# 1.25Gbps 20km SFP Transceiver
# CLSFP13GELXD

## Product Features:

- Up to 1.25Gbps data links
- 20KM with 9/125μm SMF
- 1310nm FP laser
- Duplex LC Connector
- Hot-pluggable SFP footprint
- Single 3.3V power supply
- Operating temperature: -40°C to 85°C
- RoHS
- Digital Diagnostic Monitor (DDM)

## Applications:

- 1.25Gbps 1000Base-LX
- 1G/2G Fiber Channel

## Functional Characteristics

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

**Table 1 - Optical Characteristics**

| Parameter | Symbol | Min. | Typical | Max. | Unit | Notes |
|---|---|---|---|---|---|---|
| **Transmitter** | | | | | | |
| Centre Wavelength | λc | 1260 | 1310 | 1360 | nm | |
| Spectral Width (RMS) | σ | | | 4 | nm | |
| Average Output Power | Pout | -9 | | -3 | dBm | |
| Extinction Ratio | ER | 9 | | | dB | |
| Optical Rise/Fall Time | tr/tf | | | 1 | ns | |
| **Receiver** | | | | | | |
| Centre Wavelength | λc | 1200 | 1310 | 1600 | nm | |
| Receiver Sensitivity | PIN | | | -23 | dBm | |
| Receiver Overload | Pmax | 1 | | | dBm | |
| LOS De-Assert | LOSD | | | -27 | dBm | |
| LOS Assert | LOSA | -29 | | | dBm | |
| LOS Hysteresis | | 0.5 | | 4.5 | dB | |

**Table 2 - Electrical Characteristics**

| Parameter | Symbol | Min. | Typical | Max. | Unit | Notes |
|---|---|---|---|---|---|---|
| **Recommended Operating Conditions** | | | | | | |
| Operating Case Temperature | TC | -40 | | 85 | ℃ | |
| Power Supply Voltage | VCC | 3.15 | 3.3 | 3.45 | V | |
| Power Supply Current | ICC | | | 250 | mA | |
| Data Rate | | | 1.25 | 2.125 | GBps | |
| Max Link Length on 9/125μm SMF | Lmax | | 20 | | km | |
| **Transmitter** | | | | | | |
| Input Differential Impedance | Zin | 90 | 100 | 110 | Ω | |
| Data Input Swing Differential | Vin | 500 | | 2400 | mV | |
| Tx-Dis Disable | Vd | 2.0 | | Vcc | V | |
| Tx-Dis Enable | Ven | 0 | | 0.8 | V | |
| TX-Fault (Fault) | | 2.0 | | Vcc+0.3 | V | |
| TX-Fault (Normal) | | 0 | | 0.8 | V | |
| **Receiver** | | | | | | |
| Data Output Swing Differential | Vout | 370 | | 2000 | mV | |
| Rx-Los Fault | Vlf | 2.0 | | Vcc+0.3 | V | |
| Rx-Los Normal | Vln | 0 | | 0.8 | V | |

## Ordering Information

**Table 3 - Ordering Information**

| Part No. | Data Rate | DDM | Wave | Fiber Type | Dist. | Temp. | Optical Interface |
|---|---|---|---|---|---|---|---|
| CLSFP13GELX20I | 1.25Gbps | yes | 1310nm | SMF | 20KM | -40~85℃ | LC |

## CONTACT:

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