QSFP56-DD-PC

400GBASE, QSFP56-DD, Passive Copper Direct Attach Cable Assembly

Product Features

- Hot Pluggable QSFP-DD Cable End
- Maximum Aggregate Data Rate: 400Gb/s (8 x 50G/Per Lane)
- Data rates : 56G-PAM4/ 25G-NRZ
- Compliant with IEEE802.3cd, IEEE802.3bj ,IEEE802.3by
- I/O Connector designed for high-speed differential signal applications
- Low Power Consumption < 0.1W
- Wire AWG : 30 / 28 / 27
- Length = 1- 3 meters (400G)
- EEPROM signature can be customized
- RoHS compliant
- LSZH & PVC jacket material
- Available Temperature ranges:
  - 0°C to +70°C

Product Applications

- 10G/40G /100G/200G Ethernet
- InfiniBand SDR, DDR, QDR, FDR, EDR, HDR
- Data Center

I. Absolute Maximum Ratings

Exceeding the limits below may damage the transceiver module permanently.

Parameter	Symbol	Min.	Typ.	Max.	Units
Storage Temperature		-20		+85	°C
Operating Case Temperature	Tc	0		70	°C
Relative Humidity (non-condensing)	RH	5		95	%

II. Operating Specification

Parameter	Symbol	Min.	Typ.	Max.	Units
Baud Rate per Lane (PAM4)	fd		26.5625		GBaud/s
Relative Humidity	RH	5		85	%

III. Performance Information

Parameter	Symbol	Min.	Typ.	Max.	Units	Notes
Differential Impedance	TDR	90	100	110	Ω	
Insertion loss	SDD21	-17.16			dB	@ 13.28 GHz
Differential Return Loss	SDD11 SDD22			Note 1	dB	@ 0.05 to 4.1 GHz
				Note 2		@ 4.1 to 19 GHz
Common-mode to common-mode output return loss	SCC11 SCC22			-2	dB	
Differential to common-mode return loss	SCD11 SCD22			Note 3	dB	@ 0.01 to 12.89 GHz
				Note 4		@ 12.89 to 19 GHz
Differential to common Mode Conversion Loss	SCD21-IL			-10	dB	@ 0.01 to 12.89 GHz
				Note 5		@ 12.89 to 15.7 GHz
				-6.3		@ 15.7 to 19 GHz

Notes:

1. Reflection Coefficient given by equation SDD11(dB) < -16.5 + 2 × SQRT(f), with f in GHz
2. Reflection Coefficient given by equation SDD11(dB) < -10.66 + 14 × log10(f/5.5), with f in GHz
3. Reflection Coefficient given by equation SCD11(dB) < -22 + (20/25.78)*f, with f in GHz
4. Reflection Coefficient given by equation SCD11(dB) < -15 + (6/25.78)*f, with f in GHz
5. Reflection Coefficient given by equation SCD21(dB) < -27 + (29/22)*f, with f in GHz

IV. Ordering Information

Part Number Breakdown			
QSFP56-DD-PC-X			
Parameter	**Min**	**Max**	**Notes**
Cable Gauge (AWG)	28	30	
Cable Length (meters)	0.5	3	**X**
Platform Advantage	Multi-Vendor coding options available upon request		

Notes:

1. Please contact sales for custom cable lengths and specific OEM Platform part numbers to fit your network.

Warranty
https://pivotaloptics.com/warranty/

Disclaimer
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.