



## INSTALLATION AND OPERATION MANUAL

# CWGE2SFP

## Commercial Grade 10/100/1000BASE-T(X) to 1000BASE-FX Gigabit Ethernet Media Converter

**This manual serves the following ComNet Model Numbers:**

CWGE2SFPM2  
CWGE2SFPS2  
CWGE2SFP

The ComNet CWGE2SFP Ethernet media converter series are one-channel Ethernet electrical to optical media converters. These auto-negotiating devices accept a 10/100/1000 Mbps electrical input and convert this to a 1000 Mbps optical output. These devices use either one or two optical fibers, depending upon the selection of either included or sold-separately SFP optical module. These devices can be used in stand-alone mode or can be installed within the ComNet CWCHASSIS 19 inch rack.

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## Introduction

The ComNet CWGE2SFP series is a cost-effective solution for converting 10/100/1000Base-TX electrical to 1000Base-FX fiber optic cable. It allows you to extend the distance of your 1000Base-FX network up to 550 meters for multi-mode fiber or up to 15 kilometers for single-mode fiber.

The CWGE2SFP series gives you maximum flexibility with its empty SFP slot supporting any of the ComNet 1 Gbps SFP modules offering options for different connector types and distances up to 120 kilometers. The CWGE2SFP module provides you with one SFP fiber port for your fiber optic cable and one Ethernet RJ45 port (Auto MDI/MDIX) for your 10/100/1000Base-TX copper cable connection. There are three DIP switches to set the operation mode and link loss forwarding function.

## Features

### ComNet CWGE2SFP Series

- » Complies with IEEE 802.3, 802.3u, and 802.3x standards.
- » Converts between UTP cabling and fiber-optic cable.
- » One RJ-45 connector, Auto-MDI/MDIX for UTP port.
- » Supports 10/100/1000 Mbps Auto-negotiation for UTP port.
- » Fiber optic cabling connectivity up to 15 km.
- » Store-and-forward switching architecture.
- » 3 DIP-switches to set the operation mode and Link- Lost-Forwarding function.
- » 6 LEDs for: Speed, Link, Activity, Full, Collision, and per unit Power.
- » External DC power adapter 5-12 VDC.
- » FCC Class A, CE Mark certification

### Package Contents

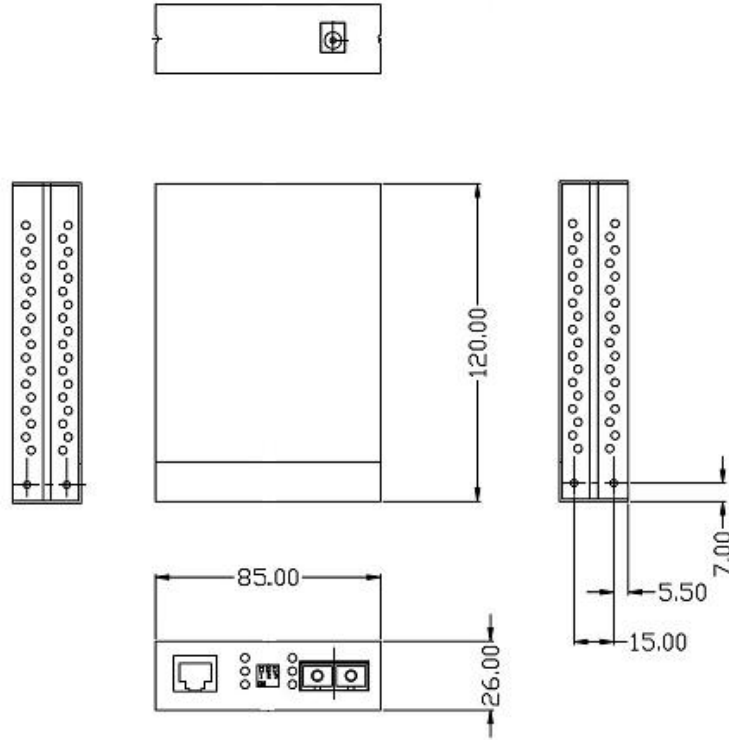
Stand-alone converter module package contains following items:

- » Media Converter
- » AC-DC Power Adapter
- » User Guide

Compare the contents of your converter module with the checklist above. If any item is damaged or missing, please contact your local dealer for service.

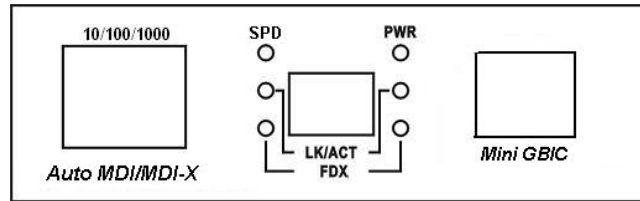
# Hardware Description

The CWGE2SFP Series Media Converter dimensions (L × W × H): 120 × 85 × 26 mm



## Front Panel

The Front Panel of the CWGE2SFP series media converter module consists of one Gigabit SFP port (supplied either empty or with an included SFP module, depending on model ordered), one Gigabit RJ45 copper Port (Auto MDI/MDIX), and 6 LED Indicators (SPD, LK/ACT, FDX, Fiber LK/ACT, FDX/COL, and PWR).



*Fast Fiber Converter Module - SC Model*

## Rear Panel

The rear panel contains a 2.1mm power socket. This power socket accepts 5-12 VDC @ 2.7 W.



*Fast Fiber Converter Module - SC Model*

## Ports

**Copper Port (Auto MDI/MDIX):** The Ethernet RJ45 port will auto-sense for 10Base-T, 100Base-TX, or 1000Base-T connections. Auto MDI/MDIX means that you can connect to another Switch or workstation without changing non-crossover or crossover cabling.

**SFP Port:** This port is for 1000Base-FX connections with SFP modules.

## LED Indicators

There are 6 diagnostic LEDs located on the Front panel of the media converter. They provide real-time information of system and operational status. The following table provides descriptions of the LED status and their meanings.

LED	Color	Status	Description
PWR	Green	On	Power On
SPD	Green	On	1000 Mbps UTP Speed
	Amber	On	100 Mbps UTP Speed
		Off	10 Mbps UTP Speed
LNK/ACT (UTP)	Green	On	The unit is linking with its link partner.
	Green	Blinking	The unit is transmitting or receiving packets from UTP devices.
		Off	No device attached
FDX (UTP)	Amber	On	The UTP port is operating in full-duplex mode.
		Off	Half-duplex mode or no device attached.
LNK/ACT (Fiber)	Green	On	The unit is linking with its link partner.
	Green	Blinking	The unit is transmitting or receiving packets from UTP devices.
		Off	No device attached
FDX/COL (Fiber)	Amber	On	The fiber port is operating in full-duplex mode.
		Off	No device attached.

## DIP-switch

The DIP-switch is used to configure the operation mode for LLF (Link Lost Forwarding) and operation mode for the device traffic. The default value of each Dipswitch is OFF.

SW No	Status	Description
1	ON	LLF Enable
	OFF	LLF Disable
2	ON	Pure Converter mode
	OFF	Switch Converter mode
3	ON	Reserved
	OFF	Reserved

Link Lost Forwarding (DIP-Switch 1): When LLF is enabled, it will allow a copper port link failure to be reported to the SFP side and also allow an SFP link failure to be reported to the copper side. Therefore, a link loss forward feature is provided in both copper and SFP ports.

Pure Converter mode (DIP-Switch 2): When pure converter mode is enabled (on), the media converter operates with the minimum latency. The transmission flow does not wait until the entire frame is ready, but instead it forwards the received data immediately after the data has been received. (The RJ45 port should be forced at 1000M in this application). When DIP-Switch is in Switch Converter mode (off), the media converter will function the same as a Switch in store-and-forward mode.

**Note:** a) *Please don't change the DIP-switch settings when the copper or SFP port is transmitting or receiving data. It may cause some data error.*

b) *Please power off then power on when you change the DIP-switch settings.*

# INSTRUCTION MANUAL

## ComNet Customer Service

Customer Care is ComNet Technology's global service center, where our professional staff is ready to answer your questions at any time.

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