



AEC CLOS SPECIFICATION

PLUG & PLAY AEC For In-Rack Ethernet Applications in Distributed, Disaggregated Chassis

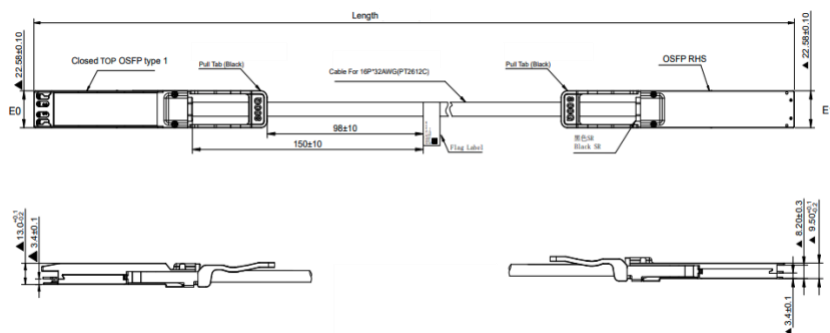
800G OSFP to 800G OSFP-RHS

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

A 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.

With improved reach and signal integrity, these AECs deliver zero soft link flaps to support the lossless backend RDMA network that AI clusters are built on. The CLOS AEC enables the full host to switch connectivity for leading GPU clusters.

Designed to deliver highly reliable interconnect for artificial intelligence (AI) backend networks. It can sustain 8 lanes of 100G PAM4 signal in each direction, providing bi-directional 800Gbps traffic per cable. The use and replacement of ZeroFlap 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 ZeroFlap CLOS AEC:

- Recognizable, purple PET Mesh jacket
- 800G to 800G data rate
- CMIS v5.1 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) v5.1

Key Features

Parameter	Value
Module Form Factor	OSFP to OSFP-RHS
Number of Data Lanes	8 TX and 8 RX per module (PAM4)
Maximum Aggregate Data Rate	800Gbps
Nominal Data Rate per Lane	112Gbps (PAM4)
Electrical Interface and Pin-out	60-pin edge connector
Pin Description	Per OSFP Hardware Specification
Management Interface	I2C, serial, timing per CMIS v5.1
Length of Copper AEC	1.0m - 3.0m
BER (Pre-FEC)*	Typ. <10 ⁻⁸
BER (Post-FEC)*	<10 ⁻¹⁵

* Tested with QPRBS31 pattern

Product Selections

Part Number	Length	Tolerance	CMIS	Weight(g)
CAC81X321A1B-C1-HW	1.0m	±50mm	CMIS 5.0	230
CAC815321A1B-C1-HW	1.5m	±50mm	CMIS 5.0	270
CAC82X321A1B-C1-HW	2.0m	±50mm	CMIS 5.0	310
CAC825321A1B-C1-HW	2.5m	±50mm	CMIS 5.0	340
CAC827321A1B-C1HW	2.75m	±50mm	CMIS 5.0	370
CAC83X321A1B-C1-HW	3.0m	±50mm	CMIS 5.0	380

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