

## AOC-QSFP28-100G-xM

### 100GBase QSFP28 Active Optical Cable

0.5m to 100m Lengths, Commercial Temperature

#### FEATURES

- Compliant to QSFP28 Electrical MSA SFF-8636 Specification
- 4x25Gbps 850nm VCSEL-based Transmitter
- RoHS compliant
- Case operating temperature 0°C to 70°C

#### APPLICATIONS

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

#### ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Min.	Typical	Max.	Unit
Storage Temperature	TS	-40	-	85	°C
Relative Humidity (non-condensing)	RH	0	-	85	%

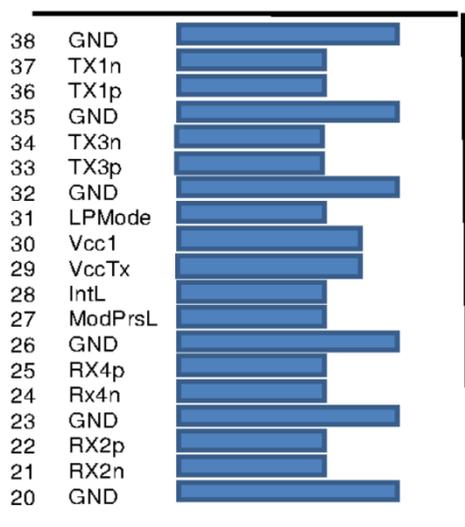
#### RECOMMENDED OPERATING ENVIRONMENT

Parameter	Symbol	Min.	Typical	Max.	Unit
Case Temperature	TC	0	-	70	°C
Power Supply Voltage	VCC	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	

#### ELECTRICAL CHARACTERISTICS

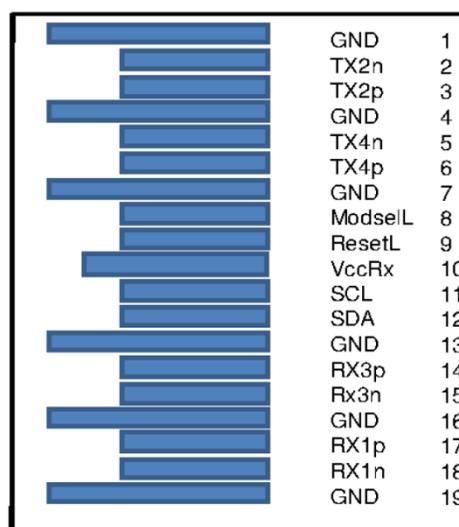
Parameter	Symbol	Min.	Typical	Max.	Unit
Power Consumption		-	-	2.5	W
Supply Current	Icc	-	-	750	mA

## PIN ASSIGNMENT



Top Side  
Viewed From Top

Module Card Edge



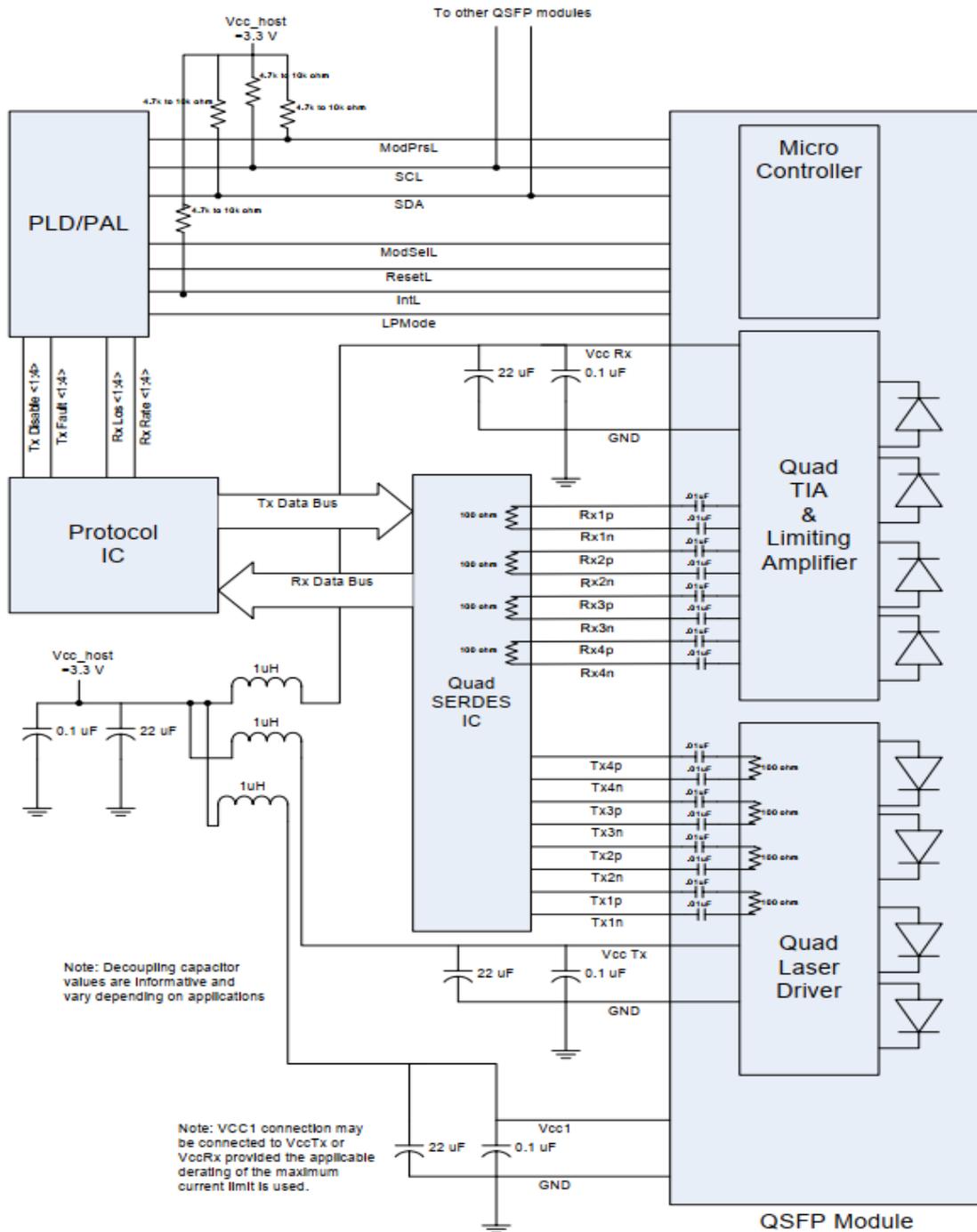
Bottom Side  
Viewed From Bottom

Pin	Logic	Symbol	Definition	Pin	Logic	Symbol	Definition
1		GND	Ground	20		GND	Ground
2	CML-I	Tx2n	Transmitter Inverted Data Input	21	CML-O	Rx2n	Receiver Inverted Data Output
3	CML-I	Tx2p	Transmitter Non-Inverted Data output	22	CML-O	Rx2p	Receiver Non-Inverted Data Output
4		GND	Ground	23		GND	Ground
5	CML-I	Tx4n	Transmitter Inverted Data Input	24	CML-O	Rx4n	Receiver Inverted Data Output
6	CML-I	Tx4p	Transmitter Non-Inverted Data output	25	CML-O	Rx4p	Receiver Non-Inverted Data Output
7		GND	Ground	26		GND	Ground
8	LVTTL-I	ModSelL	Module Select	27	LVTTL-O	ModPrsL	Module Present
9	LVTTL-I	ResetL	Module Reset	28	LVTTL-O	IntL	Interrupt
10		VccRx	+3.3V Power Supply Receiver	29		VccTx	+3.3V Power Supply transmitter
11	LVC MOS-I/O	SCL	2-Wire Serial Interface Clock	30		Vcc1	+3.3V Power Supply
12	LVC MOS-I/O	SDA	2-Wire Serial Interface Data	31	LVTTL-I	LPMODE	Low Power Mode
13		GND	Ground	32		GND	Ground
14	CML-O	Rx3p	Receiver Non-Inverted Data Output	33	CML-I	Tx3p	Transmitter Non-Inverted Data Input
15	CML-O	Rx3n	Receiver Inverted Data Output	34	CML-I	Tx3n	Transmitter Inverted Data Output
16		GND	Ground	35		GND	Ground
17	CML-O	Rx1p	Receiver Non-Inverted Data Output	36	CML-I	Tx1p	Transmitter Non-Inverted Data Input
18	CML-O	Rx1n	Receiver Inverted Data Output	37	CML-I	Tx1n	Transmitter Inverted Data Output
19		GND	Ground	38		GND	Ground

# DIGITAL DIAGNOSTIC MONITOR

Parameter	Accuracy	Unit
Internally measured transceiver temperature	+/-3	°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

## ELECTRICAL INTERFACE



**MECHANICAL DIMENSIONS (UNITS: mm)**

