

# 10/100Base-Tx to 100Base-Fx Media Converter

## 1. GENERAL DESCRIPTION

The media converter transforms the transmission media of Ethernet signal from CAT5 100m to optical fiber 850/1310/1550nm. It can extend the transmission distance to several kilometers or hundred kilometers.

All Wintop Media converters apply the new 0.25 $\mu$ m technology to improve the performance and to avoid the packet lost with long the transmission. It also reduce the delay time to less than 9.6  $\mu$ s

Using media converter is an economical solution to achieve long distance transmission base on current status.

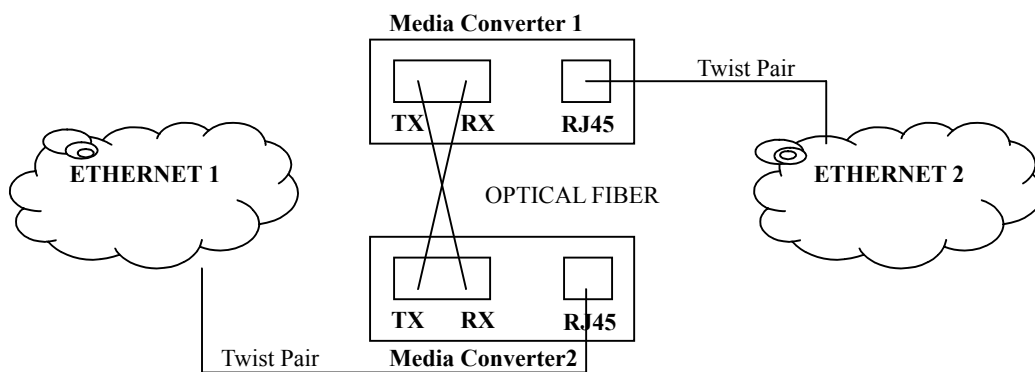


FIGURE 1.1 Media converter application

## 2. FEATURES

1. Built in a 2-port switch: 1x10/100Base-Tx and 1x100Base-Fx
  - Pass all packets without address and CRC check (optional);
  - Supports modified cut-through frame forwarding for low latency;
  - Supports store and forwarding mode;
  - Supports flow control for full and half duplex operation;
  - Bandwidth control;
  - Forward 1600 bytes packet for management;
  - Optional forward fragments;
  - Auto restore time less than 150ns and delay time less than 9.6 $\mu$ s;
2. Supports 100Base-FX standard;
3. Built in 1024KB RAM for data buffer;
4. Supports auto MDI-MDIX and auto negotiation speed 10/100Mbps function;
5. Supports link fault pass through function (LFP optional);
6. Supports for end fault function (optional);
7. LED display for power, link/activity, full/half, 10/100M

- 8. Support EEPROM configuration (optional);
- 9. Support VLAN pass through packet;
- 10. The longest transmission distance reaches 120 kilometers;

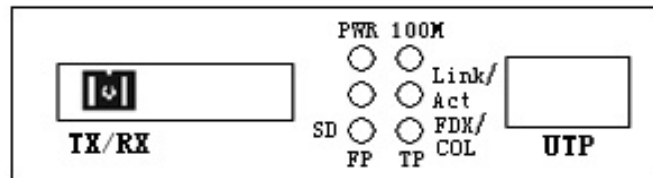
**3. STANDARD**

- IEEE802.3 ETHERNET STANDARD
- IEEE802.3u FAST ETHERNET STANDARD
- IEEE802.3x FLOW CONTROL STANDARD
- IEEE802.3ab FRAME SIZE STANDARD

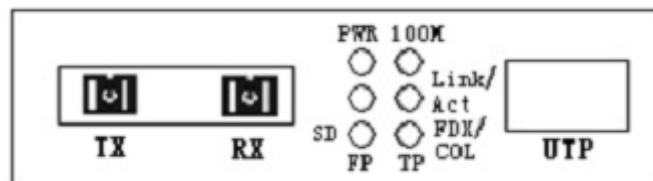


**4. PRODUCTS CLASSIFICATION & LEDs**

- 1. ACCORDING TO OUTLINE:
  - 90V~240V AC - 50/60Hz or -48VDC input power standalone media converter;
  - +5V DC input power standalone media converter with external switching adaptor;
  - Optional USB PORT or +5V DC input power standalone media converter;
  - Media converter Card;
  - Rack System Chassis(2U);
- 2. ACCORDING TO QUANTITY of FIBER:
  - Single fiber bidirectional media converter,
  - Dual fiber media converter;
- 3. ACCORDING TO TYPE OF FIBER:
  - Multimode media converter, Single mode media converter;
- 4. +5V DC input power standalone media converter can be applied for 14 slots rack mounted chassis, media converter Card applied for 16 slots rack mounted chassis



**Table 1 : Front panel for single fiber media converter**



**Table 2 : Front panel for dual fiber media converter**

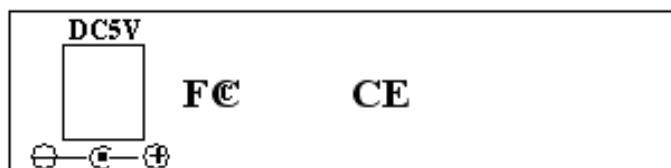


Table 3 : Back panel for single/dual fiber media converter

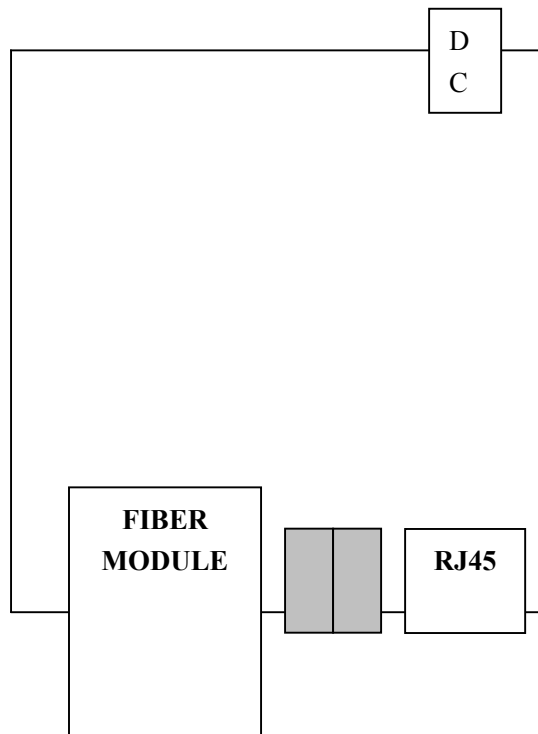


FIGURE 3 Stand alone media converter outline

## 5. LED FUNCTION DISCRPTION

TABLE 5.1 LED FUNCTION DISCRPTION

LED		STATUS
PWR	ON	POWER ON
	OFF	POWER OFF
FX-SD	ON	RECEIVER OPTICAL SIGNAL
	OFF	NO OPTICAL SIGNAL INPUT
FX-LINK/ACT	ON	LINKED ON FIBER PORT
	FLASH	ACTIVITY
	OFF	NOT LINKED
TX-SPD	ON	100M BASE-TX
	OFF	10M BASE-TX
TX-LINK/ACT	ON	LINKED ON UTP PORT
	FLASH	ACTIVITY
	OFF	NOT LINKED
TX-FDX/COL	ON	FULL DUPLEX
	OFF	HALF DUPLEX

## 6. PARAMETER

**TABLE 6.1 PARAMETER**

	10/100M multimode media converter	10/100M singlemode media converter
Cable	MM Fiber / Twist Pair	SM Fiber / Twist Pair
Transmission Type	10/100M FDX/HDX	10/100M FDX/HDX
MTBF	>3 years	>3 years
BER	<1E-9	<1E-9
Data Buffer	1024KB	1024KB
Power temperature variation	0.2mw/°C	0.2mw/°C
Input Power Range (dBm)	0~-30	0~-40
Operate Temperature	0°C~70°C	0°C~70°C
Storage Temperature	-45°C~80°C	-45°C~80°C
Humidity	Upto 95% none-condensing	Upto 95% none-condensing
Power	2.5w	2.5w
EMC	FCC Part15, CE	FCC Part15,CE
Size	95×70×26mm (external power )	95×70×26mm (external power )
	140×110×30mm (internal power )	140×110×30mm (internal power )

## 7. ORDERING INFOMATION

**TABLE 7.1 ORDERING INFOMATION**

PN	λ TX nm	λ RX nm	PTX dBm	SEN dBm	Overload dBm	Distance Km	Loss dB/km	Connector
WT-8110MA-11-2	1310	1310	-22~-12	≤-30	≥-3	2	2	MM Dual SC
WT-8110SA-11-20	1310	1310	-15~-8	≤-38	≥0	20	0.35	SM Dual SC
WT-8110SA-11-40	1310	1310	-8~-3	≤-38	≥0	40	0.35	SM Dual SC
WT-8110SA-11-60	1310	1310	-3~0	≤-38	≥0	60	0.35	SM Dual SC
WT-8110SA-11-80	1550	1550	-5~0	≤-38	≥0	80	0.25	SM Dual SC
WT-8110SA-11-100	1550	1550	≥-1	≤-38	≥0	100	0.25	SM Dual SC
WT-8110SB-11-20A	1310	1550	-12~-8	≤-36	≥0	20	0.35	SM BIDI SC
WT-8110SB-11-20B	1550	1310	-8~-3	≤-36	≥0	20	0.25	SM BIDI SC



WT-8110SB-11-40A	1310	1550	-3~0	$\leq -36$	$\geq 0$	40	0.35	SM BIDI SC
WT-8110SB-11-40B	1550	1310	-5~0	$\leq -36$	$\geq 0$	40	0.25	SM BIDI SC
WT-8110SB-11-60A	1310	1550	-3~0	$\leq -36$	$\geq 0$	60	0.35	SM BIDI SC
WT-8110SB-11-60B	1550	1310	-3~0	$\leq -36$	$\geq 0$	60	0.25	SM BIDI SC