



FTQ-C4XG-Tx-FTF

QSFP+ 40GBase to 4 SFP+ 10G, Direct Attached Cable, 1m-5m



Description

FTQ-C4XG-Tx-FTF QSFP+ 40G to 4x10 SFP+ fanout cable can be used to setup high speed serial data links between networking devices. This cable is equipped with one 40Gbps OSFP+ connector and four 10Gbps SFP+ connectors. Low power consumption and price make this solution very attractive, especially for interconnections on short distances. Maximum length available for those passive cables is 5 meters. Thanks to module's compact size port density of host device can be archived easily. Casing made fully from metal alloys ensures very good EMI immunity. Module is fully compliant with QSFP+ MSA. Transceiver can be prepared as compatible with: Cisco, HP, Netgear, Avaya, D-Link, Brocade, Extreme Networks, Huawei, Enterasys, 3Com, Alcatel-Lucent and other. To confirm compatibility please contact technical support before ordering.

Applications

- 40G Ethernet, 10G Ethernet
- Infiniband 4x SDR, DDR, QDR
- Rack to rack connections

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Key features

- QSFP+ connector and four 10Gbps SFP+
- Transmission distance: 1m, 3m, 5m
- Fully compliant with QSFP+ MSA SFF-8436 and SFP+ MSA SFF-8431
- Hot-Pluggable
- RoHS compliant
- Class 1 laser safety
- Low power dissipation
- Metal case for low EMI
- Operating case temperature: 0~70°C

Specification
Supported transmission technology
40G Ethernet, 10G Ethernet
Speed supported for Ethernet technology
40Gbps, 10Gbps
Speed supported for Fibre Channel technology
Transmission medium
Twisted Pair Copper Cable
Transmission distance
1m, 3m, 5m
Receptacle type
QSFP+/4 SFP+
Wavelength
N/A

Output power
N/A
Receiver sensitivity
N/A
Power supply voltage
3.3V
Total power consumption
< 3W
Operating environment – temperature
0~70°C
Operating environment – humidity
5~95% non-condensing
Dimensions
Compliant with QSFP+ Multi-Source Agreement

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Detailed technical specification

Pin Description

1 GND Transmitter Ground (Common with Receiver Ground) 2 TX2+ Transmitter Inverted Data Input 3 TX2+ Transmitter Non-Inverted Data Output 4 GND Transmitter Ground (Common with Receiver Ground) 5 TX4+ Transmitter Inverted Data Input 6 TX4+ Transmitter Inverted Data Input 7 GND Transmitter Ground (Common with Receiver Ground) 1 Module Select 8 ModSelL Module Select 9 Resett. Module Reset 10 VccRx 3.3V Power Supply Receiver 11 SCL 2-Wire serial Interface Clock 2 Lewire serial Interface Data 12 SDA 2-Wire serial Interface Data 13 GND Transmitter Ground (Common with Receiver Ground) 1 Rx3+ Receiver Non-Inverted Data Output 15 Rx3- Receiver Inverted Data Output 16 GND Transmitter Ground (Common with Receiver Ground) 17 Rx1+ Receiver Non-Inverted Data Output 18 Rx1- Receiver Inverted Data Output 19 GND Transmitter Ground (Common with Receiver Ground) 10 GND Transmitter Ground (Common with Receiver Ground) 11 Rx1+ Receiver Non-Inverted Data Output 12 SNA Transmitter Ground (Common with Receiver Ground) 19 GND Transmitter Ground (Common with Receiver Ground) 10 GND Transmitter Ground (Common with Receiver Ground) 11 Rx2+ Receiver Inverted Data Output 12 Rx2- Receiver Inverted Data Output 14 Rx4- Receiver Inverted Data Output 15 Rx2- Receiver Inverted Data Output 16 GND Transmitter Ground (Common with Receiver Ground) 17 Rx4+ Receiver Inverted Data Output 19 GND Transmitter Ground (Common with Receiver Ground) 10 Transmitter Ground (Common with Receiver Ground) 11 Rx4- Receiver Inverted Data Output 12 Rx4- Receiver Inverted Data Output 12 Rx4- Receiver Inverted Data Output 14 Rx4- Receiver Inverted Data Output 15 Rx4- Receiver Inverted Data Output 16 GND Transmitter Ground (Common with Receiver Ground) 17 Transmitter Ground (Common with Receiver Ground) 18 Int. Interrupt 19 GND Transmitter Ground (Common with Receiver Ground) 10 Transmitter Ground (Common with Receiver Ground) 11 Transmitter Inverted Data Output 12 Transmitter Inverted Data Output 13 LPMode Low Power Mode 14 Transmitter Inverted Data Output 15 Transmitte	Pin	Name	Function/Description	Notes
Tx2	1	GND		1
3	2	Tx2-		-
5 Tx4- Transmitter Inverted Data Input 6 Tx4+ Transmitter Non-Inverted Data output 7 GND Transmitter Ground (Common with Receiver Ground) 1 Module Select 9 Resett Module Reset 9 Resett Module Reset 10 VccRx 3.3V Power Supply Receiver 11 SCL 2-Wire serial Interface Clock 12 SDA 2-Wire serial Interface Data 13 GND Transmitter Ground (Common with Receiver Ground) 14 Rx3+ Receiver Non-Inverted Data Output 15 Rx3- Receiver Inverted Data Output 16 GND Transmitter Ground (Common with Receiver Ground) 17 Rx1+ Receiver Non-Inverted Data Output 18 Rx1- Receiver Inverted Data Output 19 GND Transmitter Ground (Common with Receiver Ground) 1 Transmitter Ground (Common with Receiver Ground) 1 Rx2- Receiver Inverted Data Output 1 - Rx3- Receiver Inverted Data Output 1 - Rx4- Receiver Inverted Data Output 1 - Rx4- Receiver Inverted Data Output 2 - Rx2- Receiver Inverted Data Output 3 GND Transmitter Ground (Common with Receiver Ground) 1 Transmitt	3	Tx2+	· · · · · · · · · · · · · · · · · · ·	-
6 Tx4+ Transmitter Non-Inverted Data output - 7 GND Transmitter Ground (Common with Receiver Ground) 1 8 ModSell. Module Select 2 9 Resett. Module Reset 2 10 VccRx 3.3V Power Supply Receiver - 11 SCL 2-Wire serial Interface Clock 2 12 SDA 2-Wire serial Interface Data 2 13 GND Transmitter Ground (Common with Receiver Ground) 1 14 Rx3+ Receiver Non-Inverted Data Output - 15 Rx3- Receiver Non-Inverted Data Output - 16 GND Transmitter Ground (Common with Receiver Ground) 1 17 Rx1+ Receiver Non-Inverted Data Output - 18 Rx1- Receiver Inverted Data Output - 20 GND Transmitter Ground (Common with Receiver Ground) 1 21 Rx2- Receiver Inverted Data Output - 22 Rx2+ Receiver Non-Inverte	4	GND	Transmitter Ground (Common with Receiver Ground)	1
7 GND Transmitter Ground (Common with Receiver Ground) 1 8 ModSelL Module Select 2 9 Resett Module Reset 2 10 VocRx 3.3V Power Supply Receiver - 11 SCL 2-Wire serial Interface Clock 2 12 SDA 2-Wire serial Interface Data 2 13 GND Transmitter Ground (Common with Receiver Ground) 1 14 Rx3+ Receiver Non-Inverted Data Output - 15 Rx3- Receiver Inverted Data Output - 16 GND Transmitter Ground (Common with Receiver Ground) 1 17 Rx1+ Receiver Inverted Data Output - 19 GND Transmitter Ground (Common with Receiver Ground) 1 20 GND Transmitter Ground (Common with Receiver Ground) 1 21 Rx2- Receiver Inverted Data Output - 22 Rx2+ Receiver Non-Inverted Data Output - 23 GND Transmitter Gro	5	Tx4-	Transmitter Inverted Data Input	-
7 GND Transmitter Ground (Common with Receiver Ground) 1 8 ModSell. Module Select 2 9 Resett. Module Reset 2 10 VcoRx 3.3 V Power Supply Receiver - 11 SCL 2-Wire serial Interface Clock 2 12 SDA 2-Wire serial Interface Data 2 13 GND Transmitter Ground (Common with Receiver Ground) 1 14 Rx3+ Receiver Non-Inverted Data Output - 15 Rx3- Receiver Inverted Data Output - 16 GND Transmitter Ground (Common with Receiver Ground) 1 17 Rx1+ Receiver Inverted Data Output - 19 GND Transmitter Ground (Common with Receiver Ground) 1 20 GND Transmitter Ground (Common with Receiver Ground) 1 21 Rx2- Receiver Inverted Data Output - 22 Rx2+ Receiver Non-Inverted Data Output - 23 GND Transmitter	6	Tx4+	Transmitter Non-Inverted Data output	-
9 Resett. Module Reset 2 10 VccRx 3.3V Power Supply Receiver - 11 SCL 2-Wire serial Interface Clock 2 12 SDA 2-Wire serial Interface Data 2 13 GND Transmitter Ground (Common with Receiver Ground) 1 14 Rx3+ Receiver Inverted Data Output - 15 Rx3- Receiver Inverted Data Output - 16 GND Transmitter Ground (Common with Receiver Ground) 1 17 Rx1+ Receiver Inverted Data Output - 18 Rx1- Receiver Inverted Data Output - 19 GND Transmitter Ground (Common with Receiver Ground) 1 20 GND Transmitter Ground (Common with Receiver Ground) 1 21 Rx2- Receiver Inverted Data Output - 22 Rx2+ Receiver Non-Inverted Data Output - 23 GND Transmitter Ground (Common with Receiver Ground) 1 24 Rx4+ Re	7	GND		1
9 Resett. Module Reset 2 10 VccRx 3.3V Power Supply Receiver - 11 SCL 2-Wire serial Interface Clock 2 12 SDA 2-Wire serial Interface Data 2 13 GND Transmitter Ground (Common with Receiver Ground) 1 14 Rx3+ Receiver Inverted Data Output - 15 Rx3- Receiver Inverted Data Output - 16 GND Transmitter Ground (Common with Receiver Ground) 1 17 Rx1+ Receiver Inverted Data Output - 18 Rx1- Receiver Inverted Data Output - 19 GND Transmitter Ground (Common with Receiver Ground) 1 20 GND Transmitter Ground (Common with Receiver Ground) 1 21 Rx2- Receiver Inverted Data Output - 22 Rx2+ Receiver Non-Inverted Data Output - 23 GND Transmitter Ground (Common with Receiver Ground) 1 24 Rx4+ Re	8	ModSelL	Module Select	2
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11 SCL 2-Wire serial Interface Clock 2 12 SDA 2-Wire serial Interface Data 2 13 GND Transmitter Ground (Common with Receiver Ground) 1 14 Rx3+ Receiver Non-Inverted Data Output - 15 Rx3- Receiver Inverted Data Output - 16 GND Transmitter Ground (Common with Receiver Ground) 1 17 Rx1+ Receiver Inverted Data Output - 18 Rx1- Receiver Inverted Data Output - 19 GND Transmitter Ground (Common with Receiver Ground) 1 20 GND Transmitter Ground (Common with Receiver Ground) 1 21 Rx2- Receiver Inverted Data Output - 22 Rx2+ Receiver Non-Inverted Data Output - 23 GND Transmitter Ground (Common with Receiver Ground) 1 24 Rx4- Receiver Inverted Data Output - 25 Rx4+ Receiver Inverted Data Output - 26 GND	10	VccRx	3.3V Power Supply Receiver	-
13 GND Transmitter Ground (Common with Receiver Ground) 14 Rx3+ Receiver Non-Inverted Data Output 15 Rx3- Receiver Inverted Data Output 16 GND Transmitter Ground (Common with Receiver Ground) 17 Rx1+ Receiver Non-Inverted Data Output 18 Rx1- Receiver Inverted Data Output 19 GND Transmitter Ground (Common with Receiver Ground) 10 GND Transmitter Ground (Common with Receiver Ground) 11 Rx2- Receiver Inverted Data Output 12 Rx2- Receiver Inverted Data Output 13 Rx2- Receiver Inverted Data Output 14 Rx2- Receiver Inverted Data Output 15 Rx2- Receiver Non-Inverted Data Output 16 Rx4- Receiver Non-Inverted Data Output 17 Rx4- Receiver Non-Inverted Data Output 18 Rx4- Receiver Non-Inverted Data Output 19 GND Transmitter Ground (Common with Receiver Ground) 10 Transmitter Ground (Common with Receiver Ground) 11 Rx2- Receiver Non-Inverted Data Output 12 Rx4- Receiver Non-Inverted Data Output 13 Rx4- Receiver Non-Inverted Data Output 14 Rx4- Receiver Non-Inverted Data Output 15 Rx4- Receiver Non-Inverted Data Output 16 GND Transmitter Ground (Common with Receiver Ground) 17 ModPrsl Module Present 18 IntL Interrupt 19 GND Transmitter Ground (Common with Receiver Ground) 10 Rydra Nydra Nydra Sydra S	11	SCL	11 7	2
14 Rx3+ Receiver Non-Inverted Data Output 15 Rx3- Receiver Inverted Data Output 16 GND Transmitter Ground (Common with Receiver Ground) 17 Rx1+ Receiver Non-Inverted Data Output 19 GND Transmitter Ground (Common with Receiver Ground) 10 Transmitter Ground (Common with Receiver Ground) 11 Transmitter Ground (Common with Receiver Ground) 12 GND Transmitter Ground (Common with Receiver Ground) 13 Rx2- Receiver Inverted Data Output 19 GND Transmitter Ground (Common with Receiver Ground) 10 Transmitter Ground (Common with Receiver Ground) 11 Rx2- Receiver Inverted Data Output 12 Rx2- Receiver Inverted Data Output 13 GND Transmitter Ground (Common with Receiver Ground) 14 Rx4- Receiver Inverted Data Output 15 Rx4- Receiver Inverted Data Output 16 GND Transmitter Ground (Common with Receiver Ground) 17 ModPrsl Module Present 18 Intt. Interrupt 19 GND Transmitter Ground (Common with Receiver Ground) 10 Transmitter Ground (Common with Receiver Ground) 11 Cyr ModPrsl Module Present 12 Interrupt 12 GND Transmitter Ground (Common with Receiver Ground) 13 Interrupt 14 Cyr ModPrsl Module Present 15 Cyr ModPrsl Module Present 16 GND Transmitter Ground (Common with Receiver Ground) 17 Transmitter Ground (Common with Receiver Ground) 18 Cyr ModPrsl Transmitter Ground (Common with Receiver Ground) 19 GND Transmitter Ground (Common with Receiver Ground) 10 GND Transmitter Ground (Common with Receiver Ground) 10 GND Transmitter Ground (Common with Receiver Ground) 11 GND Transmitter Inverted Data Input 12 GND Transmitter Inverted Data Input 13 GND Transmitter Inverted Data Input 14 GND Transmitter Inverted Data Input 15 GND Transmitter Inverted Data Input 16 GND Transmitter Inverted Data Input 17 GND Transmitter Inverted Data Output 18 GND Transmitter Inverted Data Output 19 GND Transmitter Inverted Data Input 19 GND Transmitter Inverted Data Output 10 GND Transmitter Inver	12	SDA	2-Wire serial Interface Data	2
15	13	GND	Transmitter Ground (Common with Receiver Ground)	1
16 GND Transmitter Ground (Common with Receiver Ground) 17 Rx1+ Receiver Non-Inverted Data Output 18 Rx1- Receiver Inverted Data Output 19 GND Transmitter Ground (Common with Receiver Ground) 10 GND Transmitter Ground (Common with Receiver Ground) 11 Rx2- Receiver Inverted Data Output 12 Rx2- Receiver Inverted Data Output 12 Rx2- Receiver Inverted Data Output 13 GND Transmitter Ground (Common with Receiver Ground) 14 Rx4- Receiver Non-Inverted Data Output 15 Rx4+ Receiver Inverted Data Output 16 GND Transmitter Ground (Common with Receiver Ground) 17 Rx4- Receiver Inverted Data Output 18 Rx4- Receiver Inverted Data Output 19 GND Transmitter Ground (Common with Receiver Ground) 10 Common with Receiver Ground) 11 Common With Receiver Ground) 12 ModPrsl Module Present 12 ModPrsl Module Present 13 IntL Interrupt 14 Interrupt 15 GND Transmitter Ground (Common with Receiver Ground) 16 Common With Receiver Ground) 17 Common With Receiver Ground) 18 LPMode Low Power Mode 19 GND Transmitter Ground (Common with Receiver Ground) 10 Tx3+ Transmitter Ground (Common with Receiver Ground) 11 Tx3- Transmitter Inverted Data Input 12 Common With Receiver Ground) 13 Tx3+ Transmitter Inverted Data Input 14 Tx3- Transmitter Inverted Data Input 15 GND Transmitter Ground (Common with Receiver Ground) 16 Tx1+ Transmitter Inverted Data Input 17 Tx1- Transmitter Inverted Data Output	14	Rx3+	Receiver Non-Inverted Data Output	-
17	15	Rx3-	Receiver Inverted Data Output	-
18 Rx1- Receiver Inverted Data Output - 19 GND Transmitter Ground (Common with Receiver Ground) 1 20 GND Transmitter Ground (Common with Receiver Ground) 1 21 Rx2- Receiver Inverted Data Output - 22 Rx2+ Receiver Non-Inverted Data Output - 23 GND Transmitter Ground (Common with Receiver Ground) 1 24 Rx4- Receiver Inverted Data Output - 25 Rx4+ Receiver Non-Inverted Data Output - 26 GND Transmitter Ground (Common with Receiver Ground) 1 27 ModPrsl Module Present - 28 IntL Interrupt 2 29 VccTx 3.3V 3ower supply transmitter - 30 Vcc1 3.3V 3ower supply transmitter - 31 LPMode Low Power Mode 2 32 GND Transmitter Ground (Common with Receiver Ground) 1 33 Tx3+ Transmitter Inverted D	16	GND	Transmitter Ground (Common with Receiver Ground)	1
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19 GND Transmitter Ground (Common with Receiver Ground) 1 20 GND Transmitter Ground (Common with Receiver Ground) 1 21 Rx2- Receiver Inverted Data Output - 22 Rx2+ Receiver Non-Inverted Data Output - 23 GND Transmitter Ground (Common with Receiver Ground) 1 24 Rx4- Receiver Inverted Data Output - 25 Rx4+ Receiver Non-Inverted Data Output - 26 GND Transmitter Ground (Common with Receiver Ground) 1 27 ModPrsl Module Present - 28 IntL Interrupt 2 29 VccTx 3.3V 3ower supply transmitter - 30 Vcc1 3.3V 3ower supply - 31 LPMode Low Power Mode 2 32 GND Transmitter Snon-Inverted Data Input - 34 Tx3- Transmitter Inverted Data Output - 35 GND Transmitter Ground (Common with Receiver Gro	18	Rx1-	Receiver Inverted Data Output	-
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22 Rx2+ Receiver Non-Inverted Data Output - 23 GND Transmitter Ground (Common with Receiver Ground) 1 24 Rx4- Receiver Inverted Data Output 1 25 Rx4+ Receiver Non-Inverted Data Output - 26 GND Transmitter Ground (Common with Receiver Ground) 1 27 ModPrsl Module Present - 28 IntL Interrupt 2 29 VccTx 3.3V 3ower supply transmitter - 30 Vcc1 3.3V 3ower supply - 31 LPMode Low Power Mode 2 32 GND Transmitter Ground (Common with Receiver Ground) 1 33 Tx3+ Transmitter Non-Inverted Data Input - 34 Tx3- Transmitter Ground (Common with Receiver Ground) 1 36 Tx1+ Transmitter Non-Inverted Data Input - 37 Tx1- Transmitter Inverted Data Output -	20	GND	Transmitter Ground (Common with Receiver Ground)	1
23 GND Transmitter Ground (Common with Receiver Ground) 1 24 Rx4- Receiver Inverted Data Output 1 25 Rx4+ Receiver Non-Inverted Data Output - 26 GND Transmitter Ground (Common with Receiver Ground) 1 27 ModPrsl Module Present - 28 IntL Interrupt 2 29 VccTx 3.3V 3ower supply transmitter - 30 Vcc1 3.3V 3ower supply - 31 LPMode Low Power Mode 2 32 GND Transmitter Ground (Common with Receiver Ground) 1 33 Tx3+ Transmitter Non-Inverted Data Input - 34 Tx3- Transmitter Ground (Common with Receiver Ground) 1 35 GND Transmitter Ground (Common with Receiver Ground) 1 36 Tx1+ Transmitter Non-Inverted Data Input - 37 Tx1- Transmitter Inverted Data Output -	21	Rx2-	Receiver Inverted Data Output	-
24 Rx4- Receiver Inverted Data Output 1 25 Rx4+ Receiver Non-Inverted Data Output - 26 GND Transmitter Ground (Common with Receiver Ground) 1 27 ModPrsl Module Present - 28 IntL Interrupt 2 29 VccTx 3.3V 3ower supply transmitter - 30 Vcc1 3.3V 3ower supply - 31 LPMode Low Power Mode 2 32 GND Transmitter Ground (Common with Receiver Ground) 1 33 Tx3+ Transmitter Non-Inverted Data Input - 34 Tx3- Transmitter Inverted Data Output - 35 GND Transmitter Ground (Common with Receiver Ground) 1 36 Tx1+ Transmitter Non-Inverted Data Input - 37 Tx1- Transmitter Inverted Data Output -	22	Rx2+	Receiver Non-Inverted Data Output	-
25 Rx4+ Receiver Non-Inverted Data Output - 26 GND Transmitter Ground (Common with Receiver Ground) 1 27 ModPrsl Module Present - 28 IntL Interrupt 2 29 VccTx 3.3V 3ower supply transmitter - 30 Vcc1 3.3V 3ower supply - 31 LPMode Low Power Mode 2 32 GND Transmitter Ground (Common with Receiver Ground) 1 33 Tx3+ Transmitter Non-Inverted Data Input - 34 Tx3- Transmitter Inverted Data Output - 35 GND Transmitter Ground (Common with Receiver Ground) 1 36 Tx1+ Transmitter Non-Inverted Data Input - 37 Tx1- Transmitter Inverted Data Output -	23	GND	Transmitter Ground (Common with Receiver Ground)	1
26 GND Transmitter Ground (Common with Receiver Ground) 1 27 ModPrsl Module Present - 28 IntL Interrupt 2 29 VccTx 3.3V 3ower supply transmitter - 30 Vcc1 3.3V 3ower supply - 31 LPMode Low Power Mode 2 32 GND Transmitter Ground (Common with Receiver Ground) 1 33 Tx3+ Transmitter Non-Inverted Data Input - 34 Tx3- Transmitter Inverted Data Output - 35 GND Transmitter Ground (Common with Receiver Ground) 1 36 Tx1+ Transmitter Non-Inverted Data Input - 37 Tx1- Transmitter Inverted Data Output -	24	Rx4-	Receiver Inverted Data Output	1
27 ModPrsI Module Present - 28 IntL Interrupt 2 29 VccTx 3.3V 3ower supply transmitter - 30 Vcc1 3.3V 3ower supply - 31 LPMode Low Power Mode 2 32 GND Transmitter Ground (Common with Receiver Ground) 1 33 Tx3+ Transmitter Non-Inverted Data Input - 34 Tx3- Transmitter Inverted Data Output - 35 GND Transmitter Ground (Common with Receiver Ground) 1 36 Tx1+ Transmitter Non-Inverted Data Input - 37 Tx1- Transmitter Inverted Data Output -	25	Rx4+	Receiver Non-Inverted Data Output	-
28 IntL Interrupt 2 29 VccTx 3.3V 3ower supply transmitter - 30 Vcc1 3.3V 3ower supply - 31 LPMode Low Power Mode 2 32 GND Transmitter Ground (Common with Receiver Ground) 1 33 Tx3+ Transmitter Non-Inverted Data Input - 34 Tx3- Transmitter Inverted Data Output - 35 GND Transmitter Ground (Common with Receiver Ground) 1 36 Tx1+ Transmitter Non-Inverted Data Input - 37 Tx1- Transmitter Inverted Data Output -	26	GND	Transmitter Ground (Common with Receiver Ground)	1
29 VccTx 3.3V 3ower supply transmitter - 30 Vcc1 3.3V 3ower supply - 31 LPMode Low Power Mode 2 32 GND Transmitter Ground (Common with Receiver Ground) 1 33 Tx3+ Transmitter Non-Inverted Data Input - 34 Tx3- Transmitter Inverted Data Output - 35 GND Transmitter Ground (Common with Receiver Ground) 1 36 Tx1+ Transmitter Non-Inverted Data Input - 37 Tx1- Transmitter Inverted Data Output -	27	ModPrsl	Module Present	-
30 Vcc1 3.3V 3ower supply - 31 LPMode Low Power Mode 2 32 GND Transmitter Ground (Common with Receiver Ground) 1 33 Tx3+ Transmitter Non-Inverted Data Input - 34 Tx3- Transmitter Inverted Data Output - 35 GND Transmitter Ground (Common with Receiver Ground) 1 36 Tx1+ Transmitter Non-Inverted Data Input - 37 Tx1- Transmitter Inverted Data Output -	28	IntL	Interrupt	2
31 LPMode Low Power Mode 2 32 GND Transmitter Ground (Common with Receiver Ground) 1 33 Tx3+ Transmitter Non-Inverted Data Input - 34 Tx3- Transmitter Inverted Data Output - 35 GND Transmitter Ground (Common with Receiver Ground) 1 36 Tx1+ Transmitter Non-Inverted Data Input - 37 Tx1- Transmitter Inverted Data Output -	29	VccTx	3.3V 3ower supply transmitter	-
32 GND Transmitter Ground (Common with Receiver Ground) 1 33 Tx3+ Transmitter Non-Inverted Data Input - 34 Tx3- Transmitter Inverted Data Output - 35 GND Transmitter Ground (Common with Receiver Ground) 1 36 Tx1+ Transmitter Non-Inverted Data Input - 37 Tx1- Transmitter Inverted Data Output -	30	Vcc1	3.3V 3ower supply	-
33 Tx3+ Transmitter Non-Inverted Data Input - 34 Tx3- Transmitter Inverted Data Output - 35 GND Transmitter Ground (Common with Receiver Ground) 1 36 Tx1+ Transmitter Non-Inverted Data Input - 37 Tx1- Transmitter Inverted Data Output -	31	LPMode	Low Power Mode	2
34 Tx3- Transmitter Inverted Data Output - 35 GND Transmitter Ground (Common with Receiver Ground) 1 36 Tx1+ Transmitter Non-Inverted Data Input - 37 Tx1- Transmitter Inverted Data Output -		GND	Transmitter Ground (Common with Receiver Ground)	1
35 GND Transmitter Ground (Common with Receiver Ground) 1 36 Tx1+ Transmitter Non-Inverted Data Input - 37 Tx1- Transmitter Inverted Data Output -			Transmitter Non-Inverted Data Input	-
36 Tx1+ Transmitter Non-Inverted Data Input - 37 Tx1- Transmitter Inverted Data Output -				-
37 Tx1- Transmitter Inverted Data Output -			Transmitter Ground (Common with Receiver Ground)	1
			Transmitter Non-Inverted Data Input	-
38 GND Transmitter Ground (Common with Receiver Ground) 1				-
	38	GND	Transmitter Ground (Common with Receiver Ground)	1

Notes:

- 1. The module signal grounds are isolated from the module case.
- 2. This is an open collector/drain output that on the host board requires a $4.7K\Omega$ to $10K\Omega$ pull-up resistor to VccHost.

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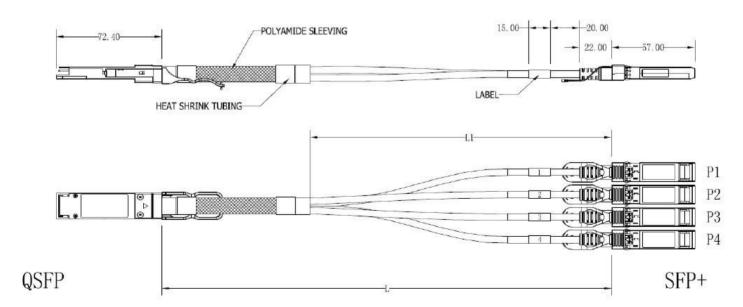
Electrical parameters

Parameter	Symbol	Min.	Тур.	Max.	Unit	Notes
Transmitter Differential Input Volt	+/-TX_DAT	180		900	mV p-p	1
Receiver Differential Output Volt	+/-RX_DAT	300		850	mV p-p	2
Tx_Disable Input Voltage – Low	V _{IL}	0		0.8	V	
Tx_Disable Input Voltage – High	V _{IH}	2.0		Vcc	V	
Tx_Fault Output Voltage – Low	V _{OL}	0		0.8	V	
Tx_Fault Output Voltage – High	VoH	2.0		Vcc	V	
Rx_LOS Output Voltage- Low	V _{OL}	0		0.8	V	
Rx_LOS Output Voltage- High	VoH	2.0		Vcc	V	
Total current requirement				10	mA	
Differential waveform distortion penalty				6.75	dBe	
VMA Loss	L			4.4	dBe	
VMA Loss to crosstalk ration	V _{cr}	32.5			dB	

Notes:

- Internally AC coupled and terminated to 100Ω differential load.
- Internally AC coupled, but requires a 100Ω differential termination or internal to Serializer/Deserializer.

Mechanical specification



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Recommended environment conditions

Parameter	Symbol	Min	Тур	Max	Unit
Operating Temperature Range	T	0	25	70	0C
Supply Voltage	Vcc	3.135	3.3	3.465	V
Relative Humidity	RH	5	-	95	%

Ordering information

FTQ-C4XG-Tx-FTF - QSFP+ to 4 SFP+, Direct Attached Cable, 1m-5m, commercial temperature (0~70°C) x – indicates cable length(1m, 3m,5m), more info available in Ordering Information chapter

For further information regarding host device PCB layout recommendation, power supply requirements, EEPROM memory map, DDMI specification please check: SFF-8436 - Technical specification for QSFP transceiver

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