

QSFP28-PC

100GBase QSFP28 Passive Copper Direct Attach Cable

Product Features

- Transmission data rate up to 25.78Gbps per channel.
- Enable (4x25.78)100Gb/s Transmission.
- Single 3.3V Power Supply
- Hot-Pluggable QSFP28 Footprint
- Compliant with SFF-8661
- Maximum link length up to 5m
- RoHS2.0 Compliant
- Available Temperature ranges:
 - Commercial: 0°C - +70°C
 - Industrial: -40°C to +85°C



Product Applications

- 100GBASE Ethernet
- OTU4 & 32GFC & InfiniBand

I. Absolute Maximum Ratings

Exceeding the limits below may damage the transceiver module permanently.

Parameter	Symbol	Min.	Typ.	Max.	Units
Maximum Supply Voltage	Vcc	-0.5		4.0	V
Storage Temperature	Ts	-40		85	°C
Humidity	RH	5		85	%

II. Operating Specifications

Parameter	Symbol	Min.	Typ.	Max.	Units
Operating Case Temperature	Commercial	Tc		0	°C
	Industrial			-40	
Power Supply Voltage	Vcc	3.13	3.3	3.47	V
Data Rate Per Lane				25.78	Gbps

III. Electrical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Units
Resistance	Rcon			3	ohm
Insulation Resistance	Rins			10	Mohm
Raw Cable Impedance	Zca	95	100	105	ohm
Mated Connector Impedance	Zmated	85	100	115	ohm
Insertion Loss at 12.89 GHz	SDD21	8		22.48	dB
Return Loss at 12.89 GHz	SDD11/22	$\text{Return_Loss}(f) \geq \begin{cases} 16.5-2\sqrt{f} & 0.05 \leq f < 4.1 \\ 10.66-14\log_{10}(f/5.5) & 4.1 \leq f \leq 19 \end{cases}$			dB
Differential to common-mode return loss	SCD11/22	$\text{Return_Loss}(f) \geq \begin{cases} 22-(20/25.78)f & 0.01 \leq f < 12.89 \\ 15-(6/25.78)f & 12.89 \leq f \leq 19 \end{cases}$			dB
Differential to common-mode conversion loss		$\text{Conversion_Loss}(f) - \text{IL}(f) \geq \begin{cases} 10 & 0.01 \leq f < 12.89 \\ 27-(29/22)f & 0.01 \leq f < 15.7 \\ 6.3 & 15.7 \leq f \leq 19 \end{cases}$			dB
Minimum COM	COM	3			dB

IV. Ordering Information

Part Number Breakdown			
QSFP28-PC-XX			
Parameter	Min	Max	Notes
Cable Gauge (AWG)	24	30	
Cable Length (meters)	0.5	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.