

200Gb/s HDR QSFP56 Active Optical Cable

Features

- Supports IBTA InfiniBand HDR
- Up to 200Gb/s 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 each end, with re-timing
- Bit Error Rate (BER) 1E-15 with InfiniBand systems
- Up to 100m length
- Operating case temp Commercial: 0°C to +70 °C
- Hot pluggable
- RoHS compliant
- SFF-8636 compliant I2C management interface

Description

Q56-200G-AOCH is a QSFP56 VCSEL-based (Vertical Cavity Surface-Emitting Laser) active optical cable (AOC) designed for use in 200Gb/s InfiniBand HDR systems. The 200G AOC offers high port density and configurability, and a much longer reach than passive copper cables in the data centers. Since the AOC is hot pluggable, it is easy to install and replace.

Q56-200G-AOCH has a standard SFF-8665 compliant QSFP56 port on the electrical side towards the host system. It contains four multi-mode fibers (MMF) optic transceivers per end; each operating at data rates of up to 50Gb/s. Q56-200G-AOCH offers selectable retiming per lane for both its optical transmitters and receivers up to 50Gbp/s rates.

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

Table1-Absolute Maximum Ratings						
Parameter	Symbol	Min.	Typical	Max.	Unit	Note
Supply Voltage	V _{CC3}	-0.5	-	+3.6	V	
Storage Temperature	T _S	-40	-	+85	°C	
Operating Humidity	RH	+5	-	+85	%	1
Data input voltage	V _{CC}	-0.3		4.0	V	

Note:

[1] No condensation

Recommended Operating Conditions

Table2-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	4.35	-	4.55	W	1
Supply noise tolerance (10Hz-10MHz)	66	-	-	mVpp	
Operating relative humidity	5	-	85	%	

Note:

[1] Per terminal

Mechanical

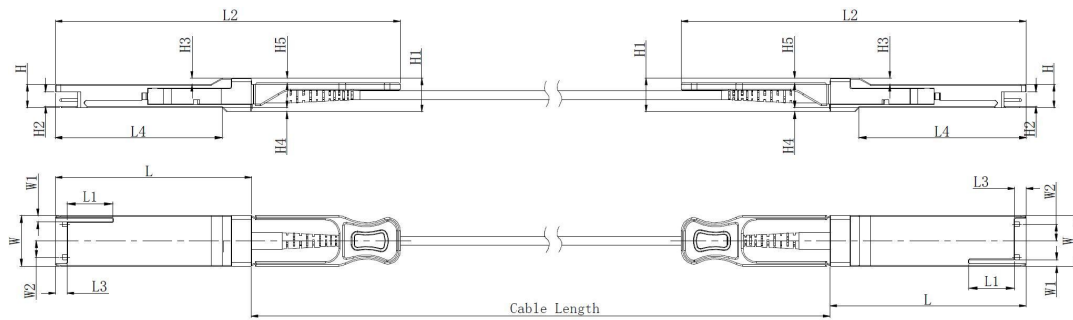


Figure 1 Mechanical Diagram

Unit mm

	L	L1	L2	L3	L4	W	W1	W2	H	H1	H2	H3	H4	H5
Max	72.2	-	128	4.35	61.4	18.45	-	6.2	8.6	12.4	5.35	2.5	1.6	2.0
Type	72.0	-	-	4.20	61.2	18.35	-	-	8.5	12.2	5.2	2.3	1.5	1.8
Min	68.8	16.5	124	4.05	61.0	18.25	2.2	5.8	8.4	12.0	5.05	2.1	1.3	1.6

Regulatory Compliance

Table3-Regulatory Compliance		
Parameter	Value	Units
Diameter	3±0.2	mm
Minimum bend radius	30	mm
Length tolerance	1 m ≤ length < 5 m:	+300 / -0
	5 m ≤ length < 50 m:	+500 / -0
	Length ≥ 50 m	+1000/ -0
Cable color	Aqua	

Part Numbers and Descriptions

Table4-Part Numbers and Descriptions	
Part Number	Description
Q56-200G-A3H	Active fiber cable, IB HDR, up to 200Gb/s, QSFP56, LSZH, black pulltab, 3m
Q56-200G-A5H	Active fiber cable, IB HDR, up to 200Gb/s, QSFP56, LSZH, black pulltab, 5m
Q56-200G-A10H	Active fiber cable, IB HDR, up to 200Gb/s, QSFP56, LSZH, black pulltab, 10m
Q56-200G-A15H	Active fiber cable, IB HDR, up to 200Gb/s, QSFP56, LSZH, black pulltab, 15m
Q56-200G-A20H	Active fiber cable, IB HDR, up to 200Gb/s, QSFP56, LSZH, black pulltab, 20m
Q56-200G-A30H	Active fiber cable, IB HDR, up to 200Gb/s, QSFP56, LSZH, black pulltab, 30m
Q56-200G-A50H	Active fiber cable, IB HDR, up to 200Gb/s, QSFP56, LSZH, black pulltab, 50m
Q56-200G-A100H	Active fiber cable, IB HDR, up to 200Gb/s, QSFP56, LSZH, black pulltab, 100m

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 customer service: support@naddod.com
For technical support: tech@naddod.com

For cooperation: agency@naddod.com

For other informations: info@naddod.com

Disclaimer

1. We are committed to continuous product improvement and feature upgrades, and the contents contained in this manual are subject to change without notice.
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.

Copyright © NADDOD.COM All Rights

The logo for PNY, consisting of the letters 'PNY' in a bold, white, sans-serif font with a registered trademark symbol (®) to the right.

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

NADDOD - Building an Intelligent World with Everything Connected
HPC | AI | Datacenter | Enterprise | Telecom