Trademarks

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Copyright Statement

FCC Warning

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These standards are designed to provide reasonable protection against harmful interference when these devices are operated in a commercial environment. These devices generate, use, and can radiate radio frequency energy and may cause harmful interference to radio communications unless installed in accordance with this User's Guide. Operation of these devices in a residential area is likely to cause harmful interference which will make the user responsible for the appropriate remedial action at his/her own expense.

CE Mark Warning

These are Class A products. In a domestic environment these products may cause radio interference in which case the user will need to consider adequate preventative methods.

1. Checklist

The package should contain the following items:

- HMC-3012 Converter
- AC-DC Power Adapter
- User's Guide

Please notify your sales representative immediately if any items are missing or damaged.

2. Overview

Our latest HMC-3012 media converter delivers the enhanced flexibility and simple deployment to whoever is intent on FTTX P2P network establishment.

Fully compliant with IEEE 802.3, 802.3u, 802.3ab, and 802.3z standards, the HMC-3012 media converter features the auto-sensing function that automatically allows the F/O speed of this device to be equivalent to the F/O speed of the connected remote device. The user is guaranteed to enjoy a high-quality device with its low-profile yet delicate appearance and its sophisticated designs in the application of network establishment.

Major Features:

- Auto-Negotiation for TP Port
- Gigabit Dual Rate Fiber With Auto-Sensing
- MDI/MDIX Auto-Crossover Supported
- Advanced Ethernet-Follow-Fiber Method
- Support Jumbo Frame 9K Bytes (under 10, 100, 1000Mbps)
- Store and Forward Switching Mechanism

3. Installation

	To Establish a Network Connection
❶	Attach fiber cable from the HMC-3012 to the fiber network.
❷	Attach a UTP cable from the 10/100/1000Base-T network to the RJ-45 port on the HMC-3012.
❸	Connect the power adapter to the HMC-3012 and check that the Power LED lights up. The Fiber/Ethernet LED will light up as either green or orange in accordance with the connection speed when the link is up.
	To Install the Equipment (Optional)
❶	Install two screws on the wall, each of which should remain a distance of **58.6mm** away from the other (see Figure 3).
❷	Hang the device on the wall.

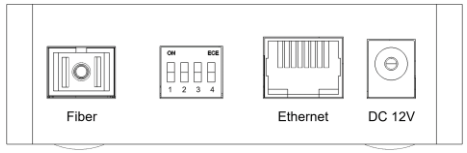

Figure 1. HMC-3012 Converter Front Panel

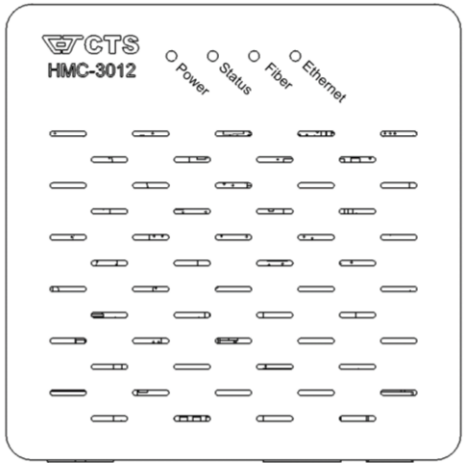

Figure 2. HMC-3012 Converter Top Panel

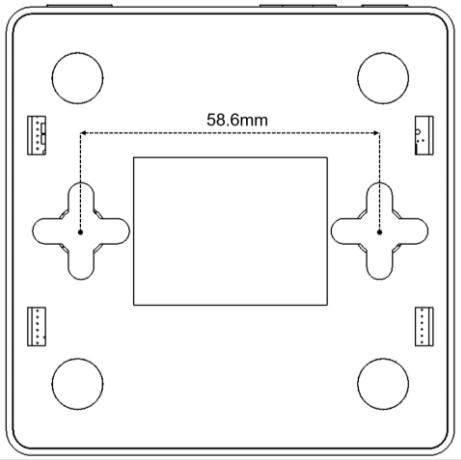

Figure 3. HMC-3012 Converter Bottom Panel
(the horizontal dotted line refers to the distance of **58.6mm** that should be remained for the equipment installation)

4. DIP Switch Setting

The default setting for Pin 1 & 2 is off, and for Pin 3 & 4 is on.

Pin No.	Function	Off	On
1	F/O Speed Auto-Sensing	Disable	Enable
2	F/O 1G Mode	Force	Auto
3	LAN Follow F/O Status	Disable	Enable
4	LAN Follow F/O Max Speed	Disable	Enable

NOTE:

1. Before adjusting the configuration of the DIP Switch, the power should be unplugged.
2. Enabling Pin 1 allows the link speed of F/O to be 1Gbps or 100Mbps; disabling it only allows 1Gbps.
3. When the F/O link speed is 1Gbps, enable Pin 2 to turn on 1G auto mode, and disable Pin 2 to turn on 1G force mode.
4. Enabling Pin 3 means disconnecting the RJ-45 link as soon as the fiber link-down occurs, allowing the end-user to easily identify a network issue.
5. Enable Pin 4 to avoid the RJ-45 link speed from exceeding the fiber link speed and so to prevent packet loss from the upward data stream.

5. LED Description

LED	Color	Function
Power	Off	Power isn't available.
	Green	Power is available.
Status	Off	The device isn't initiated satisfactorily.
	Green	The device is in normal operation.
	Orange	Either F/O or TP link isn't up.
		Blinking when the system isn't operating normally.
Fiber	Off	F/O link is down.
	Green	F/O link is up and in 1000Mbps.
		Blinking when F/O traffic is present and in 1000Mbps.
	Orange	F/O link is up and in 100Mbps.
		Blinking when F/O traffic is present and in 100Mbps.
Ethernet	Off	TP link is down.
	Green	TP link is up and in 1000Mbps.
		Blinking when TP traffic is present and in 1000Mbps.
	Orange	TP link is up and in 10/100Mbps.
		Blinking when TP traffic is present and in 10/100Mbps.

6. Technical Specifications

Standards	IEEE 802.3, 802.3u, 802.3ab, 802.3z	
Interface	1 x F/O port 1 x RJ-45 port	
LED	Power, Status, Fiber, Ethernet	
Power	I/P AC 100 ~ 240V O/P DC 12V, 1A	
Power Consumption	Maximum: 2.04W	
Weight	105g	
Dimensions	88 x 88 x 27mm (W x D x H)	
Temperature	Operating: 0ºC ~ 45ºC Storage: -20ºC ~ 60ºC	
Humidity	5% ~ 90% RH non-condensing	
Certification	FCC/CE Class A	
Media	TP:	EIA/TIA-568 CAT 5e, 1000Mbps
	Fiber:	50/125 or 62.5/125μm multi-mode 9/125 or 10/125μm single-mode
***** Please contact us for further reports and updates.		

NOTE: Specifications may change without prior notice.

7. Fiber Transceiver Information

Dual Rate

2 Wave-Length WDM

TYPE	W2A(SM-10)
Connector Type	SC
TX Wavelength	1310nm
RX Wavelength	1550nm
Typical Distance	10km

NOTE: Specifications may be changed without prior notice.

Contact Information

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CTS
CONNECTION TECHNOLOGY SYSTEMS

HMC-3012

10/100/1000Base-T to 100/1000Base-X Gigabit Ethernet Fiber Media Converter

User's Guide

Version 1.1