

FMUX03

Fiber Optical E1/T1 Multiplexer



The FMUX03 is a powerful optical transmission equipment for E1 signal extension, aggregating 4/8/16 E1 channels into a single pair fiber optical link. The FMUX03 provides two fiber links for 1+1 auto protection switch; the various laser modules are provided based on customer applications. The FMUX03 provides a low cost, high performance solution to transmit E1 signals over optical fiber. For E1 interface, all electrical characteristics are compliant with ITU-T standards and compatible with any E1 equipment. The FMUX03 provides local/remote loopback functions for optical and E1 interfaces. It is very convenient for network testing and maintenance. Embedded operation channel (EOC) is built between local and remote sides for system configuration, testing, performance and alarm monitoring of each E1 channel and optical link. For performance monitoring, the FMUX03 also provides BPV and CRC error count for each E1 electrical link and parity error count for optical link. The FMUX03 can be managed through SNMP agent, includes system configuration, status, performance and alarm monitoring for network operation and management. For maintenance, the FMUX03 also provides OW voice channel between local and remote sides. The FMUX03 shall be a stand-alone unit, which can be either placed on a desktop or mounted in a standard 19" or 23" rack.

Features

- Aggregate 4/8/16 E1 into a single pair fiber optical link
- 1+1 auto-protection switch for optical link
- 1310/1550 nm optical MLM mode transceiver for customer applications
- 20 ~ 30 dB optical system gain
- SNMP agent for local/remote units management and performance monitoring that included E1 and optical links
- Provides the BPV and CRC error count for E1 interface performance monitoring
- Provides the parity error count for optical interface performance monitoring
- LAN and serial ports are provided for SNMP management
- Embedded operation channel (EOC) for remote unit performance monitoring and configuration
- Local/remote loopback for E1 electrical and optical links
- Compliant with ITU-T G.703 E1 electrical interface
- Compliant with ITU-T G.823 E1 jitter tolerance
- Compliant with ITU-T G.742 E1 jitter transfer
- Order wire (OW) channel is available for end-to-end installation and maintenance
- Easy installation and status monitoring through LCD panel and keypad or VT-100 terminal
- Central office visible/audible alarm contacts
- LOS/AIS LED indication for optical link
- Stand-alone or 19"/23" rack-mounted
- Redundant power supply with DC/AC options
- Compliant with CE Compatibility

Specifications

E1 Interface

Bit rate : 2.048Mbps±50ppm
Line code : HDB3/AMI
Impedance : 120 ohms balance/75 ohms unbalance
Electrical interface : Compliant with ITU-T G.703
Jitter transfer : Compliant with ITU-T G.742
Jitter tolerance : Compliant with ITU-T G.823

Optical Interface

O/E module : 1310/1550 nm MLM Laser
Fiber type : SM
Receive sensitivity : -34dBm
System gain : 20 ~ 30 dB

Alarm Indication

System : System Fail, ACO, Major/Minor
Optical Interface : LOS, RDI, LCK, Laser on
E1 Interface : E1 AIS/LOS for each channel

General Specifications

System Mechanical

W * D * H : 220 x 285 x 44.5 mm for FMUX03/4
 440 x 285 x 44.5 mm for FMUX03/8/16

Optical : FC/PC, ST, SC

E1 : D-type 25 pins female connector

OW : Phone Jack

SNMP : RJ-45 for LAN and serial ports

Office alarm : D-type 9 pins female connector

Power

DC : -36V ~ -72V

AC : 90V ~ 264V (57Hz ~ 63Hz)

Environment Condition

Temperature:
 0 ~ 45°C for indoor application
 0 ~ 60°C for outdoor application
 -25°C ~ 70°C for storage

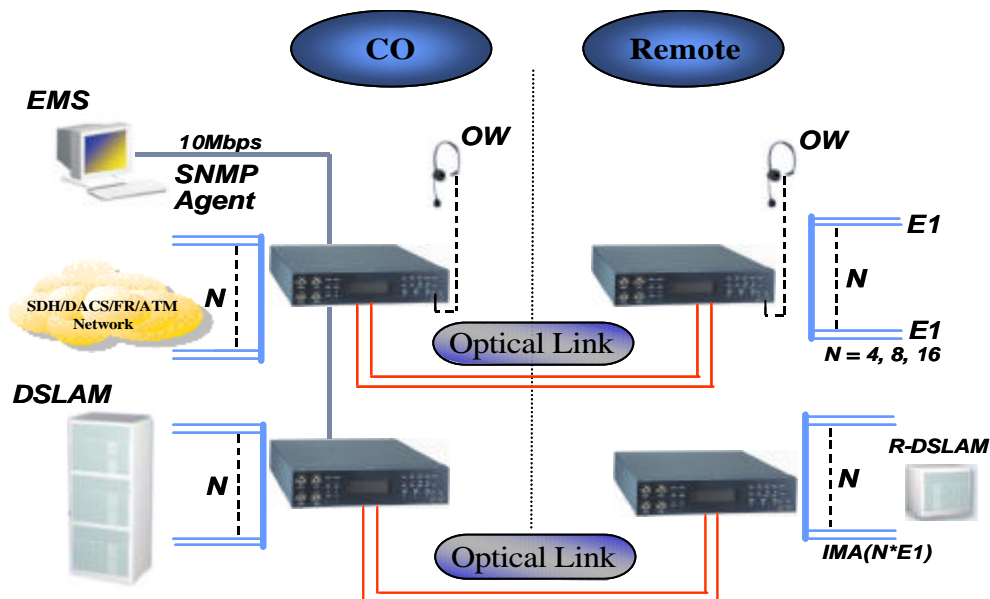
Humidity : 5% ~ 95% without condensing

EMI : Compliant with the CISPR 22 class A (EN55022) and FCC Part 15 class A of subpart B.

EMS: Compliant with the EN50082-2

Safety: Compliant with the EN60950

Applications



Ordering Information

FMUX03- X XX / XXXX X X / XX X

- Optional Feature
S: Surge Protection
- Power Module
AC1:Single 90~288 VAC
AC2: Dual 90~288 VAC
DC1:Single -34~-72 VAC
DC2: Dual -34~-72 VAC
AD: AC/DC dual
- Fiber Optical Connector
F:FC/PC type
T:ST/PC type
S:SC/PC type
- Fiber Optical Module
S: Single OE module
D: Dual OE module
- Fiber Optical Wavelength
850: 850nm multi-mode
1310:1310nm single mode
1550:1550nm single mode
- Interface Module
E1B:120 ohm, balanced
E1U:75 ohm, unbalanced
V35:V.35 data port (single port only)
- Port Number
4: 4 ports
8: 8 ports
16: 16 ports