

## Trademarks

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## FCC Warning

The CVT-2512 Series have 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 that 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.



This is a lead-free and RoHS-compliant product.

## 1. Checklist

The package should contain the following items:

- CVT-2512 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-2512 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-2512 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:

- Store and Forward Switching Mechanism
- 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-2512 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-2512.
- Connect the power adapter to the CVT-2512 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.

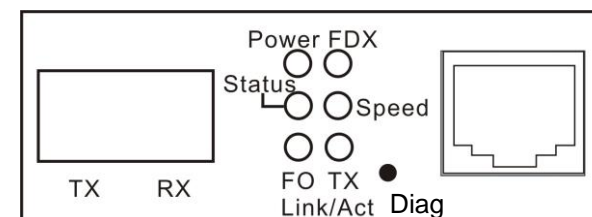


Figure 1. CVT-2512 Dual-Fiber Front Panel

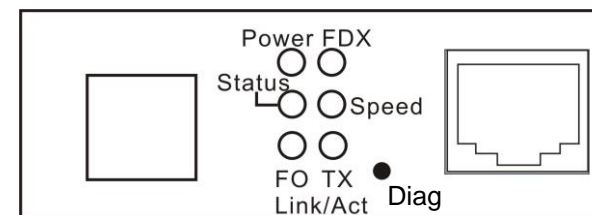


Figure 2. CVT-2512 Single-Fiber & SFP Front Panel



Figure 3. CVT-2512 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 °C Storage: -20~60 °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	-7.0dBm	0dBm	-5.0dBm
Max TX PWR	-8.0dBm	0dBm	5.0dBm	0dBm
Sensitivity	-34.0dBm	-32.0dBm	-36.0dBm	-35.0dBm
Link Budget	19.0dB	25.0dB	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	-15.0dBm	-15.0dBm	-9.0dBm	-9.0dBm
Max TX PWR	-3.0dBm	-3.0dBm	0dBm	0dBm
Sensitivity	-31.0dBm	-31.0dBm	-32.0dBm	-32.0dBm
Link Budget	16.0 dB	16.0 dB	23.0 dB	23.0 dB

**NOTE:** Specifications may change without prior notice.

## Contact Information

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## CVT-2512 SERIES

**10/100BASE-TX to  
100BASE-FX Standalone  
Managed Media Converter  
with 802.3ah OAM  
compliance**

**User's Guide**

**Version 1.0**