AC100 10/100M Fibre Optical Media Converter Series
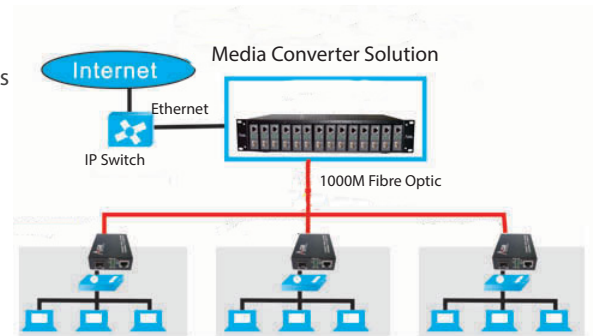
AC100 series Ethernet media converter can inter-convert electrical signals of 10Base-T and 100Base–TX twisted pairs with optical signals of 100Base-FX. It extends the network transmission distance from 100m via copper cables to 120km via fibre optical cable. It enables the data to transmit in two different mediums of electrical and optical networks either by the technology of data link L2 store-and-forward, or by the one of PHY L1 cut-through). It supports transmission in multi-mode dual fibre, single-mode dual fibre, single-mode single fibre.

FEATURES

- 10/100Mbps auto-sensed, facilitating network upgrade
- Built-in efficient switching core to implement flow control and reduce broad-cast packets
- full-duplex and half-duplex auto-sensed
- Supporting automatic cross connection of twisted pair interfaces, facilitating system commissioning and installation•   Supporting Link Failure Alert (LFA) with optional dip-switch(unique)
- Supporting 10/100Mbps store-and-forward and 100Mbps cut-through trans-mission with optional dip-switch(unique)
- Supporting the transmission of extra-long packets up to1600 bytes
- Supporting the transmission of extra-long VLAN packets
- Supporting Quality of Service (QoS) , ensuring the transmission of VoIP packets
- Supporting STP to form a redundant network
- Extremely low power consumption, low heat, stable performance and long lifetime

APPLICATION

10/100Mbps fast optical Ethernet long-distance transmitting network

Technical Indexes

Access Mode	10/100 Mbps
Standard	IEEE802.3 10Base-T Ethernet IEEE802.3u 100Base-TX/FX Fast Ethernet IEEE802.3x Flow Control IEEEE802.1q VLAN IEEE802.1p QoS IEEE802.1d Spanning Tree
Wavelength	Multimode 850/1310nm Singlemode 1310/1550nm (Option)
Transmission Distance	multi-mode: 2km single-mode: 20-120km Category-5 twisted pairs: 100m
Port	One RJ45 port: For connecting STP/UTP category 5 twisted pairs One optical port: Multi-mode SC/ST (50,62.5/125μm) Single-Mode SC/FC (9/125μm)
Conversion Means	Media Conversion, store and forward cut through
MAC Address Table	1K
Buffer Space	1Mbit
Flow Control	Full duplex, flow control. Half duplex: back pressure
Delay	Store and forward 9.6μs, cut through 0.9μs
BER	<19-9
MTBF	100,000 hours
LED Indicator	PWR (Power supply), FX LINK/ACT (Optical link/action), FDX (FX full duplex) TP LINK/ACT (twisted pairs link/action), TP 100 (100M transmission rate of twisted pairs), FX 100 (100M transmission rate of optical fibre)
Power Supply	DC5V 1A (external) AC220 0.5A/DC-48 (internal)
Power Consumption	<2W
Operating Temperature	-10 - 55℃
Operating Humidity	5% - 90%
Maintaining Temperature	-40 - 70℃
Maintaining Humidity	5% - 90% non-condensing
Dimensions	71mm (W) * 94mm (D) * 26 mm (H) (external power supply)

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Mechanical Dimensions

Back panel

5VDC

This device complies with Part 15 of the FCC rules.

26mm

71mm

Side panel

94mm

26mm

94mm

71mm

Front panel

FX TX

100
Link/Act

FDX PWR

TX RX

26mm

71mm

Order Information

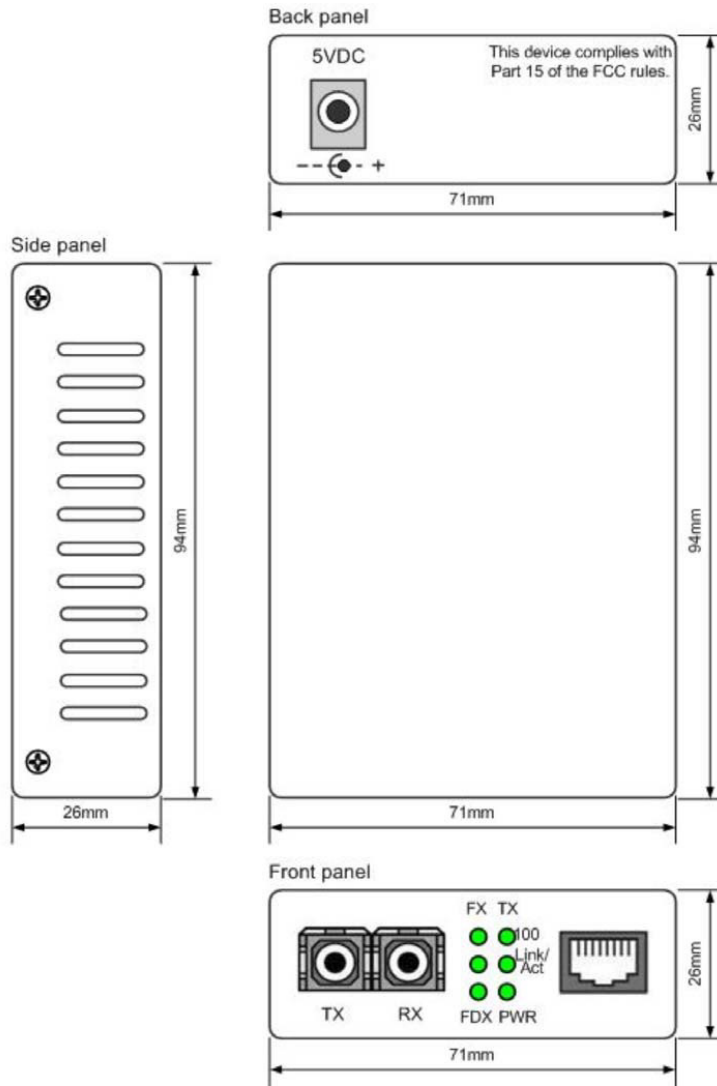| MODEL	WAVELENGTH	FIBRE	ELECTRICAL	FIBRE MODEL	TX POWER (dBm)	RX POWER (dBm)	DISTANCE
AC100-2	850/1310nm	SC/ST	RJ-45	MM Dual Fibre	-22 to -12	= -30	2km
AC100-20	1310nm FP	SC/FC	RJ-45	SM Dual Fibre	-14 to -8	= -36	20km
AC100-40	1310nm FP	SC/FC	RJ-45	SM Dual Fibre	-8 to -3	= -36	40km
AC100-60	1310nm FP	SC/FC	RJ-45	SM Dual Fibre	-3 to 0	= -36	60km
AC100-80	1550nm DFB	SC/FC	RJ-45	SM Dual Fibre	-8 to -3	= -40	80km
AC100-100	1550nm DFB	SC/FC	RJ-45	SM Dual Fibre	-3 to 0	= -40	100km
ACS100-20	1310/1550nm FP	SC	RJ-45	SM Single Fibre	-13 to -8	= -36	20km
ACS100-40	1310/1550NM FP	SC	RJ-45	SM Single Fibre	-8 to -3	= -36	40km

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Information in this document is correct as at the time of printing.

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