OSFP 800G 2xLR4 10km Finned (IHS)

OSFP twin-port transceiver · 800G (2 × 400G) · 1271 / 1291 / 1311 / 1331 nm (CWDM) · 10 km SMF · 2 × duplex LC · NVIDIA compatible

The GLOBALfiber O800G-2LR4-F-NV is a 800G (2 × 400G) OSFP twin-port transceiver with finned top (IHS) for NVIDIA InfiniBand and Ethernet networks. It uses 8 × 100G PAM4 lanes at 1271 / 1291 / 1311 / 1331 nm (CWDM) for links up to 10 km SMF over 2 × duplex LC. The module is coded for NVIDIA equipment and is available with InfiniBand or Ethernet coding.



KEY FEATURES

- OSFP twin-port form factor, finned top (IHS)
- 800G (2 × 400G), 8 × 100G PAM4, 53.125 GBd
- Wavelength 1271 / 1291 / 1311 / 1331 nm (CWDM)
- Reach up to 10 km SMF
- 2 × duplex LC optical connector
- Max. power consumption 15 W
- Digital diagnostics (DDM), hot-pluggable
- Case temperature 0 to +70 °C

APPLICATIONS & COMPATIBILITY

- NVIDIA switches: Quantum-2 QM9700/QM9790, Spectrum-4 SN5600/SN5610
- NVIDIA adapters / systems: Other end: 2× 400G to ConnectX-7 / DGX H100 or switch
- Replaces NVIDIA MMS4X90-NR

KEY SPECIFICATIONS

Form factor	OSFP twin-port, finned top (IHS)
Data rate	800G (2 × 400G)
Lanes	8 × 100G PAM4, 53.125 GBd
Wavelength	1271 / 1291 / 1311 / 1331 nm (CWDM)
Reach	10 km SMF
Connector	2 × duplex LC
Fiber	Singlemode
Max. power	15 W
Case temperature	0 to +70 °C
Protocol	InfiniBand or Ethernet (NDR)

ORDERING INFORMATION

GLOBALfiber item	Coding	Replaces NVIDIA	Description
O800G-2LR4-F-NVI	IB InfiniBand	MMS4X90-NR	OSFP 800G 2xLR4 10km Finned (IHS)
O800G-2LR4-F-NVE	ETH Ethernet	MMS4X90-NR	OSFP 800G 2xLR4 10km Finned (IHS)

Choose the coding that matches the host: InfiniBand for NVIDIA Quantum switches, Ethernet for NVIDIA Spectrum switches. Other coding on request: salg@globalfiber.no.

ABSOLUTE MAXIMUM RATINGS

Parameter	Min	Max	Unit
Supply voltage	-0.5	3.6	V
Control input voltage	-0.3	Vcc+0.5	V
Storage temperature	-40	85	°C
Relative humidity (non-condensing)	5	95	%

RECOMMENDED OPERATING CONDITIONS

Parameter	Min	Typ	Max	Unit
Case temperature	0	–	70	°C
Supply voltage	3.135	3.3	3.465	V
Power consumption	–	–	15	W
Link distance	2	–	10000	m

OPTICAL CHARACTERISTICS – TRANSMITTER (PER LANE)

Parameter	Min	Typ	Max	Unit
Lane 0 wavelength	1264.5	1271	1277.5	nm
Lane 1 wavelength	1284.5	1291	1297.5	nm
Lane 2 wavelength	1304.5	1311	1317.5	nm
Lane 3 wavelength	1324.5	1331	1337.5	nm
Side-mode suppression ratio	30	–	–	dB
Average launch power per lane	-2.7	–	5.1	dBm
Extinction ratio	3.5	–	–	dB

OPTICAL CHARACTERISTICS – RECEIVER (PER LANE)

Parameter	Min	Max	Unit
Average receive power per lane	-9.0	5.1	dBm
Receiver overload	–	5.1	dBm
Power budget	6.3	–	dB

DIGITAL DIAGNOSTICS (DDM)

Parameter	Range	Accuracy
Case temperature	0 to 70 °C	±3 °C
Supply voltage	0 to Vcc	±0.1 V
TX bias per lane	0 to 100 mA	±10 %
TX power per lane	Operating range	±3 dB
RX power per lane	Operating range	±3 dB

COMPLIANCE

- IEEE 802.3cu (400GBASE-LR4-10)
- OSFP MSA
- CMIS 5.0
- IEEE 802.3ck (400GAUI-4 / 800GAUI-8 C2M)
- Class 1 laser product
- RoHS compliant

INSTALLATION NOTES

- Use in OSFP host ports designed for finned top (IHS) modules.
- Confirm host support, port mode, firmware version and FEC before deployment.
- Check the optical link budget and fiber loss for the full link (singlemode fiber, 2 × duplex LC).
- Keep connectors clean and capped when not in use.

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