



CLOS AEC SPECIFICATION

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



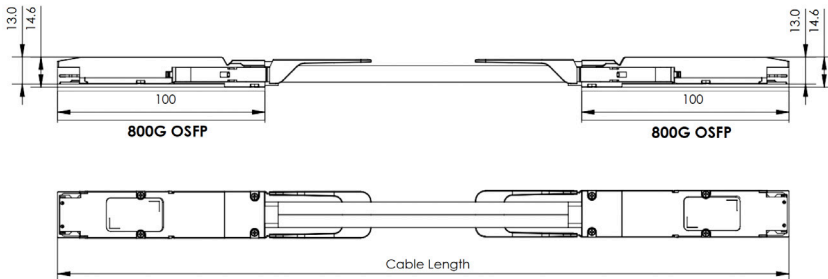
800G OSFP PAM4 to 800G OSFP PAM4

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

A thin, low power 800G AEC specifically designed for in-rack applications replacing backplanes 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 500 cables per rack.

Credo's CAC8XX321A1A-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 CAC8XX321A1A-B0-HW AEC is simple and straightforward as it adopts standard OSFP form factor and complies to MSA specifications.



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
- Low power consumption:
 - Typ. 10W 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

- Common Management Interface Specification (CMIS) v4.0
- OSFP MSA v3.0

Key Features

Parameter	Value
Module Form Factor	OSFP
Number of Data Lanes	8 TX and 8 RX per module (PAM4)
Maximum Aggregate Data Rate	800Gbps
Nominal Data Rate per Lane	106.25Gbps (PAM4)
Electrical Interface and Pin-out	60-pin edge connector
Pin Description	Per OSFP Hardware Specification
Management Interface	I ² C, 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
CAC805321A1A-B0-HW	0.5m	32
CAC81X321A1A-B0-HW	1.0m	32
CAC815321A1A-B0-HW	1.5m	32
CAC82X321A1A-B0-HW	2.0m	32
CAC825321A1A-B0-HW	2.5m	32

Mechanicals

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

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

© 2023 Credo Semiconductor, Inc. All Rights Reserved. Credo Semiconductor Inc. and the Credo logo are trademarks of Credo Semiconductor Inc. All other marks are the property of their respective owners. This document is for information only. Specifications are subject to change without notice. REV 012623

