cisco, Custom, Generic, 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
0.5 meter, 1 meter	Type: DAC; AWG: 30AWG; Tolerance: +0.05/-0 meter
1.5 meter, 2 meter, 2.5 meter, 3 meter	Type: DAC; AWG: 28AWG; Tolerance: +0.05/-0 meter