

DATA SHEET100G QSFP28 SR4 TRANSCEIVER

DESCRIPTION

The 100G QSFP28 SR4 transceiver is a four-channel, pluggable, parallel, fiber-optic QSFP28 SR4 for 100-Gigabit Ethernet. This transceiver is a high-performance module for short-range multi-lane data communication and interconnect applications. It integrates four data lanes in each direction with 100Gbps bandwidth. Each lane can operate at 25Gbps up to 70m using OM3 fiber or 100m using OM4 fiber. These modules are designed to operate over multimode fiber systems using a nominal wavelength of 850nm. The optical interface uses 12-fibe MTP/MPO connector. The transceiver proven circuit to provide reliable long life, high performance, and consistent service.



KEY FEATURES

Up to 70m using OM3 MMF and 100m using OM4 MMF

Operating case temperature: 0~70°C

Maximum Power consumption less than 3W

4 channels 850nm VCSEL array

4 channels PIN photo-detector array

Single channel rate up to 25 Gbps

Internal CDR on both Transmitter and Receiver channels

DDM function implemented

Hot pluggable QSFP28 form factor

Single 1x12 MPO receptacle optical interface

Single +3.3V power supply

APPLICATIONS

100GBASE-SR4 100G Ethernet

Data Center Interconnect

Enterprise networking

COMPLIANCES

Compliant with QSFP28MSA

Compliant with IEEE802.3bm

Compliant with SFF-8665, SFF-8679, SFF-8636

Compliant with RoHS-6



DATA SHEET

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ENVIRONMENTAL SPECIFICATIONS

| Parameter | Min. | Тур. | Мах. | Unit |
|-----------------------|------|------|------|------|
| Operation Temperature | 0 | +25 | +70 | °C |
| Storage Temperature | -40 | | +85 | °C |
| Operation Humidity* | 5 | | 85 | % |
| Storage Humidity | 5 | | 85 | % |

^(*) not condensing

OPERATING SPECIFICATIONS

| Parameter | Min. | Тур. | Max. | Unit |
|-----------------------|------|---------|--------|------|
| Supply Voltage | 3.1 | +3.3 | +3.5 | V |
| Power Dissipation | | | 3 | W |
| Total Data Rate | | 103.125 | | Gb/s |
| Data Rate (Each lane) | | 25.78 | | Gb/s |
| Transmission Distance | | | 70-100 | m |

OPTICAL SPECIFICATIONS

TRANSMITTER

| Parameter | Min. | Тур. | Мах. | Unit |
|----------------------------------|------------------|------|------|------|
| Bit Rate (each Lane) | 25.78 +/- 100ppm | | | Gb/s |
| Wavelength | 840 | 850 | 860 | nm |
| Average Launch Power (each lane) | -8.5 | | 2.5 | dBm |
| Transmitter OMA (each lane) | -6.4 | | 3 | dBm |
| Extinction Ratio (ER) | 3 | | | dB |

RECEIVER

| Parameter | Min. | Тур. | Мах. | Unit |
|--|------------------|------|-------|------|
| Bit Rate (each Lane) | 25.78 +/- 100ppm | | Gb/s | |
| Wavelength | 840 | 850 | 860 | nm |
| Receiver Sensitivity (unstressed, each lane) | | | -10.2 | dBm |
| Receiver Sensitivity (stressed, each lane) | | | -5.2 | dBm |
| Receiver Reflectance | | | -12 | dBm |
| LOSA | -30 | | | dBm |
| LOSD | | | -7.5 | dBm |
| Hysteresis | 0.5 | | | dB |



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ORDERING INFORMATION

| Jabil Part Number | Package | Rate | Reach | Other info |
|-------------------|---------|------|---------|------------|
| JPQ81CS1MOC000SR4 | QSFP28 | 100G | 70-100m | DDM/RoHS |

For additional information, visit jabil.com/photonics