

400G QSFP56-DD to 400G QSFP56-DD AEC



0.5m~10m

Black Mesh

Key Features

- Support 8x53.125G PAM4
- InfiniBand HDR & Ethernet compatible
- Maximum link length up to 10m
- Single Wire Size: 28AWG~32AWG
- Maximum power consumption: 6.5W each end
- Case temperature range: 0°C to 70°C
- 3.3V Power Supply
- Hot Pluggable
- RoHS Compliance

Applications

- Data center & Networking Equipment
- Servers/Storage Devices
- High Performance Computing (HPC)
- Switches/Routers

Supported Standards

- QSFP-DD MSA
- CMIS 4.0
- IEEE 802.3cd



Ordering Information

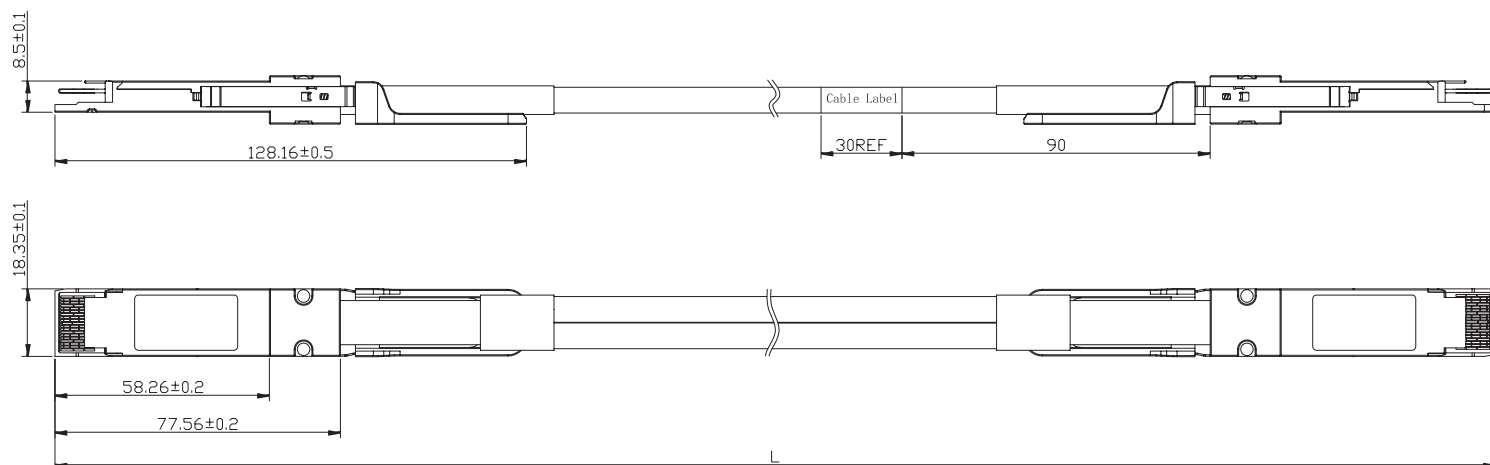
LGGG-PK1xxxC

400G QSFP56-DD to 400G QSFP56-DD AEC – 0.5m~10m

Ordering P/Ns	Description	Length	AWG	Cable	NOTE
LGGG-PK1060C	400G QSFP56-DD to 400G QSFP56-DD AEC	6.0m	32AWG	Black Mesh	
LGGG-PK1070C	400G QSFP56-DD to 400G QSFP56-DD AEC	7.0m	30AWG	Black Mesh	
LGGG-PK1100C	400G QSFP56-DD to 400G QSFP56-DD AEC	10m	28AWG	Black Mesh	

xxx define AEC cable length

Mechanical Outline



Absolute Maximum Ratings

Parameter	Symbol	Unit	Min.	Typ.	Max.	Notes
Supply Voltage	Vcc	V	-0.4	-	+3.6	
Storage Temperature	TS	°C	-40	-	85	
Operating Case temperature	TOP	°C	0	-	70	
Operating Humidity	RH	%	5	-	85	

Recommended Operating Conditions

Parameter	Unit	Min.	Typ.	Max.	Notes
Operating Case Temperature	°C	0		70	
Supply Voltage	V	3.135	3.3	3.465	
Bit Rate	Gb/s		400		

QSFP-DD PIN Function Definitions

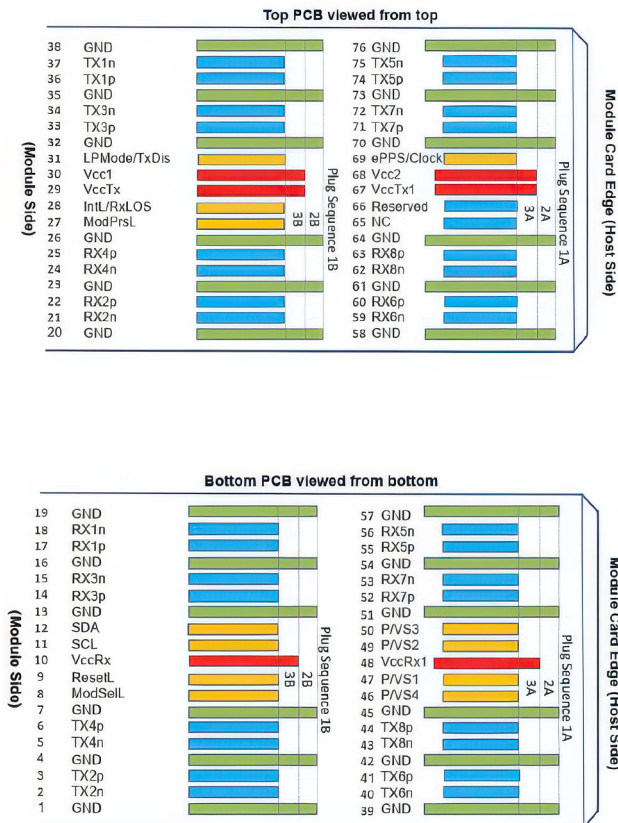
Pin	Logic	Symbol	Description
1		GND	Ground
2	CML-I	Tx2n	Transmitter Inverted Data Input
3	CML-I	Tx2p	Transmitter Non-Inverted Data Input
4		GND	Ground
5	CML-I	Tx4n	Transmitter Inverted Data Input
6	CML-I	Tx4p	Transmitter Non-Inverted Data Input
7		GND	Ground
8	LVTTL-I	ModSelL	Module Select
9	LVTTL-I	ResetL	Module Reset
10		VccRx	+3.3V Power Supply Receiver
11	LVCOMS-I/O	SCL	TWI Serial Interface Clock
12	LVCOMS-I/O	SDA	TWI 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/RxLOSL	Interrupt/optional RxLOS
29		VccTx	+3.3V Power Supply Transmitter
30		Vcc1	+3.3V Power Supply
31	LVTTL-I	LPMODE/TxDis	Low Power Mode/optional TX Disable
32		GND	Ground
33	CML-I	Tx3p	Transmitter Non-Inverted Data Input
34	CML-I	Tx3n	Transmitter Inverted Data Input
35		GND	Ground
36	CML-I	Tx1p	Transmitter Non-Inverted Data Input
37	CML-I	Tx1n	Transmitter Inverted Data Input
38		GND	Ground
39		GND	Ground
40	CML-I	Tx6n	Transmitter Inverted Data Input
41	CML-I	Tx6p	Transmitter Non-Inverted Data Input
42		GND	Ground
43	CML-I	Tx8n	Transmitter Inverted Data Input
44	CML-I	Tx8p	Transmitter Non-Inverted Data Input
45		GND	Ground
46	LVCOMS/CML-I	P/VS4	Programmable/Module Vendor Specific 4
47	LVCOMS/CML-I	P/VS1	Programmable/Module Vendor Specific 1
48		VccRx1	3.3V Power Supply

49	LVCOMS/CML-I	P/VS2	Programmable/Module Vendor Specific 2
50	LVCOMS/CML-I	P/VS3	Programmable/Module Vendor Specific 3
51		GND	Ground
52	CML-O	Rx7p	Receiver Non-Inverted Data Output
53	CML-O	Rx7n	Receiver Inverted Data Output
54		GND	Ground
55	CML-O	Rx5p	Receiver Non-Inverted Data Output
56	CML-O	Rx5n	Receiver Inverted Data Output
57		GND	Ground
58		GND	Ground
59	CML-O	Rx6n	Receiver Inverted Data Output
60	CML-O	Rx6p	Receiver Non-Inverted Data Output
61		GND	Ground
62	CML-O	Rx8n	Receiver Inverted Data Output
63	CML-O	Rx8p	Receiver Non-Inverted Data Output
64		GND	Ground
65		NC	No Connect
66		Reserved	For future use
67		VccTx1	3.3V Power Supply
68		Vcc2	3.3V Power Supply
69	LVCOMS-I	ePPS/Clock	1PPS PTP clock or reference clock input
70		GND	Ground
71	CML-I	Tx7p	Transmitter Non-Inverted Data Input
72	CML-I	Tx7n	Transmitter Inverted Data Input
73		GND	Ground
74	CML-I	Tx5p	Transmitter Non-Inverted Data Input
75	CML-I	Tx5n	Transmitter Inverted Data Input
76		GND	Ground

QSFP-DD Electrical Pad Layout

For detail mechanical information, please refer to the related document of QSFP-DD MSA.



Disclaimer

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