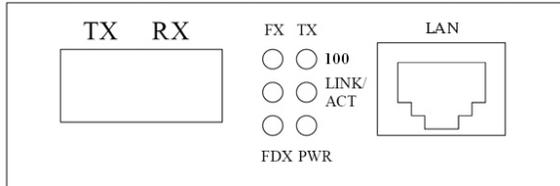


4. FDX: be light shows fiber use the full duplex to transmit data.
5. TX 100: be light shows twisted-pair transmit speed is 100Mbps, not light shows twisted-pair transmit speed is 10Mbps.
6. TX Link/Act: always light shows twisted-pair link connected right, fulgurated shows twisted-pair have data to transmit.



## 5. Fiber part parameter

	Dynamix - 20km 10/100 WDM(A/B)	Dynamix - 40km 10/100 WDM(A/B)	Dynamix - 60km 10/100 WDM(A/B)
Connect type	SC	SC	SC
Distance	20 km	40 km	60 km
Fiber type	Single-mode	Single-mode	Single-mode
Wave length	1310/1550nm	1310/1550nm	1310/1550nm
Min TX PWR	-18.0 dBm	-9.0 dBm	-5.0 dBm
Max TX PWR	-8.0 dBm	-3.0 dBm	0 dBm
Sensitivity	<-30 dBm	<32 dBm	<-38 dBm
Link Budget	8.0 dBm	23.0 dBm	33.0 dBm

## 6. Packing

1. Dynamix WDM fiber optic media converter
2. Power adapter AC220V/DC5V
3. User Manual

## 7. Pay attention to proceeding

1. Optical port working mode is 10/100 Full Duplex , LAN port is Auto Negotiation.

2. Twisted-pair interface initialization base to couple equipment state to set self's state. If can't test opponent state, that state is uncertainty.

3. Strictly prohibit use unaided eye to look at the TX fiber transmit port when the media converter is electrify state.

4. Please put dustproof cover on fiber interface, when the fiber optic media converter is not used.

5. When the product connecting with other equipment (router, switch, HUB, NIC), the interconnection equipment's optical interface's speed and mode must be consistent (multimode and single-mode).

Between Interconnection equipment's LAN port's speed should mismatch. (100Base-TX/ 100Base-T)

6. This product must be gemination use. Gemination media converter's optic module's transmit and receive part must use separate 1310nm and 1550nm wavelength.

**Dynamix®**  
www.godynamix.com

## Dynamix WDM 10/100 Fast Ethernet media converter

Dynamix -20km 10/100WDM(A/B)  
Dynamix -40km 10/100WDM(A/B)  
Dynamix -60km 10/100WDM(A/B)



**User Manual**

**V. 2.1**

# ***Dynamix WDM Single fiber dual-direction fiber optic media converter***

## **1. Overview**

Dynamix single-fiber dual-direction fiber optic media converter be used Ethernet's electric signal to transmit optical signal's electricity signal transceiver, the feature is adopt one fiber cable can receive and transmit optical signal in-phase, enhance one double transmit energy than existing optical fiber, economized fiber cable's source.

Dynamix single-mode single-fiber series is a self-adapted single-fiber dual-direction fiber optic media converter with 10/100M, it's protocol IEEE802.3u, 10Base-T, 100Base-TX, 100Base-FX standard and passed the information industry ministry's telecom equipment enter networking examination. Dynamix single-mode single-fiber is a gigabit single-mode single-fiber media converter with 100M.

Due to single-fiber dual-direction media converter's transmit optical signal transmit wavelength and receive wavelength are difference, so must be use by pair - Dynamix -20km 10/100WDM A and Dynamix -20km 10/100WDM B, for example. One TX and one RX, be one pair, can't use to wrong, If not will can't working normal. The transmit optical signal wavelength is 1310nm, receive optical signal wavelength is 1550nm, singlemode single-fiber's transmit optical signal is wavelength 1550nm, receive optical signal is wavelength 1310nm; single-fiber dual-direction media converter have one RJ-45 interface and one SC single-core interface, separate use to connecting twisted-pair and fiber. Single-fiber media converter have 6 LED indicator: POWER, TX100, FX100, FX Link/ACT, TX Link/ACT, FDX

## **2. Specification and Feature Explain**

1. Accord with IEEE802.3, IEEE802.3u, IEEE802.3x, IEEE802.1q, 100Base-T, 100Base-TX, 100Base-FX standard
2. Support TCP/IP, PPPoE, DHCP, ICMP, NAT protocol
3. Flow control mode: full duplex adopt IEEE802.3X, half duplex adopt Backpressure's standard.
4. Electricity port support auto-negotiation function, auto-regulation transmit mode and transmit speed.
5. Support Auto-MDI/MDIX automatic reverse.
6. Support storage transmit mode, capability is 256K.
7. Support electricity port's 100M mode or self-adapt mode's switch.
8. Afford of state indicator, external power (output 5V-50HZ 1A)
9. Interface: electric port - RJ-45, fiber port - SC
10. Twisted-pair: CAT.5 CAT.6
11. Singlemode fiber: 8/125, 8.3/125, 9/125 $\mu$ m
12. Working temperature: 0~50°C
13. Storage temperature:-20~70°C
14. Humidity: 5% ~ 90% (non-condensing)
15. Size: 26\*70\*94 mm(H\*W\*L)

## **3. Installed and Initialization**

Please use the follow approach installed single-fiber dual-direction fiber optic media converter:

1. Put single fiber jump cable or caudal fiber through the same fiber's then use the fiber terminal box separate connect to single fiber dual-direction media converter's SC port at the same pair.

2. Put UTP jump cable through networking equipment connecting to single fiber media converter's RJ-45 interface, the media converter's electricity port can self-adapt through line and intersection line.

3. Put power adapter's DC plugs pin to the fiber optic media converter's DC receptacle, next put the power adapter's AC plugs pin insert to AC receptacle, switch-on power, then the fiber optic media converter's power indicator will light, others indicator will light after self-check by gradation, after self-check the fiber optic media converter would based to test and couple network equipment's electricity port state, then to decided fiber optic media converter's electricity port's working state.

If can't test the couple equipment (for example couple equipment haven't open ext.) if the media converter's electricity port's state was adapter, that uncertainty. so TX Link and TX 100 indicators were not light. But the fiber optic port has enactment full duplex state 100M, that FX 100 and FX FDX indicator were light.

## **4. LED Indicator**

Single fiber dual-direction media converter have 6 LED indicator, they would be show media converter's working state, warranty, LED shows, that would estimated, if the media converter working normal or have any wrong, that help us find the fault. the function will separate explain as follow:

1. PWR: be light shows DC5V power adapter working normal
2. FX 100: be light shows fiber optic transmit speed is 100Mbps
3. FX Link/Act: always light shows fiber link connected right, fulgurate shows have data to transmit in fiber.