



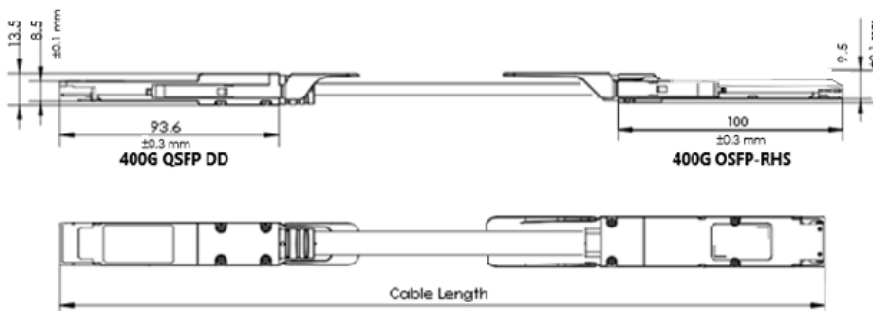
CLOS AEC SPECIFICATION

PLUG & PLAY ACTIVE ELECTRICAL CABLE for In-Rack Ethernet Applications in Distributed, Disaggregated Chassis

400G (8x56G) QSFP-DD PAM4 to 400G
(4x112G) OSFP-RHS

Credo's HiWire™ Low Power CLOS Active Electrical Cable (AEC) is a reliable replacement to Active Optical Cable (AOC) for TOR switch downlink (up to 400Gbps). Powered by Credo's best-in-class signal processing technology, AEC enables low-power, high-reliability, and high-speed interconnections over very thin copper cables without using any optical components.

Credo's CAC4XX321M1B-C0-HW Active Electrical Cable is designed for hyper-scale data center use. It can sustain 8 lanes of 56G-PAM4 signal at the Switch side and 4 lanes of 112G-PAM4 signal at the NIC side. It provides bi-directional 400Gbps traffic per cable. The use and replacement of CAC4XXXX1M1B-C0-HW AEC is simple and straightforward as it adopts standard QSFP-DD type 2 and OSFP-RHS form factor and complies to MSA specifications.



Features

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

- Recognizable, purple PET Mesh jacket
- 400G to 400G data rate
- CMIS v5.0 compliant
- Single 3.3V power supply
- QSFP DD Type 2 connector to OSFP-RHS also called OSFP Flat top Connector
- Low power consumption:
 - Typ 6W power dissipation at OSFP-RHS end
 - Typ 10W power dissipation at QSFP-DD end
- BER 10^{-15} (postFEC)
- Hot pluggable
- RoHS2 compliant
- I²C management interface
- Operating case temperature range: 0° to +70°C

Supported Standards and Interfaces

- QSFP-DD MSA v5.0

Key Features

Parameter	Value
Module Form Factor	QSFP-DD type 2 and OSFP-RHS
Number of Data Lanes	8 TX and 8 RX per module (QSFP-DD end) 4 TX and 4 RX per module (OSFP end)
Maximum Aggregate Data Rate	400Gbps
Nominal Data Rate per Lane	53.125Gbps (QSFP-DD end) 112.16Gbps (OSFP end)
Electrical Interface and Pin-out	76-pin edge connector (QSFP-DD) 60-pin edge connector (OSFP-RHS)
Pin Description	Per QSFP-DD Hardware Specification, Per OSFP-RHS Hardware Specification
Management Interface	I ² C, serial, timing per Common Management Interface Specification for 8X/16X Pluggable Transceivers
Length of Copper AEC	1m - 2.5m
BER (Pre-FEC)*	Typ. 10^{-8} * Tested with QPRBS31 pattern
BER (Post-FEC)*	10^{-15} * Tested with QPRBS31 pattern

Product Selections

Part Number	Length	AWG	CMIS	Weight
CAC41X321M1B-C0-HW	1.0m	32	CMIS 5.0	350g
CAC415321M1B-C0-HW	1.5m	32	CMIS 5.0	375g
CAC42X321M1B-C0-HW	2.0m	32	CMIS 5.0	400g
CAC425321M1B-C0-HW	2.5m	32	CMIS 5.0	425g

Mechanicals

Parameter	Cable Type	Typical	Length
Diameter	8P 32AWG	6.8mm	1-2.5m

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