



## GZ100G-100G-AXX 100G QSFP28 AOC Transceivers

### 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 per lane
- InfiniBand QDR, EDR
- Other optical links

### ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Conditions	Min.	Max.	Unit
Storage Temperature	T <sub>Storage</sub>		-40	+85	°C
Relative Humidity	RH		0	+85	%
Supply Voltage	V <sub>CC3</sub>		0	+3.6	V

### RECOMMENDED OPERATING CONDITIONS (T=25°C, unless noted)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Case Temperature	T <sub>c</sub>		0		70	°C
Power Supply Voltage	V <sub>CC</sub>		3.135	3.3	3.465	V
Signaling Rate each Channel				25.78125		Gbps
Data Rate Accuracy			-100		100	ppm
Pre-FEC Bit Error Ratio					5e-5	
Post-FEC Bit Error Ratio					1e-12	

Notes: FEC provided by host system.

### ELECTRICAL CHARACTERISTICS (T=25°C, unless noted)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Power Consumption					2.5	W
Supply Current	I <sub>CC</sub>				750	mA

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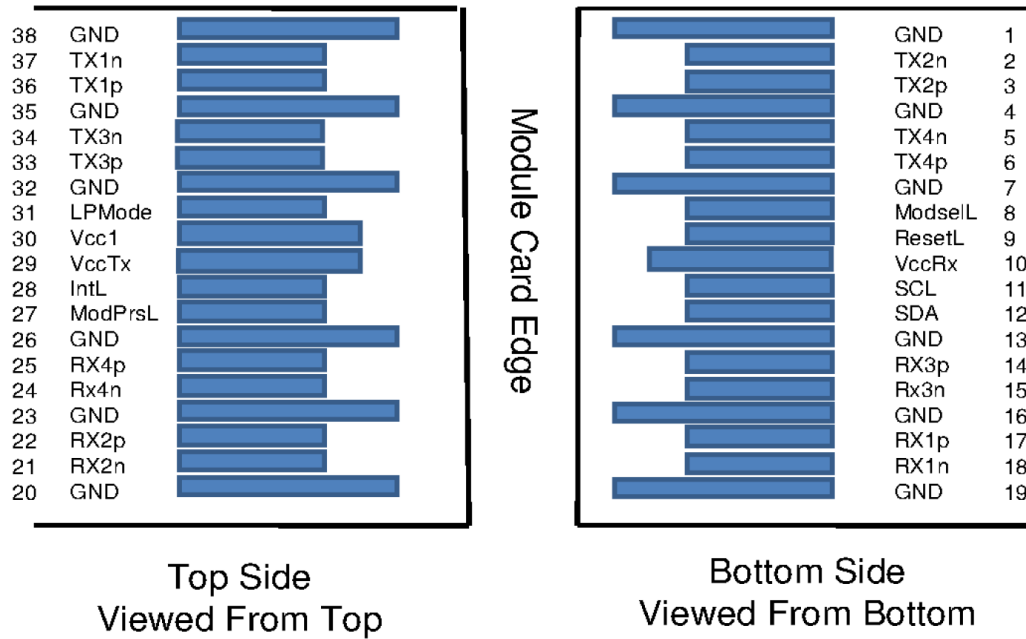
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## PIN ASSIGNMENT



## PIN DESCRIPTION

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	

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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	

### 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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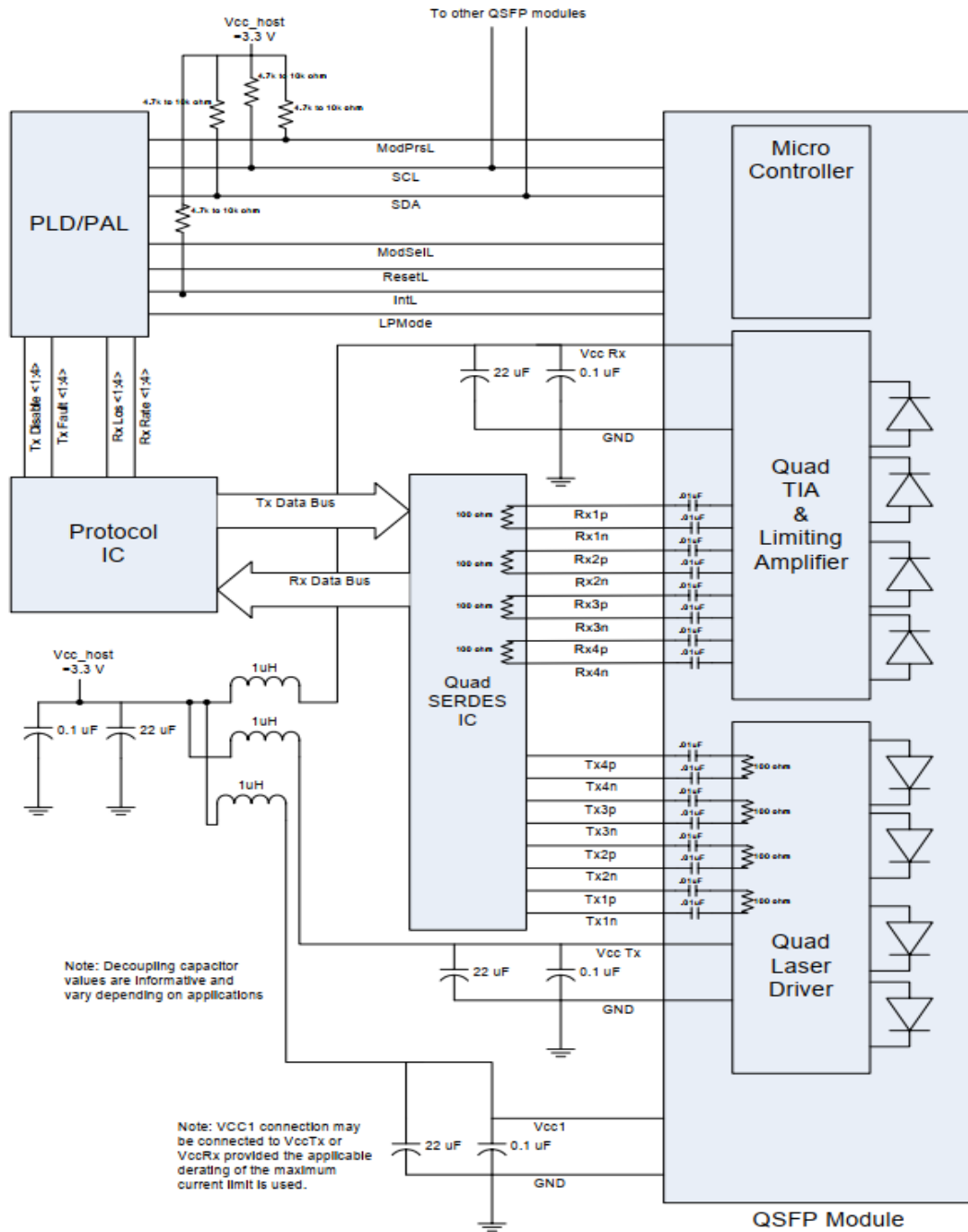
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## Electrical Interface



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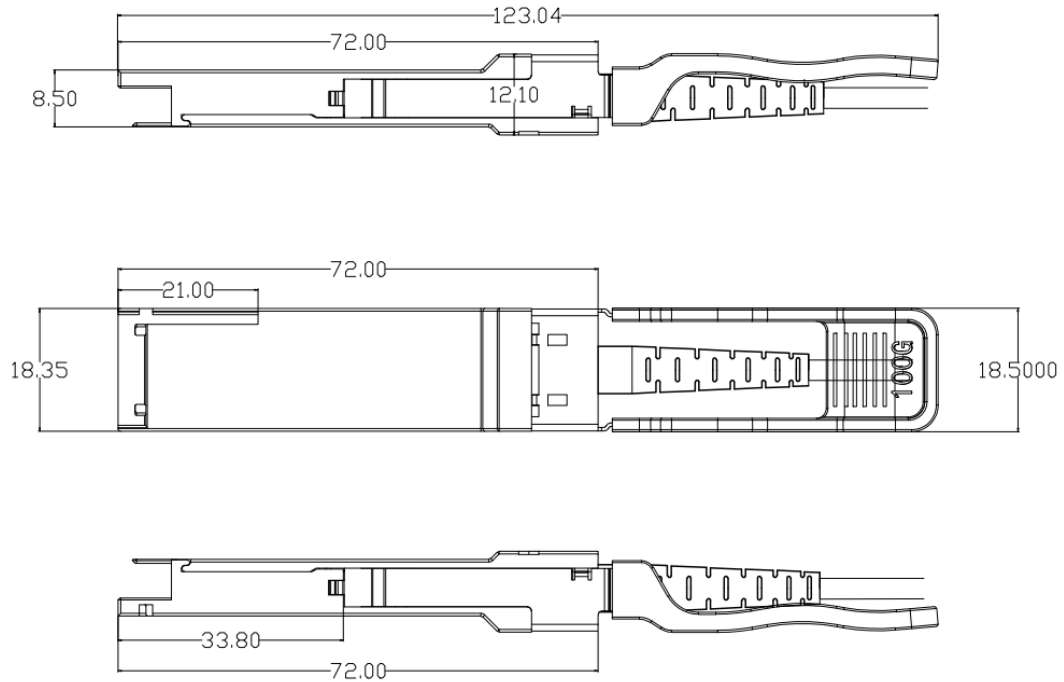
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## OUTLINE DIMENSIONS (Unit mm)



## Order Information

Part Number	Product Description
GZ100G-100G-AXX	100G QSFP28 AOC Transceivers, C-TEMP XX=01 □ cable length=1m XX=03 □ cable length=3m XX=05 □ cable length=5m XX=10 □ cable length=10m XX=15 □ cable length=15m XX=25 □ cable length=25m XX=50 □ cable length=50m XX=A0 □ cable length=100m

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## Warnings

### Handling Precautions:

This device is susceptible to damage as a result of electrostatic discharge (ESD). A static free environment is highly recommended. Please follow guidelines according to proper ESD procedures.

### Laser Safety:

Radiation emitted by laser devices can be dangerous to human eyes. Avoid eye exposure to direct or indirect radiation.

### Notice:

The information provided on this page contains the product target specifications which are subject to change without notice.

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