

200G (4x56G) QSFP56 PAM4 to Two 200G (4x56G) QSFP56 PAM4 Plug & Play Active Electrical Cable Supporting Hot Failover of a NIC to Two TORs

Description

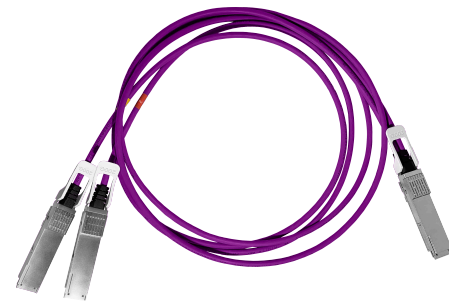
Credo's HiWire™ LP SWITCH Active Electrical Cable (AEC) is designed to support hot failover of a server Network Interface Card (NIC) to two top of Rack (TOR) switches to avoid a failed TOR causing a full rack failure

Credo's CAC2XX321Q2Q-A0-MS HiWire LP SWITCH AEC is designed to support 100G and 50G NIC cards and provide automatic or manual switching functions without loss of link in less than 1ms. This allows TORs to be brought down for maintenance or firmware updates without impacting server SLAs or even requiring end-user notification. Credo's HiWire LP SWITCH AECs comply with the QSFP MSA and are simple and easy to use.

Product Features

The following are key features of the HiWire SWITCH cable:

- Recognizable, purple jacket (with fire retardant coating)
- 200G (4x56G) to Two 200G (4x56G)
- TX equalization with programmable main-, pre-, and post-cursors
- Programmable RX equalization with CTLE and DFE
- Built-in diagnostic features
- SFF-8636 compliant
- Single 3.3V power supply
- Typ 4.5W power dissipation (NIC side)
PRE-FEC BER < 1e⁻⁸
- Hot pluggable
- RoHS2 compliant
- I²C management interface
- Operating case temperature range: 0° to +70°C



1:2 LP SWITCH AEC

Product Selections

Part Number	Length	AWG	Weight
CAC205321Q2Q-A0-MS	0.5m	32	350g
CAC21X321Q2Q-A0-MS	1.0m	32	400g
CAC215321Q2Q-A0-MS	1.5m	32	450g
CAC22X321Q2Q-A0-MS	2.0m	32	500g
CAC225321Q2Q-A0-MS	2.5m	32	550g

Mechanicals

Parameter	Cable Type	Typical
Diameter	8P 32AWG	5.9mm
QSFP56 Single End		
Minimum bend radius	8P 32AWG x 2	29.5mm
QSFP56 Split End		
Minimum bend radius	8P 30AWG	29.5mm

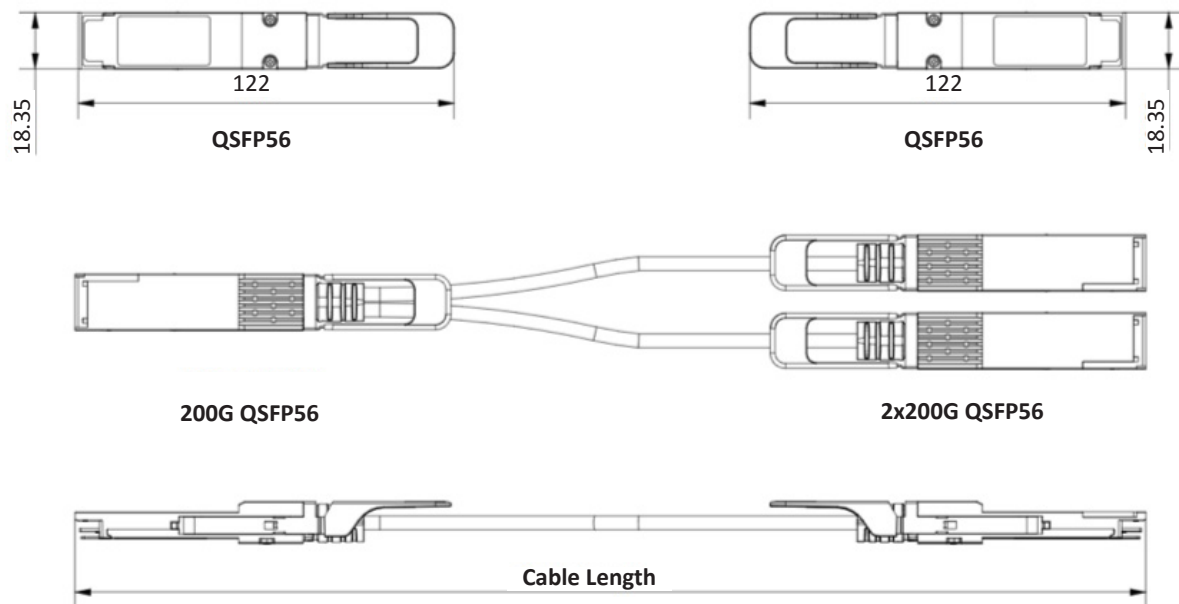
Supported Standards

The following are the key features of the HiWire cable:

- SNIA SFF-8636 Management Interface for 4 Lane Modules and Cables
- SNIA SFF-8679 QSFP28 Electrical Specification
- SFP+ MSA v4.1

General Product Characteristics

Parameter	Value
Module Form Factor	QSFP56
Number of Data Lanes	QSFP56 4 TX and 4 RX per Module (PAM4)
Maximum Aggregate Data Rate	200Gbps
Nominal Data Rate per Lane	QSFP56: 53.125Gbps (PAM4), FEC must be disabled
Electrical Interface and Pin-out	38-pin edge connector
Pin Description	Per SFF-8679
Management Interface	I ² C, serial, timing per SFF-8636 (QSFP)
Length of Copper AEC	0.5m – 2.5m
BER (Pre-FEC)*	< 1e ⁻⁸ * Tested with QPRBS31 pattern



For more information please visit www.credosemi.com/hiwire-aec or email hiwire@credosemi.com

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