

Соединитель, QSFP28-QSFP28, 100G, Xm

Соединители моделей QSFP28-QSFP28-DA-Xm являются сборками двух модулей QSFP28 без оптических фотоприемников и передатчиков, соединенных между собой электрическим кабелем витая пара (TP).

Особенности:

- Supports 103.125Gb/s and 111.8Gb/s bit rates
- Lower Power Consumption for Single Module < 1.3W
- Power Supply: +3.3V
- Compatible to SFF-8665
- Temperature Range: 0~ 70°C
- RoHS6 Compliant
- With both side CDR

Области применения:

- 100GBASE Ethernet

| Model | Media type | Distance |
|----------------------|------------|------------|
| QSFP28-QSFP28-DA-05m | 30 AWG TP | Up to 0.5m |
| QSFP28-QSFP28-DA-1m | 30 AWG TP | Up to 1m |
| QSFP28-QSFP28-DA-2m | 30 AWG TP | Up to 2m |
| QSFP28-QSFP28-DA-3m | 26 AWG TP | Up to 3m |
| QSFP28-QSFP28-DA-4m | 26 AWG TP | Up to 4m |
| QSFP28-QSFP28-DA-5m | 26 AWG TP | Up to 5m |

Absolute Maximum Ratings

| Parameter | Symbol | Min. | Max. | Unit |
|-----------------------------|--------|------|------|------|
| Storage Temperature | Ts | -40 | +85 | °C |
| Supply Voltage | Vcc | -0.5 | 3.6 | V |
| Operating Relative Humidity | RH | 5 | 85 | % |

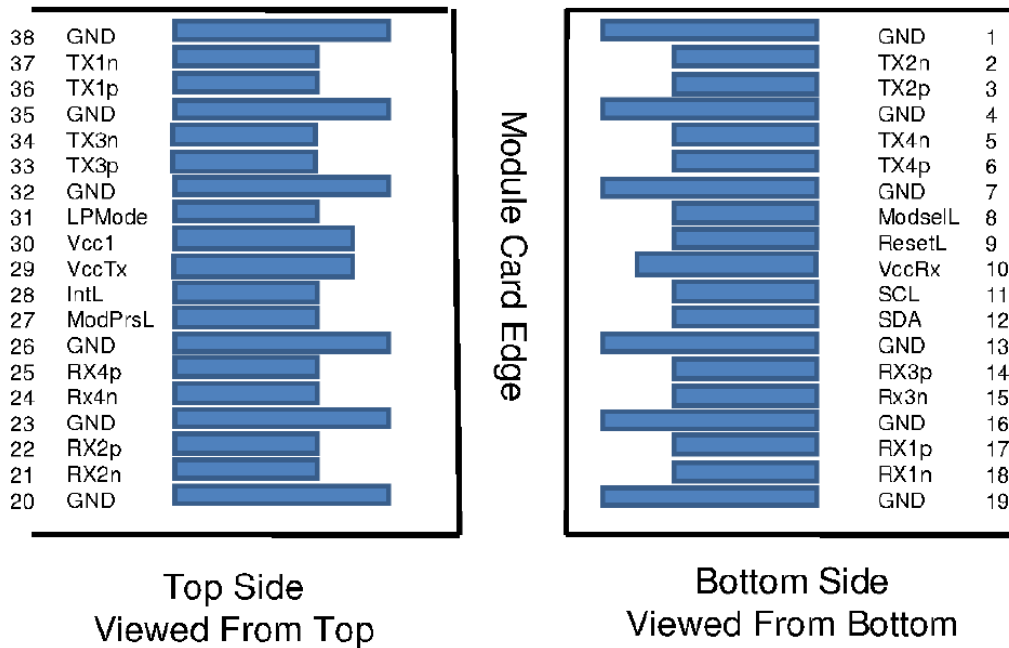
Recommended Operating Conditions

| Parameter | Symbol | Min. | Typical | Max. | Unit |
|----------------------------|---------------------|------|---------|------|------|
| Operating Case Temperature | QSFP28-QSFP28-DA-Xm | 0 | | 70 | °C |
| Power Supply Voltage | Vcc | 3.15 | 3.3 | 3.45 | V |
| Power Consumption | P | | | 1.3 | W |

Performance Specifications - Electrical

| Parameter | Symbol | Min. | Typ. | Max | Unit | Notes |
|--|--------|------|------|------|------|-------|
| Transmitter | | | | | | |
| Transmitter Differential Input Voltage | Vin | 500 | | 1200 | mVpp | |
| Receiver Differential Output Voltage | Zin | 500 | | 1200 | mVpp | |
| Impedance | Zin | 90 | 100 | 110 | ohms | |

QSFP28 Transceiver Electrical Pad Layout



Pin Function Definitions

| Pin | Logic | Symbol | Description | Plug Sequence | Notes |
|-----|--------------|---------|-------------------------------------|---------------|-------|
| 1 | | GND | Ground | 1 | 1 |
| 2 | CML-I | Tx2n | Transmitter Inverted Data Input | 3 | |
| 3 | CML-I | Tx2p | Transmitter Non-Inverted Data Input | 3 | |
| 4 | | GND | Ground | 1 | 1 |
| 5 | CML-I | Tx4n | Transmitter Inverted Data Input | 3 | |
| 6 | CML-I | Tx4p | Transmitter Non-Inverted Data Input | 3 | |
| 7 | | GND | Ground | 1 | 1 |
| 8 | LVTTL-I | ModSelL | Module Select | 3 | |
| 9 | LVTTL-I | ResetL | Module Reset | 3 | |
| 10 | | VccRx | +3.3V Power Supply Receiver | 2 | 2 |
| 11 | LVC MOS- I/O | SCL | 2-wire serial interface clock | 3 | |
| 12 | LVC MOS- I/O | SDA | 2-wire serial interface data | 3 | |
| 13 | | GND | Ground | 1 | 1 |
| 14 | CML-O | Rx3p | Receiver Non-Inverted Data Output | 3 | |
| 15 | CML-O | Rx3n | Receiver Inverted Data Output | 3 | |
| 16 | | GND | Ground | 1 | 1 |
| 17 | CML-O | Rx1p | Receiver Non-Inverted Data Output | 3 | |
| 18 | CML-O | Rx1n | Receiver Inverted Data Output | 3 | |
| 19 | | GND | Ground | 1 | 1 |
| 20 | | GND | Ground | 1 | 1 |
| 21 | CML-O | Rx2n | Receiver Inverted Data Output | 3 | |
| 22 | CML-O | Rx2p | Receiver Non-Inverted Data Output | 3 | |
| 23 | | GND | Ground | 1 | 1 |
| 24 | CML-O | Rx4n | Receiver Inverted Data Output | 3 | |
| 25 | CML-O | Rx4p | Receiver Non-Inverted Data Output | 3 | |
| 26 | | GND | Ground | 1 | 1 |
| 27 | LVTTL-O | ModPrsL | Module Present | 3 | |
| 28 | LVTTL-O | IntL | Interrupt | 3 | |
| 29 | | VccTx | +3.3V Power supply transmitter | 2 | 2 |
| 30 | | Vcc1 | +3.3V Power supply | 2 | 2 |
| 31 | LVTTL-I | LPMode | Low Power Mode | 3 | |
| 32 | | GND | Ground | 1 | 1 |
| 33 | CML-I | Tx3p | Transmitter Non-Inverted Data Input | 3 | |
| 34 | CML-I | Tx3n | Transmitter Inverted Data Input | 3 | |
| 35 | | GND | Ground | 1 | 1 |
| 36 | CML-I | Tx1p | Transmitter Non-Inverted Data Input | 3 | |
| 37 | CML-I | Tx1n | Transmitter Inverted Data Input | 3 | |
| 38 | | GND | Ground | 1 | 1 |

1: GND is the symbol for signal and supply (power) common for the QSFP28 module. All are common within the QSFP28 module and all module voltages are referenced to this potential unless otherwise noted. Connect these directly to the host board signal-common ground plane.

2: Vcc Rx, Vcc1 and Vcc Tx are the receiver and transmitter power supplies and shall be applied concurrently. Requirements defined for the host side of the Host Edge Card Connector are listed in Table 6. Recommended host board power supply filtering is shown in Figures 3 and 4. Vcc Rx Vcc1 and Vcc Tx may be internally connected within the QSFP28 Module in any combination. The

connector pins are each rated for a maximum current of 500mA.

Mechanical Specifications

