TITLE 40G QSFP+ Active Optical Cable	DOC No. RFD-20251124200-001	
	REVISION : 01	AUTHORIZED BY : Andy Yang
	DATE : 2025.11.24	CLASSIFICATION : Active Optical Cable

1. PRODUCT FEATURES

- ✓ Compliant to QSFP+ MSA
  SFF-8636 Specification
- ✓ Wide Operating Temperature(0°C~70°C)
- ✓ 4x10Gbps 850nm VCSEL-based Transmitter
- ✓ RoHS compliant

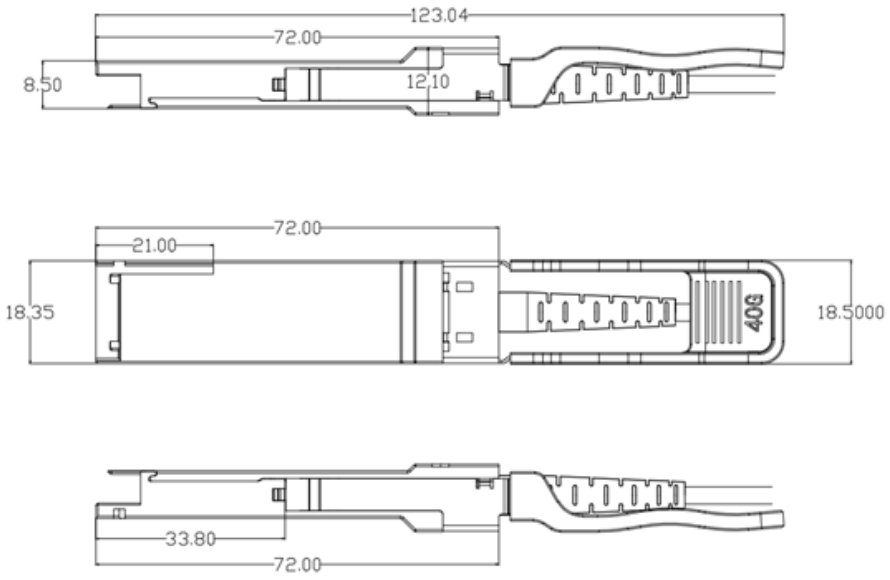
2. PRODUCT DESCRIPTION

2.1 PRODUCT NAME AND SERIES NUMBER(S)

40G QSFP+ SR4 Transceiver

Data Rate	Wavelength (nm)	length	Media	Tem.
40G	850	1m~99m	MMF	C

2.2 DIMENSIONS,MATERIALS,PLATINGS AND MARKING



Unit is millimeter..

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3. APPLICABLE DOCUMENTS AND SPECIFICATIONS

- ✓ 40GBASE-SR4 at 10.3125Gbps per lane
- ✓ Data Center Backbone
- ✓ Other optical links

4. Product Specification

4.1 Absolute Maximum Ratings

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

4.2 Recommended Operating Conditions

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Case Temperature	T_C		0		70	°C
Power Supply Voltage	V_{CC}		3.135	3.3	3.465	V
Signaling Rate each Channel				10.3125		Gbps
Data Rate Accuracy			-100		100	ppm
Bit Error Ratio					1e-12	

Notes: FEC provided by host system

4.3 Electrical Interface Characteristics

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Power Consumption					1	W
Supply Current	Icc				300	mA

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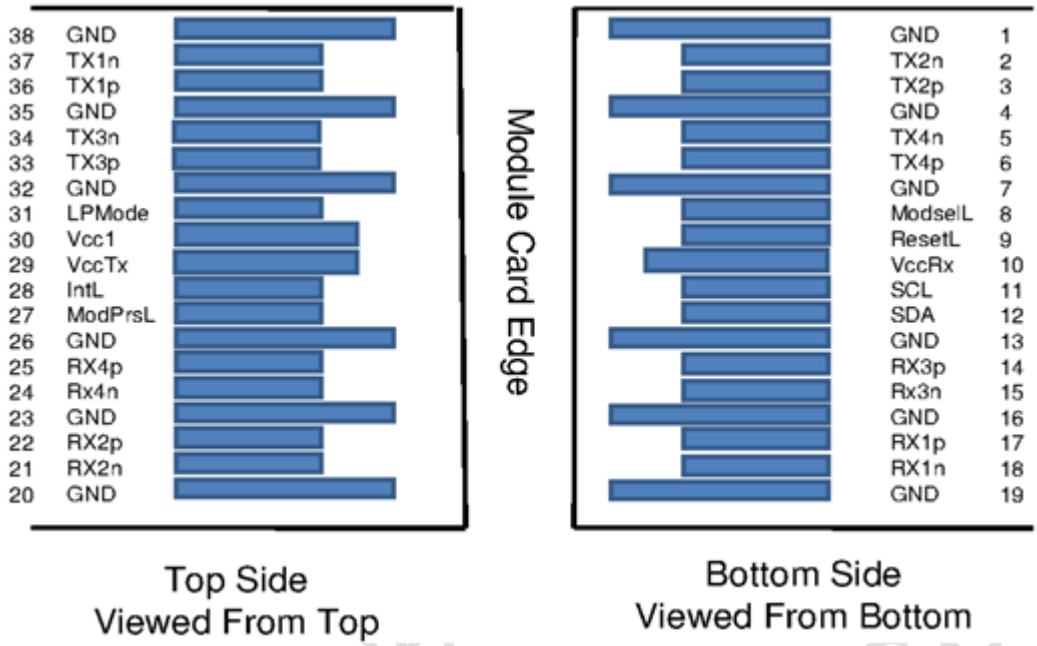
5. Applications Note :



Pin Definitions

Pin Assignment

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	

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9	LVTTL-I	ResetL	Module Reset	
10		VccRx	+ 3.3V Power Supply Receiver	
11	LVCMOS-I/O	SCL	2-Wire Serial Interface Clock	
12	LVCMOS-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	

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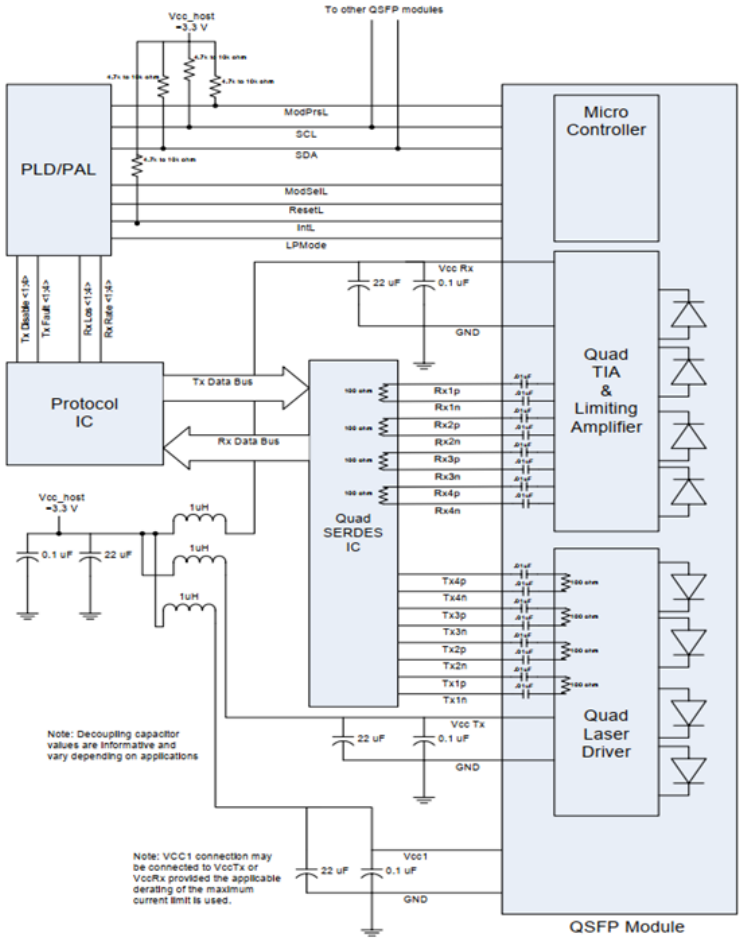
Electrical Interface



Digital Diagnostic Monitor Accuracy

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

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6. Modification History

Rev.	Comments	Date	Originator	Approval
01	Preliminary Draft	2025.11.24	Andy Yang	Mike Sun