TITLE	DOC No. RFD-20251014100-001	
200G QSFP56 Active Optical Cable	REVISION：02	AUTHORIZED BY：Hawk Rong
	DATE：2026.01.16	CLASSIFICATION ：Active Optical Cable

1. Product Features

- Supports IBTA InfiniBand HDR
- Up to 200Gb/s data rate
- 4x 50Gb/s PAM4 modulation
- SFF-8665 compliant QSFP56 port
- Compliant with CMIS 4.0
- Single 3.3V power supply
- 4.5W power dissipation each end, with retiming
- Operating case temp
- Industrial: -40°C to +85 °C
- Hot pluggable
- RoHS compliant

2. Product Applications

- 200Gb/s InfiniBand HDR systems
- Other optical links

3. Product Description

3.1 PRODUCT NAME

200G QSFP56 Active Optical Cable

Bit Rate	Laser(nm)	Distance	Fiber Type	Connector	Tem.
200G QSFP56	850nm	1~100m	MMF	NA	I

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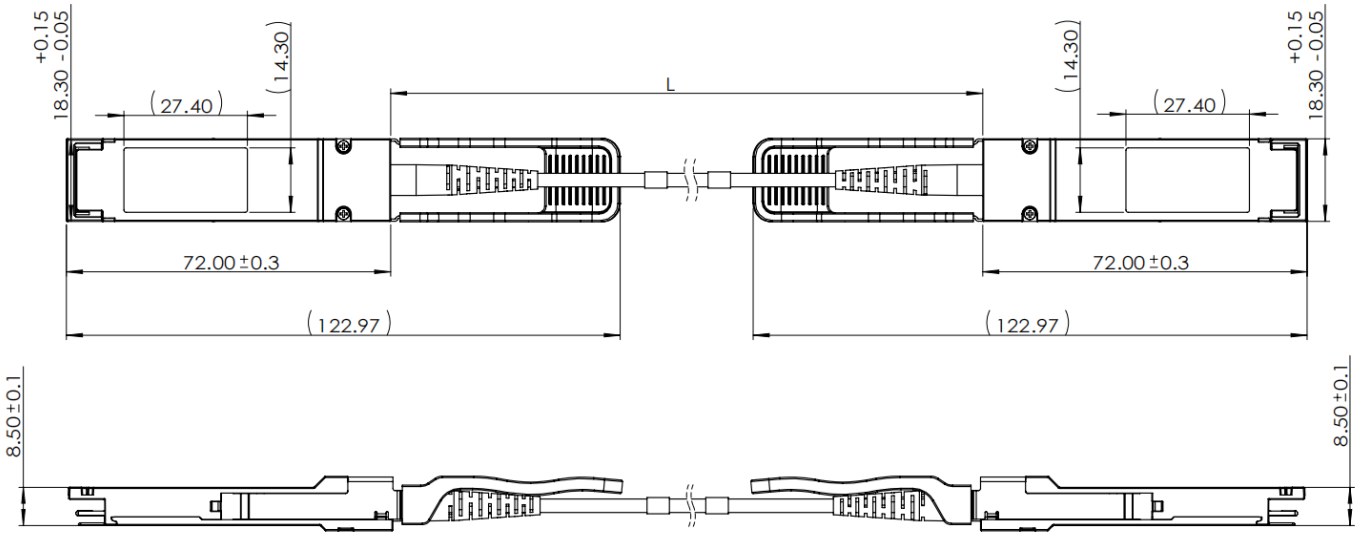
3.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKING



Unit is millimeter. All dimensions are ±0.1mm unless otherwise specified

4. AbsoluteMaximum Ratings

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

5. Recommended Operating Conditions (T=25°C, unless noted)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Case Temperature	T_C		-40		85	°C
Power Supply Voltage	V_{CC}		3.135	3.3	3.465	V
Power Consumption					4.5	W
Signaling Rate each Channel				26.5625		Gbps
Data Rate Accuracy			-100		100	ppm
Error Bit Rate					2.4E-4	

Notes: PRBS31Q@26.5625Gbd PAM4

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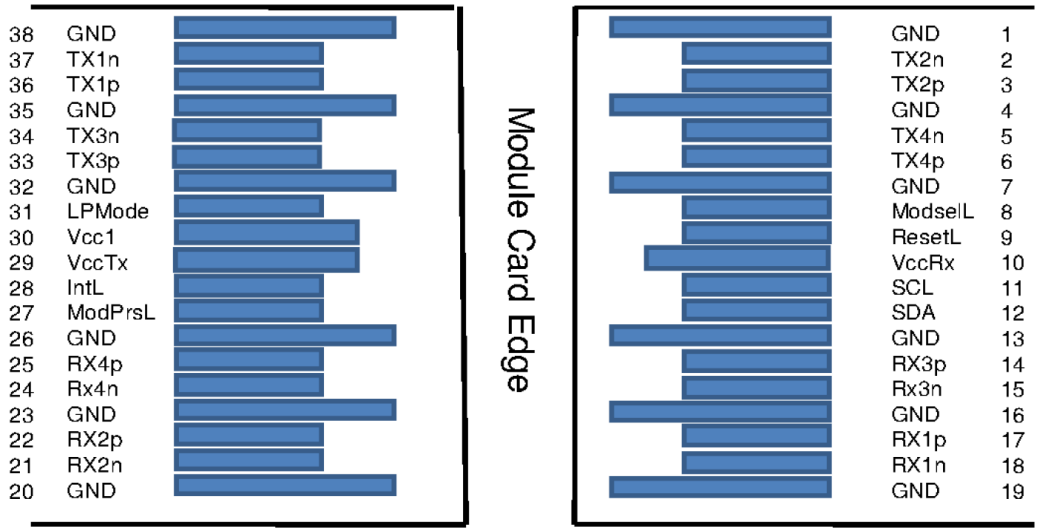
6. Applications Note:

Pin Definitions



Top Side
Viewed From Top

Bottom Side
Viewed From Bottom

Pin Function 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	LVCMOS-I/O	SCL	2-Wire Serial Interface Clock	
12	LVCMOS-I/O	SDA	2-Wire Serial Interface Data	
13		GND	Ground	

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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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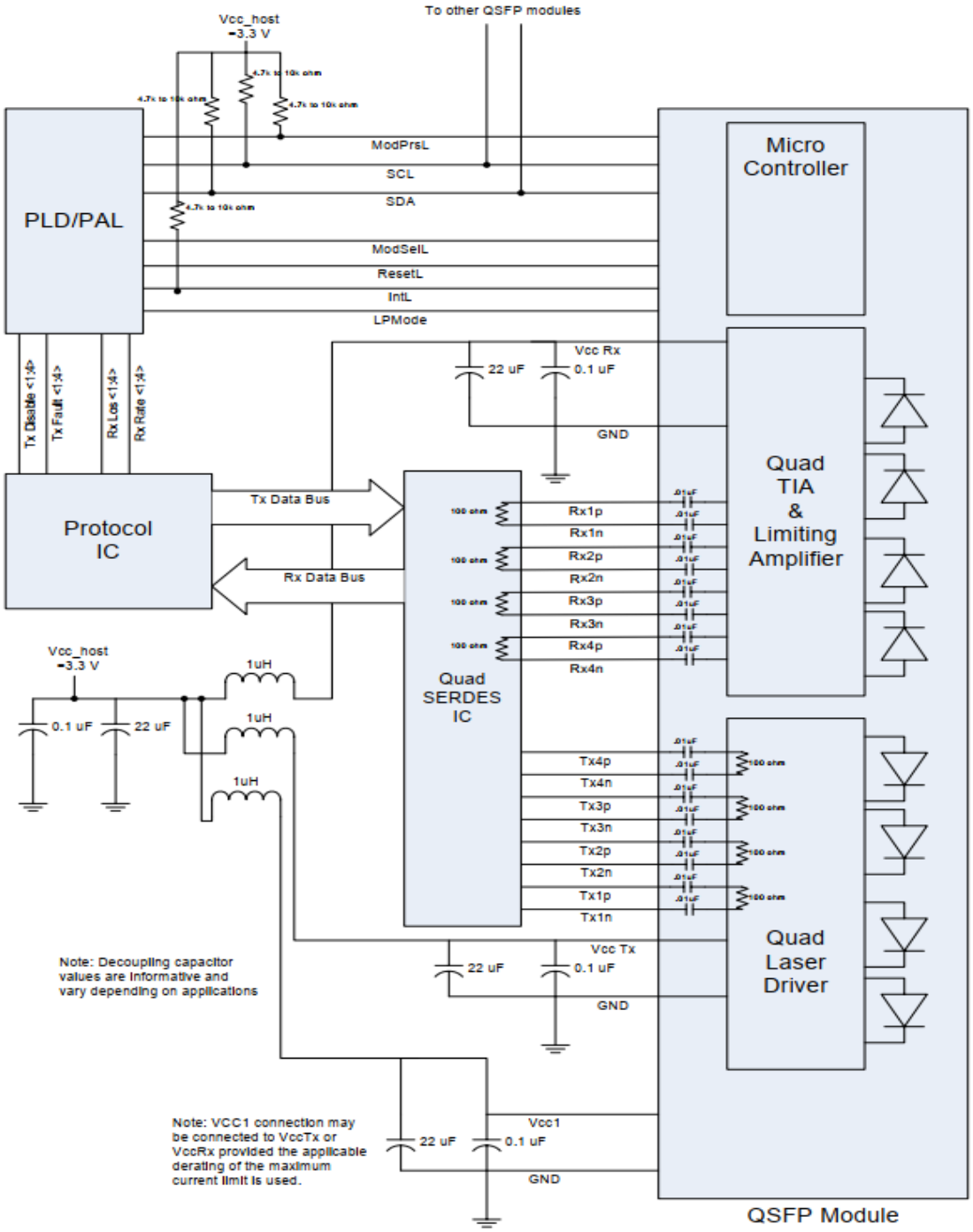
7. Electrical Interface



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8. 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

9. Modification History

Rev.	Comments	Date	Originator	Approval
01	Initial	2025.10.14	Hawk Rong	Mike Sun
02	Modify Compliant with CMIS 4.0	2026.01.16	Hawk Rong	Mike Sun