

200G QSFP56 HDR to 2xQSFP56 HDR100 Breakout Active Optical Cable

Features

- Supports IBTA InfiniBand HDR
- 200Gb/s HDR to 2x100Gb/s HDR100 data rate
- 4x 50Gb/s PAM4 modulation
- Programmable Rx output amplitude and pre-emphasis
- SFF-8665 compliant QSFP56 port
- Single 3.3V power supply
- 4.35W power dissipation (typ., 200G end)
- Bit Error Rate (BER) 1E-15 with InfiniBand systems
- Up to 100m length
- 0 to 70°C case temperature operating range
- Hot pluggable
- RoHS compliant
- SFF-8636 compliant I²C management interface

Description

Q2Q56-200G-AOCH is a QSFP56 VCSEL-based (Vertical Cavity Surface-Emitting Laser), cost-effective 200Gb/s to 2 x 100Gb/s active optical splitter cable (AOC) designed for use in 200Gb/s InfiniBand HDR (High Data Rate) systems.

The Q2Q56-200G-AOCH cable is compliant with SFF-8665 for the QSFP56 pluggable solution. It provides connectivity between system units with a 200Gb/s connector on one side and two separate 100Gb/s connectors on the other side, such as a switch and two servers. The cable connects data signals from each of the 4 MMF (Multi Mode Fiber) pairs on the single QSFP56 end to the dual pair of each of the QSFP56 multi-port ends. Each QSFP56 end of the cable comprises an EEPROM providing product and status monitoring information, which can be read by the host system. Rigorous production testing ensures the best out-of-the-box installation experience, performance and durability.

NADDOD's unique quality active fiber cable solutions provide power-efficient connectivity for data center interconnects. They enable higher port bandwidth, density and configurability at a low cost, and reduced power requirement in the data centers.

Absolute Maximum Ratings

Parameter	Symbol	Min.	Typical	Max.	Unit	Note
Supply Voltage	Vcc ₃	-0.3	-	+3.6	V	
Storage Temperature	T _s	-40	-	+85	°C	
Operating Humidity	RH	+5	-	+85	%	1
Data input voltage	Vcc	-0.3	-	3.465	V	
Control input voltage	Vcc	-0.3	-	4.0	V	

Note:

[1] No condensation

Recommended Operating Conditions

Parameter	Min.	Typical	Max.	Unit	Note
Operating Case Temperature	0	-	+70	°C	
Power Supply Voltage	3.14	3.3	3.47	V	
Power dissipation (200G re-timing on all lanes)	-	4.35	4.55	W	200G end
Power dissipation (100G re-timing on all lanes)	-	2.5	2.75	W	100G end
Supply noise tolerance (10Hz-10MHz)	66			mVpp	
Operating relative humidity	5		85	%	

Mechanical

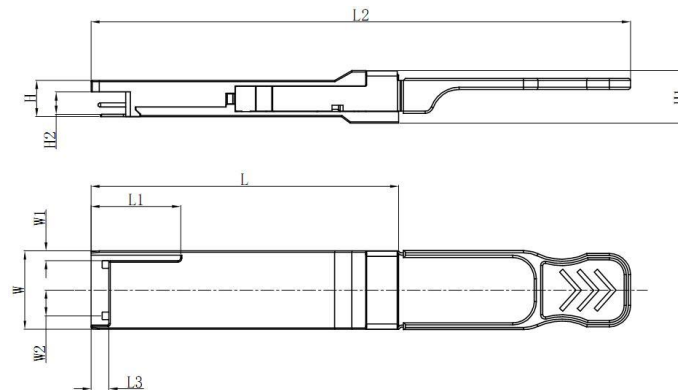


Figure 1 Mechanical Diagram

Unit mm

	L	L1	L2	L3	W	W1	W2	H	H1	H2
Max	72.2	-	128	4.35	18.45	-	6.2	8.6	12.0	5.35
Type	72.0	-	-	4.20	18.35	-	-	8.5	11.8	5.2
Min	68.8	16.5	124	4.05	18.25	2.2	5.8	8.4	11.6	5.05

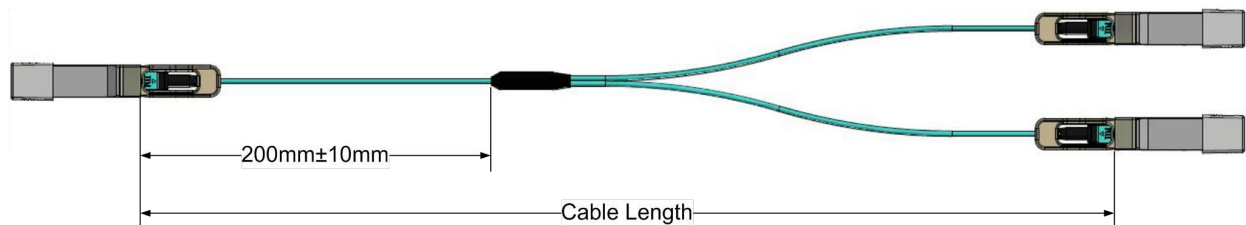


Figure 2 Mechanical Diagram of Cable

Regulatory Compliance

Parameter	Value	Units
Diameter	3±0.2	mm
Minimum bend radius	30	mm
Length tolerance	1 m ≤ length < 5 m:	+300mm / -0
	5 m ≤ length < 50 m:	+500mm / -0
	Length ≥ 50 m	+1000mm / -0
Cable color	Aqua	

Part Numbers and Descriptions

Part Number	Description
Q2Q56-200G-A3H	Active fiber splitter cable, IB HDR, 200Gb/s to 2x100Gb/s, QSFP56 to 2xQSFP56, LSZH, 3m
Q2Q56-200G-A5H	Active fiber splitter cable, IB HDR, 200Gb/s to 2x100Gb/s, QSFP56 to 2xQSFP56, LSZH, 5m
Q2Q56-200G-A10H	Active fiber splitter cable, IB HDR, 200Gb/s to 2x100Gb/s, QSFP56 to 2xQSFP56, LSZH, 10m
Q2Q56-200G-A15H	Active fiber splitter cable, IB HDR, 200Gb/s to 2x100Gb/s, QSFP56 to 2xQSFP56, LSZH, 15m
Q2Q56-200G-A20H	Active fiber splitter cable, IB HDR, 200Gb/s to 2x100Gb/s, QSFP56 to 2xQSFP56, LSZH, 20m
Q2Q56-200G-A30H	Active fiber splitter cable, IB HDR, 200Gb/s to 2x100Gb/s, QSFP56 to 2xQSFP56, LSZH, 30m

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:

Web www.naddod.com

Email For order requirements: sales@naddod.com

For cooperation: agency@naddod.com

For customer service: support@naddod.com

For other informations: info@naddod.com

For technical support: tech@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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