

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

The media converter transforms the transmission media of Ethernet signal from CAT5 to optical fibre. It can extend the transmission distance to several kilometres or hundred kilometres. Using media converter is an economical solution to achieve long distance transmission base on current status.

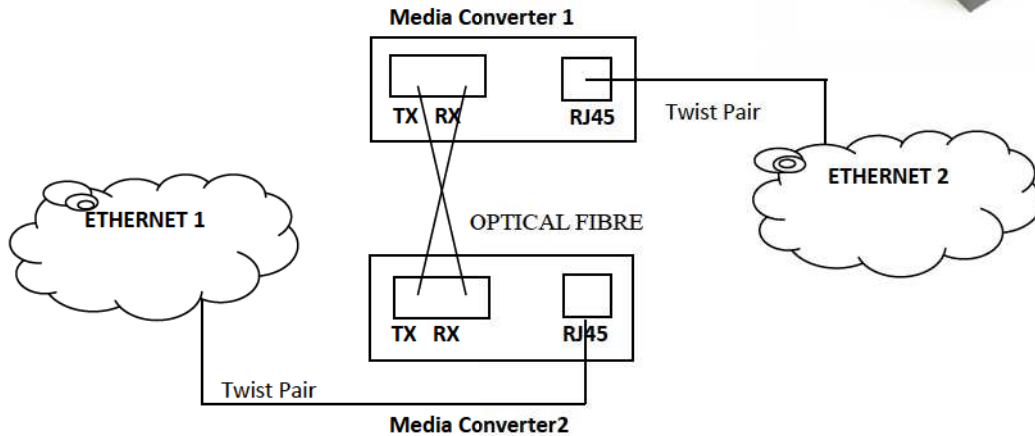


FIGURE 1.1 Media converter application

FEATURES

- Built in a 2-port switch:
 - Pass all packets without address and CRC check (optional) ;
 - Supports modified cut-through frame forwarding for low latency ;
 - Supports pure converter mode data forwarding for extreme low latency ;
 - Supports flow control for full and half duplex operation ;
 - Bandwidth control ;
 - Forward 1600 bytes packet for management ;
 - Optional forward fragments.
 - Supports 100Base-FX standard
- Built in 128Kb RAM for data buffer
- Supports auto MDI-MDIX function
- Supports link fault pass through function (LFP)
- Supports for end fault function (optional)
- LED display for link/activity, full/half, 10/100M
- Support EEPROM configuration (optional)
- The longest transmission distance reaches 120 kilometre

STANDARD:

IEEE802.3 ETHERNET
IEEE802.3u FAST ETHERNET

Product Classification & LEDs

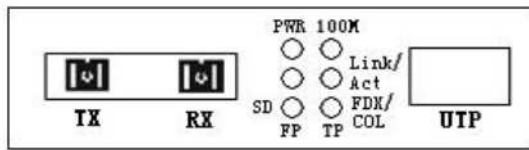


Figure 2.1: Front panel for dual fibre media converter

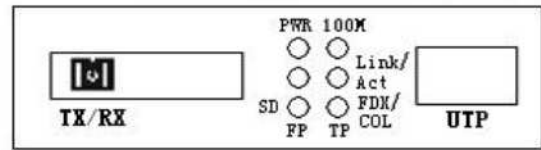


Figure 2.2: Front panel for single fibre media converter

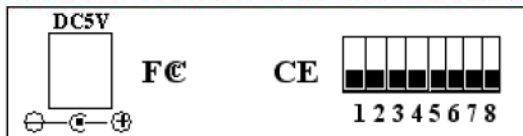


Figure 2.3: Back panel for single/dual fibre media converter



Figure: 2.4 Switch

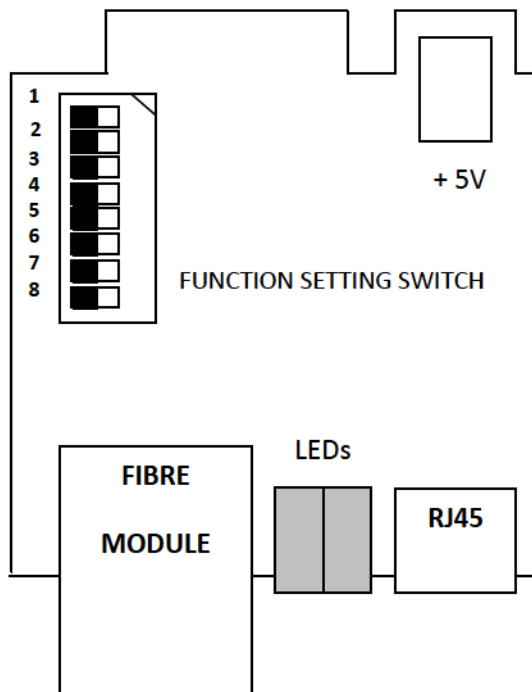


Figure 3.1 Media Converter Card Outline

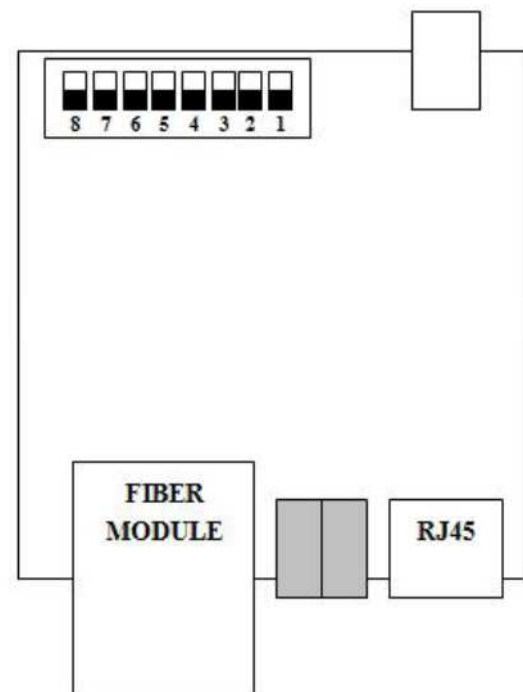


Figure 3.2 Stand Alone Media Converter Outline

ACCORDING TO OUTLINE :

- 200V/110V AC input power standalone media converter;
- +5V DC input power standalone media converter;
- Optional USB PORT or +5V DC input power standalone media converter;
- Media converter Card;
- Rack System Chassis (2U) ;

ACCORDING TO QUANTITY of FIBRE :

- Single fibre bidirectional media converter,
- Dual fibre media converter ;

ACCORDING TO TYPE OF FIBRE: Multimode media converter, Single mode media converter ;

- +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

SWITCH SETTING

TABLE 3.1 SWITCH SETTING DISCRIPTION FOR MEDIA CONVERTER CARD

NO.	FUNCTION	DISCRIPTION
1	LFP	UP: Link fault pass through(LFP) DOWN: LFP function disabled (default)
2	Direct Wire	Direct Wire Fast_FWD
3	Fast_FWD	DOWN DOWN Store and forward switch mode (default) DOWN UP Modified cut-through switch mode UP DOWN Converter mode UP UP Converter mode with auto-change-forward function
5	FX_Full	DOWN: fibre port full duplex (default), UP: half duplex
6	X_EN	DOWN: IEEE802.3X enabled (default), UP: disabled
4	TP_Force	TP_Force Speed Mode Duplex Mode
7	Speed_Mode	DOWN DOWN DOWN 100M/10M, FDX/HDX with auto negotiation
8	Duplex_Mode	DOWN DOWN UP 100M/10M, HDX with auto negotiation
		DOWN UP DOWN 10M, FDX/HDX with auto negotiation
		DOWN UP UP 10M, HDX with auto negotiation
		UP DOWN DOWN 100M, FDX with auto negotiation
		UP DOWN UP 100M, HDX with auto negotiation
		UP UP DOWN 10M, FDX with auto negotiation
		UP UP UP 10M, HDX with auto negotiation

TABLE 3.2 SWITCH SETTING DISCRIPTION FOR STAND ALONE MEDIA CONVERTER

NO.	FUNCTION	DISCRIPTION
1	LFP	UP: Link fault pass through(LFP) DOWN: LFP function disabled (default)
2	Direct Wire	Direct Wire Fast_FWD
3	Fast_FWD	DOWN DOWN Store and forward switch mode (default) DOWN UP Modified cut-through switch mode UP DOWN Converter mode UP UP Converter mode with auto-change-forward function
8	FX_Full	DOWN: fibre port full duplex (default), UP: half duplex
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4	TP_Force	TP_Force Speed_Mode Duplex_Mode
6	Speed_Mode	DOWN DOWN DOWN 100M/10M, FDX/HDX with auto negotiation
7	Duplex_Mode	DOWN DOWN UP 100M/10M, HDX with auto negotiation
		DOWN UP DOWN 10M, FDX/HDX with auto negotiation
		DOWN UP UP 10M, HDX with auto negotiation
		UP DOWN DOWN 100M, FDX with auto negotiation
		UP DOWN UP 100M, HDX with auto negotiation
		UP UP DOWN 10M, FDX with auto negotiation
		UP UP UP 10M, HDX with auto negotiation

LED FUNCTION DESCRIPTION

TABLE 4.1 LED FUNCTION DESCRIPTION

LED	STATUS	OPERATION
PWR	ON	POWER ON
	OFF	POWER OFF
FX-SD	ON	RECEIVER OPTICAL SIGNAL
	OFF	NO OPTICAL SIGNAL INPUT
FX-LINK/ACT	ON	LINKED ON FIBRE 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

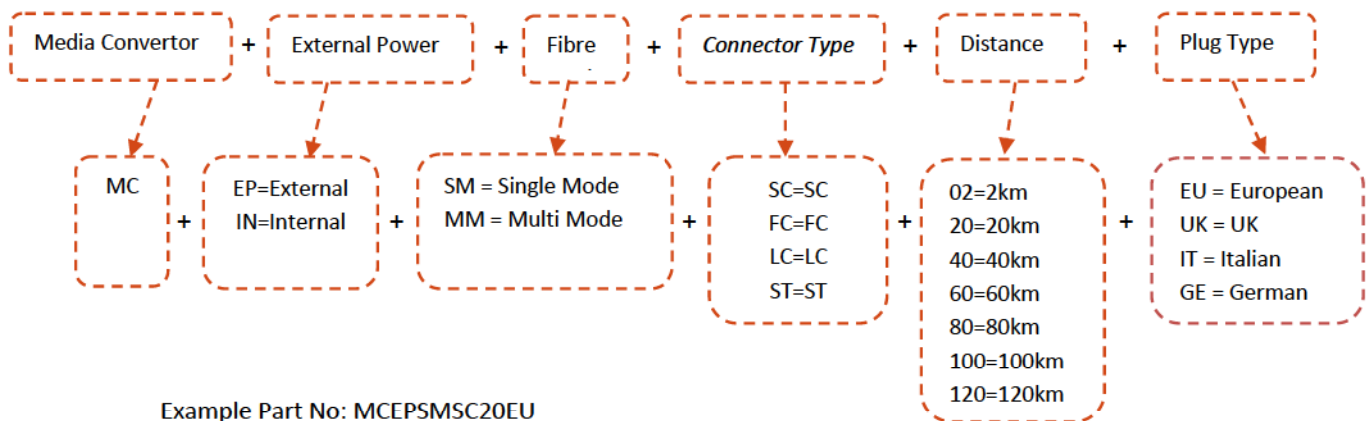
PARAMETER

	10/100M multimode media converter	10/100M single mode media converter
Cable	MM Fibre / Twist Pair	SM Fibre / Twist Pair
Transmission Type	10/100M FDX/HDX	10/100M FDX/HDX
MTBF	>3 years	>3 years
BER	<1E-8	<1E-8
Data Buffer	128Kb	128Kb
Delay	127ms	127ms
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
I _{max}	800mA	800mA
Power	2. 5w	2. 5w
EMC	FCC Part15	FCC Part15
Size	95 × 70 × 26mm (external power)	95 × 70 × 26mm (external power)
	140 × 110 × 30mm (internal power)	140 × 110 × 30mm (internal power)

ORDERING INFORMATION

Please use the below part number description to obtain the exact part number as required.

PART NUMBER CONFIGURATION



Example Part No: MCEPSMSC20EU

Please contact Linxcom at sales@linx-com.com for any queries. Thank you.