

QSFP28-4SFP28-PCxM

100Gbps QSFP28 to 4xSFP28 Direct Attach Cables

1M, 2M, 3M, 5M Reach



Product Features

- ❖ Compatible with IEEE 802.3bj, IEEE 802.3by and InfiniBand EDR
- ❖ Supports aggregate data rates of 100Gbps
- ❖ Optimized construction to minimize insertion loss and cross talk
- ❖ Backward compatible with existing QSFP+ connectors and cages
- ❖ Pull-to-release slide latch design
- ❖ 26AWG through 30AWG cable

- ❖ Straight and break out assembly configurations available
- ❖ Customized cable braid termination limits EMI radiation
- ❖ Customizable EEPROM mapping for cable signature
- ❖ RoHS compliant

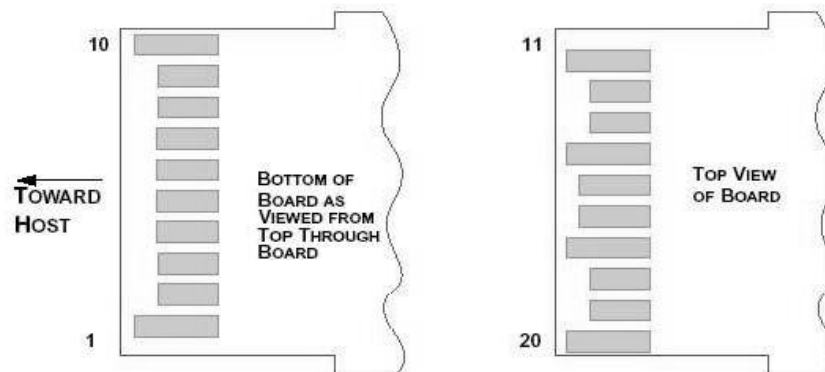
Applications

- ❖ Switches, servers and routers
- ❖ Data Center networks
- ❖ Storage area networks
- ❖ High performance computing
- ❖ Telecommunication and wireless infrastructure
- ❖ Medical diagnostics and networking
- ❖ Test and measurement equipment

Description

QSFP28 passive copper cable assembly feature eight differential copper pairs, providing four data transmission channels at speeds up to 28Gbps per channel, and meets 100G Ethernet, 25G Ethernet and Infini Band Enhanced Data Rate (EDR) requirements. Available in a broad range of wire gages - from 26AWG through 30AWG - this 100G copper cable assembly features low insertion loss and low cross talk.

Pin Descriptions



| Pin | Logic | Symbol | Name/Description | Notes |
|-----|------------|----------|---------------------------------|-------|
| 1 | | VeeT | Transmitter Ground | |
| 2 | LV-TTL-O | TX_Fault | N/A | 1 |
| 3 | LV-TTL-I | TX_DIS | Transmitter Disable | 2 |
| 4 | LV-TTL-I/O | SDA | Two Wire Serial Data | |
| 5 | LV-TTL-I | SCL | Two Wire Serial Clock | |
| 6 | | MOD_DEF0 | Module present, connect to VeeT | |
| 7 | LV-TTL-I | RS0 | N/A | 1 |
| 8 | LV-TTL-O | LOS | LOS of Signal | 2 |
| 9 | LV-TTL-I | RS1 | N/A | 1 |
| 10 | | VeeR | Receiver Ground | |
| 11 | | VeeR | Receiver Ground | |
| 12 | CML-O | RD- | Receiver Data Inverted | |
| 13 | CML-O | RD+ | Receiver Data Non-Inverted | |
| 14 | | VeeR | Receiver Ground | |
| 15 | | VccR | Receiver Supply 3.3V | |
| 16 | | VccT | Transmitter Supply 3.3V | |
| 17 | | VeeT | Transmitter Ground | |
| 18 | CML-I | TD+ | Transmitter Data Non-Inverted | |
| 19 | CML_I | TD- | Transmitter Data Inverted | |
| 20 | | VeeT | Transmitter Ground | |

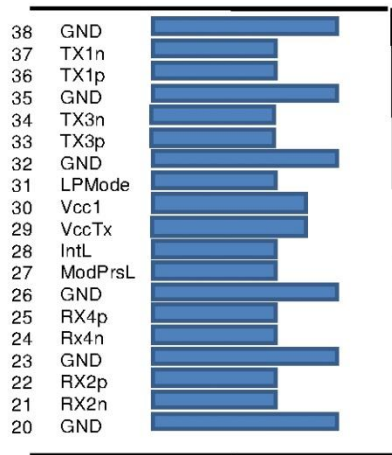
Notes:

1. Signals not supported in SFP+ Copper pulled-down to VeeT with 30K ohms resistor
2. Passive cable assemblies do not support LOS and TX_DIS

Pin Function Definition

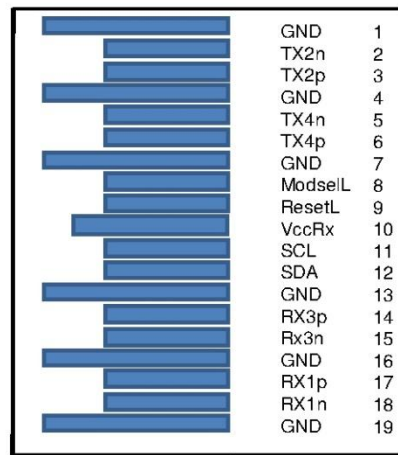
| Pin | Logic | Symbol | Description |
|-----|----------|---------|-------------------------------------|
| 1 | | GND | Ground |
| 2 | CML-I | Tx2n | Transmitter Inverted Data Input |
| 3 | CML-I | Tx2p | Transmitter Non-Inverted Data Input |
| 4 | | GND | Ground |
| 5 | CML-I | Tx4n | Transmitter Inverted Data Input |
| 6 | CML-I | Tx4p | Transmitter Non-Inverted Data Input |
| 7 | | GND | Ground |
| 8 | LVTTTL-I | ModSelL | Module Select |
| 9 | LVTTTL-I | ResetL | Module Reset |
| 10 | | Vcc Rx | +3.3V Power Supply Receiver |
| 11 | LVCMOS- | SCL | 2-wire serial interface clock |
| | I/O | | |
| 12 | LVCMOS- | SDA | 2-wire serial interface data |
| | I/O | | |
| 13 | | GND | Ground |
| 14 | CML-O | Rx3p | Receiver Non-Inverted Data Output |
| 15 | CML-O | Rx3n | Receiver Inverted Data Output |
| 16 | | GND | Ground |
| 17 | CML-O | Rx1p | Receiver Non-Inverted Data Output |
| 18 | CML-O | Rx1n | Receiver Inverted Data Output |
| 20 | | GND | Ground |
| 21 | CML-O | Rx2n | Receiver Inverted Data Output |
| 22 | CML-O | Rx2p | Receiver Non-Inverted Data Output |
| 23 | | GND | Ground |
| 24 | CML-O | Rx4n | Receiver Inverted Data Output |
| 25 | CML-O | Rx4p | Receiver Non-Inverted Data Output |

| | | | |
|----|---------|---------|-------------------------------------|
| 26 | | GND | Ground |
| 27 | LVTTL-O | ModPrsL | Module Present |
| 28 | LVTTL-O | IntL | Interrupt |
| 29 | | Vcc Tx | +3.3V Power supply transmitter |
| 30 | | Vcc1 | +3.3V Power supply |
| 31 | LVTTL-I | LPMode | Low Power Mode |
| 32 | | GND | Ground |
| 33 | CML-I | Tx3p | Transmitter Non-Inverted Data Input |
| 34 | CML-I | Tx3n | Transmitter Inverted Data Input |
| 35 | | GND | Ground |
| 36 | CML-I | Tx1p | Transmitter Non-Inverted Data Input |
| 37 | CML-I | Tx1n | Transmitter Inverted Data Input |
| 38 | | GND | Ground |



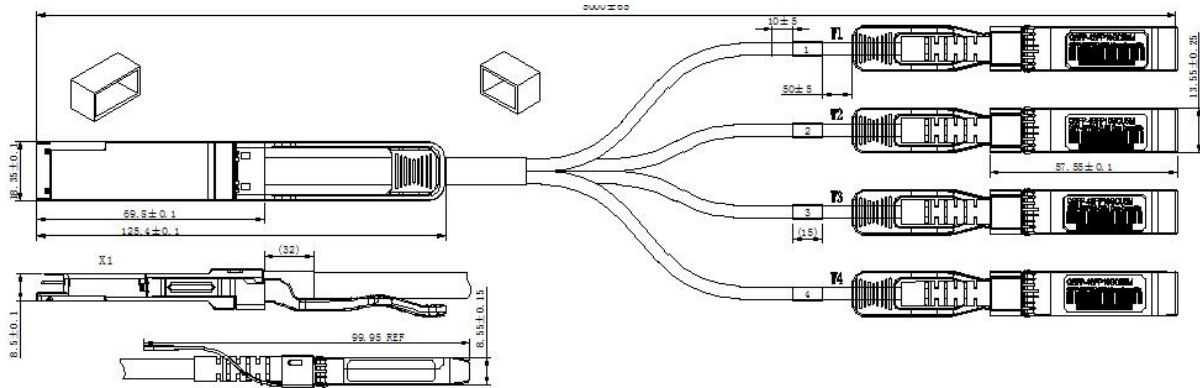
Top Side
Viewed From Top

Module Card Edge



Bottom Side
Viewed From Bottom

Mechanical Dimensions



Ordering Information

| Part Number | Product Description |
|--------------------|--|
| QSFP28-4SFP28-PC1M | 100G QSFP28 to 4xSFP28 Direct Attach Cable, 1m (3ft), AWG 30, 0° C ~ +70° C |
| QSFP28-4SFP28-PC2M | 100G QSFP28 to 4xSFP28 Direct Attach Cable, 2m (7ft), AWG 30, 0° C ~ +70° C |
| QSFP28-4SFP28-PC3M | 100G QSFP28 to 4xSFP28 Direct Attach Cable, 3m (10ft), AWG 26, 0° C ~ +70° C |
| QSFP28-4SFP28-PC5M | 100G QSFP28 to 4xSFP28 Direct Attach Cable, 5m (10ft), AWG 26, 0° C ~ +70° C |