LI-0040-xxxD-J

LinkIT DAC QSFP+ 40Gbps xm Juniper, Passive, xxAWG

PRODUCT FEATURES

- Compliant with SFF- 8436
- Up to 10.3125Gbps data rate per channel
- Up to 7m transmission
- Operating temperature: 0°C to +70°C
- Single 3.3V power supply
- RoHS compliant

APPLICATIONS

- Servers
- Networked storage systems
- Routers
- External storage systems
- Data Center networking

Product Description

QSFP+ Direct Attach Cables are compliant with the SFF-8436 specifications. Various choices of wire gauge are available from 30 to 24 AWG with various choices of cable length (up to 7m).

Ordering Information

Product	Description	Cable Length (m)	AWG
LinkIT DAC QSFP+ 40Gbps 1m Juniper	QSFP+ to QSFP+	1	30
LinkIT DAC QSFP+ 40Gbps 2m Juniper	QSFP+ to QSFP+	2	30
LinkIT DAC QSFP+ 40Gbps 3m Juniper	QSFP+ to QSFP+	3	30
LinkIT DAC QSFP+ 40Gbps 4m Juniper	QSFP+ to QSFP+	4	26
LinkIT DAC QSFP+ 40Gbps 5m Juniper	QSFP+ to QSFP+	5	26
LinkIT DAC QSFP+ 40Gbps 6m Juniper	QSFP+ to QSFP+	6	26
LinkIT DAC QSFP+ 40Gbps 7m Juniper	QSFP+ to QSFP+	7	26

Note: You can be customized diameter and distance.

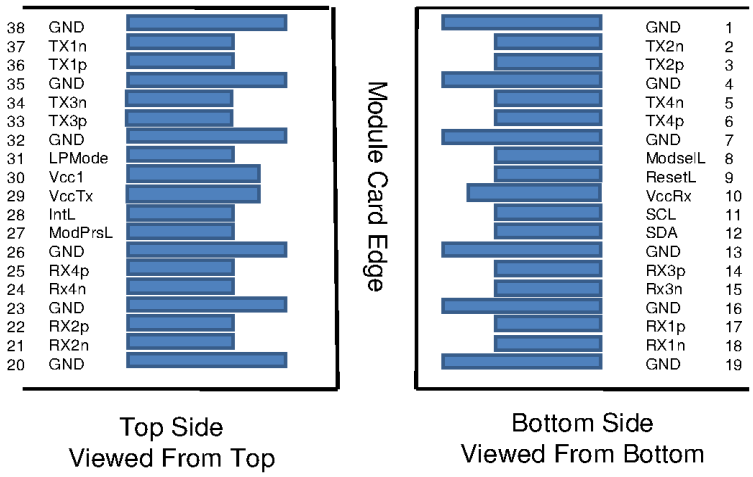
I. Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit	Note
Storage Temperature	Tst	-40	125	degC	
Relative Humidity (non-condensation)	RS	-	85	%	
Operating Case Temperature	Topc	-40	85	degC	1
Supply Voltage	VCC3	-0.3	3.6	V	
Voltage on LVTTL Input	Vilvttl	-0.3	VCC3 +0.2	V	

II. Recommended Operating Conditions

Parameter	Symbol	Min	Max	Unit
Operating Case Temperature	Topc	-40	85	degC
Relative Humidity (non-condensation)	RS	-	85	%
Supply Voltage	VCC3	3.135	3.465	V
Power Supply Currenct	ICC3	750	-	mA
Total Power Consumption	Pd	-	2.0	W

III. Pin Assignments



IV. Pin 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		Vcc Rx	+3.3V Power Supply Receiver
11	LVCMOS-I/O	SCL	2-wire serial interface clock
12	LVCMOS-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		Vcc Tx	+3.3V Power supply transmitter
30		Vcc1	+3.3V 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 Input
35		GND	Ground
36	CML-I	Tx1p	Transmitter Non-Inverted Data Input
37	CML-I	Tx1n	Transmitter Inverted Data Input
38		GND	Ground

V. Product Characteristics

Number of Lanes	Tx & Rx
Channel Data Rate	10.3125 Gbps
Operating Temperature	0 to + 70°C
Storage Temperature	-40 to + 85°C
Supply Voltage	3.3 V nominal
Electrical Interface	38 pins edge connector
Management Interface	Serial, I2C

VI. High Speed Characteristics

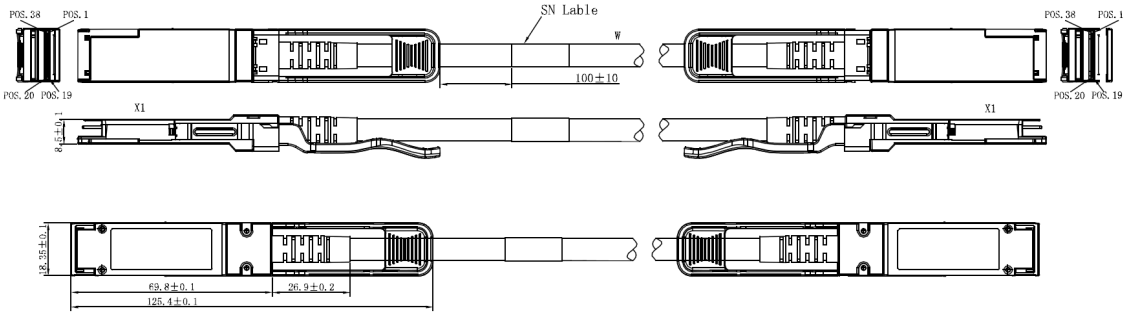
Parameter	Symbol	Min	Typical	Max	Unit	Note
Differential Impedance	TDR	90	100	110	Ω	
Insertion loss	SDD21	-17.04			dB	At 5.15625 GHz
Differential Return Loss	SDD11 SDD22			See 1	dB	At 0.05 to 4.1 GHz
				See 2	dB	At 4.1 to 11.1 GHz
Differential to common-mode return loss	SCD11 SCD22			-10	dB	At 0.2 to 11.1 GHz

Common-mode to common-mode output return loss	SCC11 SCC22	-3	dB	At 0.01 to 11.1 GHz

Notes:

1. Reflection Coefficient given by equation SDD11(dB) < -12 + 2 × SQRT(f), with f in GHz
2. Reflection Coefficient given by equation SDD11(dB) < -6.3 + 13 × log10(f/5.5), with f in GHz

VII. Mechanical Diagram



Revision History

Version No.	Date	Description
1.0	June 24, 2021	Preliminary datasheet

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