

EAQPY-xxx-2

100Gbps QSFP28 to QSFP28 Active Optical Cables

PRODUCT FEATURES

- **Compliant to QSFP28 Electrical MSA SFF-8636 Specification**
- **Wide Operating Temperature(0°C~70°C)**
- **4x25Gbps 850nm VCSEL-based Transmitter**
- **RoHS compliant**

APPLICATIONS

- **100GBASE-SR4 at 25.78125Gbps-28.05Gbps per lane**
- **InfiniBand QDR, EDR**
- **Other optical links**

DESCRIPTIONS

The ETU-LINK QSFP28 active optic cables are a high performance, low power consumption long reach interconnect solution supporting 100G Ethernet. It is compliant with the QSFP MSA and IEEE P802.3ba. QSFP AOC is an assembly of 4 full-duplex lanes, where each lane is capable of transmitting data at rates up to 25.78125Gb/s, providing an aggregated rate of 104Gb/s. ETU-LINK QSFP28 AOC is one kind of parallel transceiver which provide sin creased port density and total system cost savings.

Ordering Information

Part No.	Description
EAQPY-xxx-2-OM3	100Gbps QSFP28 to QSFP28 Active Optical Cables (AOC) OM3 0~100m

Notes:

- where "x" denotes cable length in meters. Examples are as follows:
- x = 1 for 1m, xx=10 for 10m

Absolute Maximum Ratings

Parameter	Symbol	Conditions	Min.	Max.	Unit
Storage Temperature	TStorage		-40	+85	°C
Relative Humidity	RH		0	+85	%

Recommended Operating Conditions

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit	Note
Case Temperature	TC		0		70	°C	
Power Supply Voltage	VCC		3.135	3.3	3.465	V	
Signaling Rate each Channel				25.78125	28.05	Gbps	
Data Rate Accuracy			-100		100	ppm	
Pre-FEC Bit Error Ratio					5e-5		1
Post-FEC Bit Error Ratio					1e-12		1

Notes:

- FEC provided by host system.

Electrical Characteristics

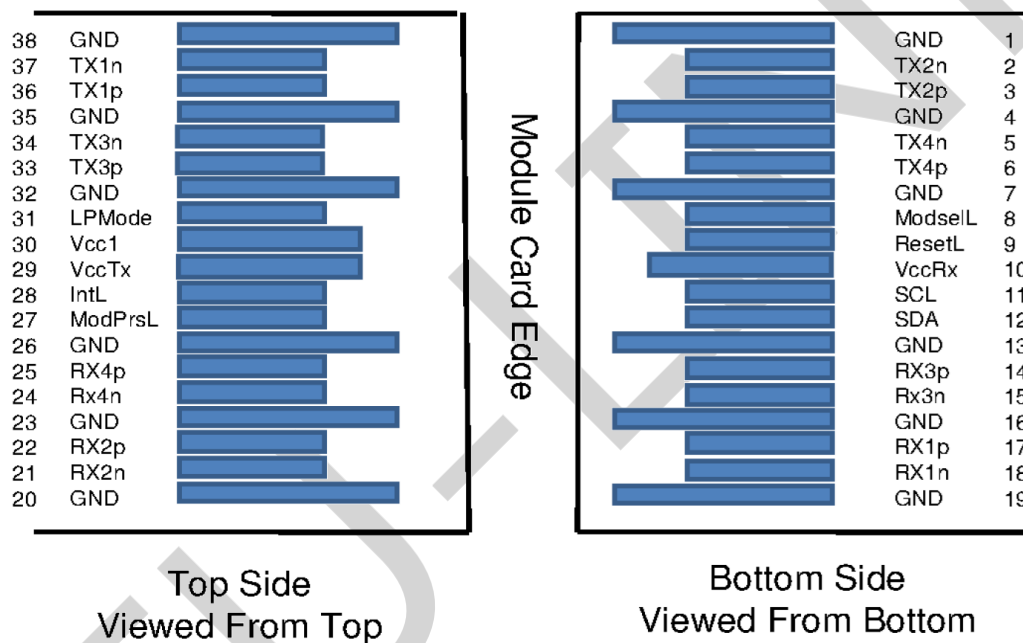
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Power Consumption					2.5	W
Supply Current	Icc				750	mA

Digital Diagnostics

The following characteristics are defined over recommended operating conditions

Parameter	Accuracy	Unit
Internally measured transceiver temperature	+/-3	deg.C
Internally measured transceiver supply voltage	+/-3	%
Measured Tx bias current	+/-10	%
Measured Tx output power	+/-3	dB
Measured Rx received average optical power	+/-3	dB

Pin Diagram

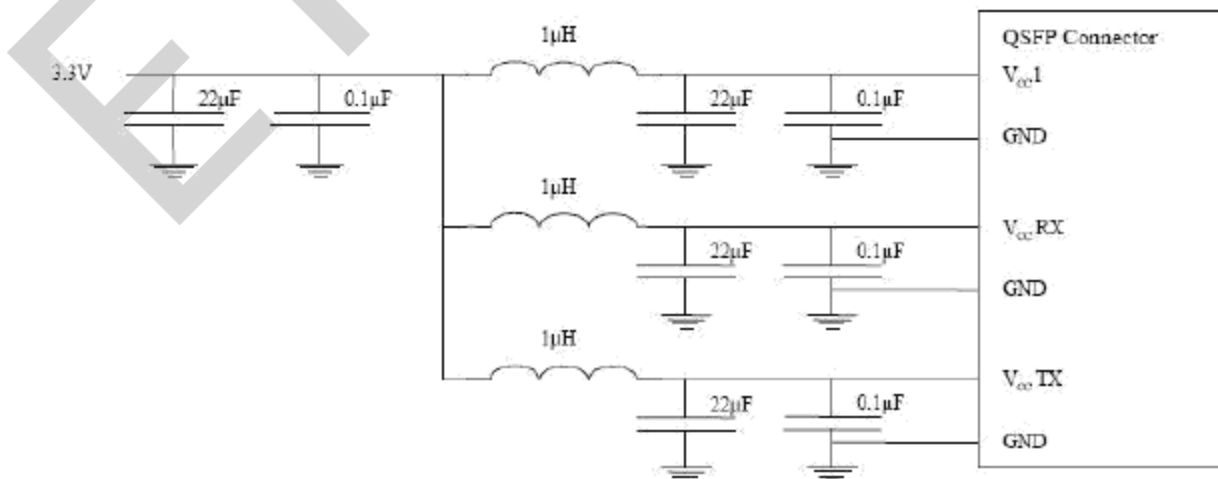


Pin Definitions

PIN	Logic	Symbol	Name/Description	Note
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	LVTTL-I	ModSelL	Module Select	
9	LVTTL-I	ResetL	Module Reset	
10		VCCRX	+ 3.3V Power Supply Receiver	
11	LVC MOS-I/O	SCL	2-Wire Serial Interface Clock	

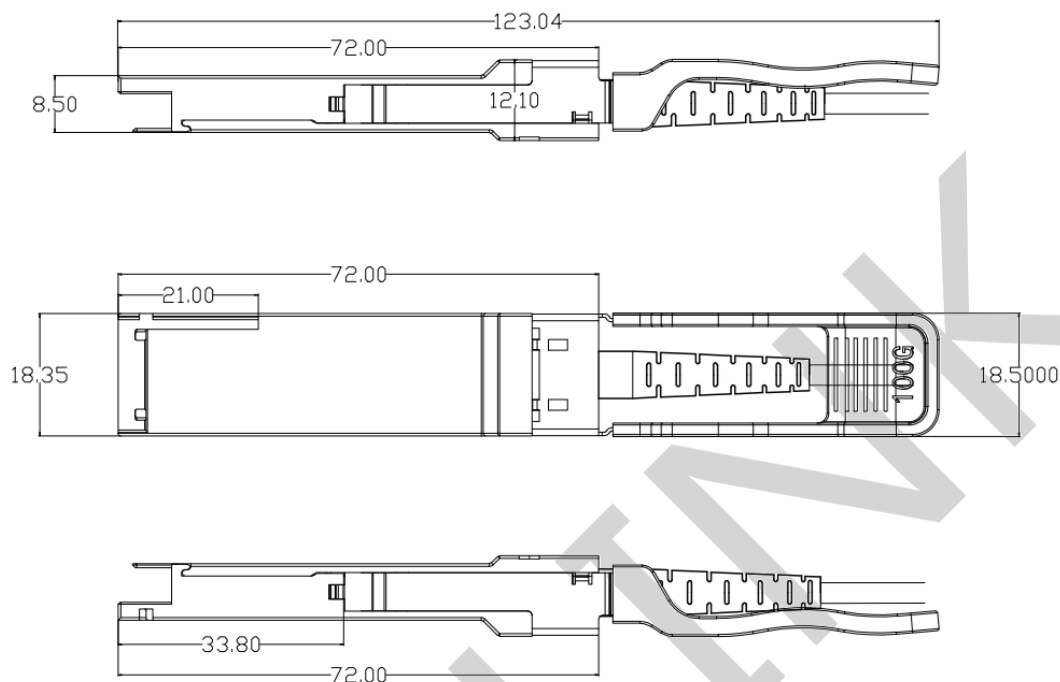
12	LVC MOS-I/O	SDA	2-Wire Serial Interface Data	
13		GND	Ground	
14	CML-O	Rx3p	Receiver Non-Inverted Data Output	
15	CML-O	Rx3n	Receiver Inverted Data Output	
16		GND	Ground	
17	CML-O	Rx1p	Receiver Non-Inverted Data Output	
18	CML-O	Rx1n	Receiver Inverted Data Output	
19		GND	Ground	
20		GND	Ground	
21	CML-O	Rx2n	Receiver Inverted Data Output	
22	CML-O	Rx2p	Receiver Non-Inverted Data Output	
23		GND	Ground	
24	CML-O	Rx4n	Receiver Inverted Data Output	
25	CML-O	Rx4p	Receiver Non-Inverted Data Output	
26		GND	Ground	
27	LVTTL-O	ModPrsL	Module Present	
28	LVTTL-O	IntL	Interrupt	
29		VccTx	+3.3 V Power Supply transmitter	
30		Vcc1	+3.3 V Power Supply	
31	LVTTL-I	LPMode	Low Power Mode	
32		GND	Ground	
33	CML-I	Tx3p	Transmitter Non-Inverted Data Input	
34	CML-I	Tx3n	Transmitter Inverted Data Output	
35		GND	Ground	
36	CML-I	Tx1p	Transmitter Non-Inverted Data Input	
37	CML-I	Tx1n	Transmitter Inverted Data Output	
38		GND	Ground	

Recommended Interface Circuit



Mechanical Diagram

Unit mm



Revision History

Version No.	Date	Description
1.0	May 18, 2018	Preliminary datasheet
2.0	Spe 12,2025	Product upgrades

Company: ETU-Link Technology Co., LTD

Production base: Right side of 3rd floor, No. 102 building, Longguan expressway, Dalang street, Longhua District, Shenzhen city, Guangdong Province, China 518109

R&D base: Floor 4, Building 4, Nanshan Yungu Phase LI, Taoyuan Community, Xili Street, Nanshan District, Shenzhen

Tel: +86-755 2328 4603

Addresses and phone number also have been listed at www.etulinktechnology.com.

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