



Fiber Optical Media Converter

Fast Ethernet 1 x 10/100Base-T

1 x 100Base-Fx Mono-mode Single fiber

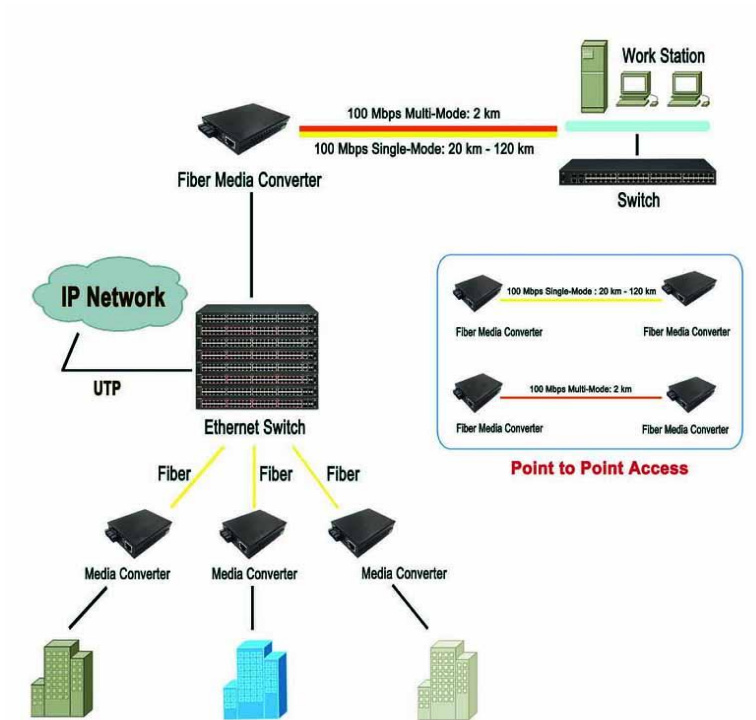
System Design

ST-100-BD-20A/B Media converters can interconvert 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 .With WDM technology to built bidirectional communications via single core fiber 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 & TO	1310nm / 1550nm FP

Optical Power	-12dBm to -3dBm
Transmission distance	Mono mode fiber cable: 1310nm/1550nm@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-BD-20A	10/100Mbps	SC/ST/FC	Mono mode / single fiber	Tx1310nm/Rx1550nm	20Km
ST-100-BD-20B	10/100Mbps	SC/ST/FC	Mono mode / single fiber	Tx1550nm/Rx1310nm	20Km