

SFP+ 10G AOC 5M ActiveSFP+ 10G AOC

SFP+-AOC-A5M-T



(For Cisco, HP, Aruba, Juniper, PaloAlto, Fortigate and others brand compatible)



Overview

SFP+ Active Optical Cables are direct-attach fiber assemblies with SFP+ connectors. They are suitable for very short distances and offer a cost-effective way to connect within racks and across adjacent racks. SFP+ Active Optical Cables's length is up to 300 meters on OM3 MMF.

Features

- ◆ Electrical interface compliant to SFF-8431
- ◆ Hot Pluggable
- ◆ 850nm VCSEL transmitter, PIN photo-detector receiver
- ◆ Up to 300m on OM3 MMF
- ◆ Operating case temperature: 0 to 70°C
- ◆ All-metal housing for superior EMI performance
- ◆ RoHS compliant (lead free)

Applications

- ◆ 10 Gigabit Ethernet
- ◆ 4G and 8G Fibre Channel Applications
- ◆ 1x InfiniBand QDR. DDR, SDR
- ◆ High-performance computing clusters
- ◆ Servers, switches, storage and host card adapters

Ordering information

Part Number	Product Description
SFP+-AOC-A1M-T	SFP+ 10G AOC 1M ActiveSFP+ 10G AOC 1M10GAOC1mSFP+ to SFP+0~70°C OM2
SFP+-AOC-A2M-T	SFP+ 10G AOC 2M ActiveSFP+ 10G AOC 2M10GAOC2mSFP+ to SFP+0~70°C OM2
SFP+-AOC-A3M-T	SFP+ 10G AOC 3M ActiveSFP+ 10G AOC 3M10GAOC3mSFP+ to SFP+0~70°C OM2
SFP+-AOC-A5M-T	SFP+ 10G AOC 5M ActiveSFP+ 10G AOC 5M10GAOC5mSFP+ to SFP+0~70°C OM2
SFP+-AOC-A7M-T	SFP+ 10G AOC 7M ActiveSFP+ 10G AOC 7M10GAOC7mSFP+ to SFP+0~70°C OM2
SFP+-AOC-A10M-T	SFP+ 10G AOC 10M ActiveSFP+ 10G AOC 10M10GAOC10mSFP+ to SFP+0~70°C OM2
SFP+-AOC-A15M-T	SFP+ 10G AOC 15M ActiveSFP+ 10G AOC 15M10GAOC15mSFP+ to SFP+0~70°C OM2
SFP+-AOC-A20M-T	SFP+ 10G AOC 20M ActiveSFP+ 10G AOC 20M10GAOC20mSFP+ to SFP+0~70°C OM2
SFP+-AOC-A25M-T	SFP+ 10G AOC 25M ActiveSFP+ 10G AOC 25M10GAOC25mSFP+ to SFP+0~70°C OM2
SFP+-AOC-A30M-T	SFP+ 10G AOC 30M ActiveSFP+ 10G AOC 30M10GAOC30mSFP+ to SFP+0~70°C OM2
SFP+-AOC-A50M-T	SFP+ 10G AOC 50M ActiveSFP+ 10G AOC 50M10GAOC50mSFP+ to SFP+0~70°C OM3
SFP+-AOC-A75M-T	SFP+ 10G AOC 75M ActiveSFP+ 10G AOC 75M10GAOC75mSFP+ to SFP+0~70°C OM3
SFP+-AOC-A100M-T	SFP+ 10G AOC 100M ActiveSFP+ 10G AOC 100M10GAOC100SFP+ to SFP+0~70°C OM3

Datasheet
SFP+ AOC Specifications

Parameter	Description
Module Form Factor	SFP+ (Supports SFF8431/SFF8432/SFF8472)
Protocols Supported	InfiniBand, Ethernet, Fiber Channel
Channel Data Rate	Rate 1 to 10.3125Gbps
BER	$<10^{-12}$
Operating Case Temperature	0 to + 70°C
Storage Temperature	-20 to + 85°C
Supply Voltage	3.3V
Supply current	230mA per end typical
Management Interface Serial	I ² C (Supports SFF8472)

Optical characteristics

The following optical characteristics are defined over the Recommended Operating Environment unless otherwise specified.

Parameter	Symbol	Min.	Typical	Max	Unit	Notes
Transmitter						
Center Wavelength	λ_t	840	850	860	nm	
RMS spectral width	P _m	-	-	Note 1	nm	
Average Optical Power	P _{avg}	-6.5	-	-1	dBm	2
Extinction Ratio	ER	3.5	-	-	dB	3
Transmitter Dispersion Penalty	TDP	-	-	3.9	dB	
Relative Intensity Noise	R _{in}	-	-	-128	dB/Hz	12dB reflection
Optical Return Loss Tolerance		-	-	12	dB	
Receiver						
Center Wavelength	λ_r	840	850	860	nm	
Receiver Sensitivity	P _{sens}	-	-	-11.1	dBm	4
Stressed Sensitivity in OMA		-	-	-7.5	dBm	4
Los function	Los	-30	-	-12	dBm	
Overload	P _{in}	-	-	-1.0	dBm	4
Receiver Reflectance		-	-	-12	dB	

Note:

- Trade-offs are available between spectral width, center wavelength and minimum OMA, as shown in table 6.
- The optical power is launched into MMF
- Measured with a PRBS 2³¹-1 test pattern @10.3125Gbps
- Measured with a PRBS 2³¹-1 test pattern @10.3125Gbps, BER $\leq 10^{-12}$.

Datasheet

Mechanical Dimensions

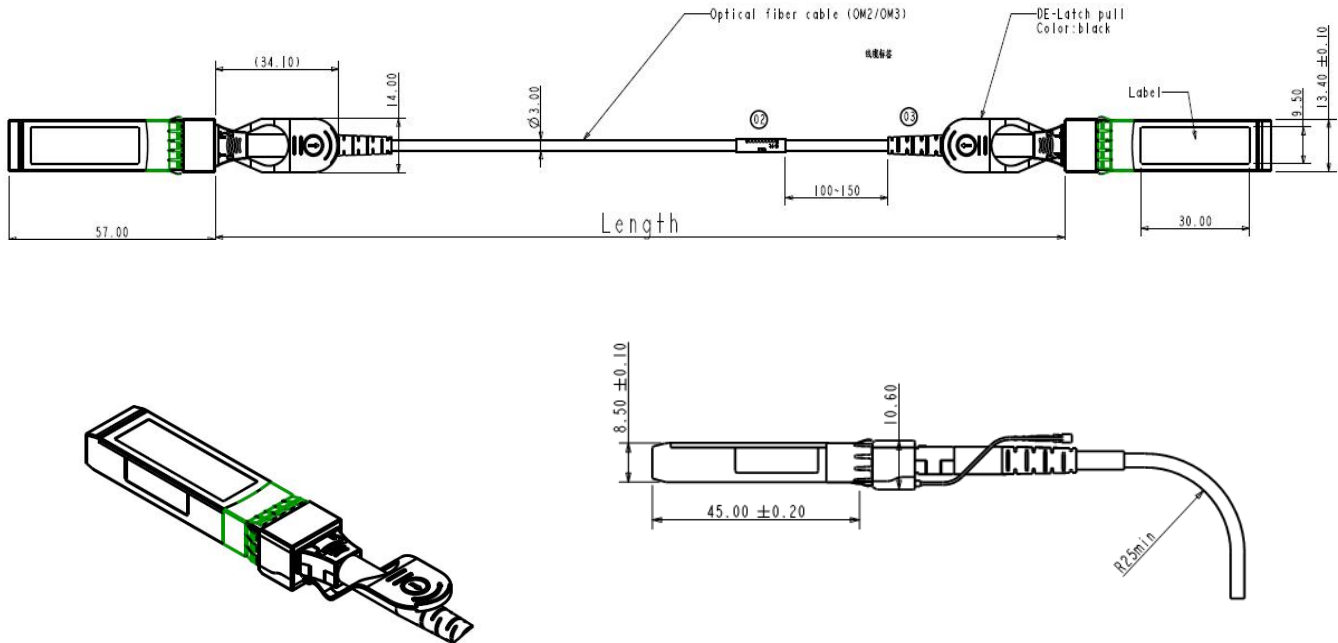


Figure1. Mechanical Specifications

References

1. Electrical interface compliant to SFF-8431
2. 850nm VCSEL transmitter, PIN photo-detector receiver
3. All-metal housing for superior EMI performance

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