



SHIFT AEC SPECIFICATION

PLUG & PLAY ACTIVE ELECTRICAL CABLE for Speed Shifting Ethernet Applications

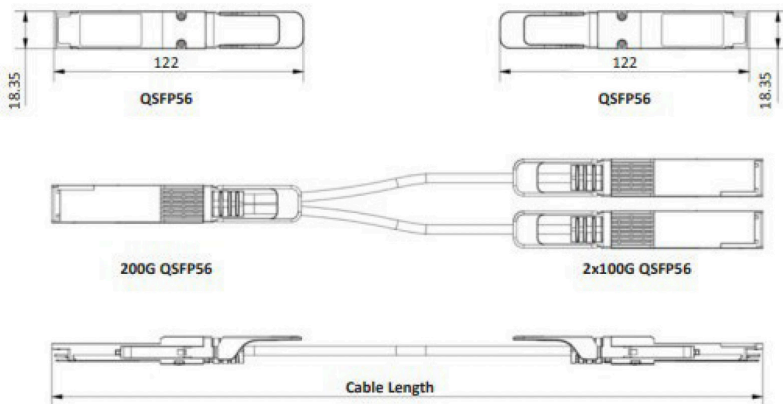
200G QSFP56 PAM4 to 2x100G (2x56G) QSFP56 PAM4

Credo's HiWire™ SHIFT Active Electrical Cable (SHIFT AEC)

A lower power, lower cost solution to Active Optical Cable (AOC) transceiver solutions for high speed interconnect (up to 200Gbps). Powered by Credo's best-in-class signal processing technology, this Plug & Play cable provides connectivity between PAM4 QSFP 4 lane and 2 lane ports over thin copper cables without using any optical components and consumer up to 50% less power than optics.

Credo's CAC2XXXX1Q2Q-A0-HW HiWire SHIFT AEC

Designed for telecom and data center use. The 200G cable breaks out from one 200G (4x56G-PAM4) QSFP56 end into two 100G (2x56G-PAM4) QSFP56 ends. The use and replacement of CAC2XXXX1Q2Q-A0-HW AEC is simple and straightforward as it adopts standard QSFP form factors and complies to MSA specifications.



Features

The following are the key features of the HiWire SHIFT AEC:

- Recognizable purple jacket
- 200G to 2x100G with gearbox function
- SFF-8636 compliant
- Single 3.3V power supply
- Low power consumption:
 - Typ. 4.5W power dissipation (QSFP56 4X56G end)
 - Typ. 2.5W power dissipation (QSFP56 2X56G end)
- BER < 10⁻¹⁵ (post FEC)
- Hot pluggable
- RoHS2 compliant
- I²C management interface
- Operating case temperature range: 0 to +70°C

Supported Standards and Interfaces

- SNIA SFF-8636 Management Interface for 4 Lane Modules and Cables
- SNIA SFF-8679 QSFP28 Electrical Specification

Key Features

Parameter	Value
Module Form Factor	QSFP56
Number of Data Lanes	QSFP56 4 TX and 4 RX per Module (PAM4) QSFP56 2 TX and 2 RX per module (PAM4)
Maximum Aggregate Data Rate	200Gbps
Nominal Data Rate per Lane	QSFP56: 53.125Gbps (PAM4), KR4 FEC must be enabled
Electrical Interface and Pin-out	38-pin edge connector
Pin Description	Per SFF-8679
Management Interface	I ² C, serial, timing per SFF-8636
Length of Copper AEC	3.0m , 5.0m
BER (Pre-FEC)*	Typ. <10 ⁻⁸
BER (Post-FEC)*	<10 ⁻¹⁵

* Tested with QPRBS31 pattern

Product Selections

Part Number	Length	AWG
CAC23X301Q2Q-A0-HW	3.0m	30
CAC25X301Q2Q-A0-HW	5.0m	30

Mechanicals

Parameter	Cable Type	Typical
Diameter	4P 30WG	5.3mm
Minimum bend radius	4P 30AWG	29.5mm

For more information please visit www.credosemi.com
or email sales@credosemi.com

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