



Features

- Customizable power consumption
- Custom memory maps available Supports 100Gbps total data rate
- Host-pluggable MSA footprint
- Full SFF-8665 MSA compliant
- Temperature range from 0° to 80°C
- Compliant with SONET, SDH, GBE, Fibre Channel
- MSA Compliant EEPROM
- Power Classes 1 through 6 are available

Applications

- QSFP port/system testing
- Ethernet IEEE 802.3 (Gigabit, 10 Gigabit, 40 Gigabit, and 100 Gigabit Ethernet)
- SDR, DDR and QDR Infiniband Transmission
- SONET, SDH, GBE, Fibre Channel Support

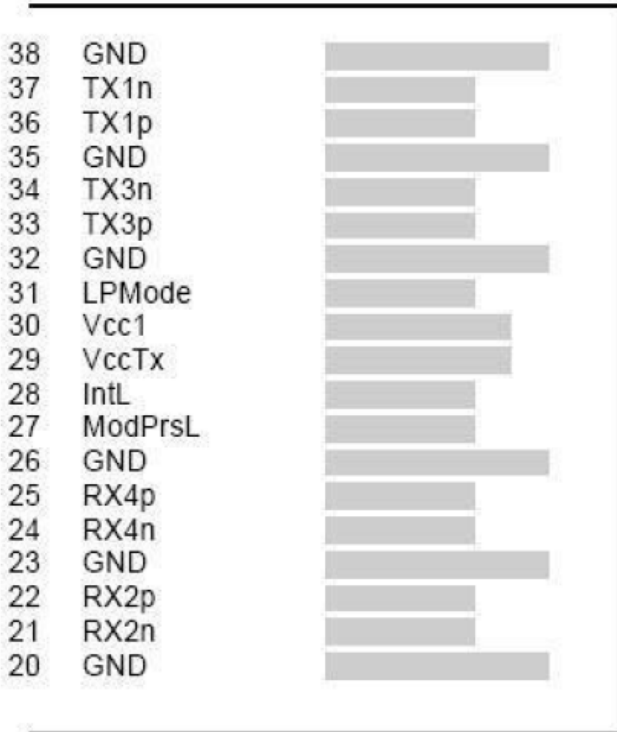
Recommended Operating Conditions

Parameter	Symbol	Min.	Typ.	Max.	Units	Note
Operating Temperature	TA	W		80	°C	
+3.3V Supply Voltage	V _{cc}	3.0	3.3	3.6	V	Main Supply Voltage
Data Rate		0		112	Gbps	Guaranteed to work at 28Gbps per lane
Input/ Output Load Resistance	RL	90	100	110	Ω	
Jitter			33			Note2
Power Level 0				0		0A
1				1		0.3A
2				1.5		0.45A
3				2	W	0.6A
4				2.5		0.75A
5				3		0.91A
6				3.5		1.06A

*Note: 1. Ambient temperature with a minimum of 100 linear feet per minute of air flow

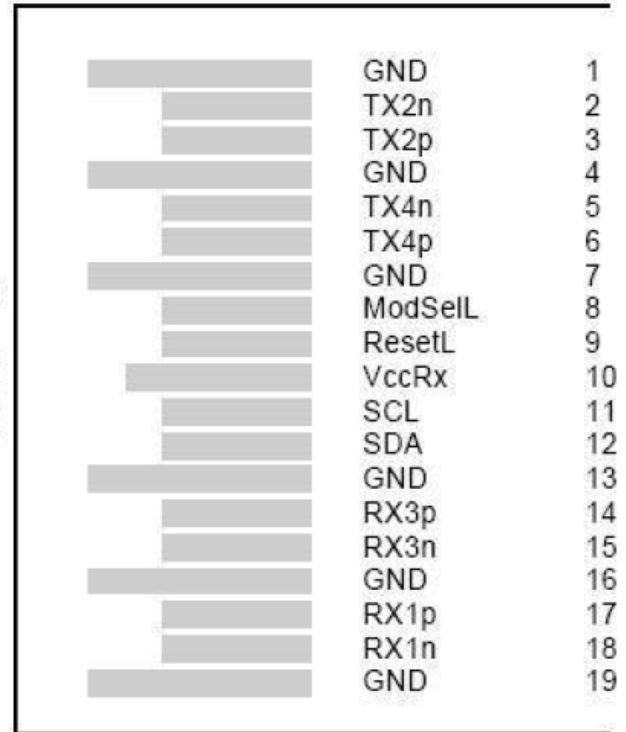
2. Measured with 10gtek 25G BERT and 10gtek QSFP28 Host Test Board

Pin Assignment



Top Side
Viewed from Top

Card Edge



Bottom Side
Viewed from Bottom



Pin Descriptions

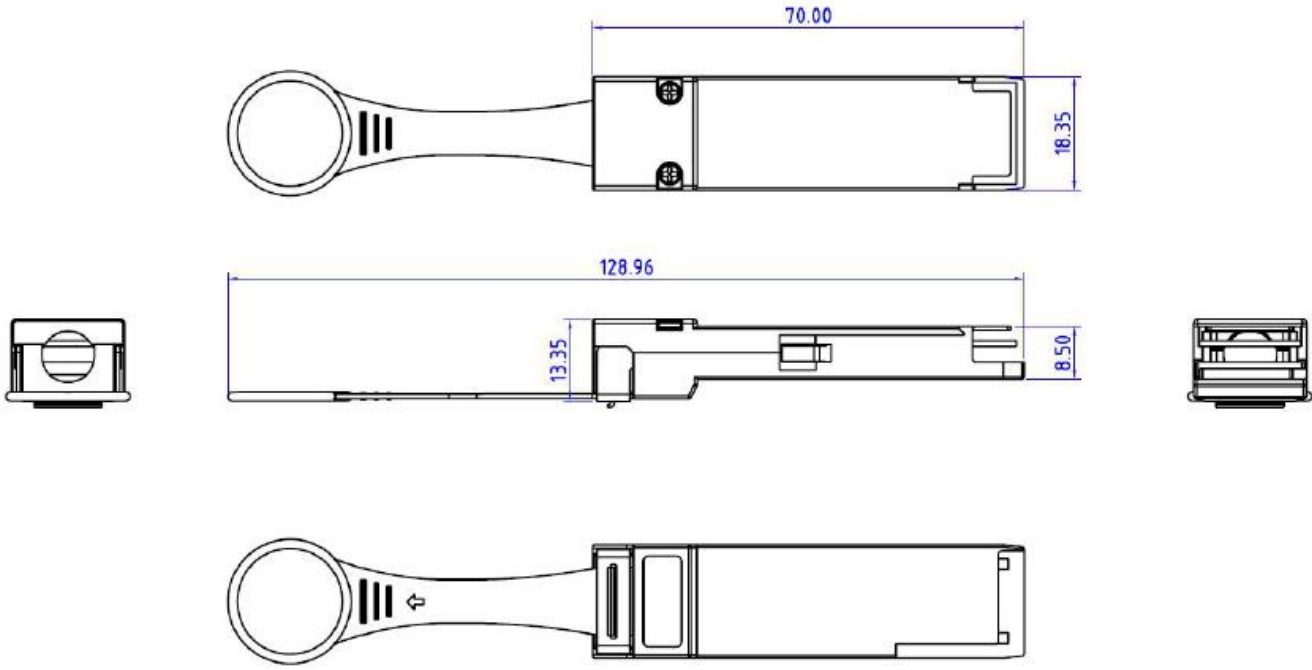
<i>Pin</i>	<i>Logic</i>	<i>Symbol</i>	<i>Description</i>
1		GND	Ground
2	CML-I	Tx2n	Transmitter Inverted Data Input
3	CML-I	Tx2p	Transmitter Non-inverted Data output
4		GND	Ground
5	CML-I	Tx4n	Transmitter Inverted Data Input
6	CML-I	Tx4p	Transmitter Non-inverted Data output
7		GND	Ground
8	LVTTL-I	ModSelL	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	+3.3V Power Supply Transmitter
30		Vcc1	+3.3V Power Supply
31	LVTTL-1	LPMODE	Low Power Mode
32		GND	Ground

<i>Pin</i>	<i>Logic</i>	<i>Symbol</i>	<i>Description</i>
33	CML-I	Tx3p	Transmitter Non-Inverted Data Input
34	CML-I	Tx3n	Transmitter Inverted Data ouput
35		GND	Ground
36	CML-I	Tx1p	Transmitter Non-Inverted Data Input
37	CML-I	Tx1n	Transmitter Inverted Data ouput
38		GND	Ground

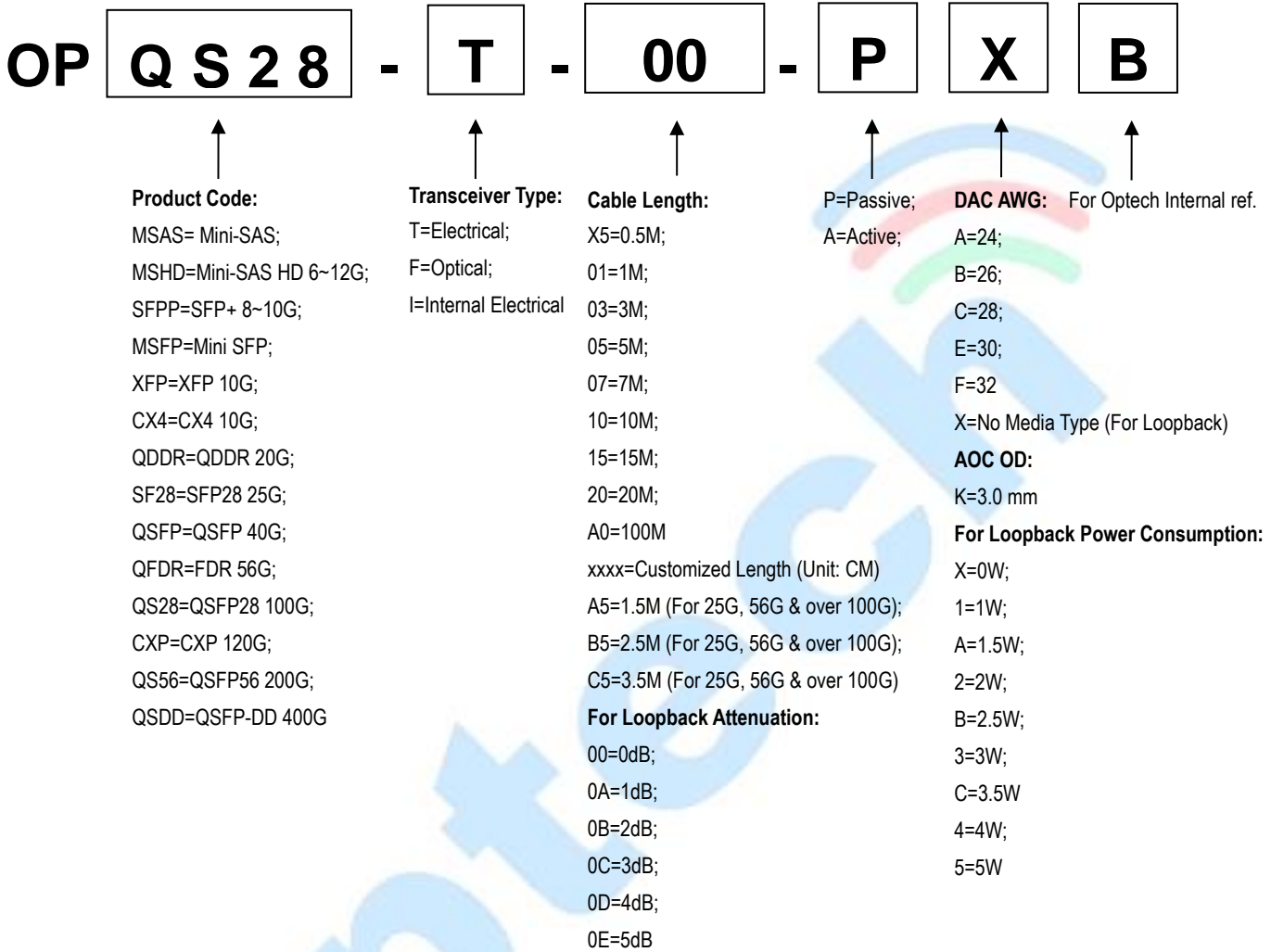
Notes:

1. GND is the symbol for signal and supply (power) common for QSFP modules. All are common within the QSFP module and all module voltages are referenced to this potential otherwise noted. Connect these directly to the host board signal common ground plane
2. Vcc Rx, Vcc1 and Vcc Tx are the receiver and transmitter power suppliers and shall be applied concurrently. Recommended host board power supply filtering is shown below. Vcc Rx, Vcc1 and Vcc Tx may be internally connected within the QSFP transceiver module in any combination. The connector pins are each rated for a maximum current of 500mA.

Dimensions



Ordering Information



Note: All information contained in this document is subject to change without notice.