

### Overview:

The 4E1 fiber multiplexer is part of Multi E1 and Fast Ethernet transmission system family, used to build a 150Mb/s optical point-to-point link. Based on an ASIC chip; it performs the transportation of 4 E1 and a fast Ethernet at full speed. The 4E1 fiber multiplexer (BD-OP-4E1-4ETH/M) also provides an order-wire and an auxiliary UART interface for Management. The OPTIMUX offers a highly integrated solution for the perfect function, stable performance and convenience with low power consumption. The fiber optical multiplexer can support GUI management, which monitor the device's operation status. The user also can configure the device easily.

### Technical Specifications:

#### Header :

**Brand : FES**

**Product Line : Forever Engineering Systems Pvt. Ltd.**

#### Features:

- Merges the Ethernet and time-division multiplex (TDM) transmission to the same pipe.
- Provides 4\*E1 and 4\*100Mb/s Fast Ethernet interface(sharing same 100M bandwidth).
- The standard E1 interfaces comply with ITU-T G.703, G.823 and G.742.
- Supports either auto-negotiation or hardware configuration selection of the Ethernet operation.
- The Ethernet interface supports VLAN and Flow Control function(set by RS232 NMS).
- Real-time Monitoring and all necessary alarm display for easy management.
- Supports Local and Remote Loop-back Test.
- Uses standard telephone set as order-wire(optional)
- Provides one transparent RS232 interface for user's data links.
- Provides RS232 interface for Network Management.
- Extends the fiber link up to 120 km without any repeater.
- Compact single board Terminal.
- Support power AC (100~220V) or DC (-48V),or double redunctant power AC+DC (optional).

#### Technical Specifications:

- **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):

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Dynamic range receiving: >-30dB  
 Transmitting range:  
 Multi-mode fiber: 2 Km,  
 single-mode fiber: 20Km, 40Km, 80 Km,120Km  
 Vibration characteristic: Satisfies G.742 and the G.823 standard

### E1 interface

Interface code: HDB3 code  
 Line speed: 2.048Mbps/S ±50ppm  
 Interface standard: ITU-T G 703  
 Interface impedance: 75Ω/unbalanced or 120 Ω/ balanced  
 Interface characteristic: supports rack (19 inches, 6U high)s

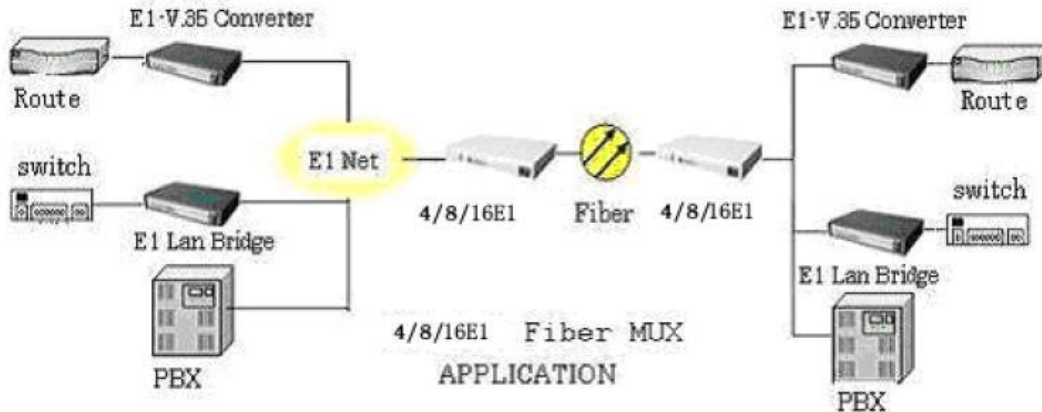
- **10/100M Base-T interface:**

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 %

## Application



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