XCD-O8O8Nxx

800G OSFP Direct Attach Cable (DAC)

Applications

- Switches, servers, and routers
- Data Center Networks: Utilized for efficient data routing and management within large-scale data centers
- Storage Area Networks: Integral for facilitating high-speed data transfers and storage management in networked storage environments
- High-Performance Computing
- Supporting the transmission of data and voice services in telecommunication and Wireless Infrastructure
- Connecting medical devices, facilitating data exchange, and enabling remote diagnostics and monitoring in healthcare settings
- Signal routing and measurement in various testing and analysis applications

Features

- IEEE 802.3ck and InfiniBand NDR compliant
- Data Rate Support: up to 800 Gbps (PAM4) aggregate
- Engineered to minimize insertion loss and crosstalk
- Pull-to-release slide latch mechanism for easy handling
- Available in straight and break-out configurations
- Customized cable braid termination to limit electromagnetic interference (EMI)
- EEPROM Mapping: Customizable for cable signature identification
- Available in both 26AWG and 30AWG cable sizes
- 3.3 V Power supply
- Compliance: RoHS compliant
- RoHS 6 compatible (lead free)
- Operating temperature range: 0 °C to 70 °C

Description

The OSFP passive copper cable assembly is equipped with sixteen differential copper pairs, offering eight data transmission channels capable of speeds up to 100 Gbps (PAM4) per channel. This configuration meets the stringent demands of 800 G Ethernet and InfiniBand Next Data Rate (NDR) requirements.

Available in both 26AWG and 30AWG wire gauges, this 800 G copper cable assembly is engineered to deliver low insertion loss and minimal crosstalk.

The utilization of PAM4 signals for transmission in the OSFP passive copper cable assembly effectively doubles the data transmission rate. However, it also imposes more rigorous requirements for cable insertion loss. For detailed specifications, please refer to the High-Speed Characteristics.

General Product Characteristics

Parameter	OSFP DAC Specifications
Number of Lanes	Tx8 & Rx8
Channel Data Rate	106. 25 Gbps
Operating Temperature	0 °C to + 70° C
Storage Temperature	-40 °C to + 85 °C
Supply Voltage	3.3 V nominal
Electrical Interface	60 pins edge connector
Management Interface	Serial, I^2C

High Speed Characteristics

Parameter	Symbol	Min	Typical	Max	Unit	Note
Differential Impedance	TDR	90	100	110	Ώ	
Insertion loss	SDD21	-19.75			dB	At 26.56 GHz
Differential Return Loss	SDD11 SDD22			See 1	dB	At 0.05 to 26.56 GHz
				See 2	dB	At 26.56 to 40 GHz
Common-mode to common-mode output return loss	SCC11 SCC22			-2	dB	At 0.2 to 40 GHz
Differential to common Mode Conversion Loss	SCD21-SDD21			-10	dB	At 0.05 to 12.89 GHz
				See 3		At 12.89 to 40 GHz

Notes

1. Reflection Coefficient given by equation SDD11(dB) <22-10(f/26.56), with f in GHz
2. Reflection Coefficient given by equation SDD11(dB) <15-3(f/26.5), with f in GHz
3. Reflection Coefficient given by equation SCD21-CDD21(dB) < 14-0.3108*f, with f in GHz

Ordering information[1]

Part number	Product Description			
XCD-O8O8Nxx	800G OSFP DAC, 0-70°C, xx: 01 – 1 m, H1 – 1,5 m, 02 – 2 m, 03 – 3 m (length)			
Length	1	1,5	2	3
AWG	30	30	26	26

Notes

[1] For accurate order specification please contact XenOpt reseller before placing an order. The content of this document is subject to change without notice. XenOpt does not guarantee errorless or outdated information.
Please specify any compatibility requirements at time of ordering. Standard MSA compatible pluggable components may not work or some function of these components may not be available in devices that require customized compatible devices. Pluggable components compatible with one type of communications equipment may not work in other type of communications equipment.

To find out more, please contact: