

Product Specifications

CB-QSFP4X10G-1M

CB-QSFP4X10G-3M

CB-QSFP4X10G-5M

Version 1.0

This document contains confidential proprietary information and is property of PLANET. The contents of this document should not be disclosed to unauthorized persons without the written consent of PLANET.

Change History:

Revision:	Date:	Author:	Change List
Version 1.0	2018/12/26	Simon Yeh	Initial Release

Author:	Simon Yeh	Editor:	Esther Wen
Reviewed By:	Jonas Yang	Approved By:	Kent Kang

1. PRODUCT DESCRIPTION

PLANET CB-QSFP4X10G-1/3/5M is a 40G QSFP+ to 4 10G SFP+ Direct Attached Copper Cable (1/3/5M in length), which is designed to work with PLANET products with a 40G QSFP+ interface to provide a cost-effective interconnect solution for merging 40G QSFP and 10G SFP+ enabled host adapters, switches and servers. Each QSFP-SFP+ splitter cable features a single QSFP connector (SFF-8436) rated for 40Gbps on one end and four SFP+ connectors (SFF-8431) with each rated for 10Gbps on the other. The CB-QSFP4X10G-1/3/5M can be installed into PLANET 40G SFP+ interface products, such as XGS-6350-24X4C.

PLANET CB-QSFP4X10G series comes with one of the following models.

CB-QSFP4X10G-1M	40G QSFP+ to 4 10G SFP+ Direct Attached Copper Cable - 1M
CB-QSFP4X10G-3M	40G QSFP+ to 4 10G SFP+ Direct Attached Copper Cable - 3M
CB-QSFP4X10G-5M	40G QSFP+ to 4 10G SFP+ Direct Attached Copper Cable - 5M

2. PRODUCT FEATURES

- Connector A: One QSFP 40Gbps Connector (SFF-8436 compliant)
- Connector B: Four SFP+ 10Gbps Connectors (SFF-8431 compliant)
- Economically Links up a QSFP port with an Upstream 10GbE-SFP+ Switch
- Protocol agnostic support of 40GbE, QDR InfiniBand, SAS & Fiber Channel
- Robust zinc die-cast SFP+ & QSFP connectors with pull-to-release latching
- Bridge the gap between your 10G and 40G capable switches and host adapters
- Up to 10.3125Gbps transfer rate per SFP+ channel (40Gbps aggregate)
- Fully compliant to the latest SFP+ & QSFP MSA (Multi-Source-Agreement)
- Designated form factor and electrical compliance for QDR InfiniBand

3. PRODUCT SPECIFICATIONS

3.1 FUNCTION SPECIFICATIONS

CB-QSFP4X10G-1M	
Connector Type	QSFP+ and SFP+
Data Transfer Rate	40Gbps
Length	1 meter
Operating Temperature	-5 ~75 degrees C
CB-QSFP4X10G-3M	
Connector Type	QSFP+ and SFP+
Data Transfer Rate	40Gbps
Length	3 meters
Operating Temperature	-5 ~75 degrees C
CB-QSFP4X10G-5M	
Connector Type	QSFP+ and SFP+
Data Transfer Rate	40Gbps
Length	5 meters
Operating Temperature	-5 ~75 degrees C

Absolute Maximum Ratings

Parameter	Symbol	Min.	Max.	Unit	Note
Storage Temperature	T _{ST}	-40	125	°C	
Relative Humidity (non-condensing)	RS	-	85	%	
Operating Temperature	T _{OPC}	-5	75	°C	1
Supply Voltage	VCC3	-0.3	3.6	V	
Voltage on LVTTTL Input	Vilvttl	-0.3	VCC3 +0.2	V	



Note

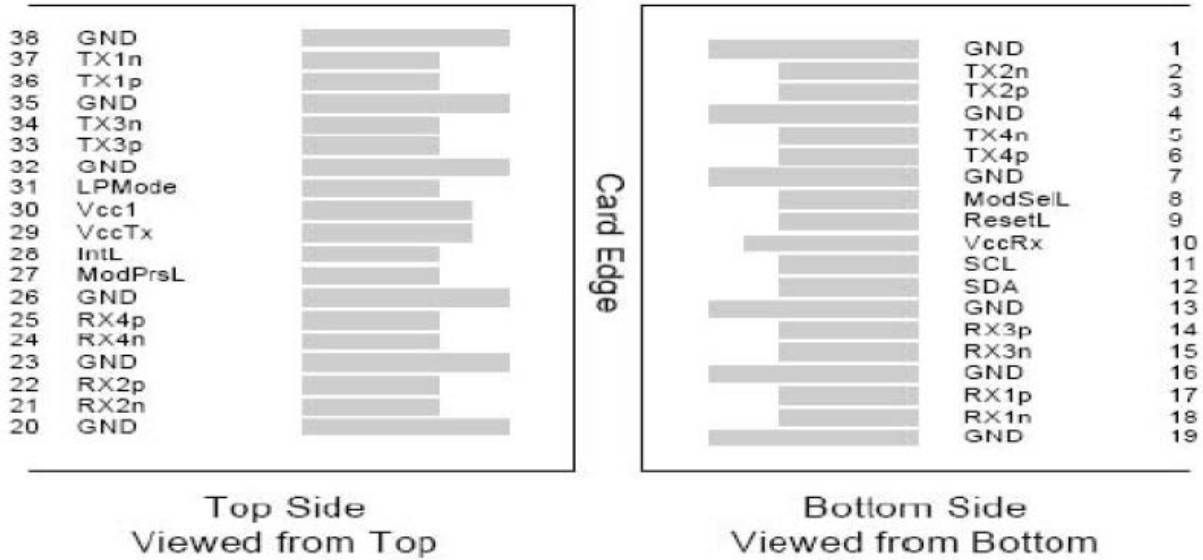
The absolute maximum ratings table is to show that any ratings that exceed the above range may cause permanent damage to the device. This is a stress rating only for operating devices but those mentioned in the specifications do not apply. Exposure to these conditions for an extended period of time may affect device reliability.

Recommended Operating Conditions

Parameter	Symbol	Min.	Max.	Unit
Operating Temperature	T _{OPC}	-5	75	°C
Relative Humidity	RS	-	85	%

Supply Voltage	VCC3	3.135	3.465	V
Power Supply Current	ICC3	750	-	mA
Total Power Consumption	Pd	-	2.0	W

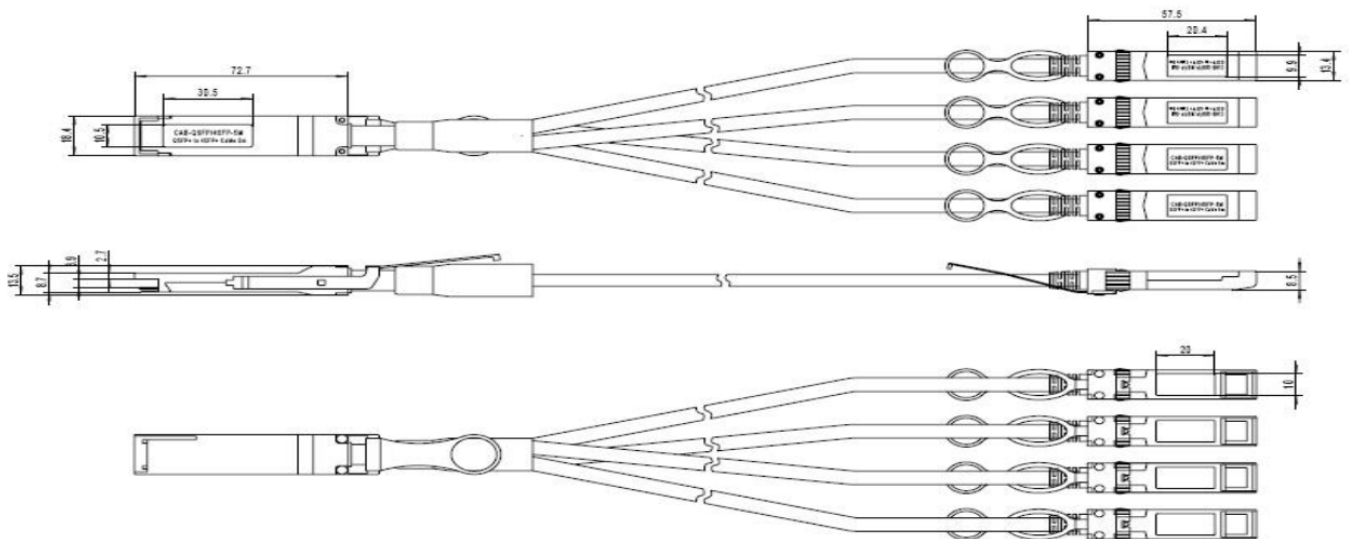
PIN Assignments and Descriptions



PIN	Logic	Symbol	Name/Description
1		GND	Ground
2	CML-I	Tx2n	Transmitter Inverted Data Input
3	CML-I	Tx2p	Transmitter Non-Inverted Data Output
4		GND	Ground
5	CML-I	Tx4n	Transmitter Inverted Data Input
6	CML-I	Tx4p	Transmitter Non-Inverted Data Output
7		GND	Ground
8	LVTLL-I	ModSelL	Module Select
9	LVTLL-I	ResetL	Module Reset
10		Vcc Rx	+3.3V Power Supply Receiver
11	LVC MOS-I/O	SCL	2-Wire Serial Interface Clock
12	LVC MOS-I/O	SDA	2-Wire Serial Interface Data
13		GND	Ground
14	CML-O	Rx3p	Receiver Non-Inverted Data Output
15	CMLO	Rx3n	Receiver Inverted Data Output
16		GND	Ground
17	CMLO	Rx1p	Receiver Non-Inverted Data Output
18	CMLO	Rx1n	Receiver Inverted Data Output

19		GND	Ground
20		GND	Ground
21	CMLO	Rx2n	Receiver Inverted Data Output
22	CMLO	Rx2p	Receiver Non-Inverted Data Output
23		GND	Ground
24	CMLO	Rx4n	Receiver Inverted Data Output
25	CMLO	Rx4p	Receiver Non-Inverted Data Output
26		GND	Ground
27	LVTTL0	ModPrsL	Module Present
28	LVTTL0	IntL	Interrupt
29		Vcc Tx	+3.3 V Power Supply transmitter
30		Vcc1	+3.3 V Power Supply
31	LVTTL1	LPMODE	Low Power Mode
32		GND	Ground
33	CMLI	Tx3p	Transmitter Non-Inverted Data Input
34	CMLI	Tx3n	Transmitter Inverted Data Output
35		GND	Ground
36	CMLI	Tx1p	Transmitter Non-Inverted Data Input
37	CMLI	Tx1n	Transmitter Inverted Data Output
38		GND	Ground

Mechanical Dimensions



3.2 ENVIRONMENTAL SPECIFICATIONS

Operating:

Temperature: 5 ~ 75 degrees C

Relative Humidity: 85% (non-condensing)

Storage:

Temperature: -40 ~ 125 degrees C

Relative Humidity: 85% (non-condensing)

3.3 ELECTRICAL SPECIFICATIONS

Input Voltage: 3.3V DC

3.4 RELIABILITY

MTBF > 50,000 hrs @ 25 degrees C

3.5 BASIC PACKAGING

- The CB-QSFP4X10G Direct Attached Copper Cable x 1

3.6 PACKING DIMENSIONS

Anti-static Bag Dimensions: 26 x 26 cm (W x H)