

# SFP-AOC-10G SERIES INDUSTRIAL 1/10GB ETHERNET AOC SFP+ MODULES



## Industrial Ethernet Solutions

AMG's industrial 10Gb AOC SFP's provide transmission of 1Gb or 10Gb Ethernet data over Active Optical Cable (AOC) using active OM4 fibre optic cable technology.



 Fibre AOC	 1000 FX Compliant	 10G R Compliant	 DDM Diagnostics	 Temp -40~+85°C	 NDA/TAA Compliant
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[ SFP-AOC-10G-10 ]

### / OVERVIEW

The AMG SFP-AOC-10G series are industrial high speed Active Optical Cables (AOC) offering transmission of 1Gb or 10Gb Ethernet data using active OM4 fibre optic cable technology over distances from 7m (23ft) to 30m (98ft).

The modules are compatible with most 1000BASE-X SFP ports and 10GBASE-R SFP+ ports on Ethernet switches and media converters<sup>1</sup> and use directly attached OM4 fibre optic cable to provide the signal transmission which offers increased reliability and simplifies installation.

The SFP+ AOC modules are a perfect solution for providing connections between devices installed within the same rack or cabinet or even between racks and offer a lower cost alternative to the traditional optical SFP+ modules with associated optical infrastructure.

Each optical fibre model supports full Digital Diagnostic Monitoring (DDM) to provide the user with valuable information on critical operating parameters such as device temperature, Tx and Rx optical power levels, speed, optical wavelength as well as device part code, serial number and manufacturer data.

<sup>1</sup> Check the AMG website for a full list of compatible AMG switches and media converter models. If you are unsure please check with the AMG Technical Services team before ordering to ensure compatibility with your chosen SFP+ capable switch or media converter.

### / FEATURES

- Compatible with most 1000BASE-X SFP Ports and 10GBASE-R SFP+ Ports<sup>1</sup>
- Supports Ethernet speeds of up to 10Gbps
- Hot pluggable design allows for easy field replacement or upgrades
- Digital Diagnostic Monitoring (DDM) included on all optical models
- Distances of 7m (23ft) to 30m (98ft) are available
- SFF-8431, SFF-8432, SFF-8472 and INF-8074 compliant
- Low EMI metal housing with excellent ESD protection
- Programmed and tested in the UK
- Industry standard Small Form-Factor Pluggable (MSA compliant)
- AMG Lifetime Support Warranty

# Specifications.

## Standards.

INF-8074	SFP Transceiver
SFF-8472	Diagnostic Monitoring Interface
SFF-8431	SFP+ Transceiver
SFF-8432	Improved Pluggable Form-Factor
MSA	Multi-Source Agreement

## Interface.

SFP Slot	1000BASE-X SFP
SFP+ Slot	10GBASE-R SFP+
Cable	OM4 Multimode

## Power.

Power Inputs	From SFP+ Port
Operating Voltage	3.3V <sub>DC</sub>
Power Consumption	1W Max (For Each AOC Module)

## Packaging.

Shipping Weight	0.20kg / 0.44lb (7m / 23ft Cable)
	0.21kg / 0.46lb (10m / 32.8ft Cable)
	0.25kg / 0.55lb (15m / 49ft Cable)
	0.28kg / 0.62lb (20m / 65.6ft Cable)
	0.32kg / 0.71lb (25m / 82ft Cable)
	0.35kg / 0.77lb (30m / 98ft Cable)
Dimensions:	(W x D x H)
	220 x 172 x 40 mm 8.66 x 6.77 x 1.57 in

## Mechanical.

Housing	Aluminium
Cable	LSZH/LSOH
Dimensions:	(W x D x H)
SFP+ Module	57 x 14 x 10 mm
	2.24 x 0.55 x 0.39 in
SFP+ Module With Handle	102 x 14 x 10 mm
	4.02 x 0.55 x 0.39 in
IP Rating	IP40
Installation	SFP+ Slot
Weight	0.11kg / 0.24lb (7m / 23ft Cable)
	0.12kg / 0.26lb (10m / 32.8ft Cable)
	0.16kg / 0.35lb (15m / 49ft Cable)
	0.19kg / 0.42lb (20m / 65.6ft Cable)
	0.23kg / 0.51lb (25m / 82ft Cable)
	0.26kg / 0.57lb (30m / 98ft Cable)

## Environmental.

Operating Temp:	(Celsius / Fahrenheit)
SFP Case	-40 to +85°C / -40 to +185°F
Storage Temp.	-40 to +85°C / -40 to +185°F
Humidity	5% to 90% (non-condensing)
MTBF	>250,000 hours
MTBF Standard	Telcordia SR-332 GF 30°C
Heat Dissipation	3.4 BTU/h (For Each AOC Module)
Cooling	Passive Cooling
Noise Level	0 dBA

## Regulatory.

EMI	EN 55022 Class B CISPR 22 VCCI Class B FCC Part 15B Class B
EMS	MIL-STD-883 (Method 3015) EN 61000-4-2 (ESD) EN 61000-4-3 (RS)
Laser Safety	FDA 21CFR 1040.10 FDA 21CFR 1040.11 EN/IEC 60825-1 EN/IEC 60825-2
Environmental	Reach RoHS WEEE
Supply Chain	NDAA & TAA Compliant

Designed to meet NEMA TS2

# Part Numbers.

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## AOC Cables

Part Number	Description	Length	Min Bend Radius*
SFP-AOC-10G-7	SFP+ AOC Multimode OM4 Cable, 1/10Gb, Active, 7m, 850nm Tx/Rx, DDM	7m	7.5mm
SFP-AOC-10G-10	SFP+ AOC Multimode OM4 Cable, 1/10Gb, Active, 10m, 850nm Tx/Rx, DDM	10m	7.5mm
SFP-AOC-10G-15	SFP+ AOC Multimode OM4 Cable, 1/10Gb, Active, 15m, 850nm Tx/Rx, DDM	15m	7.5mm
SFP-AOC-10G-20	SFP+ AOC Multimode OM4 Cable, 1/10Gb, Active, 20m, 850nm Tx/Rx, DDM	20m	7.5mm
SFP-AOC-10G-25	SFP+ AOC Multimode OM4 Cable, 1/10Gb, Active, 25m, 850nm Tx/Rx, DDM	25m	7.5mm
SFP-AOC-10G-30	SFP+ AOC Multimode OM4 Cable, 1/10Gb, Active, 30m, 850nm Tx/Rx, DDM	30m	7.5mm

\* Note - It is important to maintain the correct cable bend radius for each cable as detailed in the above table and secure strain relief for the cable.

*In a continuing effort to improve and advance technology, product specifications are subject to change without notice. Please visit [www.amgsystems.com](http://www.amgsystems.com) for the latest product specifications.*