

QFP-AC12DG-xxMC

200Gbps QSFP56+ Active Optical Cables

Features

- Supports IBTA InfiniBand HDR
- 200Gb/s HDR to 2x100Gb/s HDR100 data rate
- 4x 50Gb/s PAM4 modulation
- SFF-8665 compliant QSFP56 port
- SFF-8636 compliant I2C management
- Single 3.3V power supply
- 4.5W power dissipation each end, with retiming
- RoHS compliant
- Operating case temperature range: 0 °C to 70°C

Applications

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

Description

The 200G QSFP56-2x100G QSFP56 breakout AOC is designed for relatively short connection, offering a low-cost, high-density solution alternative for system providers and customers implementing 200GE/100GE in Data Centers and Cloud Networks. This breakout cable is compliant with IEEE 802.3cd, SFF-8665, SFF-8636, SFF-8665 standards.

Absolute Maximum Ratings

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Supply Voltage	Vcc	-0.4		+3.6	V	1
Storage Temperature	TS	-40		85	°C	
Operating Case temperature	TOP	0		70	°C	1
Operating Humidity	RH	0		85	%	2

Notes:

1. No damage, but performance is not guaranteed if parameters are out of spec.
2. No condensation

Recommended Operating Conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Operating Case Temperature	TC	0		70	°C	
Power Supply Voltage	Vcc	3.14	3.3	3.47	V	
Power Supply Current	Icc			1364	mA	1
Power Dissipation	Pd			4.5	W	
Bit Rate	BR		26.5625		Gbps	
Error Bit Rate				2.E-4		2

Note:

1. With established link
2. PRBS31Q@26.5625Gbps PAM4

Electrical Characteristics

Parameter	Symbol	Min	Typ	Max	Unit	Notes
Supply Voltage	Vcc	3.14		3.47	V	
Supply Current	Icc			1364	mA	
Transmitter						
Input differential impedance	Zin	90	100	110	Ohm	
Differential data input swing	Vin,p-p	50		900	mVpp	
Differential termination mismatch				10	%	
DC common mode voltage		350		2850	mV	
Receiver						
Differential Input Impedance	Zout	90	100	110	Ohm	
Differential data output swing	Vout,p-p	300		1000	mVpp	
Differential termination mismatch				10	%	

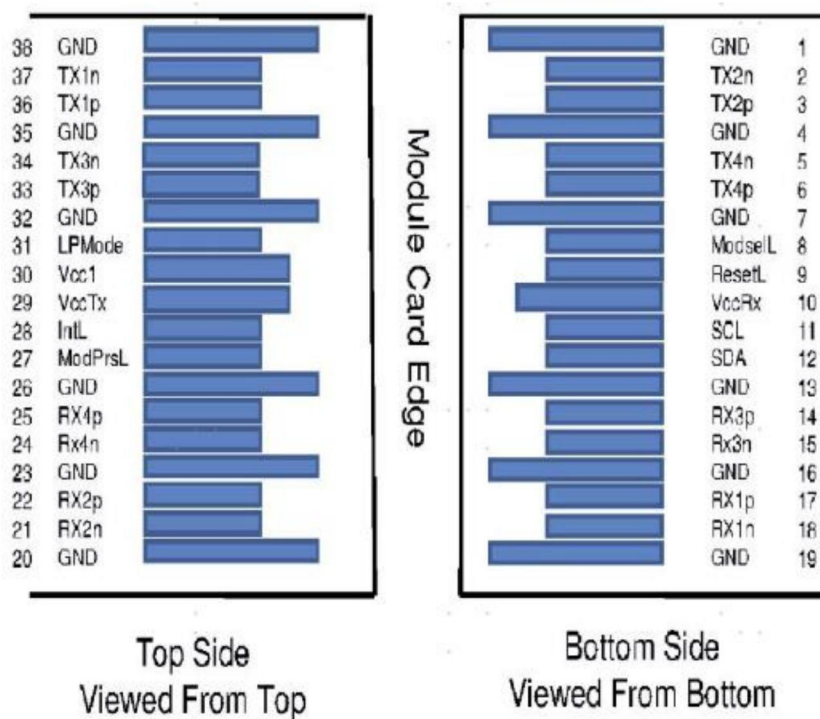
Pin Description

Pin	Symbol	Description	Notes
1	GND	Ground	1
2	Tx2n	Transmitter Inverted Data Input	
3	Tx2p	Transmitter Non-Inverted Data Input	
4	GND	Ground	1
5	Tx4n	Transmitter Inverted Data Input	
6	Tx4p	Transmitter Non-Inverted Data Input	
7	GND	Ground	1
8	ModSelL	Module Select	
9	ResetL	Module Reset	
10	Vcc Rx	+3.3V Power Supply Receiver	
11	SCL	2-wire serial interface clock	
12	SDA	2-wire serial interface data	
13	GND	Ground	1
14	Rx3p	Receiver Non-Inverted Data Output	
15	Rx3n	Receiver Inverted Data Output	
16	GND	Ground	1
17	Rx1p	Receiver Non-Inverted Data Output	
18	Rx1n	Receiver Inverted Data Output	
19	GND	Ground	1
20	GND	Ground	1
21	Rx2n	Receiver Inverted Data Output	
22	Rx2p	Receiver Non-Inverted Data Output	
23	GND	Ground	1
24	Rx4n	Receiver Inverted Data Output	
25	Rx4p	Receiver Non-Inverted Data Output	
26	GND	Ground	1
27	ModPrsL	Module Present	
28	IntL	Interrupt	
29	Vcc Tx	+3.3V Power supply transmitter	
30	Vcc1	+3.3V Power supply	

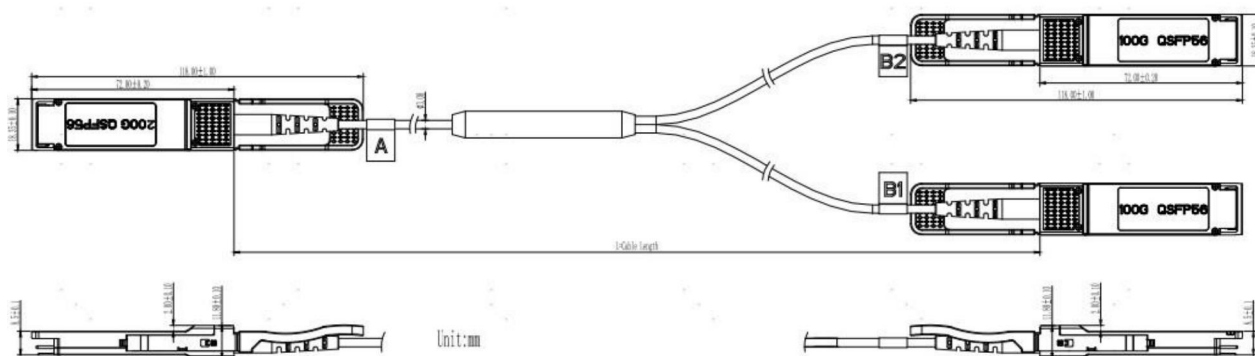
Pin	Symbol	Description	Notes
31	LPMode	Low Power Mode	
32	GND	Ground	1
33	Tx3p	Transmitter Non-Inverted Data Input	
34	Tx3n	Transmitter Inverted Data Input	
35	GND	Ground	1
36	Tx1p	Transmitter Non-Inverted Data Input	
37	Tx1n	Transmitter Inverted Data Input	
38	GND	Ground	1

Notes:

1. Circuit ground is internally isolated from chassis ground



Mechanical specifications



Ordering information

Part Number	Product Description
QFP-AC12DG-xxMC	200Gbps(QSFP56+ to QSFP56+)Active Optical Cables, 0°C~+70°C

For More Information

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