

**10/100/1000 Base TX to 100/1000 Base FX Fiber Ethernet Media Converter, Model SC09FEDG**

**Brief introduction**

This manual is for 10/100/1000M Ethernet to Fiber Media Converter. This product supports 1000Base-TX/FX protocol, as well as full duplex & half duplex mode.

**Installation.**

**Interface**

RJ-45 interface

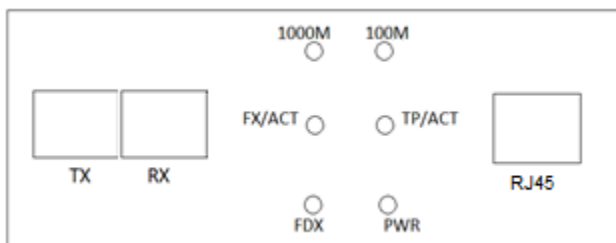
The transmission media uses CAT5 twisted-pair with the typical length of 100 meter.

Fiber interface

SC/ST fiber interface is of duplex mode type, including two interface namely TX & RX. When the two sets of optical transceiver are interfaced or connected to switch with fiber interface, the fiber is in cross connection, namely "TX-RX", "RX-TX"

**Connection**

The network device (work station, hub or switch) with RJ-45 interface is connected to RJ-45 jack of optical transceiver through twisted pair. And the multi/single mode fiber is connected to SC/ST fiber interface of the optical transceiver.



**Fig.1 Schematic drawing of Converter front face.**

**Explanation for LED indicator lamp.**

LED	Function	Status	Description
PWR	Power	ON	Power ON
		OFF	Power Failure
100M	UTP Port Speed	ON	100M Speed
		OFF	1000M Speed
FX/ACT	Fiber Port Link / Activity	ON	Fiber Link is OK
		Blink	Dats being Received & Transmitted
1000M	UTP Port Speed	ON	1000M Speed
		OFF	100M Speed
TP/ACT	UTP Port Link / Activity	ON	Link OK
		Blink	Dats being Received & Transmitted
FDX	UTP Port Duplex mode	ON	Full Duplex
		OFF	Half Duplex

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**Transmission characteristics of dual fiber transceiver:**

Product Model	Optical wavelength (nm)	Optical power (dbm)	Sensitivity (dbm)	Transmission distance (Km)
SC09FEDG -MM	850	-12 to -15	<-20	0.55
SC09FEDG -SM-20	1310	-3 to -8	<-22	20
SC09FEDG -SM-40	1310	0 to -5	<-24	40
SC09FEDG -SM-60	1310	0 to -3	<-25	60
SC09FEDG -SM-80	1550DFB	0 to -1	<-25	80

**Technical Parameters**

Standard Protocol : IEEE802.3 10 Base-T standard, IEEE 802.3u 100Base-TX-FX standard, IEEE802.3ab, 1000Base-T, IEEE802.3z, 1000BaseFX

Connector : 1 of UTP RJ-45 connector, 1 of SC/ST connector

Operation mode : Full duplex mode or Half duplex mode

Buffer : 2M

Back Pressure flow control for full duplex, IEEE802.3 X and half duplex.

Automatic identification of MDI/MDI-X.

High-performance 1.4Gbps memory bandwidth.

Fiber Details

Multi-mode : 50/125, 62.5/125 or 100/140  $\mu$  m

Single mode : 8.3/125, 8.7/125, 9/125 or 10/125  $\mu$  m

Power supply parameter : 230V AC External Adapter

Environmental temperature : 0°C-60°C

Relative humidity : 5%-90%

TP cable : Cat5 UTP cable

Dimensions : 110mm x 70mm x 26mm (D x H x W)