200G QSFP56 HDR to 2x100G QSFP56 HDR100 Breakout Passive Direct Attach Copper Cable

Features

- IBTA InfiniBand HDR compliant

- 200Gb/s HDR to 2x100Gb/s HDR100 data rate

- 4x 50Gb/s PAM4 modulation

- SFF-8665 compliant

- Operating case temperature 0-70°C

- Single 3.3V supply voltage

- BER (Bit Error Rate) 1E-15 with InfiniBand systems

- Hot pluggable

- RoHS compliant

- LSZH (Low Smoke Zero Halogen) jacket

- LF (Lead Free) HF (Halogen Free) PCB

- SFF-8636 compliant I^{2}C management interface

Description

The Q2Q56-200G-DACH splitter cables are high-speed, cost-effective alternatives to fiber optics in 200Gb/s InfiniBand HDR applications.

Q2Q56-200G-DACH cables provide connectivity between system units with a 200Gb/s HDR QSFP56 port on one side and two 100Gb/s HDR100 QSFP56 ports on the other side. The cable connects the data signals from each of the 2 dual copper pairs on the single QSFP56 (pair 1&2, 3&4) end to the dual copper pair of each of the QSFP56 (pair 1&2) ends on the multi-port side. Each QSFP56 port comprises an EEPROM providing product information, which can be read by the host system.

NADDOD's unique quality passive copper cable solutions provide power-efficient connectivity for short distance interconnects. It enables higher port bandwidth, density and configurability at a low cost and reduced power requirement in the data centers.

Rigorous cable production testing ensures best out-of-the box installation experience, performance and durability.

Absolute Maximum Ratings

Table1-Absolute Maximum Ratings

Parameter	Min.	Typical	Max.	Unit	Note
Storage Temperature	-40	-	+85	ºC	
Supply voltage	-0.3	-	3.6	V	
Data input voltage	-0.3	-	3.6	V	
Control input voltage	-0.3	-	3.6	V	

Operational Specifications

Table2-Operational Specifications

Parameter	Min.	Typical	Max.	Unit	Note
Supply voltage (Vcc)	3.135	3.3	3.465	V	
Power consumption	-	-	0.1	W	
Operating case temperature	0	-	70	℃	
Operating relative humidity	5	-	85	%	

Electrical Specifications

Table3-Electrical Specifications

Parameter	Min.	Typical	Max.	Unit	Note
Characteristic impedance	90	100	110	Ω	
Time propagation delay (informative)	-	-	4.5	ns/m	

Mechanical Specifications
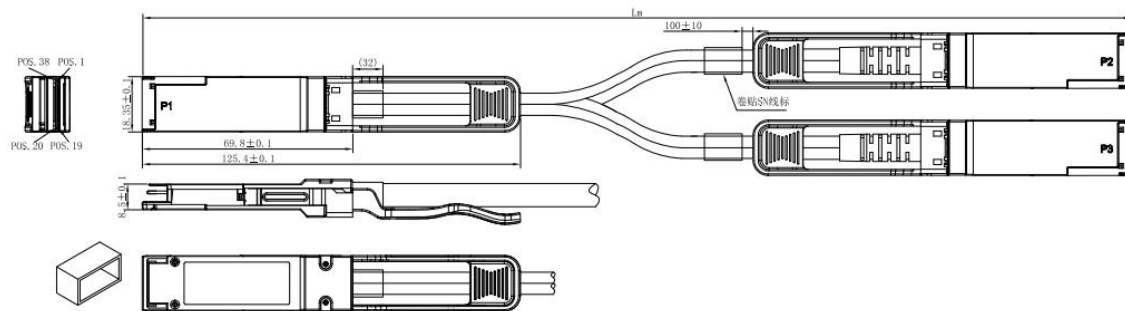
Length (m)	Cable AWG	Single Cable Diameter	Minimum Bend Radius
1	30	5.2 ± 0.3mm	Single bend: 26mm Assembly/repeated bend: 52mm
2	26/30	5.2 ± 0.3mm/ 6.8 ± 0.3mm	Single bend: 26/34mm Assembly/repeated bend: 52/ 68mm
3	26	6.8 ± 0.3mm	Single bend: 34mm Assembly/repeated bend: 68mm

Regulatory Compliance

Table4-Regulatory Compliance		
Feature	**Test Method**	**Performance**
Electrostatic Discharge (ESD) to the Electrical Pins	MIL-STD-883C Method 3015.7	Class 1(＞2000 Volts)
Electromagnetic Interference(EMI)	FCC Class B CENELEC EN55022 Class B CISPR22 ITE Class B	Compliant with Standards
RF Immunity(RFI)	IEC61000-4-3	Typically Show no Measurable Effect from a 10V/m Field Swept from 80 to 1000MHz
RoHS Compliance	RoHS Directive 2011/65/EU and it's Amendment Directives （EU） 2015/863	RoHS （EU）2015/863 compliant
REACH Compliance	REACH Regulation (EC) No 1907/2006	REACH (EC) No 1907/2006 compliant

Part Numbers and Descriptions

Table5-Part Numbers and Descriptions	
Part Number	**Description**
Q2Q56-200G-CU1H	passive copper hybrid cable, IB HDR 200Gb/s to 2x100Gb/s, QSFP56 to 2xQSFP56, LSZH, colored, 1m, 30AWG
Q2Q56-200G-CU1-5H	passive copper hybrid cable, IB HDR 200Gb/s to 2x100Gb/s, QSFP56 to 2xQSFP56, LSZH, colored, 1.5m, 30AWG
Q2Q56-200G-CU2H	passive copper hybrid cable, IB HDR 200Gb/s to 2x100Gb/s, QSFP56 to 2xQSFP56, LSZH, colored, 2m, 26AWG

Warnings

Handling Precautions: This device is susceptible to damage as a result of electrostatic discharge (ESD). A static free environment is highly recommended. Follow guidelines according to proper ESD procedures.

Laser Safety: Radiation emitted by laser devices can be dangerous to human eyes. Avoid eye exposure to direct or indirect radiation

Disclaimer