



Modular multi-service Fiber MUX

Overview

This device is modular structure point-to-point optical transmission equipment with LCD display, uses the FPGA chips and easy to upgrade. The Main board provide 4 ethernet port and 2 AUX port which is for transmitting other data such as RS232/RS485/RS422, two optical interface for optional 1+1 auto protection switch (APS).

4 slots of tributary with variant plug-in modules which included 4xE1 channels module, 4/8/16 x FXO/FXS module and 2x Nx64K V.35 module. The maximum capacity will be up 4 plug-in modules which could be combinations with above modules. The high flexibility, performance, is the best solution for voice/data/video services in existed market.

Product Photo



Features

- Provides total 16 E1 transparent transmission capacity ;
- With char 16*2 LCD display and SNMP agent inside.
- Provide Console manage interface(RS232)



- Provide one hotline channel for option;
- Provide two SFP fiber interfaces, one as master, the other as slave, insuring uninterrupted service transmission.
- Provide two fiber interface 1+1 protect (APS) function ,and ALS (Automatic Laser Shutdown/Reduction) function
- Provide 4 slots plug-in modules:
 - ◆ 4×unFramed E1 module (75Ω) / (120Ω)
 - ◆ 4×Framed E1 module (75Ω) / (120Ω) ,any timeslots can be set
 - ◆ 4×FXO/FXS/EM2-4/Magnet telephone module
 - ◆ 8×FXO/FXS/2 line audio/Magnet telephone module
 - ◆ 16×FXO/FXS/2 line audio/Magnet telephone module
 - ◆ 2×V.35 (2.048M Fixed speed) module
 - ◆ 2×V.35 (N*64K N=1-32) module
 - ◆ 4×RS232/422/485 module
 - ◆ 4*FE to E1 bridge(wire speed 2.048M) module
- Provide 4FE(wire speed 100M)Ethernet channel, support mutual negotiate, Ethernet bandwidth is set on base on multiple of 32K.;
- Ethernet port supports full/half duplex, 10M/100M auto-adaptable;
- Ethernet port supports VLAN function and has 4 division mode for user selection;
- Ethernet package size support 1916 byte and 4 Ethernet port could be set separately;
- Has complete alarm function and can monitor remote device status;
- Supports E1 loop from remote so as to detect and manage device conveniently;
- The combination AC220V and DC-48V for redundant

Parameters

◆ Fiber

Multi-mode Fiber

50/125um, 62.5/125um,

Maximum transmission distance: 5Km @ 62.5 / 125um single mode
fiber,attenuation (3dbm/km)



Wave Length:	820nm
Transmitting power:	-12dBm (Min) ~-9dBm (Max)
Receiver sensitivity:	-28dBm (Min)
Link budget:	16dBm

Single-mode Fiber

8/125um, 9/125um

Maximum transmission distance:	40Km
Transmission distance:	40Km @ 9 / 125um single mode fiber, attenuation (0.35dbm/km)

Wave Length:	1310nm
Transmitting power:	-9dBm (Min) ~-8dBm (Max)
Receiver sensitivity:	-27dBm (Min)
Link budget:	18dBm

◆ **E1 Interface**

Interface Standard:	comply with protocol G.703;
Interface Rate:	n*64Kbps±50ppm;
Interface Code:	HDB3;
E1 Impedance:	75Ω (unbalance), 120Ω (balance);
Jitter tolerance:	In accord with protocol G.742 and G.823
Allowed Attenuation:	0~6dBm

◆ **Ethernet interface(10/100M)**

Interface rate:	10/100 Mbps, half/full duplex auto-negotiation
Interface Standard:	Compatible with IEEE 802.3, IEEE 802.1Q (VLAN)
MAC Address Capability:	4096
Connector:	RJ45, support Auto-MDIX

◆ **FXS Phone Interface**

Ring voltage:	75V
Ring frequency:	25HZ
Two-line Impedance:	600 Ohm (pick up)



Return loss: 40 dB

◆ FXO Switch Interface

Ring detect voltage: 35V
 Ring detection frequency: 17HZ-60HZ
 Two-line Impedance: 600 Ohm (pick up)
 Return loss: 40 dB

◆ EM 2/4 Line

AD: 0dB
 DA: -3.5dB
 Two/Four-line Impedance: 600 Ohm
 Return loss: 20 dB

◆ Working environment

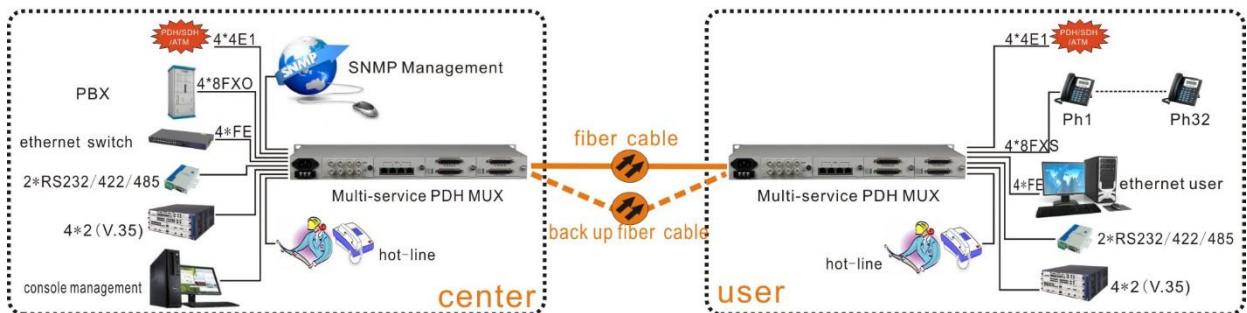
Working temperature: -10°C ~ 50°C
 Working Humidity: 5%~95 % (no condensation)
 Storage temperature: -40°C ~ 80°C
 Storage Humidity: 5%~95 % (no condensation)

◆ Specifications

Model	Model Number: FC2PM-E16
Functional Description	LCD PDH , 4port ethernet , With 4 slots , with ALS function , Console and SNMP , 1+1 Back up Optic fiber
Port Description	1+1 optical port, 4 multi-function slots, 4 ethernet interfaces,1*RS232 Console interface,1*SNMP Ethernet interface, one engineering order-wire telephone interface
Power	Power supply: AC180V ~ 260V ; DC -48V ; DC +24V Power consumption: ≤10W
Dimension	Product Size: 216X140X31mm(WXDXH)
Weight	3KG/PCS



Application



The motherboard provides:

1. LCD display;
2. 4 Ethernet port;
3. 2-channel RS232 / 422/485 asynchronous channels port ;
4. 1 channel public telephone port
5. SNMP network management

4 slot, supports mixed insertion, provide:

- ◆ 4 × E1 module (75Ω) / (120Ω)
- ◆ 4 × framing E1 module (75Ω) / (120Ω), you can set an arbitrary time slot
- ◆ 4 × FXO / FXS / EM2-4 / magnet module
- ◆ 8 × FXO / FXS / 2 wire audio / magnet module
- ◆ 16 × FXO / FXS / 2 wire audio / magnet module
- ◆ 2 × V.35 (2.048M fixed rate) module
- ◆ 2 × V.35 (N * 64K N = 1-32) module
- ◆ 4 × RS232 / 422/485 / switch module
- ◆ 4 Ethernet bridge (rate 2.048M) module

As above, if you want to achieve 8E1 + 4FE + 32-way telephone (FXO / FXS) function, you can configure two 4E1 cards, two 16xFXO / S telephone cards