

QSFP56-DD-AOC

400GBASE, QSFP56-DD, SR8, Active Optical Cable Assembly

Product Features

- QSFP-DD MSA Compliant
- Compliant with IEEE 802.3cd and CEI-56-G-VSR-PAM
- Built in Analog CDR
- Low latency for high performance computing application
- Enabled by 850nm VCSEL
- Hot pluggable
- Power consumption 7.2W in 400G QSFP-DD
- Transmission distance up to 70m with OM3 MM fiber or 100m with OM4 MM fiber
- Laser Eye Safety Class 1
- Management interface based on CMIS 3.0 or 4.0 (QSFP-DD)
- RoHS compliant
- Available Temperature ranges:
 - 0°C to 70°C



Product Applications

- 400G Ethernet and interconnections
- Data center

I. Absolute Maximum Ratings

Exceeding the limits below may damage the transceiver module permanently.

Parameter	Symbol	Min.	Typ.	Max.	Units
Storage Temperature	Ts	-40		85	°C
Relative Humidity	RH	5		85	%
Power Supply Voltage	Vcc	-0.3		3.6	V

II. Operating Specification

Parameter	Symbol	Min.	Typ.	Max.	Units
Operating Case Temperature	Top	0		70	°C
Power Supply Voltage	Vcc	3.14	3.3	3.47	V
Data Rate (per lane)	DR		53.125		Gbps
Total power consumption			7.2	7.8	W
Transmission Distance	TD			100	m

III. Electrical Specifications

Parameter	Symbol	Min.	Typ.	Max.	Units	Notes
Transmitter						
Transmitter Fault Output-High	VFaultH	2		Vcc+0.3	V	
Transmitter Fault Output-Low	VFaultL	0		0.8	V	
Transmitter Disable Voltage-High	VDisH	2		Vcc+0.3	V	
Transmitter Disable Voltage-Low	VDisL	0		0.8	V	
Differential input impedance		90	100	110	Ohm	
DC common mode voltage		-350		2850	mV	
Differential eye height				900	mVpp	
Receiver						
LOS Output Voltage-High	VLOSH	2		Vcc+0.3	V	
LOS Output Voltage-Low	VLOSL	0		0.8	V	
Differential output impedance		90	100	110	Ohm	
Differential eye height		228		900	mVpp	
DC common mode voltage		-350		2850	mV	
AC common mode noise				17.5	mVpp	
Eye height @ 1e-5 (all PAM4 eyes)		70			mV	
Eye width @ 1e-5 (all PAM4 eyes)		0.265			UI	

IV. Cable Specifications

Parameter	Specification	Note
Type	OM3 MM Loose tube fiber	
Minimum bending radius (mm)	30	
Cable outer diameter (mm)	3.8 +/- 0.15 (16core)	
Cable length (m)	100 (max)	Customized length available

V. Ordering Information

Part Number Breakdown			
QSFP56-DD-AOC- XXX			
Parameter	Min	Max	Notes
Fiber Type	MMF		
Cable Length (meters)	0.5	100	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.