

## FC610A Fast Ethernet Fiber Media Converters

### Overview

HiOSO Ficom FC610A is a kind of 10/100Mbps adaptive fast Ethernet fiber media converter (also called optical-to-electric medium converter), which can implement mutual conversion between 10Base-T/100Base-TX twisted pair electrical signal and 100Base-FX optical signal. This type of fiber converter can extend the transmission distance of a network from 100m over copper wires to 120Km (single-mode full duplex). FC610A supports two different types of network connection medium: 10/100Base-TX and 100Base-FX, with the application of the switching technology and the storing & forwarding technology. It supports transmission in dual-fiber multi-mode, dual-fiber single-mode and single-fiber single-mode fibers.

### Features

- Adaptive 10Mbps and 100Mbps environments, for the convenience of network upgrade;
- Efficient built-in switching core, to implement flow control and reduce broadcast packets;
- Supporting full-duplex and half-duplex transmission modes and capable of automatic negotiation;
- Supporting automatic crossing of twisted pair ports, for the convenience of system debugging and installation;
- Supporting the transmission of extra-long packets (with the maximum length of 1552 bytes);
- Supporting the transmission of extra-long packets over VLAN;
- Supporting Quality of Service (QoS) and ensuring transmission of VoIP packets;
- Supporting Spanning Tree Protocol (STP) to form a redundant network;
- Low power consumption, low heat and capable of stable operation for a long period time;
- Supporting multiple types of fiber ports, such as dual-fiber multi-mode、 dual-fiber single-mode and single-fiber single-mode, to satisfy the extended requirements of users.

### Application

10/100Mbps fast Ethernet long-distance transmission network

**Pictures**



**Technical Specifications**

Parameters	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	850nm/1310nm/1550nm
Transmission distance	Dual-fiber multi-mode: 2Km; Dual-fiber single-mode: 25/40/60/80/100/120Km, Single-fiber single-mode: 25/40/60/80/100Km Category-5 twisted pairs: 100m
Port	One RJ45 port: Connected to STP/UTP category-5 twisted pairs One fiber port: Multi-mode – SC or ST (fiber size: 50,62.5/125µm) Single mode – SC/FC fiber port (fiber size: 9/125µm) Single-fiber single-mode – SC/FC fiber port (fiber size: 9/125µm)
Conversion mode	Medium conversion, storing and forwarding
MAC address table	1 K
Buffer space	1Mbit
Flow control	Full duplex state: flow control; half-duplex state: back pressure mode

Delay	9.6μs
Bit error rate	<1/1000000000
MTBF	100,000 hours
LED	POWER (power), FX LINK/ACT (fiber link/action) FDX (FX full-duplex mode), TX LINK/ACT (twisted pair link/action) TX 100 (twisted pair, transmission rate: 100M)
Power	DC5V 1A (external), AC220 0.5A/DC-48 (built-in)
Power consumption	3W
Operating temperature	-10~55°C
Operating humidity	5%~90%
Storage temperature	-40~70°C
Storage humidity	5%~90% (non-condensing)
Dimensions	24mm(H)*59mm(W)*98mm(D) / (height * width * depth) (external power) 26mm(H)*85mm(W)*135mm(D) / (height * width * depth) (built-in power) 110mm(H)*22mm(W)*81mm(D) /height * width * depth (module card)

### Order Information

Model	Rate (Mbps)	Mode	Working Wavelength (nm)	Transmission Distance (Km)	Fiber Interface	Power
FC610AM-SC/ST	10/100	Dual-fiber multi-mode	1310	2	SC/ST	External DC5V/1A
FC610APM-SC/ST	10/100	Dual-fiber multi-mode	1310	2	SC/ST	Built-in AC220V/DC-48V
FC610ACM-SC/ST	10/100	Dual-fiber multi-mode	1310	2	SC/ST	Module card: DC5V
FC610AS20/40/60-SC/FC	10/100	Dual-fiber single-mode	1310	25/40/60	SC/FC	External DC5V/1A
FC610AS80/100/120-SC/FC	10/100	Dual-fiber single-mode	1550	80/100/120	SC/FC	External DC5V/1A
FC610APS20/40/60-SC/FC	10/100	Dual-fiber single-mode	1310	25/40/60	SC/FC	Built-in AC220V/DC-48V
FC610APS80/100/120-SC/FC	10/100	Dual-fiber single-mode	1550	80/100/120	SC/FC	Built-in AC220V/DC-48V
FC610ACS20/40/60-SC/FC	10/100	Dual-fiber single-mode	1310	25/40/60	SC/FC	Module card DC5V
FC610ACS80/100/120-SC/FC	10/100	Dual-fiber single-mode	1550	80/100/120	SC/FC	Module card DC5V

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FC610ASS20/40/60/80/100-SC	10/100	Single-fiber single-mode	WDM 1310/1550	25/40/60/80/100	SC	External DC5V/1A
FC610APSS20/40/60/80/100-SC	10/100	Single-fiber single-mode	WDM 1310/1550	25/40/60/80/100	SC	Built-in AC220V/DC-48V
FC610ACSS20/40/60/80/100-SC	10/100	Single-fiber single-mode	WDM 1310/1550	25/40/60/80/100	SC	Module card DC5V