

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

Plug & Play Active Electrical Cable for Rack-to-Rack Ethernet Applications

Description

Credo's HiWire™ SPAN Active Electrical Cable (SPAN AEC) is a reliable Plug & Play replacement to Active Optical Cable (AOC) for high speed interconnects (up to 400Gbps). Intended for rack-to-rack connectivity, these cables support up to 7m reach, consume up to 25% less power than optics, cost up to 50% less than optics, and offer a 10-year service life.

Credo's CAC2XXXX1Q1Q-A0-HW HiWire SPAN AEC is designed for telecom and data center use. It can sustain 4 lanes of 56GPAM4 signal in each direction, providing bi-directional 200Gbps traffic per cable. The use and replacement of CAC2XXXX1Q1QA0-HW AEC is simple and straightforward as it adopts standard QSFP+ form factor and complies to MSA specifications.

Product Features

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

- Recognizable, purple PVC jacket (with fire retardant coating)
- 200G to 200G data rate
- Built-in diagnostic features
- SFF-8636 compliant
- Single 3.3V power supply
- Low power consumption:
- 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



1:2 Breakout SPAN AEC

Product Selections

Part Number	Length	AWG	Weight
CAC23X301Q1Q-A0-HW	3 meters	30	330g
CAC25X301Q1Q-A0-HW	5 meters	30	710g

Mechanicals

Parameter	Cable Type	Typical
Diameter	8P 30AWG	6.5mm
Diameter	8P 26AWG	8.0mm
QSFP56 Connectors on Both Sides		
Minimum bend radius	8P 30AWG	60mm

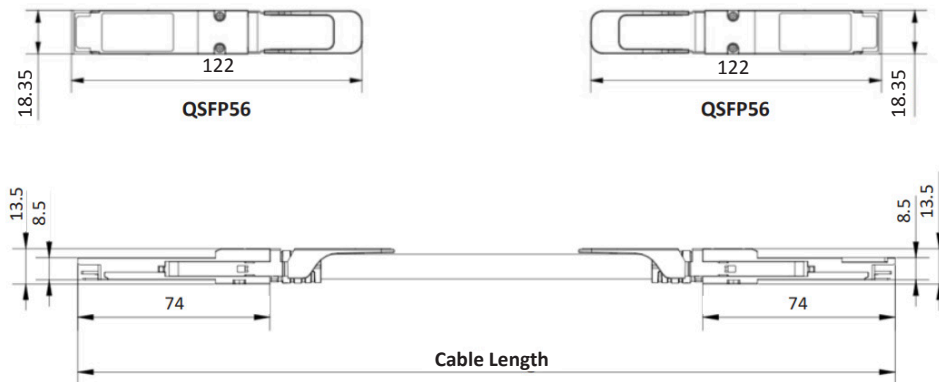
Supported Standards

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
- Common Management Interface Specification (CMIS) v3.0

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	200 Gbps
Nominal Data Rate per Lane	QSFP56: 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	3m, 5m, 7m
BER (Pre-FEC)*	<10 ⁻⁸ * Tested with QPRBS31 pattern
BER (Post-FEC)*	<10 ⁻¹⁵ * Tested with QPRBS31 pattern



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

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