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

800GQSFP-DDPAM4to800GQSFP-DDPAM4

Credo's HiWire™ CLOS Active Electrical Cable (CLOS AEC)
A thin, low power 800G AEC specifically designed for in-rack applications replacing back planes in Distributed, Disaggregated Chassis (DDC) implementations. Plug & Play CLOS AECs consume up to 50% less power than optical and take up to 75% less volume than DACs, enabling interconnect densities of up to 1,000 cables per rack.

Credo's CAC8XX321M1M-B0-HW HiWire CLOS AEC
Designed for telecom and data center use. It can sustain 8 lanes of 106G-PAM4 signal in each direction, providing bi-directional 800Gbps traffic per cable. The use and replacement of CAC8XX321M1M-B0-HW AEC is simple and straightforward as it adopts standard QSFP-DD type2 form factor and complies to MSA specifications.

13.0 14.6   100   **800G QSFP-DD Type 2**   13.0 14.6   100   **800G QSFP-DD Type 2**

Cable Length
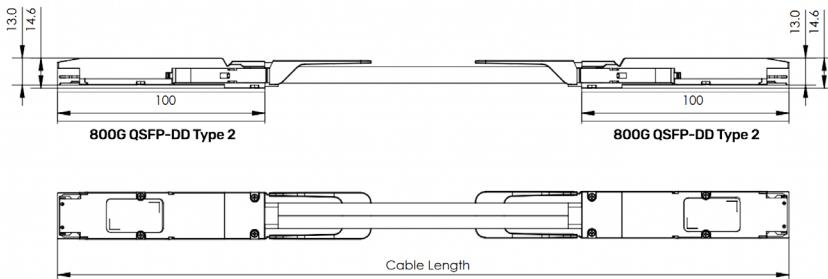
Features

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

- Recognizable, purple LSZH jacket
- 800G to 800G data rate
- CMIS 4.0 compliant
- Single 3.3V power supply
- Lowpower consumption
- Typ. 10W power dissipation each end
- BER < 10^{-15} (post FEC)
- Hot pluggable
- RoHS2 compliant
- I^{2}Cmanagement interface
- Operating case temperature range: 0° to +70°C

Supported Standards and Interfaces

- Common Management Interface Specification (CMIS) v4.0
- OSFP MSA v5.0

Key Features

Parameter	Value
Module Form Factor	QSFP-DDtype2
Number of Data Lanes	8TXand8RXpermodule(PAM4)
Maximum Aggregate Data Rate	800Gbps
Nominal Data Rate per Lane	106.25Gbps(PAM4)
Electrical Interface and Pin-out	76-pin edge connector
Pin Description	Per QSFP-DD Hardware Specification
Management Interface	I^2C, serial, timing per Common Management Interface Specification for 8X/16X Pluggable Transceivers v 4.0
Length of Copper AEC	0.5m - 2.5m in 0.5m increments
BER (Pre-FEC)*	Typ. $<10^{-8}$
BER (Post-FEC)*	$<10^{-15}$

* Tested with QPRBS31 pattern

Product Selections

Part Number	Length	AWG	Weight
CAC805321M1M-B0-HW	0.5m	32	140g
CAC81X321M1M-B0-HW	1.0m	32	175g
CAC815321M1M-B0-HW	1.5m	32	213g
CAC82X321M1M-B0-HW	2.0m	32	248g
CAC825321M1M-B0-HW	2.5m	32	288g

Mechanicals

Parameter	Cable Type	Typical	Length
Diameter	16P 32AWG	6.8mm	0.5-2.5m

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**
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