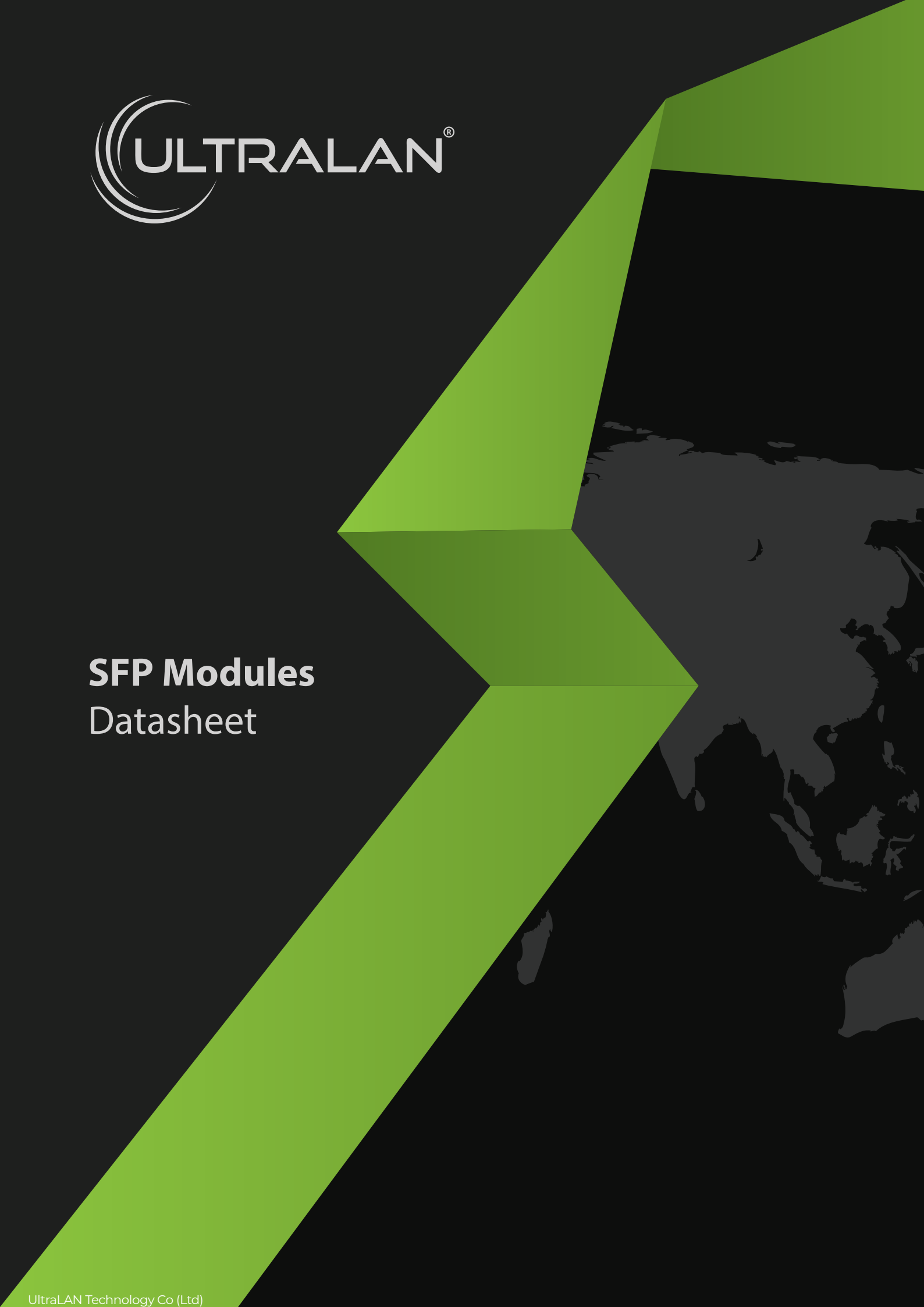
ULTRALAN®

SFP Modules
Datasheet



RoHS Compliant **40Gb/s QSFP+ TO QSFP+** Copper Cable Assembly **26 AWG PASSIVE**

ULCQ004XC-CNM1

All UltraLAN SFP products carry a **3 year warranty** against defects.

Product Description

The QSFP+ to QSFP+ Passive cable assemblies are high performance ï¼Œ cost effective QSFP+ equipment interconnects . The Hybrid cables are compliant with SFF-8436 and SFF-8431specifications. It is offer a low power consumptionï¼Œshort reach interconnect applications. providing an aggregated rate of 40Gb/s.

Product Features

- Support for multi-gigabit data rates up to 40Gbps
- Hot-pluggable QSFP+ footprint
- Available in lengths of 0.5,1, 2, 3, 5 m
- Metal with lower EMI
- Low Power Consumption < 0.5W
- Power Supply :+3.3V
- Compatible to QSFP+ MSA
- Temperature Range: 0~ 70 °C

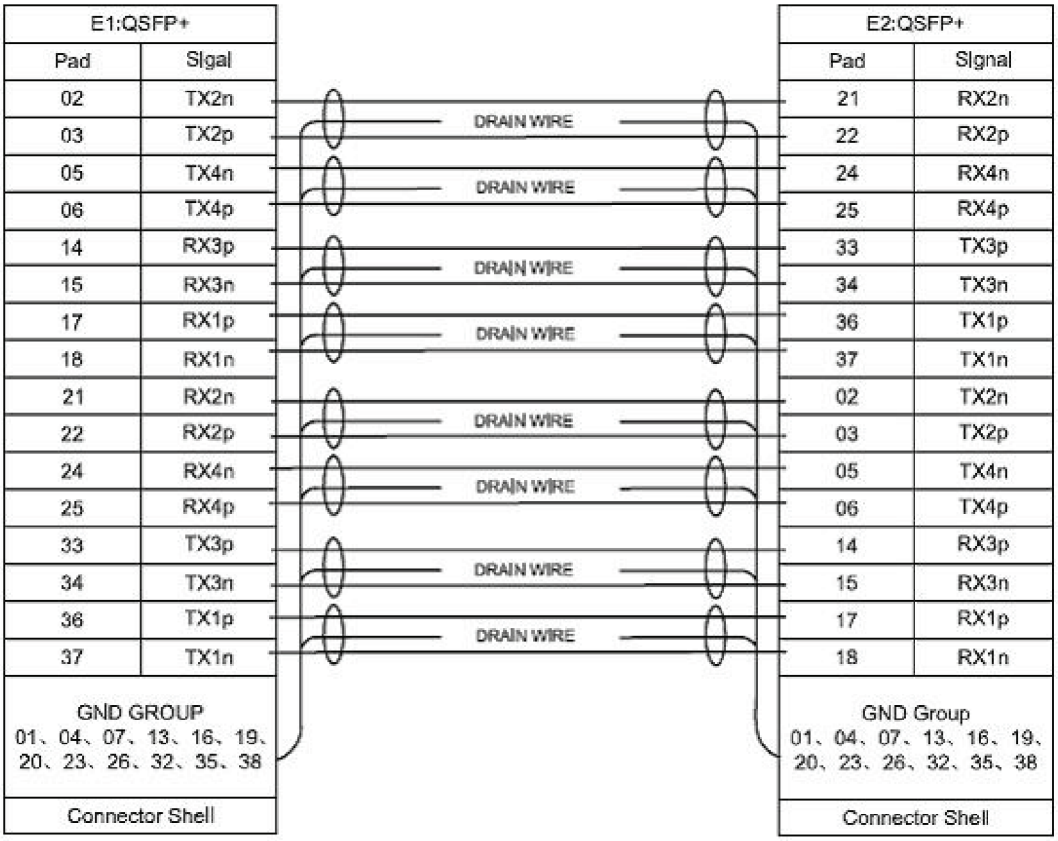
Applications:

- High capacity I/O in Storage Area Networks, Network Attached Storage, and Storage Servers
- Switched fabric I/O such as ultra high bandwidth switches and routers
- Data center cabling infrastructure
- High density connections between networking equipment

Standard

- ESD to the Electrical PINs: compa ble with MIL-STD-883E Method 3015.7
- RF Immunity compa ble with IEC 61000-4-3
- EMI compa ble with FCC Part 15 Class B EN55022 Class B
- RoHS compliant with 2002/95/EC 4.1&4.2 2005/747/EC

Parameter	Symbol	Min	Typical	Max	Unit
StorageAmbientTemperature		-10		+85	°C
OperatingCaseTemperature	Tc	0		70	°C
PowerSupplyVoltage	VCC3	3.14	3.3	3.47	V
PowerDissipation	PD			0.02	W



QSFP+ Pin Descriptions

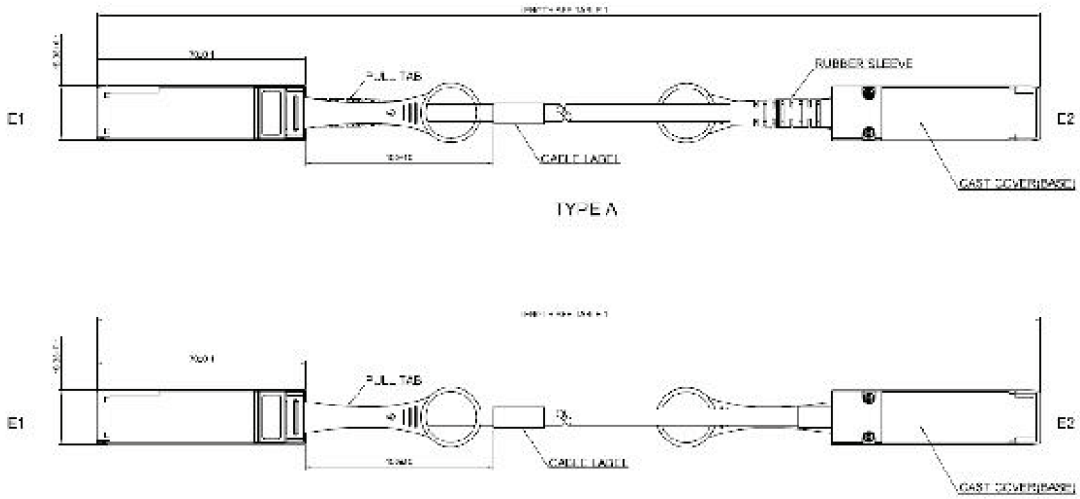
Pin	Logic	Symbol	Name/Description	Notes
1		GND	Ground	1
2	CML-I	Tx2n	Transmitter Inverted Data Input	
3	CML-I	Tx2p	Transmitter Non-Inverted DataInput	
4		GND	Ground	1
5	CML-I	Tx4n	Transmitter Inverted Data Input	
6	CML-I	Tx4p	Transmitter Non-Inverted Data Input	
7		GND	Ground	1
8	LVTTL-I	ModSelL	Module Select	
9	LVTTL-I	ResetL	Module Reset	
10		VccRx	+3.3V Power Supply Receiver	2
11	LVCMOSI/O	SCL	2-wire serial interface clock	
12	LVCMOSI/O	SDA	2-wire serial interface data	
13		GND	Ground	1
14	CML-O	Rx3p	Receiver Non-Inverted Data Output	
15	CML-O	Rx3n	Receiver Inverted Data Output	
16		GND	Ground	1
17	CML-O	Rx1p	Receiver Inverted Data Output	

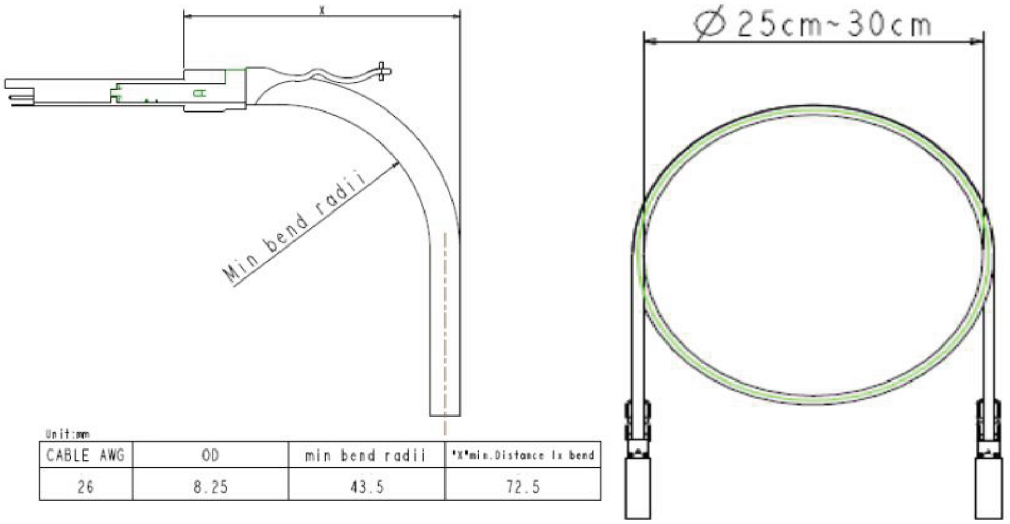
18	CML-O	Rx1n	ReceiverNon-InvertedDataOutput	
19		GND	Ground	1
20		GND	Ground	1
21	CML-O	Rx2n	ReceiverInvertedDataOutput	
22	CML-O	Rx2p	ReceiverNon-InvertedDataOutput	
23		GND	Ground	1
24	CML-O	Rx4n	ReceiverInvertedDataOutput	
25	CML-O	Rx4p	ReceiverNon-InvertedDataOutput	1
26		GND	Ground	
27	LVTTL-O	ModPrsL	ModulePresent	
28	LVTTL-O	IntL	Interrupt	
29		VccTx	+3.3VPowersupplytransmitter	
30		Vcc1	+3.3VPowersupply	2
31	LVTTL-I	LPMode	LowPowerMode	
32		GND	Ground	1
33	CML-I	Tx3p	TransmitterNon-InvertedDataInput	
34	CML-I	Tx3n	TransmitterInvertedDataInput	
35		GND	Ground	1
36	CML-I	Tx1p	TransmitterNon-InvertedDataInput	
37	CML-I	Tx1n	TransmitterInvertedDataInput	
38		GND	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.
2: Vcc Rx, Vcc1 and Vcc Tx are the receiver and transmitter power supplies and shall be applied concurrent- ly. 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 with- in the QSFP+ Module module in any combination. The connector pins are each rated for a maximum current of 500 mA.

Mechanical Dimensions

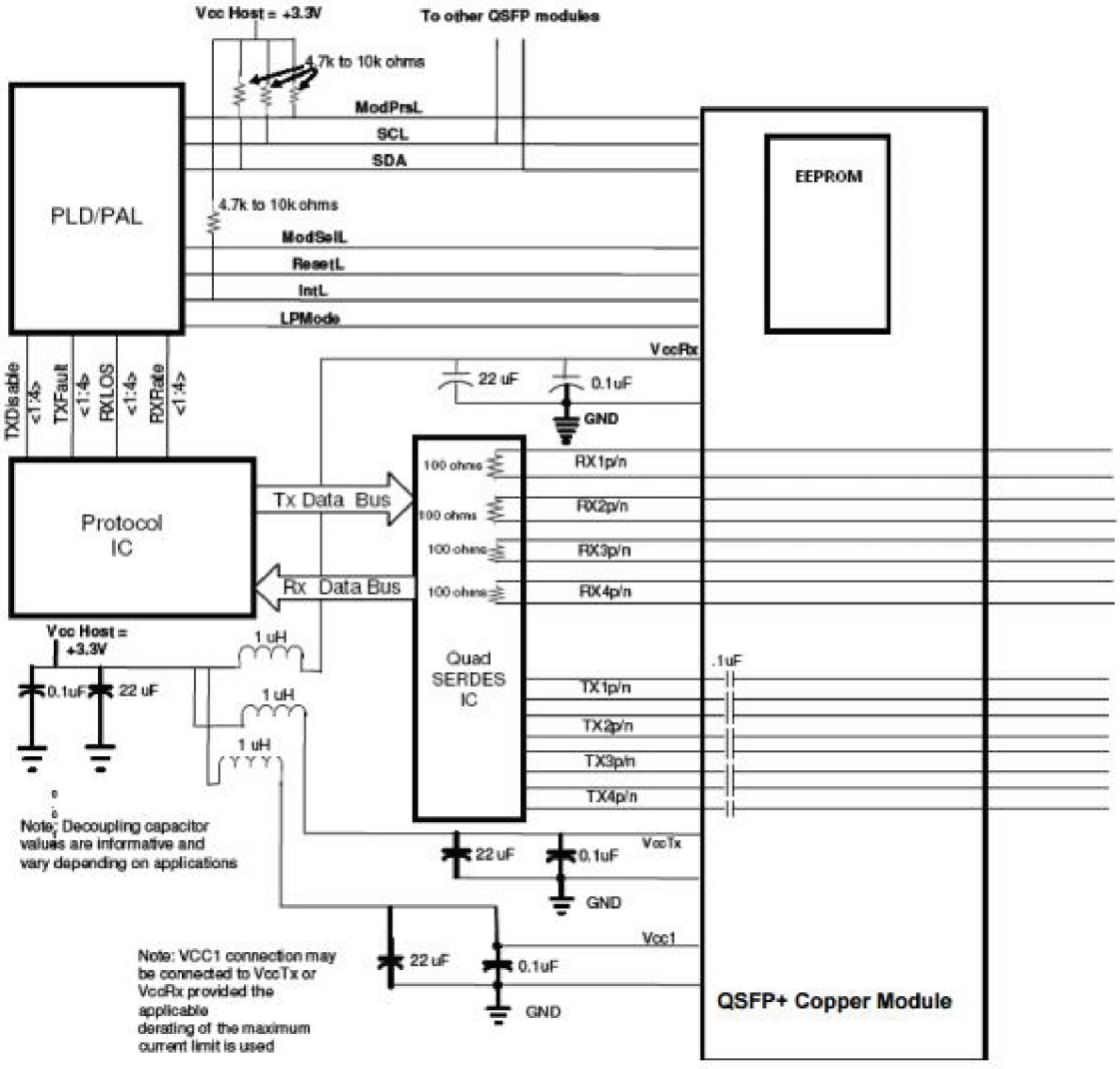




Unit:mm

CABLE AWG	OD	min bend radii	"X"min.Distance to bend
26	8.25	43.5	72.5

QSFP+ Host Board Schematic for active cable



UltraLAN Technology Co (Ltd)
E-Mail : sales@ultralan.com.hk
Website : www.ultralan.com.hk