






# SFP-CW-1G SERIES INDUSTRIAL 1GB ETHERNET CWDM SFP MODULES



## Industrial Ethernet Solutions

AMG's industrial 1Gb CWDM SFP's provide transmission of 1000Mb Ethernet data over Singlemode optical fiber using industry standard 20nm wavelength spacing.



 Fiber Singlemode	 1000 FX Compliant	 DDM Diagnostics	 Temp -40~+85°C	 NDAA/TAA Compliant
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[ SFP-CW-1G Series ]

### / OVERVIEW

The AMG SFP-CW-1G series are industrial high speed 1000Mb Ethernet CWDM SFP's offering support for Singlemode optical fiber using industry standard 20nm wavelength spacing.

The units are compatible with most 1000BASE-X SFP ports on Ethernet switches and media converters<sup>1</sup> and feature industry standard LC connectors.

The SFP modules are a perfect solution for extending the capability of SFP enabled Ethernet devices to support links from remote locations which are beyond the normal 100m (328ft) distance limit of copper Ethernet standards.

Each optical fiber 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.

### / FEATURES

- Compatible with most 1000BASE-X SFP Ports <sup>1</sup>
- Supports Ethernet speeds of up to 1000Mbps
- Hot pluggable design allows for easy field replacement or upgrades
- Digital Diagnostic Monitoring (DDM) included on all optical models
- Distances up to 40Km (Singlemode Fiber)
- INF-8074 and SFF-8472 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

<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.

# Specifications.

## Standards.

IEEE802.3z	1000Base-X
SFF-8472	Diagnostic Monitoring Interface
INF-8074	SFP Transceiver
MSA	Multi-Source Agreement

## Interface.

SFP Slot	1000BASE-X SFP
Fiber Port	Singlemode Dual LC Connector

## Power.

Power Inputs	From SFP Port
Operating Voltage	3.3V <sub>DC</sub>
Power Consumption	1W Max

## Packaging.

### Single Unit Packaging

Shipping Weight	0.04kg / 0.09lb
Dimensions:	(W x D x H) 58 x 106 x 25 mm 2.28 x 4.17 x 0.98 in

### Ten Unit Packaging

Shipping Weight	0.26kg / 0.57lb
Dimensions:	(W x D x H) 192 x 152 x 20 mm 7.56 x 5.98 x 0.79 in

## Mechanical.

Housing	Aluminium
Dimensions:	(W x D x H) 57 x 14 x 12 mm 2.24 x 0.55 x 0.47 in
IP Rating	IP40
Installation	SFP Slot
Weight	0.02kg / 0.04lb

## Environmental.

Operating Temp:	(Celsius / Fahrenheit)
<small>SFP Case</small>	-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
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.

## Singlemode - Dual Fiber

Part Number	Description	Distance	Tx Wavelength	Tx Power (dBm)	Rx Sensitivity (dBm)
SFP-CW-1G-EX40-27	SFP Singlemode CWDM, 1Gb, 2 Fibers, 40Km, LC Connectors, 1270nm Tx/Rx, DDM	40Km	1270nm	0 ~ -5 dBm	<-24dBm
SFP-CW-1G-EX40-29	SFP Singlemode CWDM, 1Gb, 2 Fibers, 40Km, LC Connectors, 1290nm Tx/Rx, DDM	40Km	1290nm	0 ~ -5 dBm	<-24dBm
SFP-CW-1G-EX40-31	SFP Singlemode CWDM, 1Gb, 2 Fibers, 40Km, LC Connectors, 1310nm Tx/Rx, DDM	40Km	1310nm	0 ~ -5 dBm	<-24dBm
SFP-CW-1G-EX40-33	SFP Singlemode CWDM, 1Gb, 2 Fibers, 40Km, LC Connectors, 1330nm Tx/Rx, DDM	40Km	1330nm	0 ~ -5 dBm	<-24dBm
SFP-CW-1G-EX40-35	SFP Singlemode CWDM, 1Gb, 2 Fibers, 40Km, LC Connectors, 1350nm Tx/Rx, DDM	40Km	1350nm	0 ~ -5 dBm	<-24dBm
SFP-CW-1G-EX40-37	SFP Singlemode CWDM, 1Gb, 2 Fibers, 40Km, LC Connectors, 1370nm Tx/Rx, DDM	40Km	1370nm	0 ~ -5 dBm	<-24dBm
SFP-CW-1G-EX40-39	SFP Singlemode CWDM, 1Gb, 2 Fibers, 40Km, LC Connectors, 1390nm Tx/Rx, DDM	40Km	1390nm	0 ~ -5 dBm	<-24dBm
SFP-CW-1G-EX40-41	SFP Singlemode CWDM, 1Gb, 2 Fibers, 40Km, LC Connectors, 1410nm Tx/Rx, DDM	40Km	1410nm	0 ~ -5 dBm	<-24dBm
SFP-CW-1G-EX40-43	SFP Singlemode CWDM, 1Gb, 2 Fibers, 40Km, LC Connectors, 1430nm Tx/Rx, DDM	40Km	1430nm	0 ~ -5 dBm	<-24dBm
SFP-CW-1G-EX40-45	SFP Singlemode CWDM, 1Gb, 2 Fibers, 40Km, LC Connectors, 1450nm Tx/Rx, DDM	40Km	1450nm	0 ~ -5 dBm	<-24dBm
SFP-CW-1G-EX40-47	SFP Singlemode CWDM, 1Gb, 2 Fibers, 40Km, LC Connectors, 1470nm Tx/Rx, DDM	40Km	1470nm	0 ~ -5 dBm	<-24dBm
SFP-CW-1G-EX40-49	SFP Singlemode CWDM, 1Gb, 2 Fibers, 40Km, LC Connectors, 1490nm Tx/Rx, DDM	40Km	1490nm	0 ~ -5 dBm	<-24dBm
SFP-CW-1G-EX40-51	SFP Singlemode CWDM, 1Gb, 2 Fibers, 40Km, LC Connectors, 1510nm Tx/Rx, DDM	40Km	1510nm	0 ~ -5 dBm	<-24dBm
SFP-CW-1G-EX40-53	SFP Singlemode CWDM, 1Gb, 2 Fibers, 40Km, LC Connectors, 1530nm Tx/Rx, DDM	40Km	1530nm	0 ~ -5 dBm	<-24dBm
SFP-CW-1G-EX40-55	SFP Singlemode CWDM, 1Gb, 2 Fibers, 40Km, LC Connectors, 1550nm Tx/Rx, DDM	40Km	1550nm	0 ~ -5 dBm	<-24dBm
SFP-CW-1G-EX40-57	SFP Singlemode CWDM, 1Gb, 2 Fibers, 40Km, LC Connectors, 1570nm Tx/Rx, DDM	40Km	1570nm	0 ~ -5 dBm	<-24dBm
SFP-CW-1G-EX40-59	SFP Singlemode CWDM, 1Gb, 2 Fibers, 40Km, LC Connectors, 1590nm Tx/Rx, DDM	40Km	1590nm	0 ~ -5 dBm	<-24dBm
SFP-CW-1G-EX40-61	SFP Singlemode CWDM, 1Gb, 2 Fibers, 40Km, LC Connectors, 1610nm Tx/Rx, DDM	40Km	1610nm	0 ~ -5 dBm	<-24dBm

Note - Light source aging is already considered in the Tx Power and Rx Sensitivity values mentioned above and below. A separate consideration is not required in the optical link budget calculation.

*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.*