

## ***Modular Integrated Optical Transmission Multiplexer***

### **Product Overview**

**The Modular Integrated Transmission Multiplexer** can provide full speed 100Mbps fast Ethernet (FE) interface in accordant with IEEE802.3 and E1 interface complying



with 16-channel standard. At the same time, it also provides sufficient network management interface function and realizes SNMP network management or device management via hyper terminal. The device itself is supplied with a LCD displayer for user to carry out configuration and management. The whole system adopts modularized structure. 16 channels of 2M services are divided into four modular slots, with four channels for each. Different interface modules can be applied based on networking requirements of different users, and different user requirements for application environment and business growth can be met through addition or replacement of interface modules. The equipment can cater to the network application of general scale.

### **Main Features**



**The modular integrated transmission optical multiplexer** is created with optical path interoperability, flexible structure and modular design. Its

function modules are independent of each other but easy for assembly, which enables it to derive a series of optical multiplexer products with multi-service interfaces. The equipment is furnished with four modular slots. According to the networking requirements of different users, various kinds of interface modules can be employed. Users can also add or replace interface modules to accommodate to the requirements of different application environments to protect their existing investment. Meantime, the equipment allows users to activate expandable interfaces to adjust the scale of network interfaces based on business growth, so as to help realize real-time follow up of network to business.

◆ **1+1 Optical Redundancy Backup:** Protection of dual optical interface available to ensure that business will not be interrupted when one pair of optical fibers is confronted with failure. Supporting hot add/drop of optical interface, and fulfill switching without error code during hot add/drop.

◆ **Flexible Configuration:** 4/8/12/16E1 optical multiplexers and multi-service interfaces are derivable from main system board and different functional modules, to meet different user requirements and customizations.

◆ **Various Functional**

**Modules:** User interface modules (N\*64K V.35, FV.35, FXO/FXS, E/M, RS232/RS485,



and etc.), order wire module, network management module (RS232, and Ethernet Interface, etc.), and alarm output terminal module, etc. available.

## Service Interface Card

### ✓ G.703 Interface Card

4 channels of G.703 interface available  
DB37 Interface, to provide corresponding external interface through adapter  
Fully compliant with ITU-T G.703 recommended standards

Interface Code Type: HDB3

Bit Rate: 2.048Mbit/s  $\pm$  50ppm



### ✓ Dual V.35 Interface Card

Two channels of V.35 interface available  
Interface Electric Level: In compliance with CCITT V.35 standard  
Physical Interface: DB25



Interface Bit Rate: 2.048Mbit/s

✓ **4-Channel V.35 Interface Card**

4 channels of V.35 Interface to be framed

Interface Electric Level: In Compliance with  
CC ITT V.35 Standard

Physical Interface: DB37

Speed of Interface: N\*64Kbit/s



✓ **FXO/FXS Voice Channel Interface Card**

Physical interface: RJ45

FXO interface card: to provide 4-channel or  
8-channel FXO interface connected with switch..

FXS interface card: to provide 4-channel or  
8-channel FXS interface connected with ordinary  
telephone sets.

Supports display of incoming calls.

Supports billing function of inverted polarity.



✓ **RS232 Interface Card**

Physical interface: RJ45

Four RS232 transmission channels available

Transmission Speed: 110~115.2K bps

Transmission Mode: Full-Duplex



✓ **RS422/RS485 Interface Card**

Physical interface: RJ45

Four RS422/RS485 transmission channels available

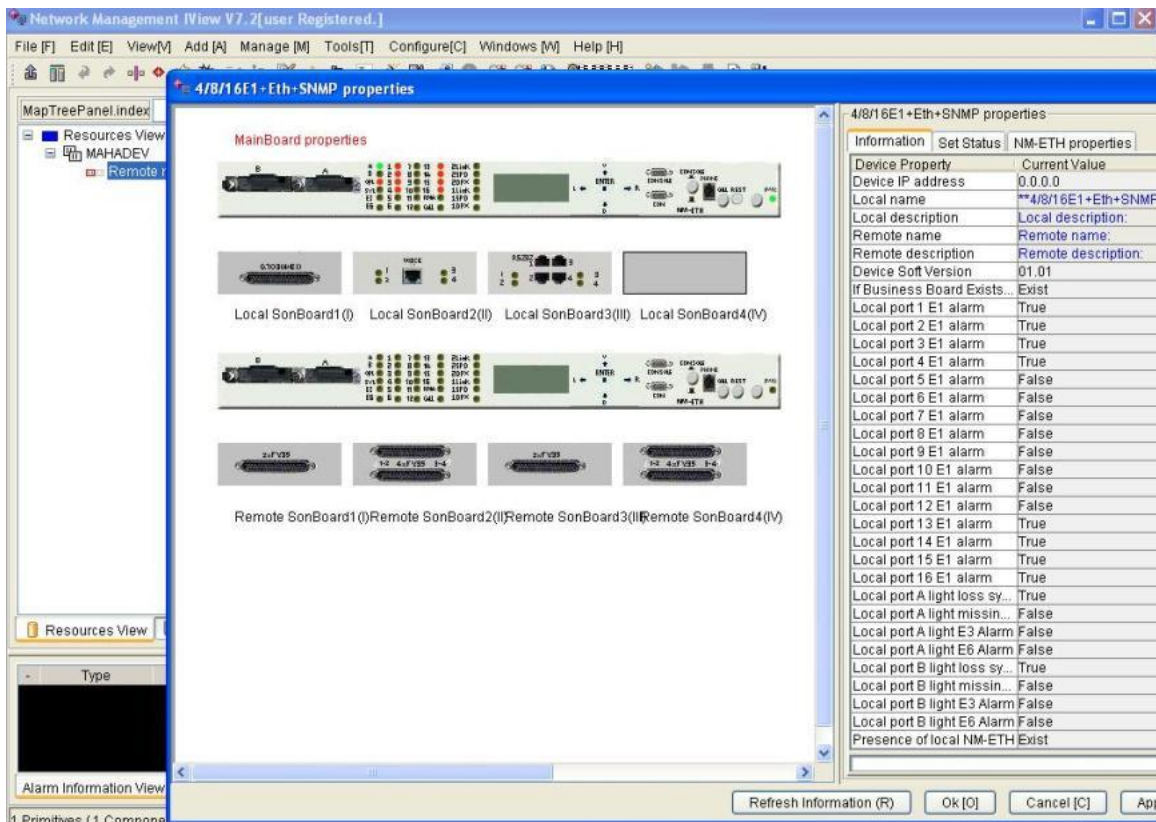
Transmission Speed 110~115.2K bps

Transmitting Mode: full/half duplex

**Network management system**

Network management Unit is designed to control all settings on the control panel and to realize communications between multiplexer and computer. The unit can send commands (such as alarm-off, remote bypass loop-back and so on) to nodes through computer. Users can directly query and set the status of a pair of devices with Hypber Terminal software Via RS232 crosswire. NM-ETH interface (10/100M auto-negotiating, to be configured) can be directly connected with a computer via a crosswire or with a HUB via a straight-through wire to fulfill management. It can realize ALS (Automatic Laser Shutdown/Automatic Laser Reduction) to prevent personnel from fiber injury. The user can select network management functions according to its actual requirements.

NMS of our device can support standard SNMP protocol, and can be compatible with NMS system of other manufacturers, and can offer WEB view, as followed pictures:



View of SNMP NMS

Version 2.1.12

### Fiber Optic Multiply Information

Software State		
No Property	Current Value(Local)	Current Value(Remote)
ALS	Open <input type="button" value="v"/>	Open <input type="button" value="v"/>
Mask Code Config State	Cancel Mask Code <input type="button" value="v"/>	Cancel Mask Code <input type="button" value="v"/>
Optical Switch State	SYL Alarm Switch <input type="button" value="v"/>	E3 Alarm Switch <input type="button" value="v"/>
Work Optical Port Force to Choose	Auto Switch <input type="button" value="v"/>	Auto Switch <input type="button" value="v"/>
Warning Sound Setting	Mute <input type="button" value="v"/>	Mute <input type="button" value="v"/>
Local/Remote Switch	Local Warning <input type="button" value="v"/>	Local Warning <input type="button" value="v"/>
Channell E1 Loop State	Cancel Loop <input type="button" value="v"/>	Cancel Loop <input type="button" value="v"/>
Channell2 E1 Loop State	Loop <input type="button" value="v"/>	Cancel Loop <input type="button" value="v"/>
Channell3 E1 Loop State	Cancel Loop <input type="button" value="v"/>	Cancel Loop <input type="button" value="v"/>
Channell9 E1 Loop State	Cancel Loop <input type="button" value="v"/>	Cancel Loop <input type="button" value="v"/>
Channell10 E1 Loop State	Cancel Loop <input type="button" value="v"/>	Cancel Loop <input type="button" value="v"/>
Channell11 E1 Loop State	Cancel Loop <input type="button" value="v"/>	Cancel Loop <input type="button" value="v"/>
Channell12 E1 Loop State	Cancel Loop <input type="button" value="v"/>	Cancel Loop <input type="button" value="v"/>
Channell13 E1 Loop State	Cancel Loop <input type="button" value="v"/>	Cancel Loop <input type="button" value="v"/>
Channell14 E1 Loop State	Cancel Loop <input type="button" value="v"/>	Cancel Loop <input type="button" value="v"/>
Channell15 E1 Loop State	Cancel Loop <input type="button" value="v"/>	Cancel Loop <input type="button" value="v"/>
Channell16 E1 Loop State	Cancel Loop <input type="button" value="v"/>	Cancel Loop <input type="button" value="v"/>
ETH1 Work Mode	auto-negotiation <input type="button" value="v"/>	auto-negotiation <input type="button" value="v"/>
ETH2 Work Mode	auto-negotiation <input type="button" value="v"/>	auto-negotiation <input type="button" value="v"/>
VLAN State	Disable <input type="button" value="v"/>	Disable <input type="button" value="v"/>
ETH1 Speed Control (Integer in 0-100)	5 <input type="text"/>	100 <input type="text"/>
ETH2 Speed Control (Integer in 0-100)	100 <input type="text"/>	100 <input type="text"/>

View of WEB NMS



**Typical Networking Scheme**

