



Fiber Optical Media Converter

Fast Ethernet 1 x 10/100Base-T 1 x 100Base-Fx Mono-mode Dual fiber

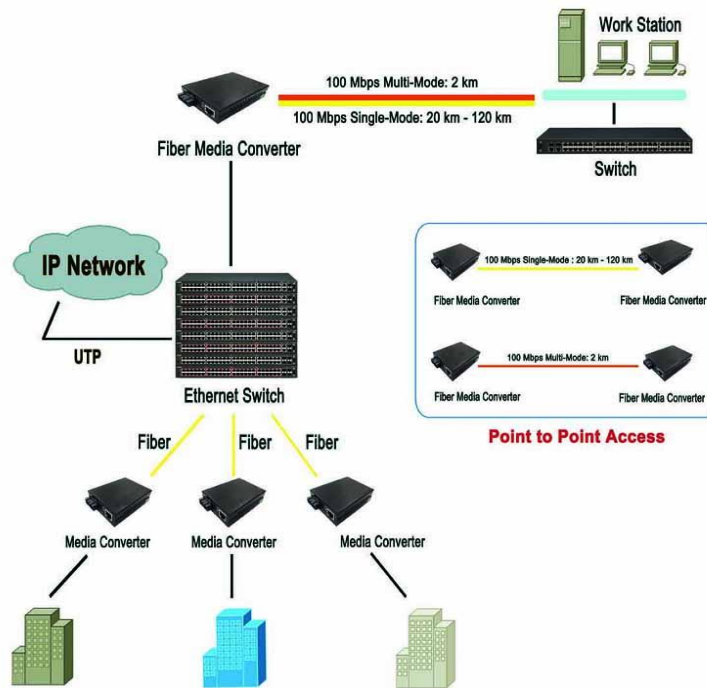
System Design

ST-100-SM-20 Media converters 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 MAX 20km via Mono-mode fiber 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.

Features

- 10/100Mbps auto-sensed, facilitating network upgrade
- Built-in efficient switching core to implement flow control and reduce broadcast packets
- full-duplex and half-duplex auto-sensed
- Supporting automatic cross connection of twisted pair interfaces, facilitating system commissioning and installation
- Supporting LFP (Select by DIP Switch freely)
- Supporting 10/100Mbps store-and-forward and 100Mbps cut-through transmission with optional dip-switch(unique)
- Supporting the transmission of extra-long packets up to 1600 bytes in the "store-and-forward" mode and up to 9000bytes jumbo frames in the "Cut-through" mode (Select by DIP Switch freely)
- Supporting the transmission of extra-long VLAN packets
- Supporting Quality of Service (QoS) , ensuring the transmission of VoIP packets
- Extremely low power consumption, low heat, stable performance and long lifetime

Application



Technical Indexes

Parameter	Specifications
Access mode	10/100Mbps
Standard	IEEE802.3 10Base-T Ethernet, IEEE802.3u 100Base-TX/FX Fast Ethernet, IEEE802.3x Flow control, IEEE802.1q VLAN, IEEE802.1p QoS, IEEE802.1d Spanning Tree

Wavelength	1310nm / FP
Optical Power	-12dBm to -3dBm
Transmission distance	Mono mode fiber cable: 1310nm@20Km CAT5/CAT5E twisted pairs: 100m
Port	One RJ45 port: For connecting STP/UTP cVAT5/CAT5E twisted pairs One optical port: SM: SC/ST/FC (fiber size: 9/125μm)
Conversion means	Media conversion, store-and-forward/cut-through
MAC address table	1K
Buffer space	128Kbit
Flow control	Full duplex: flow control; Half duplex: back pressure
Delay	Store-and-forward: 9.6μs; cut-through: 0.9μs
BER	<10 ⁻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 fiber)
Power supply	DC5V 1A (external), AC220 0.5A/DC-48 (internal)
Power consumption	<2W



Operating temperature	-10~55°C
Operating humidity	5%~90%
Maintaining temperature	-40~70°C
Maintaining humidity	5% ~ 90% non-condensing
Dimensions	26mm (H) * 70mm (W) * 94 mm (D) (external power supply)
	30mm (H) * 110mm (W) * 140 mm (D) (internal power supply)

Ordering information

Model Number	Access Mode	Fiber Interface	Fiber Mode	Wavelengths	Maximum Transmission Distance
ST-100-SM-20	10/100Mbps	SC/ST/FC	Mono mode / Dual fiber	Tx1310nm/Rx 1310nm	20Km