

SFP+ AOC

10GBASE, SFP+, Active Optical Cable Assembly

Product Features

- Up to 10.5Gb/s bi-directional data links
- Low power consumption <0.35W per end
- Compliant with SFF-8431
- Hot-pluggable SFP+ form-factor
- Built-in digital diagnostic functions
- 850nm VCSEL transmitter and PIN photo-detector receiver
- Up to 300m on OM3 MMF
- 3.3V power supply voltage
- Lightweight cable, the small bending radius
- ROHS 6 compliant
- Available Temperature ranges:
 - 0°C to 70°C



Product Applications

- 10GBASE Ethernet
- 4G/8G Fiber Channel
- 1x InfiniBand QDR, DDR, SDR

I. Absolute Maximum Ratings

Exceeding the limits below may damage the transceiver module permanently.

Parameter	Symbol	Min.	Typ.	Max.	Units
Storage Temperature	T _s	-40		85	°C
Relative Humidity (non-condensing)	RH	0		85	%
Supply Voltage	V _{cc}	-0.3		3.6	V
Input Voltage	V _i	-0.3		V _{cc} +0.3	

II. Operating Specification

Parameter	Symbol	Min.	Typ.	Max.	Units
Operating Case Temperature	Top	0		70	°C
Power Supply Voltage	Vcc	3.13	3.3	3.47	V
Power Supply Current (per end)				0.35	W
Data Rate	DR		10.3		Gbps
Data Speed Tolerance	ΔDR	-100		+100	ppm

III. Optical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Units	Notes
Transmitter						
Center Wavelength	λ_c	840	850	860	nm	
Average optical power	PAVG	-6			dBm	
Rise/Fall Time	Tr/Tf			50	p	
Extinction Ratio	ER	3			dB	
Relative Intensity Noise	Rin				dB/H	
Optical Return Loss Tolerance	TOL			12	dB	
Transmitter Reflectance	R			-12	dB	
Receiver						
Center Wavelength	λ_c	840	850	860	nm	
Receiver Sensitivity [OMA] (each lane)				-11.0	dBm	3
Receiver Overload		0.5			dBm	3

IV. Electrical Specifications

Parameter	Symbol	Min.	Typ.	Max.	Units
Differential Input Impedance	Zin	90	100	110	ohm
Differential Output Impedance	Zout	90	100	110	ohm
Differential Input Voltage Amplitude	ΔVin	100		1800	mVp-p
Differential Output Voltage Amplitude	ΔVout	400		800	mVp-p
Input Logic Level High	VIH	2.0		Vcc	V
Input Logic Level Low	VIL	0		0.8	V

V. Ordering Information

Part Number Breakdown			
SFPP-AOC- XXX			
Parameter	Min	Max	Notes
Fiber Type	OM2	OM3	
Cable Length (meters)	0.5	300	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.