

800G OSFP Close Top 2FR4 2km

CL800GOSFP2FR4-CLT

Product Features:

- Compliant with IEEE 802.3cu-2021
- 2x400GBASE-FR4 optical interface
- Compliant with IEEE P802.3ck D3.0
- - 2x400GAUI-4 C2M electrical interface
- Compliant with OSFP MSA HW Rev 4.1
- Type 2 housing with dual LC connector
- Compliant with CMIS Rev 5.0
- Case operating temperature 0°C to 70°C
- Two wire serial Interface with digital diagnostic monitoring
- Complies with EU Directive 2011/65/EU (RoHS compliant)
- Class 1 Laser

Functional Characteristics (Optical)

The following tables list the performance specifications for the various functional blocks of the integrated optical transceiver module.

Table 1 – Transmitter Optical Specifications

| Parameter | Symbol | Min. | Typical | Max. | Unit | Notes |
|--|------------------------------|----------------------|---------|--------|------|-------|
| Wavelength L0, L4 | $\lambda_{C0}, \lambda_{C4}$ | 1264.5 | 1271 | 1277.5 | nm | |
| Wavelength L1, L5 | $\lambda_{C1}, \lambda_{C5}$ | 1284.5 | 1291 | 1297.5 | nm | |
| Wavelength L2, L6 | $\lambda_{C2}, \lambda_{C6}$ | 1304.5 | 1311 | 1317.5 | nm | |
| Wavelength L3, L7 | $\lambda_{C3}, \lambda_{C7}$ | 1324.5 | 1331 | 1337.5 | nm | |
| Side Mode Suppression Ratio | SMSR | 30 | - | - | dB | |
| Total average launch power | AOPT | - | - | 10.4 | dBm | |
| Average Launch Power, each lane | AOPL | -3.2 | - | 4.4 | dBm | 1 |
| Outer Optical Modulation Amplitude (OMA _{outer}), each Lane for TDECQ < 1.4 dB for 1.4 dB ≤ TDECQ ≤ 3.4 dB | TOMA | -0.2 -1.6 + TDECQ | - | 3.7 | dBm | |
| Difference in launch power between any two lanes (OMA _{outer}) | AOPd | - | - | 3.9 | dB | |
| Transmitter and Dispersion Eye Closure for PAM4 (TDECQ), each lane | TDECQ | - | - | 3.4 | dB | |
| Transmitter eye closure for PAM4 (TECQ), each lane | TECQ | - | - | 3.4 | dB | |
| TDECQ – TECQ | - | - | - | 2.5 | dB | |
| Over/under-shoot | - | - | - | 22 | % | |
| Transmitter power excursion | - | - | - | 1.8 | dBm | |
| Average Launch Power of OFF Transmitter, each lane | TOFF | - | - | -16 | dBm | |



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|-----------------------------------|-----|-----|---|------|-------|---|
| Extinction Ratio | ER | 3.5 | - | - | dB | |
| Transmitter transition time (max) | Tr | - | - | 17 | ps | |
| RIN17.1OMA (max) | RIN | - | - | -136 | dB/Hz | |
| Optical Return Loss Tolerance | ORL | - | - | 17.1 | dB | |
| Transmitter Reflectance | TR | - | - | -26 | dB | 2 |

Note 1: Average launch power, each lane (min) is informative and not the principal indicator of signal strength

Note 2: Transmitter reflectance is defined looking into the transmitter

Table 2 – Receiver Optical Specifications

| Parameter | Symbol | Min. | Typical | Max. | Unit | Notes |
|---|------------------------------|--------|---------|-------------------|------|-------|
| Wavelength L0, L4 | $\lambda_{C0}, \lambda_{C4}$ | 1264.5 | 1271 | 1277.5 | nm | |
| Wavelength L1, L5 | $\lambda_{C1}, \lambda_{C5}$ | 1284.5 | 1291 | 1297.5 | nm | |
| Wavelength L2, L6 | $\lambda_{C2}, \lambda_{C6}$ | 1304.5 | 1311 | 1317.5 | nm | |
| Wavelength L3, L7 | $\lambda_{C3}, \lambda_{C7}$ | 1324.5 | 1331 | 1337.5 | nm | |
| Damage Threshold, each Lane | AOPD | 5.4 | - | - | dBm | |
| Average Receive Power, each Lane | AOPR | -7.2 | - | 4.4 | dBm | |
| Receive Power (OMAouter), each Lane | OMAR | - | - | 3.7 | dBm | |
| Difference in receive power between any two lanes (OMAouter) (max) | AOPg | - | - | 4.1 | dB | |
| Receiver Reflectance | RR | - | - | -26 | dB | |
| Receiver sensitivity (OMAouter), each lane for TECQ < 1.4 dB for 1.4 dB ≤ TECQ ≤ 3.4 dB | SOMA | - | - | -4.6 -6 + TECQ | dBm | |
| Stressed Receiver Sensitivity (OMAouter), each Lane | SRS | - | - | -2.6 | dBm | 1 |
| Conditions of stressed receiver sensitivity test | | | | | | |
| Stressed eye closure for PAM4 (SECQ), lane under test | - | - | 3.4 | - | dB | |
| OMAouter of each aggressor lane | - | - | 1.4 | - | dBm | |

Note 1: Measured with conformance test signal at TP3 for the BER= 2.4x10⁻⁴.

Ordering Information

Table 3 - Ordering Information

| Part No. | Application | Data Rate | Laser Source | Fiber Type |
|--------------------|----------------------------------|-----------|--------------|-------------------|
| CL800GOSFP2FR4-CLT | 2x400GBASE-FR4 8x100GBASE-FR1 | 850Gb/s | EML | Single Mode Fiber |

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