



100G QSFP28 PSM4 Transceiver

The essence of Lorom product design is to ensure that maximum performance levels are consistently achieved in all conditions and environments. Our PSM4 (Parallel Single Mode 4-Channel) Transceiver is specifically TOSA/ROSA designed to provide low power consumption and high RF performance and to guarantee product quality.

FEATURES

- Single 3.3V Power Supply
- Operating case temperature (0°C~70°C)
- Up to 2 Km Link Length via SMF
- Hot pluggable
- Low power dissipation
- MPO Optical Connector (IEC61754-7-1)

STANDARDS & AGREEMENTS COMPLIANT

- IEEE 802.3bm, IEEE 802.3ba, SFF-8665, SFF-8636
- 100G PSM4 MSA
- QSFP28 MSA
- RoHS-6

APPLICATIONS

- Data Center Backbone
- Ethernet Switches
- High-speed Servers
- High-performance Computing Clusters
- SAN, Routers, Hubs, Load Balancer
- Infiniband EDR, FDR and QDR



Absolute Maximum Ratings

| Parameter | Min. | Max. | Unit |
|---------------------|------|------|------|
| Storage Temperature | -40 | +85 | °C |
| Relative Humidity | 0 | +85 | % |

Recommended operating Conditions (T=25°C, unless noted)

| Parameter | Min. | Typ. | Max. | Unit |
|-----------------------------|------|----------|------|------|
| Case Temperature | 0 | | 70 | °C |
| Power Supply Voltage | 3.15 | 3.3 | 3.45 | V |
| Signaling Rate Each Channel | | 25.78125 | | Gbps |
| Power Supply Noise | | | 50 | mVpp |
| Supply Noise Rejection | | | 100 | mV |
| Operating Distance | | | 2 | km |

Electrical Characteristics (T=25°C, unless noted)

| Parameter | Max. | Unit |
|-------------------|------|------|
| Power Consumption | 3.5 | W |
| Supply Current | 1200 | mA |

Transmitter Characteristics (T=25°C, unless noted)

| Parameter | Min. | Typ. | Max. | Unit |
|--|--------|------|--------|------|
| Differential Input Impedance | 90 | 100 | 110 | Ohm |
| Differential Data Input Swing | 200 | | 900 | mV |
| Center Wavelength, Each Lane (0~70°C) | 1295 | | 1325 | nm |
| RMS Spectral Width | | | 1.5 | nm |
| Average Launch Power, Each Lane | -9.4 | | 2 | dBm |
| Center Wavelength λ_3 | 1324.5 | | 1337.5 | nm |
| Optical Modulation Amplitude (OMA), Each Lane | -5.15 | | 2.2 | dBm |
| Difference in Launch Power Between Any Two Lanes (OMA) | | | 5 | dB |
| Average Launch Power of OFF Transmitter Reflectance | | | -30 | dBm |
| Extinction Ratio | 3.5 | | | dB |
| Optical Return Loss Tolerance | | | 20 | dB |
| Transmitter Eye Mask Margin | 5 | | | % |

Receiver Characteristics (T=25°C, unless noted)

| Parameter | Min. | Typ. | Max. | Unit |
|--|--------|------|--------|------|
| Differential Output Impedance | 90 | 100 | 110 | Ohm |
| Differential Data Output Swing | 200 | | 900 | mV |
| Center Wavelength, Each Lane (0~70°C) | 1295 | | 1325 | nm |
| Damage Threshold | 3 | | | dBm |
| Average Power at Receiver Input, Each Lane | -12.66 | | 2 | dBm |
| Non-Stressed Receiver Sensitivity (OMA), Each Lane (BER=5 x 10 ⁻⁵) | | | -11.35 | dBm |



Speak to us for more information or visit our website www.lorom.com

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