

QSFP28-AOC

100GBASE, QSFP28, Active Optical Cable Assembly

Product Features

- 4 channels full-duplex transceiver modules
- Supports 100Gbps total data rate.
- 4 channels 850nm VCSEL array
- 4 channels PIN photo detector array
- Low power consumption <3.5W
- Hot Pluggable QSFP form factor
- Maximum link length of 70m on OM3 Multimode Fiber (MMF) and 100m on OM4 MMF
- Single MPO connector receptacle
- Built-in digital diagnostic functions
- 3.3V power supply voltage
- RoHS 6 compliant (lead free)
- Available Temperature ranges:
 - Commercial: 0°C to +70°C
 - Industrial: -40°C to +85°C



Product Applications

- 100GBASE-SR4 Ethernet @ 25.78125Gbps
- InfiniBand QDR, EDR

I. Absolute Maximum Ratings

Exceeding the limits below may damage the transceiver module permanently.

Parameter	Symbol	Min.	Typ.	Max.	Units
Supply Voltage	Vcc3	-0.5		3.6	V
Storage Temperature	T _S	-5		75	°C
Operating Humidity	RH	5		85	%

II. Operating Specification

Parameter		Symbol	Min.	Typ.	Max.	Units
Operating Case Temperature	Commercial	Top	0		70	°C
	Industrial		-40		85	
Power Supply Voltage		V _{CC}	3.14	3.3	3.47	V
Power Dissipation (per lane)		P _d			1.5	W
Data Rate (per lane)		BR	10.3125	25.78125		Gbps

III. Electrical Characteristics

Parameter		Symbol	Min.	Typ.	Max.	Units	Notes
Transmitter							
Differential Data Input Swing		V _{out}	200		1000	mV	
Input Differential Impedance		Z _D	90	100	110	Ω	
ModSelL	Module Select	V _{OL}	V _{EE} -0.3		0.4	V	
	Module Unselect	V _{OH}	2.0		V _{CC} +0.3	V	
LPMode	Low Power Mode	V _{IL}	V _{EE} -0.3		0.8	V	
	Normal Operation	V _{IH}	2.0		V _{CC} +0.3	V	
ResetL	Reset	V _{IL}	V _{EE} -0.3		0.8	V	
	Normal Operation	V _{IH}	2.0		V _{CC} +0.3	V	
Receiver							
Differential Data Output Swing		V _{in,P-P}	200		1000	mV _{pp}	
Output Differential Impedance		Z _D	90	100	110	Ω	
ModPrsL	Normal Operation	V _{OL}	V _{EE} -0.3		0.4	V	
IntL	Interrupt	V _{OL}	V _{EE} -0.3		0.4	V	
	Normal Operation	V _{OH}	2.0		V _{CC} +0.3	V	
Bit Error Rate		BER			E-12		1

Notes:

1. PRBS2^31-1@25.78125Gbps

IV. Ordering Information

Part Number Breakdown			
QSFP28-AOC- XXX			
Parameter	Min	Max	Notes
Fiber Type	OM2	OM4	
Cable Length (meters)	0.5	150	XXX
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.