### **QSFP-4SFP-PDAC1M-FT-OPC**

Fortinet® Compatible TAA Compliant 40GBase-CU QSFP+ to 4xSFP+ Direct Attach Cable (Passive Twinax, 1m)

### **Features**

- Hybrid cable conforms to the Small Form Factor SFF-8436 and SFF-8431
- Support for multi-gigabit data rates: 1 Gbps 10Gbps (per channel)
- Maximum aggregate data rate: 40 Gbps (4 x 10 Gbps)
- High-Density QSFP 38-PIN and 4x SFP
- 20-PIN connector
- Power Supply: +3.3V
- Operating temperature: 0 to 70 Celsius
  Lower power consumption: 0.02W
- RoHS Compliant and Lead-Free



## **Applications:**

- 10/40Gigabit Ethernet
- Infiniband 4x SDR, DDR, QDR

## **Product Description**

This is a Fortinet® compatible 40GBase-CU QSFP+ to 4xSFP+ direct attach cable that operates over passive copper with a maximum reach of 1.0m (3.3ft). It has been programmed, uniquely serialized, and data-traffic and application tested to ensure it is 100% compliant and functional. This direct attach cable is TAA (Trade Agreements Act) compliant, and is built to comply with MSA (Multi-Source Agreement) standards. We stand behind the quality of our products and proudly offer a limited lifetime warranty.

# **Absolute Maximum Ratings**

Parameter	Symbol	Min.	Тур.	Max.	Unit
Storage Ambient Temperature	Tstg	-40		85	°C
Operating Case Temperature	Тс	0		70	°C
Power Supply Voltage	Vcc	3.14	3.3	3.47	V
Power Dissipation	P <sub>DISS</sub>			0.02	W

**Pin Descriptions** 

Pin	Logic	Symbol	Name/Description	Notes
1		GND	Module Ground.	1
2	CML-I	Tx2-	Transmitter Inverted Data Input.	
3	CML-I	Tx2+	Transmitter Non-Inverted Data Input.	
4		GND	Module Ground.	1
5	CML-I	Tx4-	Transmitter Inverted Data Input.	
6	CML-I	Tx4+	Transmitter Non-Inverted Data Input.	
7		GND	Module Ground.	1
8	LVTTL-I	ModSeIL	Module Select.	2
9	LVTTL-I	ResetL	Module Reset.	2
10		VccRx	+3.3V Receiver Power Supply.	
11	LVCMOS-I	SCL	2-Wire Serial Interface Clock.	2
12	LVCMOS-I/O	SDA	2-Wire Serial Interface Data.	2
13		GND	Module Ground.	1
14	CML-O	Rx3+	Receiver Non-Inverted Data Output.	
15	CML-O	Rx3-	Receiver Inverted Data Output.	
16		GND	Module Ground.	1
17	CML-O	Rx1+	Receiver Non-Inverted Data Output.	
18	CML-O	Rx1-	Receiver Inverted Data Output.	
19		GND	Module Ground.	1
20		GND	Module Ground.	1
21	CML-O	Rx2-	Receiver Inverted Data Output.	
22	CML-O	Rx2+	Receiver Non-Inverted Data Output.	
23		GND	Module Ground.	1
24	CML-O	Rx4-	Receiver Inverted Data Output.	
25	CML-O	Rx4+	Receiver Non-Inverted Data Output.	
26		GND	Module Ground.	1
27	LVTTL-O	ModPrsL	Module Present. Internally pulled down to the GND.	
28	LVTTL-O	IntL	Interrupt output should be pulled up on the host board.	
29		VccTx	+3.3V Transmitter Power Supply.	
30		Vcc1	+3.3V Power Supply.	
31	LVTTL-I	LPMode	Low-Power Mode.	2

32		GND	Module Ground.	1
33	CML-I	Tx3+	Transmitter Non-Inverted Data Input.	
34	CML-I	Tx3-	Transmitter Inverted Data Input.	
35		GND	Module Ground.	1
36	CML-I	Tx1+	Transmitter Non-Inverted Data Input.	
37	CML-I	Tx1-	Transmitter Inverted Data Input.	
38		GND	Module Ground.	1

### Notes:

- 1. GND is the symbol for signal and supply (power) common for the QSFP+ module. All are common within the QSFP+ module, and all module voltages are referenced to this potential unless otherwise noted. Connect these directly to the host board signal-common ground plane.
- VccRx, Vcc1, and VccTx 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.
  Recommended host board power supply filtering is shown. VccRx, Vcc1, and VccTx may be internally
  connected within the QSFP+ module in any combination. The connector pins are each rated for a
  maximum current of 500mA.

## **Mechanical Specifications**

