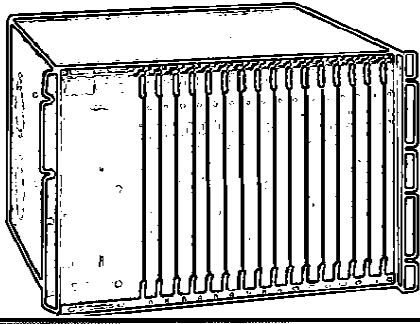


MultiModemManager™



Model and Description:

- **MMMStarter** - MultiModemManager system for proprietary management via a dedicated console.
- **MMMStarter-E** - MultiModemManager system for open management via any TCP/IP Ethernet network.

Dimensions: 19" W x 12.1" H x 18.3" L or
(48.3 cm x 30.7 cm x 46.4 cm)
Weight: 27.5 lbs. (12.3 kg.)
Connectors: 48 DB-25S serial ports, 1 DB25P
(command), and 48 RJ11 (CC4800/11),
6 RJ21P (50-position Amphenol on
CC4800/21), or
16 DB25P (CC4800/UK) phone jacks
Fuse: 5A (100-120v AC)
2.5 A (220-240v AC)

MR4800 Rack Controller

Dimensions: 4" W x 2.2" H x 15" L or
(10.2 cm x 5.6 cm x 38.1 cm)
Weight: 1.0 lbs. (0.45 kg.)
Processor: Z80181 (12 MHz)
RAM: 128K static RAM
LEDs: 16 two-color LEDs indicate modem-to-
backplane connection status

Display: 3-digit, 7-segment display for cage
number/node ID

Connectors: 2-RJ45 network
Topology: Proprietary Management Link

MR4800E Rack Controller

Dimensions: 4" W x 2.2" H x 15" L or
(10.2 cm x 5.6 cm x 38.1 cm)
Weight: 13.2 oz. (0.374 kg)
Processor: 68360 (75MHz)
RAM: 1 meg for Flash code, 1 meg for programs
LEDs: 16 two-color LEDs indicate modem-to-
backplane connection status;
Ethernet: LI(Link), CD(Carrier
Detect), TX (Transmit), RX (Receive)

Connectors: 1-RJ45 network, 1-DB9P (future use)

Power Supply

Dimensions: 4.0" W x 4.7" H x 15.7" L or
(9.2 cm x 9.9 cm x 11.5 cm)
Weight: 4.0 lbs. (1.8 kg.)
Input: 90 to 260v AC RMS @ 47 to 63 Hz
Current: Draws 2.9A @ 120v or 1.5A @ 220v full
load
Output: 5v DC @ 16 A or ±16v DC @ 3 A
LEDs: Power LED only lights if all three
outputs are good
Insulation: 3750v RMS dielectric strength
Switch: Front panel On/Off switch
Fan: DC fan for cool operation
Other: Outputs are paralleled for redundancy;
Short-circuit protection on all outputs;
Over-voltage protection on 5v output;

Warranty: Two years
Manufactured in Mounds View, MN, U.S.A.

Individual spec sheets are available for the MT2834MR
and MT2834MR-PSTN modems and MMMSNMP software.

General Description:

G Starter hardware for creating medium- to large-scale modem networks, manageable via small subnets or via the Internet.

The MultiModemManager™ is a rackmount modem system that handles up to forty-eight modems and gives the administrator ready access to statistics and system control via a management console or via the Internet.

Two models are available, each consisting of a card cage, controller, power supply, and Windows 3.1/95-based management software (model MMMSNMP). Both models support a second power supply (for redundancy) and one to sixteen triple-modem cards.

Model MMMStarter ships with the MR4800 controller and a management interface card (MIC). This system requires a user-supplied PC with ISA-bus architecture, to be used as the management console, which monitors and controls the system via an unshielded twisted pair (UTP) cable connected to an MR4800 controller. MMMStarter networks may be created via daisy chain (limit, 4 per chain) or using the AN508TP (8 per hub) or AN516TP (16 per hub) for up to 254 MMMStarter.

The MMMStarter-E contains a more advanced, Ethernet-equipped controller (model MR4800E) that features a processor, streamlined web, ftp, and telnet servers, and 1 meg of RAM disk space for storing settings. By plugging directly into any TCP/IP Ethernet network, the MR4800E eliminates the need for a dedicated management console and realizes cutting edge management potential by delivering status and control information via SNMP, html, ftp, telnet, or Multi-Tech's own Windows 3.1/95-based user interface. When the concentrator leads to the Internet, the MMMStarter-E is manageable from any network terminal program, web browser, or SNMP manager.

Both models also provide valuable tracking, maintenance, and control information, via the MMMSNMP software. Using MMMSNMP, the administrator can evaluate line quality, check on modem usage, alter the status of any modem in the network, and even Flash upgrade the controller's or modem's firmware as necessary.

Features:

Proprietary or open network management, Hot-swappable components, and fully integrated SNMP control.

System Features

- One system handles one to sixteen triple-modem cards (model MT2834MR or MT2834MR-PSTN) - up to 48 modems per MultiModemManager.
- Provides EIA RS-232 interface to sync or async equipment.
- Modem and controller firmware and boot code are Flash upgradeable via the backplane.
- Modems, power supply, and controller are circuit protected for hot-swapping.

MMMStarter Features

- Includes MMMSNMP management software and MIC to connect the management console to an MR4800 controller or to a network hub.
- Supports a network of up to 254 systems (12,192 modems).

MMMStarter-E Features

- Connects directly to a TCP/IP network via 10BaseT
- Tightly integrated kernel includes a streamlined web, ftp server, and SNMP agent. Also supports ftp and telnet sessions. Web pages are generated on the fly directly from code query results.
- On-board RAM disk provides 1 meg of storage space for administrative data.

Specifications:

Requires a 486/33 PC with 8 meg of RAM and Windows 3.1 or Windows 95.

MultiTech® Systems

The right answer every time.

Multi-Tech Systems, Inc.
2205 Woodale Drive
Mounds View, MN 55112
United States
TEL: (612) 785-3500/(800) 328-9717
FAX: (612) 785-9874
BBS: (612) 785-3702/(800) 392-2432
Tech Support: (800) 972-2439
Fax Back: (612) 717-5888
Web Site: <http://www.multitech.com>
FTP Site: <ftp://ftp.multitech.com>

Multi-Tech Computers (U.K.) Ltd.
Unit 1, Thames Court
2 Richfield Avenue
Reading, Berkshire RG1 8EQ
United Kingdom
TEL: +(44) 1189-597774
FAX: +(44) 1189-597775
BBS: +(44) 1189-595564

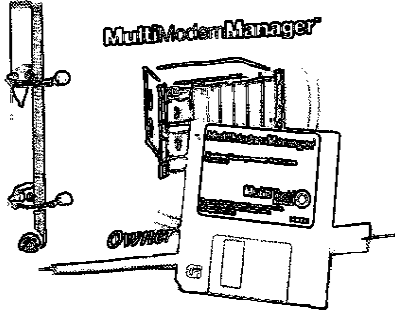
Multi-Tech Systems, Inc., has international offices in China, France, Germany, India, Mexico, the Netherlands, and the United Kingdom. For more information, contact Multi-Tech world headquarters at (800) 328-9717 or (612) 785-3500.

Trademarks: MultiModemManager, Multi-Tech, and the Multi-Tech logo: Multi-Tech Systems, Inc. Amphenol: Amphenol Corporation. Windows: Microsoft Corporation.

September, 1996

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MultiModemManager™ Software



Model and Description:

- MMMSNMP - MultiModemManager™ software for Windows® 3.1 or Windows 95™. Features modem configuration and testing; fault alarms monitoring; statistical reporting; and callback security that is SNMP manageable.

General Description:

Windows-based modem management software for centralized control, configuration, and statistical analysis.

The MultiModemManager is a high-density communication solution that manages platform- and operating-system-independent datacomm services for medium- to large-scale installations.

The MultiModemManager centralizes both the control of rackmount modems and the configuration of stand-alone or unmanaged rackmount modems. Its Windows-based software, model MMMSNMP, lets the administrator change modem and rack configurations, analyze modem performance, control access to the modems to prevent security breaches, and monitor the connections.

MMMSNMP includes support for SNMP management and can be run in three different modes of operation:

- 1) Independent mode: Where MMMSNMP acts solely as a local manager for directly connected intelligent racks.
- 2) Agent mode: Where MMMSNMP acts as a local manager and as an SNMP proxy agent for the attached racks — responding to GETs and SETs from an SNMP manager and sends TRAP information for various fault/status conditions. Agent sites can be managed by any SNMP manager that is MIB-II compliant.
- 3) Supervisor mode: Where MMMSNMP can control remote agent nodes across a TCP/IP network (Ethernet®, Token Ring®, SLIP, or PPP) and provide local management for directly connected racks. Remote agents appear as individual IP sites comprised of racks and modems.

MMMSNMP consists of four modules: the Manager, the Statistical Analyzer, the Configuration Manager, and the Security Database Editor.

The Manager monitors the system and diagnostics, collects system events, performs configuration, tracks modem usage information, and displays modem status information.

The Statistical Analyzer performs statistical analyses of event data, generates connection reports, log reports (in ASCII, dBaseIII™, and/or

ASCII-delimited format), and charts or graphs of the analyzed event data.

The Configuration Manager lets the administrator create custom configuration files for individual or groups of modems.

The Security Database Editor establishes and modifies the callback security databases that control user access to one or more systems.

Features:

Consolidated modem management, Integrated SNMP, Flexible security options, and Detailed event feedback.

Statistics Reporting

- Connections by modem, slot, and rack address
- Link-level connection types (sync/async, normal mode/ V.42 error correction, V.42bis or MNP® data compression type)
- Connect speeds and disconnect reasons (e.g., DTR drop or loss of carrier)
- Connection information displayed by user-ID
- Amount of time spent online per call
- EIA signal, line quality, retransmits, modem retrains, and speed shifts
- Modem usage information

Security Management

- All database data encrypted to prevent unauthorized use
- Host Select feature (available via fixed or variable callback security) allows the user to choose the host that calls back

- Three levels of callback security: Pass-through, Fixed callback, and Variable callback
- User-ID time and date restrictions with password expiration

Fault Alarms

- Configurable Fault Alarms (e.g., Ring-No-Answer, No Dial Tone, etc.) with selectable thresholds
- Pager notification for various fault alarms
- Graphical display or printing of fault alarm statistics

Configuration

- Groups or individual modem configuration
- Auto Configuration on: power-up, reset, or disconnect
- Stand-alone or unmanaged rackmount modem configuration

Diagnostics

- Off-line diagnostic tests include CCITT V.54 Local Analog and self tests

Monitoring

- Near real-time connection information
- Detailed modem status information
- Callback security queue monitoring

Specifications:

Requires a 486 processor, or faster, with 8Mb of RAM

PC Requirements

Processor:	486/33 or faster
RAM:	8 Mb minimum
System:	Microsoft® Windows 3.1 or Windows 95
Storage:	50 - 100 Mbytes on hard drive
Drives:	One 3.5-inch 1.44Mb floppy drive
Interface:	UTP Manager Interface Card
Monitor:	VGA
Mouse:	2-button mouse required
Limited Warranty:	Two years
Manufactured in:	Mounds View, MN, U.S.A.

Individual spec sheets are available for the MultiModemManager modems and its card cage, controller, and power supply.

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Tech Support: (800) 972-2439
Fax Back: (612) 717-5888
Web Site: <http://www.multitech.com>
FTP Site: <ftp://ftp.multitech.com>

Multi-Tech Computers (U.K.) Ltd.
Unit 1, Thames Court
Reading, Berkshire RG1 8EQ
United Kingdom
TEL: +(44) 1734-597774
FAX: +(44) 1734-597775
BBS: +(44) 1734-595564

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