

## 200G QSFP56 HDR Direct Attach Passive Copper Cable

### Features

- IBTA InfiniBand HDR compliant
- Up to 200Gb/s data rate
- 4x 50Gb/s PAM4 modulation
- SFF-8665 compliant
- Operating case temperature 0-70°C
- Single 3.3V supply voltage
- Bit Error Rate (BER) 1E-15 with InfiniBand systems
- Hot pluggable
- RoHS compliant
- PVC jacket
- LF (Lead Free) HF (Halogen Free) PCB
- SFF-8636 compliant I<sup>2</sup>C management interface

## Description

Q56-200G-DACH cables are high speed, cost-effective alternatives to fiber optics in 200Gb/s InfiniBand HDR applications.

Q56-200G-DACH passive copper cable contains eight high-speed copper pairs, each operating at data rates of up to 50Gb/s. 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	°C	
Supply voltage	-0.3	-	3.6	V	
Data input voltage	-0.3	-	3.6	V	
Control input voltage	-0.3	-	3.6	V	

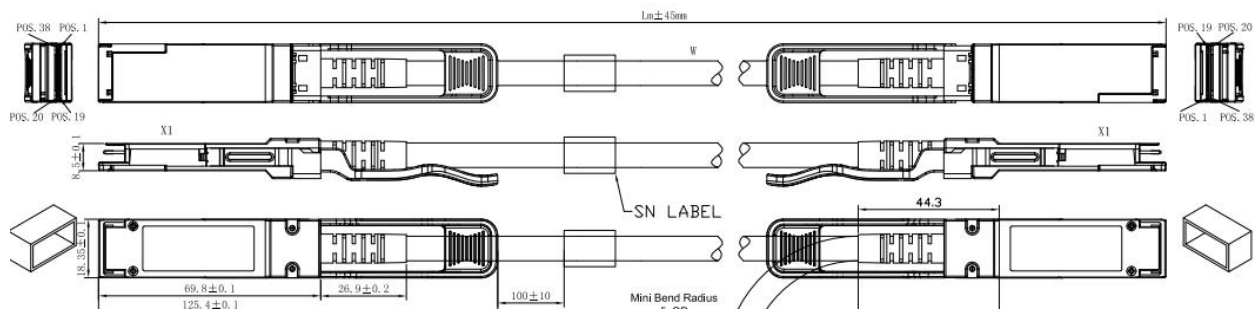
## Operational Specifications

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	°C	
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	$7.1 \pm 0.35\text{mm}$	Single bend: 35.5mm Assembly/repeated bend: 71mm
2	26/30	$7.1 \pm 0.35\text{mm}/$ $9.4 \pm 0.4\text{mm}$	Single bend: 35.5/47mm Assembly/repeated bend: 71/ 94mm
3	26	$9.4 \pm 0.4\text{mm}$	Single bend: 47mm Assembly/repeated bend: 94mm

## 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	Compliant with Standards
	CENELEC EN55022 Class B	
	CISPR22 ITE Class B	
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 6/6	RoHS 6/6 compliant

## Part Numbers and Descriptions

Table5-Part Numbers and Descriptions	
Part Number	Description
Q56-200G-CU0-5H	Passive Copper cable, IB HDR, up to 200Gb/s, QSFP56, PVC, 0.5m, black pulltab, 30AWG
Q56-200G-CU1H	Passive Copper cable, IB HDR, up to 200Gb/s, QSFP56, PVC, 1m, black pulltab, 30AWG
Q56-200G-CU1-5H	Passive Copper cable, IB HDR, up to 200Gb/s, QSFP56, PVC, 1.5m, black pulltab, 30AWG
Q56-200G-CU2H	Passive Copper cable, IB HDR, up to 200Gb/s, QSFP56, PVC, 2m, black pulltab, 26AWG
Q56-200G-CU3H	Passive Copper cable, IB HDR, up to 200Gb/s, QSFP56, PVC, 3m, black pulltab, 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.

## Further Information:

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Web [www.naddod.com](http://www.naddod.com)

Email For order requirements: [sales@naddod.com](mailto:sales@naddod.com)  
For customer service: [support@naddod.com](mailto:support@naddod.com)  
For technical support: [tech@naddod.com](mailto:tech@naddod.com)

For cooperation: [agency@naddod.com](mailto:agency@naddod.com)

For other informations: [info@naddod.com](mailto:info@naddod.com)

## Disclaimer

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2. Nothing herein should be construed as constituting an additional warranty.
3. NADDOD assumes no responsibility for the use or reliability of equipment or software not provided by NADDOD.

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PNY Technologies Europe  
9 rue Joseph Cugnot  
33708 Mérignac cedex | France  
T +33 (0)5 40 240 240 | [pnipro@pny.eu](mailto:pnipro@pny.eu)

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