

Approved Networks SFP10G-AOC Active Optical Cable



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Approved Networks

Approved Networks SFP10G-AOC Active Optical Cable



Product Information

Specifications

- **Product Name:** SFP10G-AOC
- **Type:** 10GBASE, SFP+, Active Optical Cable
- **Module Form Factor:** SFP+
- **Protocols Supported:** SFF8431/SFF8432/SFF8472, InfiniBand, Ethernet, Fiber Channel
- **Channel Data Rate:** 1 to 10.3125Gbps
- **BER:** Operating Case Temperature
- **Storage Temperature:** -40°C to 85°C
- **Supply Voltage:** Varies based on the specific product
- **Supply Current:** Varies based on the specific product
- **Management Interface:** Serial

Product Usage Instructions

To ensure optimal performance and longevity of your SFP10G-AOC, please follow these usage instructions:

Installation

1. Ensure that the device is powered off before connecting the SFP10G-AOC.
2. Insert the SFP+ module into the compatible port firmly but gently.
3. Avoid bending or damaging the cable during installation.

Maintenance

Regularly inspect the cable for any signs of wear or damage. Keep the connectors clean and free from dust.

Handling

Avoid pulling or tugging on the cable excessively. Store the cable in a cool, dry place when not in use.

Compatibility

Ensure that your equipment supports SFP+ modules before attempting to use the SFP10G-AOC.

Frequently Asked Questions (FAQ)

Q: Can the SFP10G-AOC be used with any device supporting SFP+ modules?

A: It is recommended to check the compatibility of your device with SFP+ modules to ensure proper functionality.

Q: What is the maximum data rate supported by the SFP10G-AOC?

A: The SFP10G-AOC supports data rates ranging from 1 to 10.3125Gbps.

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

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	I2C (Supports SFF8472)

Optical Characteristics

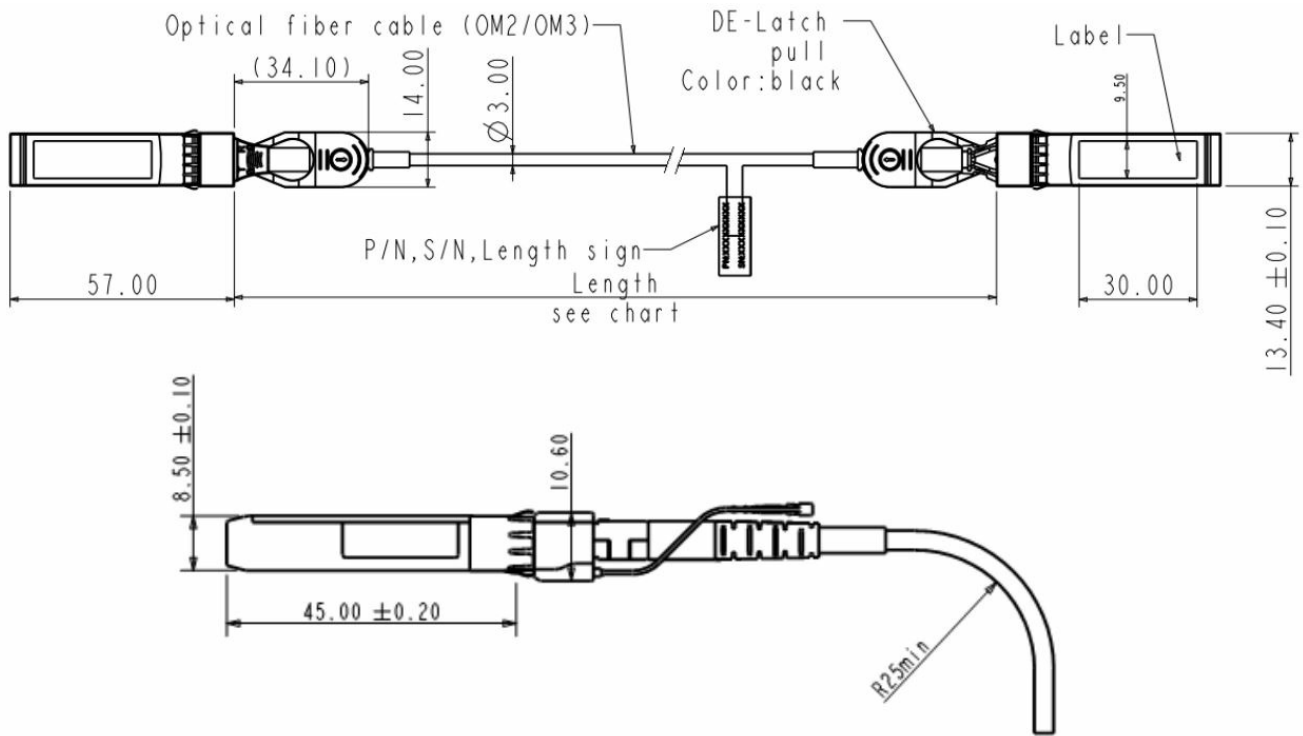
The following optical characteristics are defined over the Recommended Operating Environment unless otherwise specified.

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:

1. Trade-offs are available between spectral width, center wavelength and minimum OMA, as shown in table 6.
2. The optical power is launched into MMF
3. Measured with a PRBS 231-1 test pattern @10.3125Gbps
4. Measured with a PRBS 231-1 test pattern @10.3125Gbps, BER≤10⁻¹².

Mechanical Diagram



Note: 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.

Ordering Information

OEM	Part Number	OEM	Part Number
Adtran	SFP10G-ADAD-AOC-8M-C1	Intel	SFP10G-IN-AOC-30M-A
Adtran	SFP10G-ADAD-AOC-1M-C1	Juniper	JNP-10G-AOC-1M-A
Arista	AOC-S-S-10G-1M-A	Juniper	JNP-10G-AOC-2M-A
Arista	AOC-S-S-10G-2M-A	Juniper	JNP-10G-AOC-3M-A
Arista	AOC-S-S-10G-3M-A	Juniper	JNP-10G-AOC-4M-A
Arista	AOC-S-S-10G-4M-A	Juniper	JNP-10G-AOC-5M-A
Arista	AOC-S-S-10G-5M-A	Juniper	JNP-10G-AOC-7M-A
Arista	AOC-S-S-10G-7M-A	Juniper	JNP-10G-AOC-10M-A
Arista	AOC-S-S-10G-10M-A	Juniper	JNP-10G-AOC-12M-A
Arista	AOC-S-S-10G-12M-A	Juniper	JNP-10G-AOC-15M-A
Arista	AOC-S-S-10G-15M-A	Juniper	JNP-10G-AOC-20M-A
Arista	AOC-S-S-10G-20M-A	Juniper	JNP-10G-AOC-25M-A

Arista	AOC-S-S-10G-25M-A	Juniper	JNP-10G-AOC-30M-A
Arista	AOC-S-S-10G-30M-A	Lenovo	00YL634-A
Avago/Broadcom	AFBR-2CAR01Z-A	Lenovo	00YL6342-A
Avago/Broadcom	AFBR-2CAR02Z-A	Lenovo	00YL637-A
Avago/Broadcom	AFBR-2CAR03Z-A	Lenovo	00YL6374-A
Avago/Broadcom	AFBR-2CAR04Z-A	Lenovo	00YL640-A
Avago/Broadcom	AFBR-2CAR05Z-A	Lenovo	00YL643-A
Avago/Broadcom	AFBR-2CAR07Z-A	Lenovo	00YL64310-A
Avago/Broadcom	AFBR-2CAR10Z-A	Lenovo	00YL64312-A
Avago/Broadcom	AFBR-2CAR12Z-A	Lenovo	00YL646-A
Avago/Broadcom	AFBR-2CAR15Z-A	Lenovo	00YL649-A
Avago/Broadcom	AFBR-2CAR20Z-A	Lenovo	00YL64925-A
Avago/Broadcom	AFBR-2CAR25Z-A	Lenovo	00YL64930-A
Avago/Broadcom	AFBR-2CAR30Z-A	Mellanox	-SFP10G-MX-AOC-1M-A
Brocade	10G-SFPP-AOC-0101-A	Mellanox	SFP10G-MX-AOC-2M-A
Brocade	10G-SFPP-AOC-0201-A	Mellanox	SFP10G-MX-AOC-3M-A
Brocade	10G-SFPP-AOC-0301-A	Mellanox	SFP10G-MX-AOC-4M-A
Brocade	10G-SFPP-AOC-0401-A	Mellanox	SFP10G-MX-AOC-5M-A
Brocade	10G-SFPP-AOC-0501-A	Mellanox	SFP10G-MX-AOC-7M-A

Brocade	10G-SFPP-AOC-0701-A	Mellanox	SFP10G-MX-AOC-10M-A
Brocade	10G-SFPP-AOC-1001-A	Mellanox	SFP10G-MX-AOC-12M-A
Brocade	10G-SFPP-AOC-1201-A	Mellanox	SFP10G-MX-AOC-15M-A
Brocade	10G-SFPP-AOC-1501-A	Mellanox	SFP10G-MX-AOC-20M-A
Brocade	10G-SFPP-AOC-2001-A	Mellanox	SFP10G-MX-AOC-25M-A
Brocade	10G-SFPP-AOC-2501-A	Mellanox	SFP10G-MX-AOC-30M-A
Brocade	10G-SFPP-AOC-3001-A	MSA	AN-SFP10G-AOC-1M
Brocade/Intel	SFP10G-BRIN-AOC-7M-C1	MSA	AN-SFP10G-AOC-2M
Brocade/Intel	SFP10G-BRIN-AOC-5M-C1	MSA	AN-SFP10G-AOC-3M
Cisco	SFP-10G-AOC1M-A	MSA	AN-SFP10G-AOC-4M
Cisco	SFP-10G-AOC2M-A	MSA	AN-SFP10G-AOC-5M
Cisco	SFP-10G-AOC3M-A	MSA	AN-SFP10G-AOC-7M
Cisco	SFP-10G-AOC4M-A	MSA	AN-SFP10G-AOC-10M
Cisco	SFP-10G-AOC5M-A	MSA	AN-SFP10G-AOC-12M
Cisco	SFP-10G-AOC7M-A	MSA	AN-SFP10G-AOC-15M
Cisco	SFP-10G-AOC10M-A	MSA	AN-SFP10G-AOC-20M
Cisco	SFP-10G-AOC12M-A	MSA	AN-SFP10G-AOC-25M
Cisco	SFP-10G-AOC15M-A	MSA	AN-SFP10G-AOC-30M
Cisco	SFP-10G-AOC20M-A	MSA Champion ONE	SFP-10G-AOC1M-C1
Cisco	SFP-10G-AOC25M-A	MSA Champion ONE	SFP-10G-AOC2M-C1

Cisco	SFP-10G-AOC30M-A	MSA Champion ONE	SFP-10G-AOC3M-C1
Cisco	SFP-10G-AOC33M-C1	MSA Champion ONE	SFP-10G-AOC7M-C1
Dell	AOC-SFP-10G-1M-A	Palo Alto	PAN-SFP-PLUS-AOC-1M-A
Dell	AOC-SFP-10G-2M-A	Palo Alto	PAN-SFP-PLUS-AOC-2M-A
Dell	AOC-SFP-10G-3M-A	Palo Alto	PAN-SFP-PLUS-AOC-3M-A
Dell	AOC-SFP-10G-4M-A	Palo Alto	PAN-SFP-PLUS-AOC-4M-A
Dell	AOC-SFP-10G-5M-A	Palo Alto	PAN-SFP-PLUS-AOC-5M-A
Dell	AOC-SFP-10G-7M-A	Palo Alto	PAN-SFP-PLUS-AOC-7M-A
Dell	AOC-SFP-10G-10M-A	Palo Alto	PAN-SFP-PLUS-AOC-10M-A
Dell	AOC-SFP-10G-12M-A	Palo Alto	PAN-SFP-PLUS-AOC-12M-A

Dell	AOC-SFP-10G-15M-A	Palo Alto	PAN-SFP-PLUS-AOC-15M-A
Dell	AOC-SFP-10G-20M-A	Palo Alto	PAN-SFP-PLUS-AOC-20M-A
Dell	AOC-SFP-10G-25M-A	Palo Alto	PAN-SFP-PLUS-AOC-25M-A
Dell	AOC-SFP-10G-30M-A	Palo Alto	PAN-SFP-PLUS-AOC-30M-A
Extreme	10G-AOC-SFP1M -A	Siemon	S1S10F-V01.0M13-A
Extreme	10G-AOC-SFP2M-A	Siemon	S1S10F-V02.0M13-A
Extreme	10G-AOC-SFP3M-A	Siemon	S1S10F-V03.0M13-A
Extreme	10G-AOC-SFP4M-A	Siemon	S1S10F-V04.0M13-A
Extreme	10G-AOC-SFP5M-A	Siemon	S1S10F-V05.0M13-A
Extreme	10G-AOC-SFP7M-A	Siemon	S1S10F-V07.0M13-A
Extreme	10G-AOC-SFP10M-A	Siemon	S1S10F-V10.0M13-A
Extreme	10G-AOC-SFP12M-A	Siemon	S1S10F-V12.0M13-A
Extreme	10G-AOC-SFP15M-A	Siemon	S1S10F-V15.0M13-A
Extreme	10G-AOC-SFP20M-A	Siemon	S1S10F-V20.0M13-A
Extreme	10G-AOC-SFP25M-A	Siemon	S1S10F-V25.0M13-A
Extreme	10G-AOC-SFP30M-A	Siemon	S1S10F-V30.0M13-A
Finisar	FCBG110SD1C01-A	Supermicro	CBL-SFP+AOC-1M-A
Finisar	FCBG110SD1C02-A	Supermicro	CBL-SFP+AOC-2M-A
Finisar	FCBG110SD1C03-A	Supermicro	CBL-SFP+AOC-3M-A
Finisar	FCBG110SD1C04-A	Supermicro	CBL-SFP+AOC-4M-A
Finisar	FCBG110SD1C05-A	Supermicro	CBL-SFP+AOC-5M-A
Finisar	FCBG110SD1C07-A	Supermicro	CBL-SFP+AOC-7M-A
Finisar	FCBG110SD1C10-A	Supermicro	CBL-SFP+AOC-10M-A
Finisar	FCBG110SD1C12-A	Supermicro	CBL-SFP+AOC-12M-A
Finisar	FCBG110SD1C15-A	Supermicro	CBL-SFP+AOC-15M-A
Finisar	FCBG110SD1C20-A	Supermicro	CBL-SFP+AOC-20M-A
Finisar	FCBG110SD1C25-A	Supermicro	CBL-SFP+AOC-25M-A
Finisar	FCBG110SD1C30-A	Supermicro	CBL-SFP+AOC-30M-A
Intel	SFP10G-IN-AOC-1M-A	Ubiquiti	SFP10G-U-AOC-1M-A

Intel	SFP10G-IN-AOC-2M-A	Ubiquiti	SFP10G-U-AOC-2M-A
Intel	SFP10G-IN-AOC-3M-A	Ubiquiti	SFP10G-U-AOC-3M-A
Intel	SFP10G-IN-AOC-4M-A	Ubiquiti	SFP10G-U-AOC-4M-A
Intel	SFP10G-IN-AOC-5M-A	Ubiquiti	SFP10G-U-AOC-5M-A
Intel	SFP10G-IN-AOC-7M-A	Ubiquiti	SFP10G-U-AOC-7M-A
Intel	SFP10G-IN-AOC-10M-A	Ubiquiti	SFP10G-U-AOC-10M-A
Intel	SFP10G-IN-AOC-12M-A	Ubiquiti	SFP10G-U-AOC-12M-A
Intel	SFP10G-IN-AOC-15M-A	Ubiquiti	SFP10G-U-AOC-15M-A
Intel	SFP10G-IN-AOC-20M-A	Ubiquiti	SFP10G-U-AOC-20M-A
Intel	SFP10G-IN-AOC-25M-A	Ubiquiti	SFP10G-U-AOC-25M-A
		Ubiquiti	SFP10G-U-AOC-30M-A

Contact Information

- **Tel:** 800.590.9535
- **Web:** <http://www.approvednetworks.com>

Documents / Resources

	Approved Networks SFP10G-AOC Active Optical Cable [pdf] User Guide SFP10G-AOC Active Optical Cable, SFP10G-AOC, Active Optical Cable, Optical Cable, Cable
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References

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