

The Hyper Photonix HSD1-400-FR-C4S is a transceiver module designed for 2 km optical communication applications, and it is compliant with 100G Lambda MSA standard. This module can convert 8-channel 53.125 Gbit/s electrical data to 4-channel 106.25 Gbit/s optical signals, and multiplex them into a single channel for 425 Gbit/s optical transmission. Similarly, it optically demultiplexes a 425 Gbit/s input into 4-channel signals, and converts them to 8-channel output electrical data on the receiver side. It has been designed to meet the harshest external operating conditions including temperature, humidity and EMI interference. The module offers very high functionality and feature integration, accessible via the I2C interface.

Features

- QSFP-DD MSA rev5.0 compliant
- 100G Lambda MSA compliant
- 802.3cu compliant
- 400GE FR4 specification compliant
- QSFP-DD CMIS4.0 management interface compliant
- Non-hermetic package design
- 4 CWDM lanes MUX/DEMUX design
- 8 x 53.125 Gbit/s PAM4 electrical interface (400GAUI-8)
- Maximum power consumption 12 W
- LC duplex connector
- 425 Gbit/s aggregate bit rate
- Up to 2 km transmission on single mode fiber with FEC
- Single 3.3 V power supply
- RoHS 2 compliant



Applications

- 400GBASE-FR4 Ethernet
- Data center networks

Specifications

Part Number	HSD1-400-FR-C4S
Data Rate	425Gbps
Supply Voltage	3.3V
Power Consumption	≤ 12W
Wavelength	1271 / 1291 / 1311 / 1331nm
Case Temperature	0°C to 70°C
Reach	2km on SMF