Trademarks

Copyright Statement

FCC Warning

CE Mark Warning

1. Checklist

The package should contain the following items:

- CVT-2112 Converter
- AC-DC Power Adapter
- CD (User's Guide & MIB file)

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

2. Overview

CVT-2112 Series are designed to meet the increasing needs for Fast Ethernet network deployment and are able to extend a copper-based network via fiber cable to a maximum distance up to 80KM.

CVT-2112 Series are fully compliant with IEEE 802.3 and 802.3u standards. It can be installed into a CVT Converter RACK. The installation and operation procedures are simple and straightforward. Operation status can be locally monitored through a set of Diagnostic LED indicators located in the front panel.

Major Features:
- Auto-Negotiation in TX port
- MDI/MDIX Auto-Crossover supported
- Support Flow Control
- Support Link Alarm
- Support Jumbo Frame 9K bytes (On in TX 100Full)
- Support Selectable ISP Ethernet Tag Type
- Q-in-Q Double Tag configuration
- Support DHCP Client
- Support SNMP / Web Management interface
- Support SNMP v1 and v2c
- Support HTTP Firmware Upgrade
- Support Power Down Trap Management

3. Installation

- Attach fiber cable from the CVT-2112 to the fiber network. The fiber connections must be matched – transmit socket to receive socket.

- Attach a UTP cable from the 10/100BASE-TX network to the RJ-45 port on the CVT-2112.

- Connect the power adapter to the CVT-2112 and check whether the Power LED indicator lights up. The TX Link/Act and FO Link/Act LED indicator will light up when all the cable connections are satisfactory.
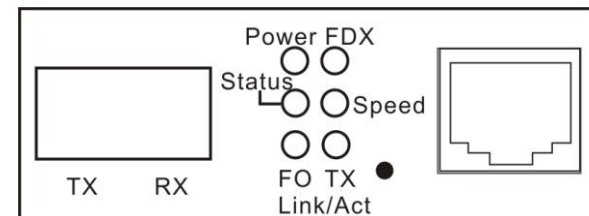
Figure 1. CVT-2112 Dual-Fiber Front Panel
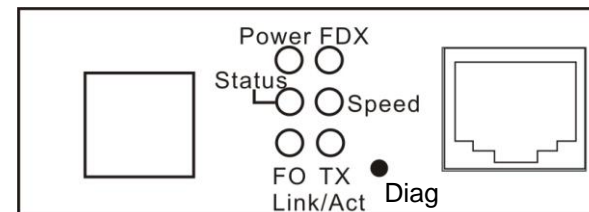
Figure 2. CVT-2112 Single-Fiber & SFP Front Panel

Figure 3. CVT-2112 Series Rear Panel

4. DIP SWITCH Setting

The factory default setting for PIN 1 is ON. The rest of Pins are OFF.

Pin NO.	Function	OFF	ON
1	TX Auto-Negotiation	Disable	Enable
2	Manual TX Data Rate 10M/100M	10M	100M
3	Reserve	Always OFF	
4	Flow Control	Disable	Enable
5	Reserve	Always OFF	
6	Reserve	Always OFF	
7	Link Alarm	Disable	Enable
8	TP Configuration	From S/W	From DIP
Diag button	Press once for Loopback test. Press for 10 seconds to restore factory default setting.		

NOTE: Before changing Data Rate and Duplex mode setting, please make sure Auto-Negotiation is disabled.

5. LED Description

LED	Color	Function
Power	Green	Lit when power is available.
TX Link/Act	Green	Lit when TX cable connection with the remote device is good. Blink when TX traffic is present.
	Orange	Blink when Fiber or Copper link is down in Link Alarm enabled mode.
FO Link/Act	Green	Lit when Fiber cable connection with the remote device is good. Blink when FO traffic is present.
	Orange	Blink when Fiber or Copper link is down in Link Alarm enabled mode.
FDX	Green	Lit when TX works in Full-Duplex. Not-Lit when TX works in Half-Duplex.
Speed	Green	Lit when TX works in 100M. Not-Lit when TX works in 10M or is not linked.
Status	Green	Lit when TX and FO link is up. Blink when Loopback test is performed.
	Orange	Lit when TX or FO link is down. Blink when diagnostic testing fails.

6. Technical Specifications

Standards:	IEEE 802.3, 802.3u
Interface:	1 x RJ-45 LAN connector
	1 x SC connector or SFP Slot
	1 x Diag button
Operation LED:	Power, FDX, Status, Speed, FO Link/Act, TX Link/Act
Power:	I/P AC 100-240V
	O/P DC 5V, 1.6A
Power Consumption:	3W
Shipping Weight:	0.6KG
Dimensions:	71mm(W)X94mm(D)X26mm(H)
Temperature:	Operating: 0~50 ^{o}C
	Storage: -20~60 ^{o}C
Humidity:	5%~90% RH
Certification:	FCC/CE Class A

*Please contact us for further reports and updates.

Media:	
TP	EIA/TIA-568 CAT 5e, 100M
Fiber	50/125, 62.5/125um multi-mode fiber
	9/125, 10/125um single-mode fiber

Fiber Transceiver Information

100M
Multi-Mode

TYPE	BTFC	BTFT
Connector Type	SC	ST
Wavelength	1310nm	1310nm
Typical Distance	2Km	2Km
Min TX PWR	-20.0dBm	-20.0dBm
Max TX PWR	-14.0dBm	-14.0dBm
Sensitivity	-31.0dBm	-31.0dBm
Link Budget	11.0dB	11.0dB

Single-Mode

TYPE	BTFC (SM-30)	BTFC (SM-50)	BTFC (SM-80)	BTFC (SM-100)
Connector Type	SC	SC	SC	SC
Wavelength	1310nm	1310nm	1310nm	1550nm
Typical Distance	30Km	50Km	80Km	100Km
Min TX PWR	-15.0dBm	-5.0dBm	0dBm	-5.0dBm
Max TX PWR	-8.0dBm	0dBm	5.0dBm	0dBm
Sensitivity	-34.0dBm	-35.0dBm	-36.0dBm	-35.0dBm
Link Budget	19.0dB	30.0dB	36.0dB	30.0dB

Wave-Length WDM

TYPE	W2A (SM-20)	W2B (SM-20)	W2A (SM-40)	W2B (SM-40)
Connector Type	SC	SC	SC	SC
TX Wavelength	1310nm	1550nm	1310nm	1550nm
RX Wavelength	1550nm	1310nm	1550nm	1310nm
Typical Distance	20 Km	20 Km	40 Km	40 Km
Min TX PWR	-14.0dBm	-14.0dBm	-8.0dBm	-8.0dBm
Max TX PWR	-8.0dBm	-8.0dBm	0dBm	0dBm
Sensitivity	-31.0dBm	-31.0dBm	-34.0dBm	-34.0dBm
Link Budget	17.0 dB	17.0 dB	26.0 dB	26.0 dB

NOTE: Specifications may change without prior notice.

Contact Information

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CTS
CONNECTION TECHNOLOGY SYSTEMS

CVT-2112 SERIES

10/100BASE-TX to 100BASE-FX Standalone Managed Media Converter

User's Guide

Version 0.95