

The Hyper Photonix HSD1-400-DF-C2S transceiver is designed for 2 km optical communication applications, and it is compliant with QSFP-DD MSA, CMIS 5.1, IEEE 802.3bs, and IEEE 802.3cu standards. The 425 Gigabit signal is carried over four parallel lanes at 1310nm. The module's transmitter converts 8-channel 53.125 Gbps electrical data to 4 parallel optical output signals, each supporting 106.25 Gbps. The receiver converts 4-channel 106.25 Gbps optical input data to 8-channel electrical output data.

Features

- QSFP-DD MSA 5.1 and CMIS 5.1 compliant
- MPO-12 APC connector
- 8x53.125Gbps PAM4 400GAUI-8 host interface
- 4x106.25Gbps (53.125GBd PAM4) optical signal
- Up to 2 km over SMF with KP-FEC
- Power dissipation $\leq 9W$
- Operating case temperature: 0°C to 70°C
- IEEE 802.3bs, IEEE802.3cu compliant
- Built-in digital diagnostic functions
- 3.3V power supply voltage
- RoHS compliant



Applications

- 400GBASE-DR4 Ethernet
- Data center networks

Specifications

Part Number	HSD1-400-DF-C2S
Data Rate	425Gbps
Supply Voltage	3.3V
Power Consumption	$\leq 9W$
Wavelength	1310nm
Optical Connector	MPO-12
Transmitter	<i>Hyper Silicon™ Photonics</i>
Case Temperature	0°C to 70°C
Reach	2km over SMF