

PRE-QSFP28-50G-ER

QSFP28, ER, 1310nm, 50G, 40km, SMF/LC



Product Features:

- Single Wavelength PAM4
- 1310nm Wavelength
- SMF Transmission Medium
- LC/UPC Connector
- Digital Diagnostic Monitoring (DDM)
- C-Temp Rated
- 50Gbps Maximum Data Rate
- <4.5W Power Consumption



Product Applications:

- 50GBASE-ER Ethernet
- Metro Ethernet
- Switch/Router Interconnections

Standards:

- SFF-8636/8665
- IEEE 802.3 50GAUI-2
- RoHS

General Specifications:

| Parameter | Min | Typical | Max | Unit |
|------------------------------------|------|---------|------|---------|
| Case Operating Temperature | 0 | - | 70 | °C |
| Power Consumption | - | - | 4.5 | W |
| Power Supply Voltage | 3.14 | 3.3 | 3.47 | V |
| Storage Humidity | 5 | - | 85 | % |
| Storage Temperature | -40 | - | 85 | °C |
| Transmission Distance ¹ | - | - | 40 | km |
| Data Rate (Per Lane) | - | 26.5625 | - | GBaud/s |

Note 1: With KP4 FEC on Host

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Optical Characteristics: Transmitter

| Parameter | Min | Typical | Max | Unit |
|------------------------------------------------------------------------------|--------|---------|--------|------|
| Center Wavelength | 1304.5 | 1310 | 1317.5 | nm |
| Average Launch Power | 0.4 | - | 6.63 | dBm |
| Outer Optical Modulation Amplitude | 3.4 | - | 7.4 | dBm |
| Side Mode Suppression Ratio | 30 | - | - | dB |
| Extinction Ratio | 6 | - | - | dB |
| Transmitter and Dispersion Penalty Eye Closure for PAM4 (TDECQ) ¹ | - | - | 3.2 | dB |
| Launch Power in OMA _{outer} minus TDECQ | 2 | - | - | dBm |
| Average Transmitter OFF Power | - | - | -15 | dBm |

Note 1: Measured with a PRBS2¹⁵-1 test pattern @53.125Gbps, 40km fiber

Optical Characteristics: Receiver

| Parameter | Min | Typical | Max | Unit |
|-----------------------------------------------------------|--------|---------|--------------------------|------|
| Receiver Wavelength | 1304.5 | 1311 | 1317.5 | nm |
| Average Receive Power | -17.6 | - | -3.37 | dBm |
| Receive Power (OMA _{outer}) | - | - | -2.6 | dBm |
| Receiver Sensitivity (OMA _{outer}) ¹ | - | - | Max (-15.1; SECQ – 16.5) | dBm |
| Receiver Reflectance | - | - | -26 | dB |
| Damage Threshold | -2.37 | - | - | dBm |
| LOS Assert | -30 | - | - | dBm |
| LOS De-Assert | - | - | -20 | dBm |
| LOS Hysteresis | 0.5 | - | - | dB |

Note 1: Measured with a PRBS2³¹-1 test pattern @53.125Gbps, BER≤2.4E-4. IEEE 802.3cd clause 139 equation 139-2

Product Ordering Information

| Part Number | Description |
|-------------------|----------------------------------------------------------|
| PRE-QSFP28-50G-ER | QSFP28, ER, 1310nm, 50G, 40km, SMF/LC, PAM4, C-Temp, DDM |