

# HiWire

Active Electrical Cables

## CLOS AEC SPECIFICATION

# PLUG & PLAY ACTIVE ELECTRICAL CABLE 1.6T OSFP-XD PAM4 to 1.6T OSFP-XD PAM4

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

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

A thin, low-power 1.6T 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 CACHXX321T1T-C0-HW HiWire CLOS AEC

Designed for telecom and data center use. It can sustain 16 lanes of 106G-PAM4 signal in each direction, providing bi-directional 1.6Tbps traffic per cable. The use and replacement of CACHXX321T1T-C0-HW AEC is simple and straightforward as it adopts standard OSFP-XD form factor and complies to MSA specifications.

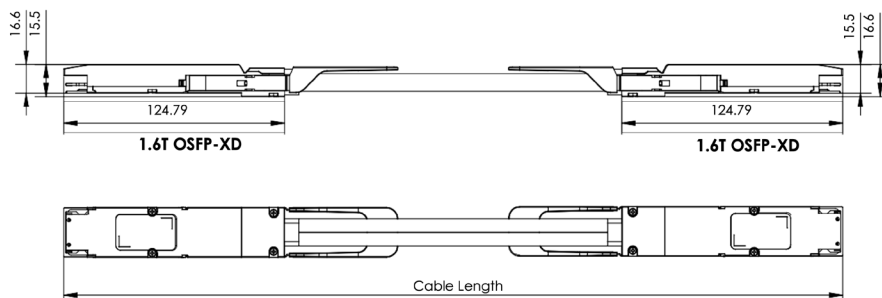


## Product Features

- Recognizable, purple LSZH jacket
- 1.6T to 1.6T data rate
- CMIS 5.1 compliant
- Single 3.3V power supply
- Low power consumption:
  - Typ. 20W power dissipation each end
- BER <math>10^{-15}</math> (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
- OSFP-XD MSA v0.1



## Key Features

Parameter	Value
Module Form Factor	OSFP-XD
Number of Data Lanes	16 TX and 16 RX per module (PAM4)
Maximum Aggregate Data Rate	1600Gbps
Nominal Data Rate per Lane	106.25Gbps (PAM4)
Electrical Interface and Pin-out	120-pin edge connector
Pin Description	Per OSFP-XD Hardware Specification
Management Interface	I <sup>2</sup> C, serial, timing per Common Management Interface Specification for 8X/16X Pluggable Transceivers v 5.1
Length of Copper AEC	0.5m - 2.75m
BER (Pre-FEC)*	Typ. <10 <sup>-8</sup>
BER (Post-FEC)*	<10 <sup>-15</sup>

\* Tested with QPRBS31 pattern

## Product Selections

Part Number	Length	AWG
CACH05321T1T-C0-HW	0.5m	32
CACH1X321T1T-C0-HW	1.0m	32
CACH15321T1T-C0-HW	1.5m	32
CACH2X321T1T-C0-HW	2.0m	32
CACH25321T1T-C0-HW	2.5m	32
CACH27321T1T-C0-HW	2.75m	32

## Mechanicals

Parameter	Cable Type	Typical	Length
Diameter	32P 32AWG	2x6.8mm	0.5-2.75m

For more information please visit [www.credosemi.com](http://www.credosemi.com) or email [sales@credosemi.com](mailto:sales@credosemi.com)