PLUG & PLAY ACTIVE ELECTRICAL CABLE
For Rack to Rack Ethernet Applications

800G OSFP to 800G OSFP-RHS

Credo's ZeroFlap Family of HiWire™ SPAN Active Electrical Cable
A 800G AEC specifically designed for rack-to-rack connectivity, support up to 7m reach, consume up to 50% less power than optical and take 75% less volume than DACs, and offer a 10-year service life.

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. With advances in liquid cooling, the 7 m length 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.
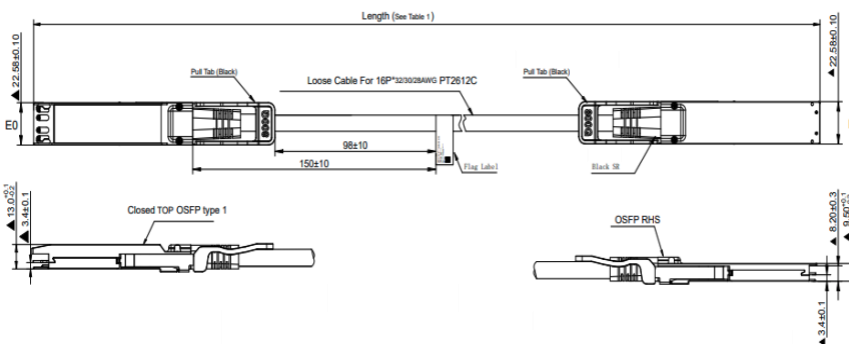
Features

The following are the key features of the ZeroFlap SPAN 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	112 Gbps (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	4.0m - 7.0m
BER (Pre-FEC)*	Typ. <10-8
BER (Post-FEC)*	<10-15

* Tested with QPRBS31 pattern

Product Selections

Part Number	Length	Tolerance	CMIS	Weight
CAC84X321A1B-C2-HW	4.0m	±50mm	CMIS 5.0	500g
CAC85X301A1B-C2-HW	5.0m	±50mm	CMIS 5.0	580g
CAC86X281A1B-C2-HW	6.0m	±50mm	CMIS 5.0	660g
CAC87X281A1B-C2-HW	7.0m	±50mm	CMIS 5.0	740g

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