

## *iConverter*<sup>®</sup> NMM Network Management Module



### FEATURES

- 32-bit RISC microprocessor running a real-time operating system
- Supports SNMP and Telnet protocols
- Includes a serial port for initial configuration, a front-plane RJ45 Ethernet port, a backplane Ethernet port, and a pair of multi-chassis management ports
- Can be managed In-Band via the backplane Ethernet port or Out-of-Band via the front-plane RJ45 Ethernet port
- Sixteen chassis can be linked and managed using a single IP address
- SNMP management via *NetOutlook*<sup>™</sup> provides real-time port and module information, remote parameter configuration and trap notification
- Modules are hot-swappable in 19-Module, 5-Module, 2-Module or 1-Module chassis
- LED displays for immediate visual status of each port
- Lifetime warranty

### DESCRIPTION

The *iConverter* Network Management Module (NMM) is the heart of the *iConverter* management system. It features a 32-bit, high performance RISC microprocessor executing a real-time operating system. It supports the SNMP and Telnet protocols and is capable of controlling and managing up to 16 managed chassis.

The NMM features a serial port for initial configuration, a front-plane RJ45 Ethernet port, a backplane Ethernet port, and a pair of multi-chassis management ports.

In-Band management is accomplished via the backplane Ethernet port connecting to an adjacent *iConverter* module with backplane support, thus offering direct access to the NMM via the operational network. Out-of-Band management is accomplished via the front-plane Ethernet port, facilitating a secure management network.

During normal operation the NMM polls all converters and power supplies within its domain each second, collecting status and module information as well as setting required parameters. It reports its collected status via the SNMP protocol to the management software.

The NMM is password protected to prevent unauthorized access. New module software updates to the NMM can be downloaded during normal network operation via the serial port while preserving existing module parameter settings.

## SOFTWARE MANAGEMENT FEATURES

Some of the information that can be accessed by using Telnet, *NetOutlook* software or another SNMP manager with the optional management module includes:

### Chassis Information

- Part Number
- Serial Number
- Revision
- Description

### Chassis Status

- Power Status
- Power Output Voltage
- Chassis Temperature

### Module Information

- Media Converter Type
- Slot Occupied
- Part Number
- Serial Number
- Configuration
- Revision
- Ports on Module
- User-defined Identifier

### Module Status

- Module Power
- Link Status
- Active Port
- Diagnostic Status
- Management

### Alarms / Traps

- Warm Start
- Link Up/Down
- Chassis Insertion/Removal
- Authentication Failure
- DIP-Switch Configuration Change
- Software Configuration Change
- Temperature Out-of-Range
- Power Supply Out-of-Range
- Power Supply Insertion/Removal
- Chassis Reset
- Module Reset
- Module Insertion/Removal
- Port Link State Change
- Redundancy Primary Up/Down
- Redundancy Secondary Up/Down
- FTP Session Open/Close
- Telnet Session Open/Close
- Dying Gasp (Power Loss Trap)

### Active Control

- Link Propagate/Link Segment
- Remote Fault Detection
- Module Name
- Chassis Name and Number
- IP Address
- Subnet Mask
- Gateway
- Management Port Disable
- Alarm Threshold Setting
- Download Software via FTP
- Reset Chassis
- Telnet
- Trap IP's
- FTP Enable
- Telnet Enable
- SNMP Enable
- Password Selection
- Soft Switch Reload

## MODULE SPECIFICATIONS

| Model Type | Protocols                                   | Copper Connectors | Controls                      | LED Displays                                            | Supported MIBs                                       | Dimensions             | Weight | Compliance                  | Power Requirement | Temperature -Operating -Storage | Humidity (Non-condensing) | Altitude   | MTBF(hrs) |
|------------|---------------------------------------------|-------------------|-------------------------------|---------------------------------------------------------|------------------------------------------------------|------------------------|--------|-----------------------------|-------------------|---------------------------------|---------------------------|------------|-----------|
| NMM        | IP, UDP, SNMP, Telnet, TCP, TFTP, ARP, ICMP | RJ-45, DB-9       | UTP X-over, Front / Backplane | Pwr, Pwr Supply (3), UTP link, Master, Slave, Mgt. Poll | RFC1155, RFC1156, RFC1157, RFC1212, RFC1213, OST MIB | W0.85" x D4.5" x H2.8" | 8 oz.  | UL, CE, FCC Class A, NEBS 3 | 1.3 watts         | 0 to 50 C<br>-40 to 80 C        | 0-90%                     | 0-10,000ft | 1,300,000 |

## ORDERING INFORMATION

| Model  | Description                                                                               |
|--------|-------------------------------------------------------------------------------------------|
| 8000-0 | SNMP and Telnet Management Module (NMM)                                                   |
| 8000-1 | SNMP and Telnet Management Module (NMM) w/ Dying Gasp Support                             |
| 8080-3 | NMM Cascade Cable (3 ft.)                                                                 |
| 8081-3 | NMM Serial Cable (DB-9, 3 ft.)                                                            |
| 8100-0 | SNMP NetOutlook Software for Windows 9x/ME/XP/NT/2K and HP OpenView (Single User License) |

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