

Preliminary DATA SHEET

CFORTH-QSFP28-100G-CUxM
QSFP28 100G Copper Cable Assembly

CFORTH-QSFP28-100G-CUxM Overview

CFORTH-QSFP28-100G-CUxM QSFP28 Copper direct-attach cables are suitable for very short distances and offer a highly cost-effective way to establish a 100-Gigabit link between QSFP28 ports. QSFP28 are designed for a high density cabling interconnect system capable of delivering an aggregate data bandwidth of 100Gbps. This interconnect system is fully compliant with QSFP28 MSA.

Product Features

- Up to 100 GBd bi-directional data links
- Compliant with QSFP28 MSA specifications
- Fully Compliant with IEEE 802.3bj and Infiniband EDR specifications
- AC coupled inputs and outputs
- 100 Ohm differential impedance
- All-metal housing for superior EMI performance
- Single power supply 3.3V, low power consumption
- RoHS Compliance
- Operating temperature range: 0°C to 70°C.

Applications

- 100Gigabit Ethernet
- Serial Data Transmission

Ordering Information

<i>Part Number</i>	<i>Description</i>
CFORTH-QSFP28-100G-CU1M	QSFP28 100G Direct Attach Copper Cable Assembly Passive 1 Meter
CFORTH-QSFP28-100G-CU3M	QSFP28 100G Direct Attach Copper Cable Assembly Passive 3 Meter
CFORTH-QSFP28-100G-CU5M	QSFP28 100G Direct Attach Copper Cable Assembly Passive 5 Meter

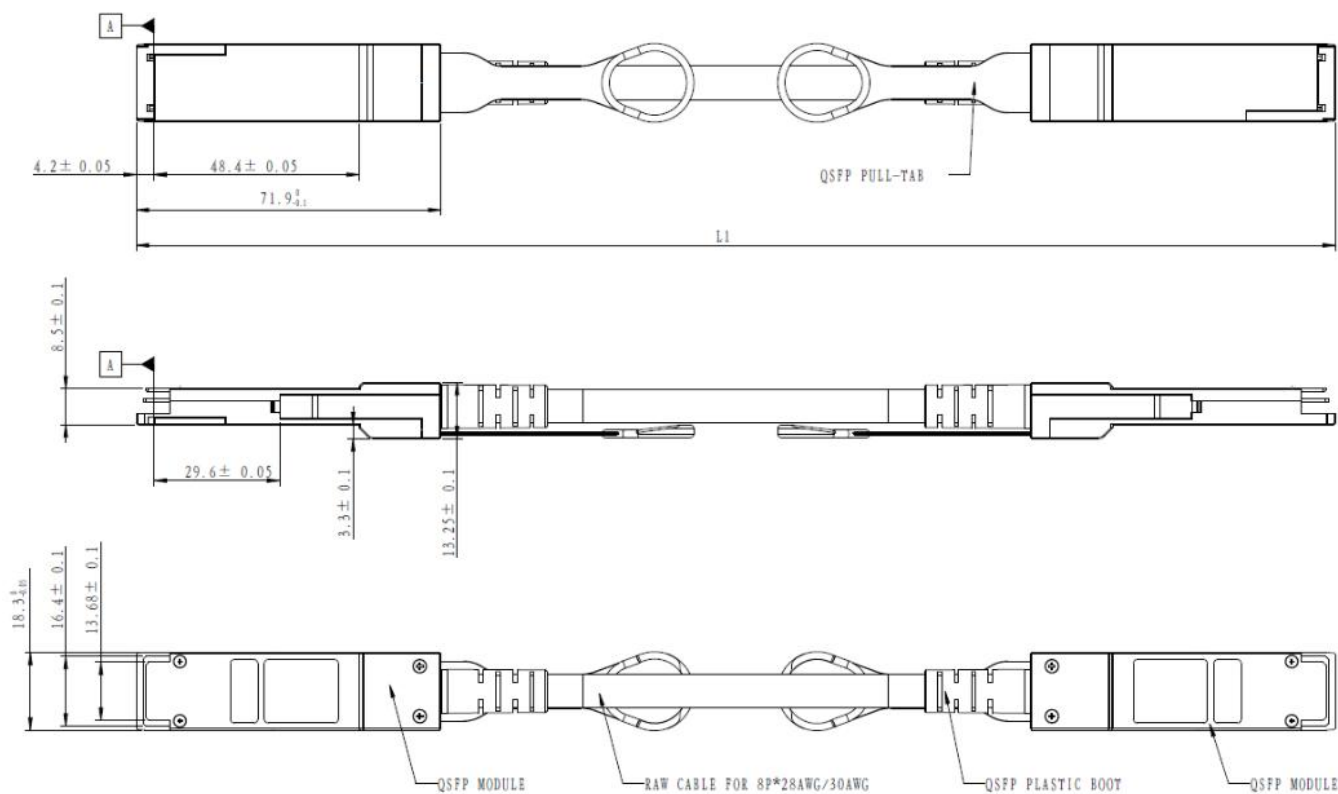
General Specifications

<i>Parameter</i>	<i>Symbol</i>	<i>Min</i>	<i>Typ</i>	<i>Max</i>	<i>Unit</i>	<i>Remarks</i>
Bit Error Rate	<i>BER</i>			10^{-12}		
Operating Temperature	<i>T_{OP}</i>	0		70	°C	Case temperature
Storage Temperature	<i>T_{STO}</i>	- 40		85	°C	Ambient temperature
Input Voltage	<i>V_{CC}</i>	3	3.3	3.6	V	
Maximum Voltage	<i>V_{MAX}</i>	- 0.5		4	V	For electrical power interface

Cable Mechanical Specifications

<i>Parameter</i>	<i>Symbol</i>	<i>Min</i>	<i>Typ</i>	<i>Max</i>	<i>Unit</i>	<i>Remarks</i>
Wire Gauge		30AWG		28AWG		
Cable Impedance	<i>Z</i>	95	100	105	Ohm	

Outline Dimensions

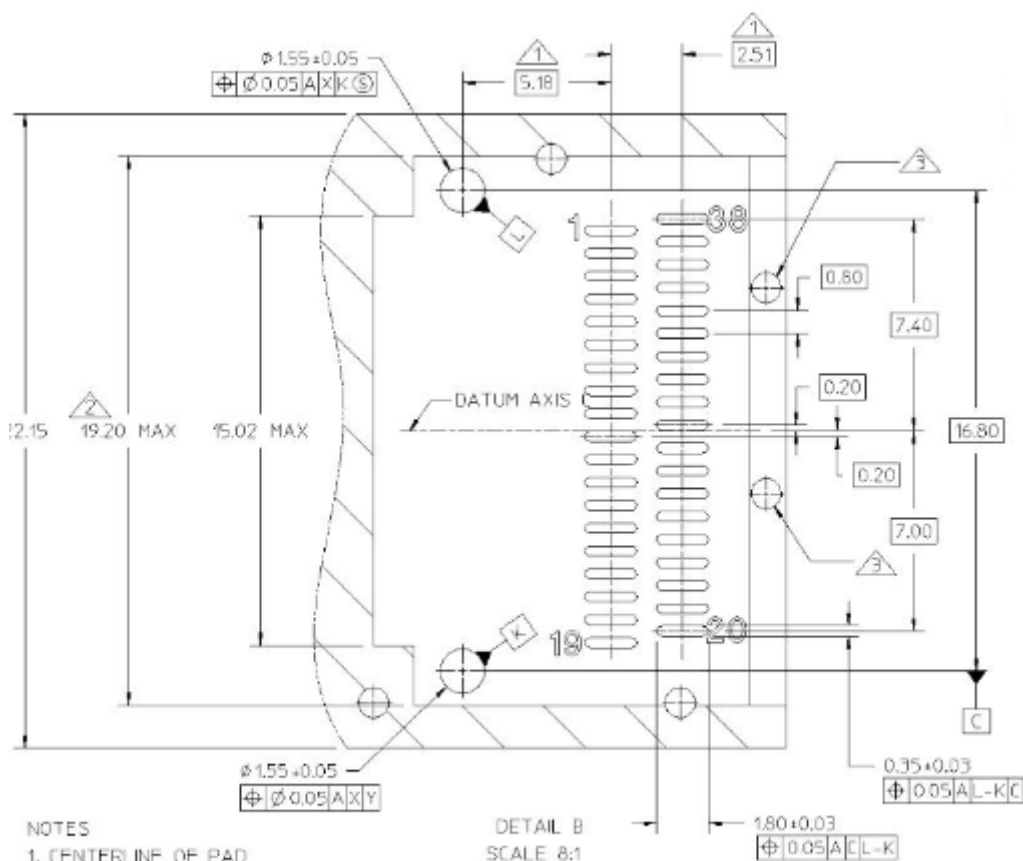
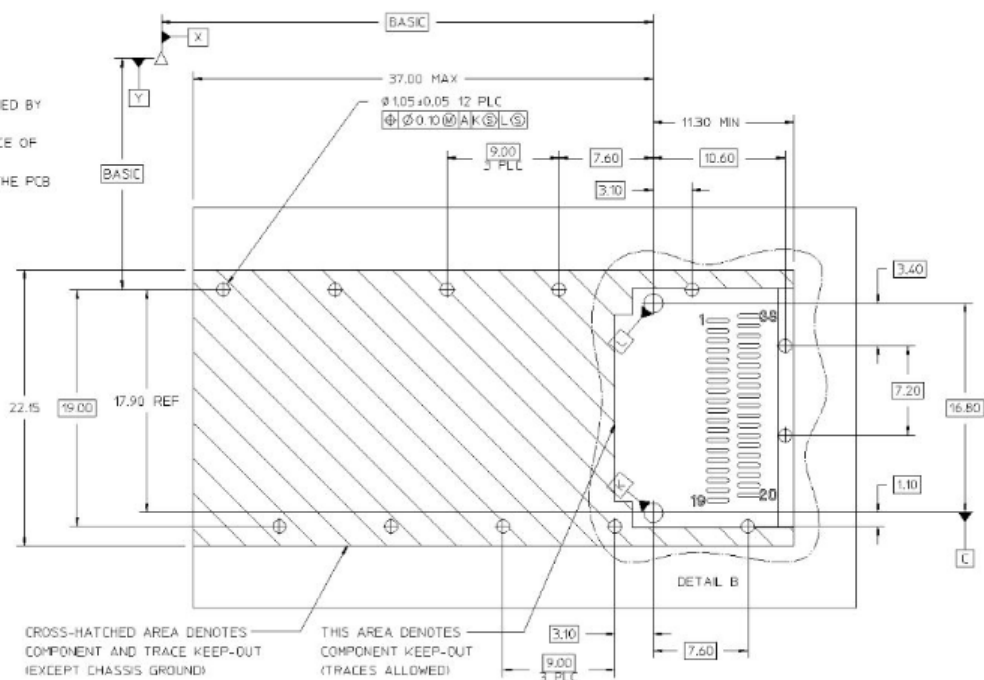


**ALL DIMENSIONS ARE ± 0.2 mm UNLESS OTHERWISE SPECIFIED
UNIT: mm**

PCB Layout Recommendation

NOTES

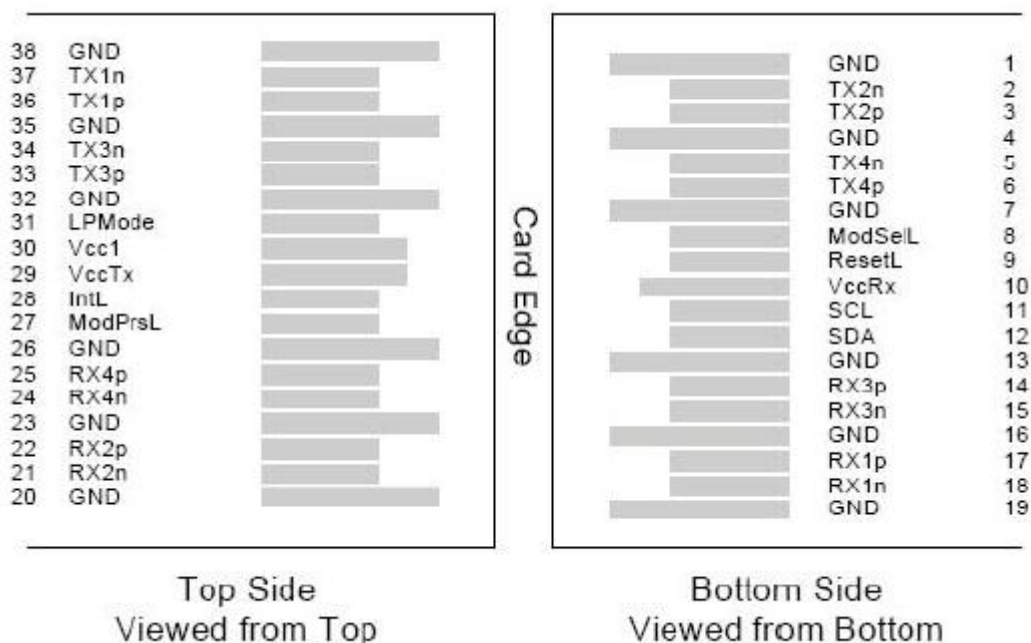
1. DATUM X & Y ARE ESTABLISHED BY THE CUSTOMER'S FIDUCIAL
2. DATUM A IS THE TOP SURFACE OF THE HOST BOARD
3. LOCATION OF THE EDGE OF THE PCB IS APPLICATION SPECIFIC
4. FINISHED PTH HOLE SIZE



NOTES

1. CENTERLINE OF PAD
2. SURFACE TRACES PERMITTED WITHIN THIS LENGTH
3. INDICATED HOLES ARE OPTIONAL

Electrical Pad Layout



Pin Assignment

<i>PIN #</i>	<i>Symbol</i>	<i>Description</i>	<i>Remarks</i>
1	GND	Ground	
2	Tx2n	Transmitter Inverted Data Input	
3	Tx2p	Transmitter Non-Inverted Data Input	
4	GND	Ground	
5	Tx4n	Transmitter Inverted Data Input	
6	Tx4p	Transmitter Non-Inverted Data Input	
7	GND	Ground	
8	ModSelL	Module Select	
9	ResetL	Module Reset	
10	V _{cc} RX	+3.3V Power Supply Receiver	
11	SCL	2-wire serial interface clock	
12	SDA	2-wire serial interface data	
13	GND	Ground	
14	Rx3p	Receiver Non-Inverted Data Output	
15	Rx3n	Receiver Inverted Data Output	
16	GND	Ground	
17	Rx1p	Receiver Non-Inverted Data Output	

18	Rx1n	Receiver Inverted Data Output
19	GND	Ground
20	GND	Ground
21	Rx2n	Receiver Inverted Data Output
22	Rx2p	Receiver Non-Inverted Data Output
23	GND	Ground
24	Rx4n	Receiver Inverted Data Output
25	Rx4p	Receiver Non-Inverted Data Output
26	GND	Ground
27	ModPrsL	Module Present
28	IntL	Interrupt
29	V _{cc} TX	+3.3V Power Supply transmitter
30	V _{cc1}	+3.3V Power Supply
31	LPMode	Low Power Mode
32	GND	Ground
33	Tx3p	Transmitter Non-Inverted Data Input
34	Tx3n	Transmitter Inverted Data Input
35	GND	Ground
36	Tx1p	Transmitter Non-Inverted Data Input
37	Tx1n	Transmitter Inverted Data Input
38	GND	Ground

References

1. IEEE standard 802.3bj. IEEE Standard Department.
2. SFF-8665
3. SFF-8436