

PRE-QSFP28-LR1

QSFP28, LR, 1310nm, 100G, 10km, SMF/LC

Product Features:

- Single Wavelength PAM4
- EML Transmitters
- PIN Receivers
- 1310nm Wavelengths
- SMF Transmission Medium
- LC/UPC Connector
- Digital Diagnostic Monitoring (DDM)
- C-Temp Rated
- 100Gbps Maximum Data Rate
- <3.5W Power Consumption



Product Applications:

- 100GBASE-LR Ethernet
- Datacenter
- Switch/Router Interconnections

Standards:

- SFF-8636
- IEEE 802.3cd
- RoHS

General Specifications:

| Parameter | Min | Typical | Max | Unit |
|----------------------------|------|----------|------|------|
| Case Operating Temperature | 0 | - | 70 | °C |
| Power Consumption | - | - | 3.5 | W |
| Power Supply Voltage | 3.14 | 3.3 | 3.47 | V |
| Storage Humidity | 5 | - | 95 | % |
| Storage Temperature | -40 | - | 85 | °C |
| Transmission Distance | - | - | 10 | km |
| Signaling Rate | - | 53.125 | - | GBd |
| Data Rate (Per Lane) | - | 25.78125 | - | Gbps |

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Optical Characteristics: Transmitter

| Parameter | Min | Typical | Max | Unit |
|--|------------|---------|--------|-------|
| Center Wavelength | 1304.5 | 1310 | 1317.5 | nm |
| Average Launch Power ¹ | -1.9 | - | 4.8 | dBm |
| Outer Optical Modulation Amplitude | - | - | 5.0 | dBm |
| Outer Optical Modulation Amplitude for TDECQ <1.4dB | 1.1 | - | - | dBm |
| for 1.4 dB ≤TDECQ ≤3.4dB | -0.3+TDECQ | - | - | dBm |
| Side Mode Suppression Ratio | 30 | - | - | dB |
| Extinction Ratio | 3.5 | - | - | dB |
| Transmitter and Dispersion Penalty Eye Closure for PAM4 (TDECQ) | - | - | 3.4 | dB |
| Transmitter Eye Closure for PAM4 (TECQ) | - | - | 3.4 | dB |
| TDECQ - TECQ | - | - | 2.5 | nm |
| Optical Return Loss Tolerance | - | - | 15.6 | dB |
| Relative Intensity Noise (OMA) | - | - | -136 | dB/Hz |
| Average Transmitter OFF Power | - | - | -15 | dBm |

Optical Characteristics: Receiver

| Parameter | Min | Typical | Max | Unit |
|--|-----------|---------|------|------|
| Average Receive Power ¹ | -8.2 | - | 4.8 | dBm |
| Receive Power (OMA _{outer}) | - | - | 5 | dBm |
| Receiver Sensitivity (OMA _{outer}) For TECQ < 1.4dB | -6.1 | - | - | dBm |
| for 1.4 dB ≤TDECQ ≤3.4dB | -7.5+TECQ | - | - | dBm |
| Receiver Reflectance | - | - | -26 | dB |
| Damage Threshold | 5.8 | - | - | dBm |
| Stressed Receiver Sensitivity (OMA _{outer}) | - | - | -4.1 | dBm |
| Stressed Eye Closure for PAM4 (SECQ) | - | - | 3.4 | dB |

Note 1: Average Power is informative and not the principal indicator of signal strength

Product Ordering Information

| Part Number | Description |
|----------------|--|
| PRE-QSFP28-LR1 | QSFP28, LR, 1310nm, 100G, 10km, SMF/LC, C-Temp |