



4E1 Fiber Optical Multiplexer



Model name: FMO-120 -DFI

Function Description

4E1 fiber optical multiplexer can multiplex to 4 E1 signals for transmission over an optical fiber, resulting in reaching a longer distance without a repeaters and superior performance compared to copper media. also it offer two fiber interface: main fiber and backup fiber, and realize 1+1 fiber protection automatically .

4E1 fiber optical multiplexer is the 4E1 point-to-point optical transport equipment that uses the FPGA chips and it is easy to upgrade. It is single board structure and the largest transmission capacity is **4E1/8E1/16E1**. The outer design use the standard 19 inches rack, so the volume is little, weight is light and operation is convenient and credit.

4E1 fiber optical multiplexer, is use the PDH fiber transmission technologies. The 2M (E1) interfaces can connect with the exchanger, light loop device and multi-diplexer



directly to form the mircomidi or the special network. Complete alarm function for 4E1, it is stable and easy to maintenance, install and small in size. It has one digital service telephone.

Features

Below lists the features for 4E1fiber optical multiplexer:

- Provides 4 E1 transparent transmission and one 100M line Ethernet channel for option;
- 1+1 fiber for protection
- The rate of optical port is 150Mbps, transmission range can reach 25KM, 40KM, 60KM, 80KM or 120KM;
- E1 interface code is HDB3, E1 vibration characteristic conforms to ITU-T G.703, G.823 and G.742;
- Ethernet port supports full/half duplex, 10M/100M auto-adaptable;
- Ethernet port supports VLAN function and flow control;
- Has complete alarm function and can monitor remote device status;
- Supports E1 loop from remote so as to detect and manage device conveniently;
- Offer 4 X 2Mb/s digital interfaces
- The supervisory control interface implements centralized monitoring and export the monitor and control information of this port and opposite port.
- One link to service telephone for duty contract
- 90-260VAC & -48VDC power options and the positive and negative of DC-48V can be optional because there is the self-test circuit for the polarity inside the device
- Standard 19/9.5 inches rack, little volume, light weight, steady capacity and



convenient setup

- Digital clock recovery circuit and digital smooth DPLL adopted for 2.048Mb/s port
- LED indicators

◆ Optical interface

Optical wavelength: 850nm/1310nm for multi-mode optical interface,

1310nm/1550nm for single-mode optic interface

Optical interface: SC/FC

Receiving and dispatching module: >-6dBm

Optical receiver receiving sensitivity <-36 (BER<10):

Dynamic range receiving: >-30dB

Transmitting range: Multi-mode 2 Km, single-mode 40Km, single-mode 60 Km,

single-mode 120Km

Vibration characteristic: Satisfies G.742 and the G.823 standard

◆ E1 interface

Interface code: HDB3 code

Line speed: 2.048Mbp/S ±50ppm

Interface standard: ITU-T G 703

Interface impedance: 75Ω/unbalanced or 120 Ω/ balanced

Interface characteristic: supports rack (19 inches, 6U high), can reach up to 24



directions

◆ **10/100M Base-T interface:**

Interface rate: 10/100Mbps

Interface characteristic: satisfies IEEE802.3, IEEE802.1Q

Connector: RJ45

Working condition:

Input voltage: AC220V; AC 110V; DC-48V; DC+24V

Power consumption: ≤5W

Operating temperature: 0°C ~ 50°C

Storing temperature: -40°C ~ +70°C

Relative humidity: 95 %

Dimension

19inch rackmount Type: 433 mm (L) × 138mm (W) × 44 mm (H)

regular Ordering information:

FMO-120 -DFI/AC 75 Ω/120 Ω, AC220V

FMO-120 -DFI/DC 75 Ω/120 Ω, DC48V

FMO-120 -DFI/AC+DC 75 Ω/120 Ω, AC220V+DC48V



FMO-120-ETH-DFI/AC $75 \Omega/120 \Omega$, AC220V

FMO-120-ETH-DFI/DC $75 \Omega/120 \Omega$, DC48V

FMO-120-ETH-DFI/AC+DC $75 \Omega/120 \Omega$, AC220V+DC48V

Application

