

FC830A Intelligent Fast Ethernet Fiber Media Converters

Overview

HiOSO FC830A is an intelligent 10/100M adaptive fast Ethernet fiber media converter (also called optical-to-electrical medium converter). With its unique “link failure alert” function at both optical and electrical ends, this fast Ethernet fiber converter can completely replace the fiber converter of Network Management System (NMS) type and greatly reduce system cost.

FC830A can conduct mutual conversion between 10Base-T/100Base-TX twisted pair electrical signals and 100Base-FX optical signals. FC830A extends the transmission distance of a network from 100m over copper wires to 120 Km, and uses two network transmission technologies (that is, the data link layer 2 storing & forwarding mode and the physical layer 1 straight-through mode) to implement data transmission between the optical and electrical network connection mediums. FC830A fiber converter supports transmission in dual-fiber multi-mode, dual-fiber single-mode and single-fiber single-mode fibers.

Features

- 10-100 Mbps adaptive, 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 Link Failure Alert (LFA);
- Supporting FX half-duplex/full-duplex transmission modes and link failure alert function;
- Supporting switch selection of 10/100Mbps storing & forwarding mode and 100Mbps straight-through transmission mode (unique);
- Supporting low-delay transmission;
- Supporting transmission of extra-long packets (with the maximum length of 1600 bytes);
- Supporting 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;
- Extremely low power consumption (less than 2W), 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 optical 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: 9/125 μ m)
Conversion mode	Medium conversion, storing and forwarding/straight-through
MAC address table	1 K
Buffer space	1Mbit
Flow control	Full duplex state: flow control; half-duplex state: back pressure mode
Delay	Storing & forwarding: 9.6 μ s; straight-through: 0.9 μ s;
Bit error rate	<1/1000000000

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MTBF	100,000 hours
LED	POWER (power), FX LINK/ACT (fiber link/action) FDX (FX full-duplex mode), TP LINK/ACT (twisted pair link/action) TP 100 (twisted pair: transmission rate of 100M); FX 100 (fiber: transmission rate of 100M) (external power)
Power	DC5V 1A (external), AC220 0.5A/DC-48 (built-in)
Power consumption	<2W
Operating temperature	-10~55°C
Operating humidity	5%~90%
Storage temperature	-40~70°C
Storage humidity	5%~90% (non-condensing)
Dimensions	26mm(H)*71mm(W)*95mm(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	Link Alarm	Power
830A-M2-SC/ST	10/100	Dual-fiber multi-mode	1310	2	SC/ST	Support	External DC5V/1A
830AP-M2-SC/ST	10/100	Dual-fiber multi-mode	1310	2	SC/ST	Support	Built-in AC220V/DC-48V
830AC-M2-SC/ST	10/100	Dual-fiber multi-mode	1310	2	SC/ST	Support	Module card DC5V
830A-S20/40/60-SC/FC	10/100	Dual-fiber single-mode	1310	25/40/60	SC/FC	Support	External DC5V/1A
830A-S80/100/120-SC/FC	10/100	Dual-fiber single-mode	1550	80/100/120	SC/FC	Support	External DC5V/1A
830AP-S20/40/60-SC/FC	10/100	Dual-fiber single-mode	1310	25/40/60	SC/FC	Support	Built-in AC220V/DC-48
830AP-S80/100/120-SC/FC	10/100	Dual-fiber single-mode	1550	80/100/120	SC/FC	Support	Built-in AC220V/DC-48
830AC-S20/40/60-SC/FC	10/100	Dual-fiber	1310	25/40/60	SC/FC	Support	Module card

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		single-mode					DC5V
830AC-S80/100/120-SC/FC	10/100	Dual-fiber single-mode	1550	80/100/120	SC/FC	Support	Module card DC5V
830AS-S20/40/60/80/100-SC	10/100	Single-fiber single-mode	WDM 1310/1550	25/40/60/80/100	SC	Support	External DC5V/1A
830APS-S20/40/60/80/100-SC	10/100	Single-fiber single-mode	WDM 1310/1550	25/40/60/80/100	SC	Support	Built-in AC220V/DC -48V
830ACS-S20/40/60/80/100-SC	10/100	Single-fiber single-mode	WDM 1310/1550	25/40/60/80/100	SC	Support	Module card DC5V