

Features

- Support Infiniband FDR at 56Gb/s application
- Compliant to QSFP+ Electrical MSA SFF-8436
- Multi rate of up to 14.025Gbps
- +3.3V single power supply
- Low power consumption
- Operating case temp
Commercial : 0°C to +70 °C
- RoHS compliant



Applications

- InfiniBand FDR at 56Gb/s
- Super Computing
- Other optical links

1. Absolute Maximum Ratings

Parameter	Symbol	Min.	Typical	Max.	Unit
Supply Voltage	Vcc3	-0.5	-	+3.6	V
Storage Temperature	s	-5	-	+75	°C
Operating Humidity (No condensation)	RH	+5	-	+85	%

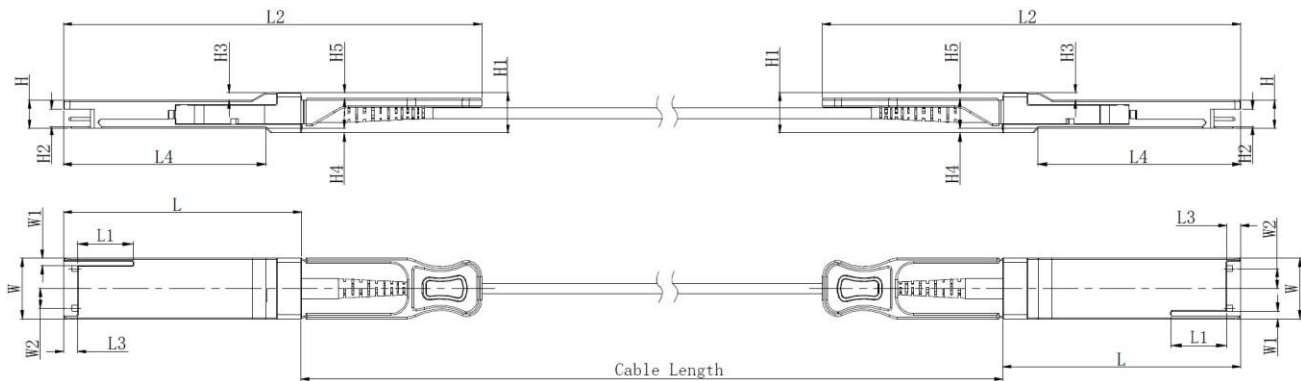
2. Recommended Operating Conditions

Parameter	Symbol	Min.	Typical	Max.	Unit
Operating Case Temperature	TC	0	-	+70	°C
Power Supply Voltage	Vcc	3.14	3.3	3.47	V
Power Dissipation (Per terminal)	Pd	-	-	1.5	W
Bit Rate	BR	1.25	14.025	-	Gbps

3. Electrical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Units	
Transmitter						
Differential Data Input Swing	Vout	200	-	1000	mV	
Input Differential Impedance	ZD	90	100	110	Ω	
ModSelL	Module Select	VOL	VEE-0.3	-	0.4	V
	Module Unselect	VOH	2.0	-	VCC+0.3	V
LPMode	Low Power Mode	VIL	VEE-0.3	-	0.8	V
	Normal Operation	VIH	2.0	-	VCC+0.3	V
ResetL	Reset	VIL	VEE-0.3	-	0.8	V
	Normal Operation	VIH	2.0	-	VCC+0.3	V
Receiver						
Differential Data Output Swing	Vin,P-P	200	-	1000	mVPP	
Output Differential Impedance	ZD	90	100	110	Ω	
Mod PrsL	Normal Operation	VOL	VEE-0.3	-	0.4	V
IntL	Interrupt	VOL	VEE-0.3	-	0.4	V
	Normal Operation	VoH	2.0	-	VCC+0.3	V
Bit Error Rate PRBS2^31-1@14.025Gbps	BER			E- 12		

4. Mechanical Diagram



*Cable jacket type standard is LSZH.

	L	L1	L2	L3	L4	W	W1	W2	H	H1	H2	H3	H4	H5
Max	72.2	-	128	4.35	61.4	18.45	-	6.2	8.6	12.4	5.35	2.5	1.6	2.0
Type	72.0	-	-	4.20	61.2	18.35	-	-	8.5	12.2	5.2	2.3	1.5	1.8
Min	68.8	16.5	124	4.05	61.0	18.25	2.2	5.8	8.4	12.0	5.05	2.1	1.3	1.6

Unit: mm

Parameter	Value	Units
Diameter	3	mm
Minimum bend radius	30	mm
Length tolerance	Length < 1 m:	+5 / -0 cm
	1 m ≤ length ≤ 4.5 m:	+15 / -0 cm
	5 m ≤ length ≤ 14.5 m:	+30 / -0 cm
	Length ≥ 15.0 m	+2% / -0 m
Cable color	Orange(OM2), Aqua(OM3), Magenta(OM4)	

Note: External physical characteristics are subject to variation. This may include, but is not limited to, external case designs, pull tab colors and/or shapes, removal latch styles or colors, and label sizes and placement. These variations do not affect the function or characteristics of the transceivers.

5. Ordering Information

PNY P/N	Mellanox Legacy P/N	Nvidia P/N	Product Description
PC220731V-003	MC220731V-003		100% Mellanox Compatible active fiber cable, VPI, up to 56Gb/s, QSFP, 3m 5 Year Warranty
PC220731V-003-10	MC220731V-003		100% Mellanox Compatible active fiber cable, VPI, up to 56Gb/s, QSFP, 3m 10 Year Warranty
PC220731V-005	MC220731V-005		100% Mellanox Compatible active fiber cable, VPI, up to 56Gb/s, QSFP, 5m 5 Year Warranty
PC220731V-005-10	MC220731V-005		100% Mellanox Compatible active fiber cable, VPI, up to 56Gb/s, QSFP, 5m 10 Year Warranty
PC220731V-010	MC220731V-010		100% Mellanox Compatible active fiber cable, VPI, up to 56Gb/s, QSFP, 10m 5 Year Warranty
PC220731V-010-10	MC220731V-010		100% Mellanox Compatible active fiber cable, VPI, up to 56Gb/s, QSFP, 10m 10 Year Warranty
PC220731V-015	MC220731V-015		100% Mellanox Compatible active fiber cable, VPI, up to 56Gb/s, QSFP, 15m 5 Year Warranty
PC220731V-015-10	MC220731V-015		100% Mellanox Compatible active fiber cable, VPI, up to 56Gb/s, QSFP, 15m 10 Year Warranty
PC220731V-020	MC220731V-020		100% Mellanox Compatible active fiber cable, VPI, up to 56Gb/s, QSFP, 20m 5 Year Warranty



PC220731V-020-10	MC220731V-020		100% Mellanox Compatible active fiber cable, VPI, up to 56Gb/s, QSFP, 20m 10 Year Warranty
PC220731V-025	MC220731V-025		100% Mellanox Compatible active fiber cable, VPI, up to 56Gb/s, QSFP, 25m 5 Year Warranty
PC220731V-025-10	MC220731V-025		100% Mellanox Compatible active fiber cable, VPI, up to 56Gb/s, QSFP, 25m 10 Year Warranty
PC220731V-030	MC220731V-030		100% Mellanox Compatible active fiber cable, VPI, up to 56Gb/s, QSFP, 30m 5 Year Warranty
PC220731V-030-10	MC220731V-030		100% Mellanox Compatible active fiber cable, VPI, up to 56Gb/s, QSFP, 30m 10 Year Warranty
PC220731V-050	MC220731V-050		100% Mellanox Compatible active fiber cable, VPI, up to 56Gb/s, QSFP, 50m 5 Year Warranty
PC220731V-050-10	MC220731V-050		100% Mellanox Compatible active fiber cable, VPI, up to 56Gb/s, QSFP, 50m 10 Year Warranty

6. Contact Information

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