

800G OSFP PAM4 to 800G OSFP PAM4

Plug & Play Active Electrical Cable

for In-Rack Ethernet Applications in Distributed, Disaggregated Chassis (DDC)

Description

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

Product Features

The following are the key features of the HiWire 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



1:1 Direct CLOS AEC

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 |

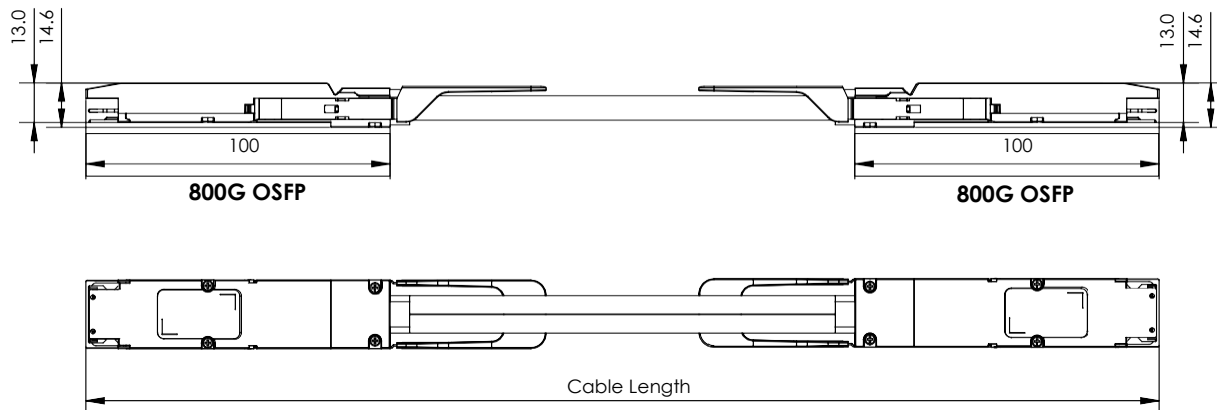
Supported Standards

The following are the key features of the HiWire cable:

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

General Product Characteristics

| 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} * Tested with QPRBS31 pattern |
| BER (Post-FEC)* | 10^{-15} * Tested with QPRBS31 pattern |



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

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