

40G QSFP+ To 4SFP+ DAC Passive Copper Cable



Overview

The QSFP+ to 4x SFP+ Passive cable assemblies are high performance , cost effective for SFP+ and QSFP+ equipment interconnects. The Hybrid cables are compliant with SFF-8436 and SFF-8431 specifications.

It is offer low power consumption, short reach interconnect applications. The cable each lane is capable of transmitting data at rates up to 10Gb/s, providing an aggregated rate of 40Gb/s.

Features

- ◆ Hybrid cable conforms to the Small Form Factor SFF-8436 and SFF-8431
- ◆ Support for multi-gigabit data rates :1 Gb/s - 10 Gb/s (per channel)
- ◆ Maximum aggregate data rate: 40 Gb/s (4 x 10Gb/s)
- ◆ Hybrid cable link length up to 5m (passive limiting)
- ◆ High-Density QSFP 38-PIN and 4x SFP+ 20-PIN Connector
- ◆ Power Supply :+3.3V
- ◆ Low power consumption: 0.02 W (typ.)
- ◆ Temperature Range: 0~ 70 °C

Applications

- ◆ 10G/40Gigabit Ethernet
- ◆ InfiniBand4x SDR, DDR, QDR
- ◆ Switches, Routers, and HBAs
- ◆ Data Centers
- ◆ Fiber Channel

Ordering Information

Part Number	Product Description
AQS-40G-4S-DAC-xx	40G QSFP+ To 4SFP+ DAC Passive Copper Cable 10M, 0°C ~ +70°C
XX: 01~10, 1~10 Length in meters. (1~5M for 30AWG; 5~10M for 24AWG)	

Recommended Operating Conditions

Parameter	Symbol	Min	Typical	Max	Unit
Storage Ambient Temperature		-40		+85	°C
Operating Case Temperature	Tc	0		+70	°C
Power Supply Voltage	V _{CC3}	3.14	3.3	3.47	V
Power Dissipation	PD			0.02	W

Pin Descriptions

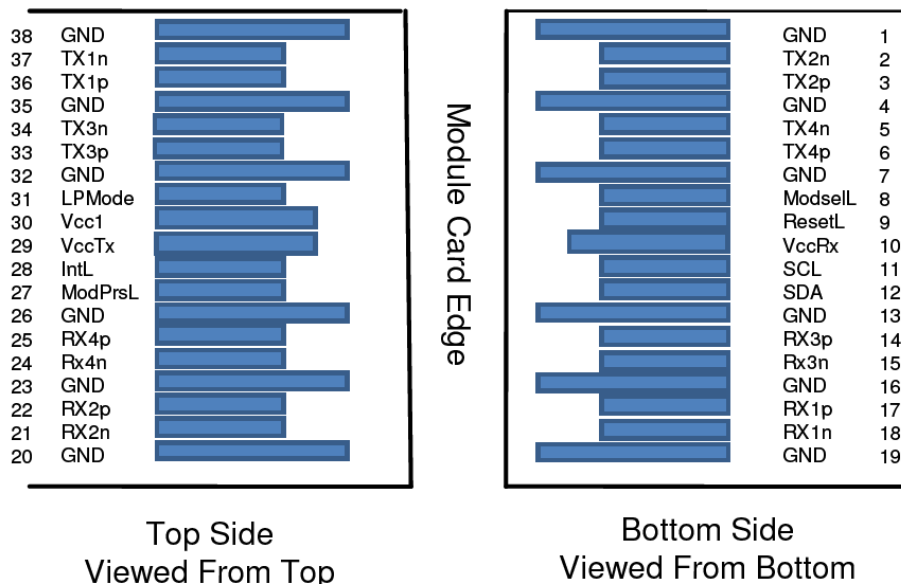


Figure1. Pin Descriptions

Pin	Logic	Symbol	Name/Description	Ref.
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	LVTTTL-I	MODSEIL	Module Select	2
9	LVTTTL-I	ResetL	Module Reset	2
10		VCCRx	+3.3v Receiver Power Supply	
11	LVC MOS-I	SCL	2-wire Serial interface clock	2
12	LVC MOS-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	LVTTTL-O	ModPrsL	Module Present, internal pulled down to GND	
28	LVTTTL-O	IntL	Interrupt output, should be pulled up on host board	2
29		VCCTx	+3.3v Transmitter Power Supply	
30		VCC1	+3.3v Power Supply	
31	LVTTTL-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

Note:

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.
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 Figure 4. Vcc Rx, Vcc1 and Vcc Tx may be internally connected within the QSFP+ Module in any combination. The connector pins are each rated for a maximum current of 500 mA.

Mechanical Dimensions

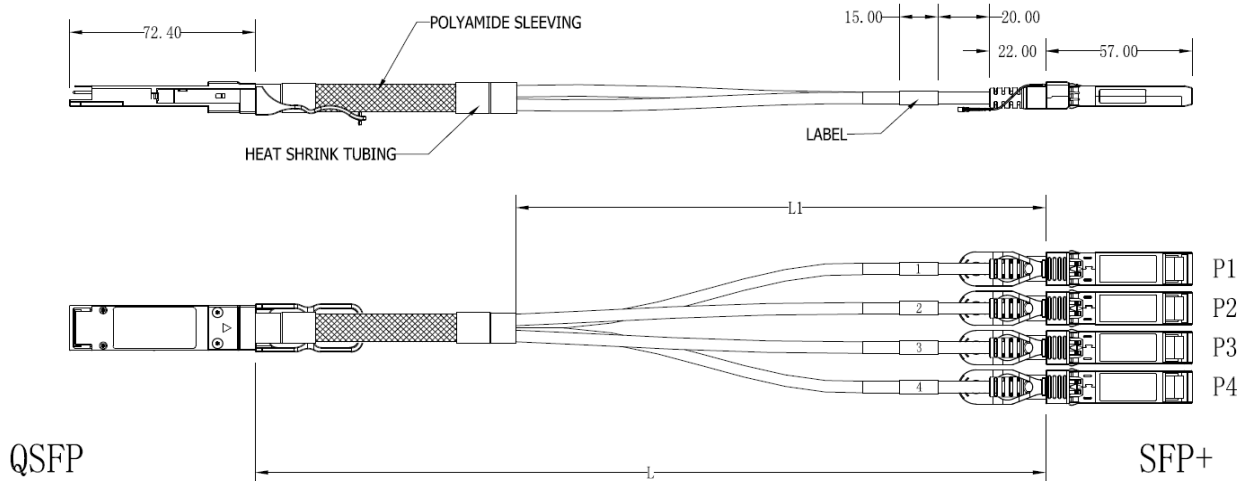


Figure 2. Mechanical Specifications

References

1. QSFP+ conforms to the Small Form Factor SFF-8436
2. Support for multi-gigabit data rates :1 Gb/s - 10 Gb/s (per channel)