

EAQPY-2QPxx

100G-2x50G QSFP28-2xQSFP28 Active optical cable

PRODUCT FEATURES

- Support 2x50GBASE-SR application
- Compliant to QSFP28 MSA SFF-8636
- Multi rate of up to 25.78125Gbps per lane
- Transmission distance up to 70M(OM3) and 100M(OM4)
- +3.3V single power supply
- Low power consumption
- Operating temp Commercial: 0°C to +70 °C
- RoHS compliant
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APPLICATIONS

- 100G-2*50GBase-SR
- Other optical links

Ordering Information

Part No.	Description
EAQPY-2QPxxx-OM3	100G-2x50G QSFP28-2xQSFP28 Active optical cable OM3 (AOC) 0~70M
EAQPY-2QPxxx-OM4	100G-2x50G QSFP28-2xQSFP28 Active optical cable OM4 (AOC) 0~100M

Notes:

where "xx" denotes cable length in meters. Examples are as follows:

x = 3 for 3m, xx = 10 for 10m, xx = 50 for 50m, xxx = 100m

Absolute Maximum Ratings

The operation in excess of any absolute maximum ratings might cause permanent damage to this module.

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Storage Temperature	Ts	-10	-	70	°C	
Relative Humidity	RH	+5	-	85	%	
Power Supply Voltage	VCC	-0.5	-	3.6	V	

Recommended Operating Conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Case Operating Temperature	Tcase	0	-	70	°C	
Power Supply Voltage	VCC	3.14	3.3	3.47	V	
Power Dissipation per QSFP28	Pd	-	-	2.5	W	
Bit Rate per Lane	BR	10.31 25	25.78125	-	Gbps	Each channel

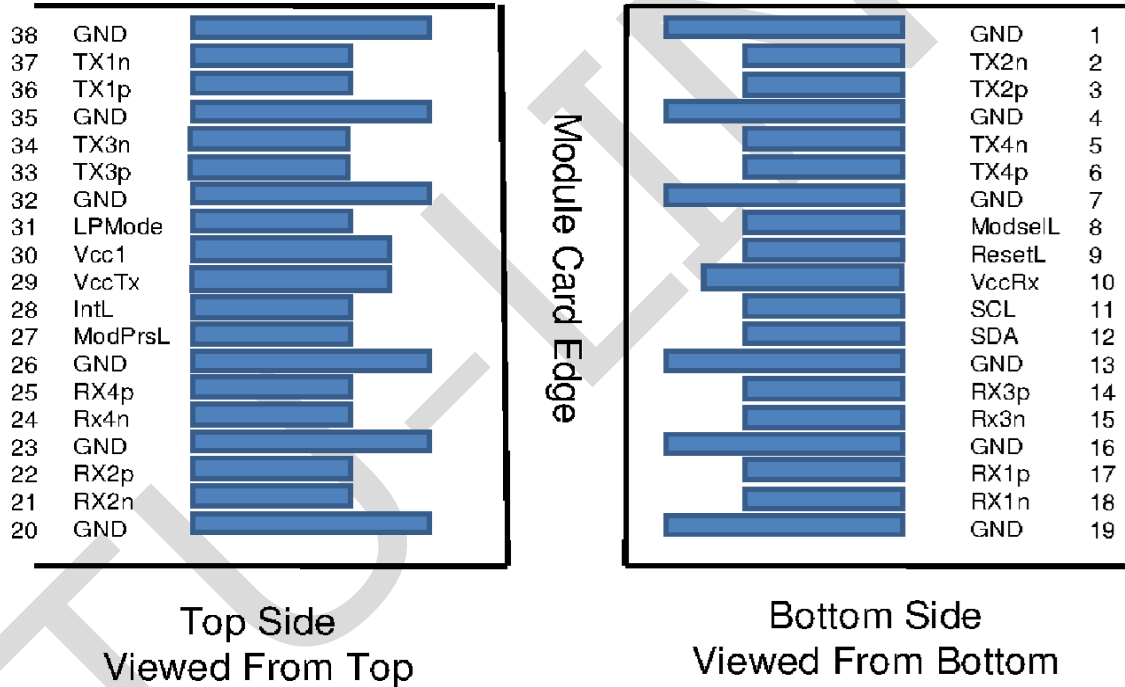
Electrical Characteristics

Parameter		Symbol	Min.	Typ.	Max.	Units	Notes
ModSelL	Module Select	VOL	0	-	0.8	V	
	Module Unselect	VOH	2.5	-	VCC	V	
LPMode	Low Power Mode	VIL	0	-	0.8	V	
	Normal Operation	VIH	2.5	-	VCC+0.3	V	
ResetL	Reset	VIL	0	-	0.8	V	
	Normal Operation	VIH	2.5	-	VCC+0.3	V	
ModPrsL	Normal Operation	VOL	0	-	0.4	V	

IntL	Interrupt	VOL	0	-	0.4	V	
	Normal Operation	VoH	2.4	-	VCC	V	
Electrical Transmitter Characteristics							
Differential Data Input Swing		V _{in,P-P}	200	-	1600	mV	
Output Differential Impedance		Z _{IN}	90	100	110	Ω	
Electrical Receiver Characteristics							
Differential Data Output Swing		V _{out}	200	-	800	mV _{PP}	
Bit Error Rate		BER			E-12		1
Input Differential Impedance		Z _D	90	100	110	Ω	

Note: 1 PRBS2^31-1@25.78125Gbps

Pin Assignment

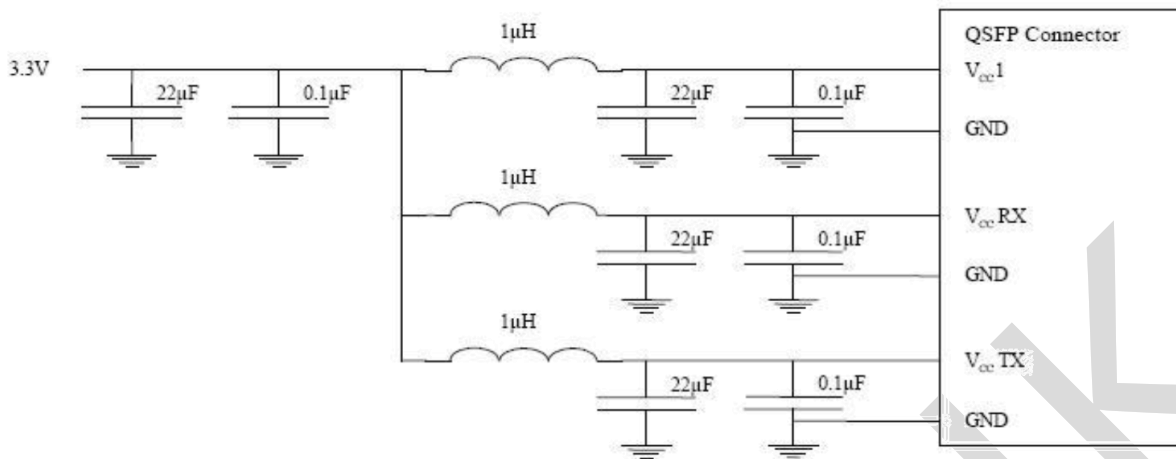


Pin	Symbol	Name/Description	Notes
1	GND	Ground	1
2	Tx2n	Transmitter Inverted Data Input	
3	Tx2p	Transmitter Non-Inverted Data Input	
4	GND	Ground	1
5	Tx4n	Transmitter Inverted Data Input	
6	Tx4p	Transmitter Non-Inverted Data Input	
7	GND	Ground	1
8	ModSelL	Module Select	
9	ResetL	Module Reset	

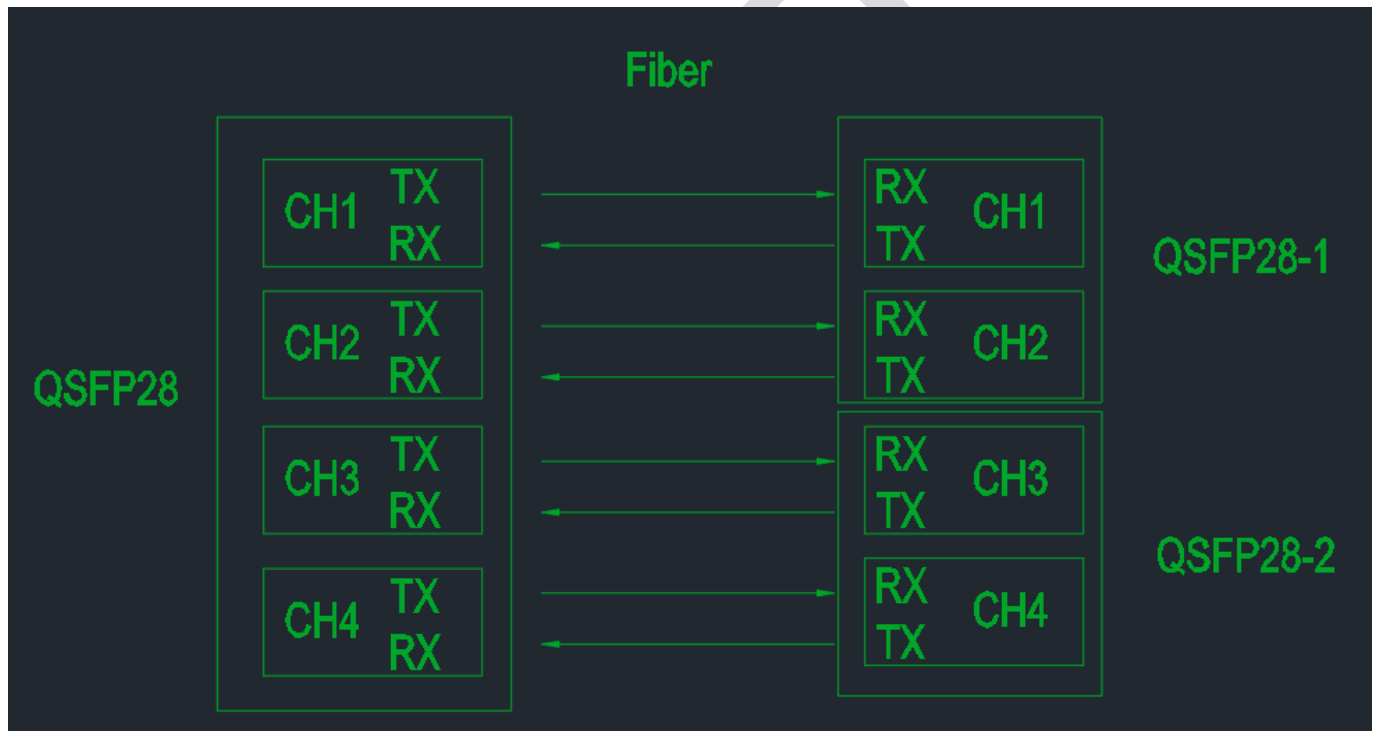
10	Vcc Rx	+3.3V Power Supply Receiver	
11	SCL	2-wire serial interface clock	
12	SDA	2-wire serial interface data	
13	GND	Ground	1
14	Rx3p	Receiver Non-Inverted Data Output	
15	Rx3n	Receiver Inverted Data Output	
16	GND	Ground	1
17	Rx1p	Receiver Non-Inverted Data Output	
18	Rx1n	Receiver Inverted Data Output	
19	GND	Ground	1
20	GND	Ground	1
21	Rx2n	Receiver Inverted Data Output	
22	Rx2p	Receiver Non-Inverted Data Output	
23	GND	Ground	1
24	Rx4n	Receiver Inverted Data Output	
25	Rx4p	Receiver Non-Inverted Data Output	
26	GND	Ground	1
27	ModPrsL	Module Present	
28	IntL	Interrupt	
29	Vcc Tx	+3.3V Power supply transmitter	
30	Vcc1	+3.3V Power supply	
31	LPMODE	Low Power Mode	
32	GND	Ground	1
33	Tx3p	Transmitter Non-Inverted Data Input	
34	Tx3n	Transmitter Inverted Data Input	
35	GND	Ground	1
36	Tx1p	Transmitter Non-Inverted Data Input	
37	Tx1n	Transmitter Inverted Data Input	
38	GND	Ground	1

Note: 1. Circuit ground is internally isolated from chassis ground.

Power Supply Filtering



Mechanical



[illegible]

Version No.	Date	Description
1.0	Oct 8, 2020	Preliminary datasheet
2.0	July 27, 2024	Format change

Please e-mail us at sales@etulinktechnology.com or call us for assistance.