



LP SPAN AEC SPECIFICATION

Plug & Play AEC for In-Rack Ethernet Applications in DDC: Distributed Disaggregated Chassis

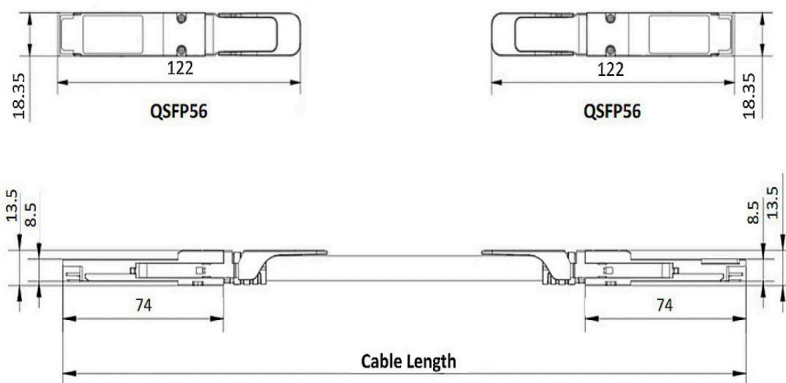
200G (4x56G) QSFP56 PAM4 to 200G (4x56G) QSFP56 PAM4

Credo's HiWire™ Low Power SPAN Active Electrical Cable (LP SPAN AEC)

A thin, low power 200G AEC specifically designed for rack-to-rack connectivity, these cables support up to 7m reach, consume up to 25% less power than optical and take 75% less volume than DACs, and offer a 10-year service life.

Credo's CAC2XX321D1D-DX-HW HiWire LP SPAN AEC

Designed for telecom and data center use. It can sustain 4 lanes of 56G-PAM4 signal in each direction, providing bi-directional 200Gbps traffic per cable. The use and replacement of this AEC is simple and straightforward as it adopts standard QSFP-DD type 2 form factor and complies to MSA specifications.



Features

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

- Recognizable, purple PVC jacket
- 200G to 200G data rate
- Built-in diagnostic features
- SFF-8636 compliant
- Single 3.3V power supply
- Typ.4.5W power dissipation each 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	4 TX and 4 RX per module (PAM4)
Maximum Aggregate Data Rate	200Gbps
Nominal Data Rate per Lane	53.125Gbps (PAM4)
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 – 7.0m in 2.0m increments
BER (Pre-FEC)*	Typ. <10 ⁻⁸
BER (Post-FEC)*	<10 ⁻¹⁵

* Tested with QPRBS31 pattern

Product Selections

Part Number	Length	AWG	Weight
CAC23x321Q1Q-C0-HW	3 meters	32	330g
CAC25X301Q1Q-C0-HW	5 meters	30	710g
CAC27X281Q1Q-C0-HW	7 meters	28	1,040g

Mechanicals

Parameter	Cable Type	Typical
Diameter	8P 30AWG	1 x 6.5mm
QSFP56 Connectors on Both Side		
Min. bend radius	8P 30AWG	60mm

About Credo

Credo's mission is to advance high-speed connectivity solutions that deliver optimized performance, reliability, energy efficiency, and security for the next generation of AI driven applications, cloud computing, and hyperscale networks.

Optimized for both optical and electrical applications, our solutions support port speeds up to 1.6Tb. At the core of our technology is our proprietary Serializer/Deserializer (SerDes) IP. Our diverse solutions portfolio includes system-level products such as Active Electrical Cables (AECs), a range of Integrated Circuits, including Retimers, Optical DSPs, SerDes chipsets, and SerDes IP Licensing.

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

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