

QSFP28-PC-4X25G

100GBASE, QSFP28 to 4x25G, CR4, Passive Copper Direct Attach Cable

Product Features

- Supporting 100 Gbps to 4x25 Gbps
- Support data rates : 25.78Gb/s (per channel)
- IEEE 802.3bj 100GEBASE-CR4 and P802.3by compliant
- Compatible to SFP28 MSA and QSFP28 MSA
- Compatible to SFF-8402, SFF-8432 and SFF8665
- Maximum aggregate data rate: 100 Gb/s (4 x 25Gb/s)
- High-Density QSFP28 38-PIN and 4x SFP28 20-PIN Connector
- Copper link length up to 5m
- Power Supply : +3.3V
- Low crosstalk
- Available Temperature ranges:
 - Commercial: 0°C to +70°C



Product Applications

- 100/25 Gigabit Ethernet
- Switches, Routers, and HBAs
- Data Center

I. Absolute Maximum Ratings

Exceeding the limits below may damage the transceiver module permanently.

Parameter	Symbol	Min.	Typ.	Max.	Units
Supply Voltage	Vcc	-0.3		3.6	V
Storage Temperature	Ts	-40		85	°C
Data Input Voltage		-0.3		3.6	V
Control Input Voltage		-0.3		3.6	V

II. Operating Specifications

Parameter	Symbol	Min.	Typ.	Max.	Units
Operating Case Temperature	Tc	0		70	°C
Supply Voltage	VCCT, R	3.13	3.3	3.47	V
Power Dissipation	PD				W
Operating Relative Humidity	RH	5		85	%

III. Electrical & High-Speed Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Units	Notes
Characteristic Impedance		90	100	110	Ω	
Time Delay				4.5	ns/m	
Time Delay Skew (same pair)				10	ps	
Time Delay Skew (pair to pair)				50	ps	
HIGH SPEED						
Differential Impedance	RIN, P-P	90	100	110	Ω	
Insertion Loss	SDD21	8		22.48	dB	@ 12.8906 GHz
Differential Return Loss	SDD11 SDD22	12.45		Note 1	dB	@ 0.05 to 4.1 GHz
		3.12		Note 2		@ 4.1 to 19 GHz
Common-mode to Common-mode Output Return Loss	SCC11 SCC22	2			dB	@ 0.2 to 19 GHz
Differential to Common-mode Return Loss	SCD11 SCD22	12		Note 3	dB	@ 0.01 to 12.89 GHz
		10.58		Note 4		@ 12.89 to 19 GHz
Differential to Common-mode Conversion Loss	SCD21-IL	10		Note 5	dB	@ 0.01 to 12.89
		6.3				@ 12.89 to 15.7 @ 15.7 to 19 GHz
Channel Operating Margin	COM	3			dB	

Notes:

1. Reflection Coefficient given by equation $SDD11(dB) < 16.5 - 2 \times \sqrt{f}$, with finGHz
2. Reflection Coefficient given by equation $SDD11(dB) < 10.66 - 14 \times \log_{10}(f/5.5)$, with finGHz
3. Reflection Coefficient given by equation $SCD11(dB) < 22 - (20/25.78) \times f$, with finGHz
4. Reflection Coefficient given by equation $SCD11(dB) < 15 - (6/25.78) \times f$, with finGHz
5. Reflection Coefficient given by equation $SCD21(dB) < 27 - (29/22) \times f$, with finGHz

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IV. Ordering Information

Part Number Breakdown			
QSFP28-PC-4X25G-XX			
Parameter	Min	Max	Notes
Cable Gauge (AWG)	26	30	
Cable Length (meters)	1	5	XX
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.