

1616 PENRIL RACK ENCLOSURE

A Versatile Host Site Modem Mounting System for Housing Modems from 300 to 33.6 Kbps *and beyond*

KEY FEATURES

- Compatible with Penril V.32, V.32M, V.32/14.4, V.32/14.4M, V.32/19.2, V.32/19.2M, V.34 and V.34/V.34M rack-mount modems.
- Multiple power transformers provide fault tolerance
- Complies with EIA equipment cabinet specifications
- Accommodates both leased and dial-up telephone lines
- Option Card provides modular telephone line terminations
- Busy option provides busy-out capabilities
- NetMux Diagnostic Concentrator Option Card provides configuration, control and diagnostic capabilities



COMPATIBILITY

The **Raymar-Telenetics** 1616 Penril Rack Enclosure is compatible with low-profile rack-mount modems. The 1616 Rack Enclosure is a multiple modem mounting enclosure for housing up to 16 Penril V.32 and V.34 series low-profile modems. The modems may be intermixed within the rack to allow various speeds and connection to both leased lines and/or the dial-up network.

MULTIPLE POWER TRANSFORMERS

The 1616 Rack Enclosure supplies low voltage AC power, RS-232C/D mating connectors, and telephone line connections to each modem card. Multiple power transformers provide fault tolerance to power transformer failures within the rack. Each power transformer supplies power to two modem cards within the rack. In the event a power transformer fails, only two modem cards will be inoperable, the remaining 14 modems will continue to function. A power ON/OFF switch is accessible from the rack rear, and a primary fuse protects the rack from an electrical short circuit. In addition, the power transformer's secondary windings are protected by pico-fuses located on the rack-mount modem cards. The power transformer assembly is modular and is removable from the rear of the enclosure.

An optional -48VDC power supply is available for Telco Central Office environments. Additionally, 220 VAC operation is available for international applications.

COMPLIES WITH EIA EQUIPMENT CABINET SPECIFICATIONS

The 1616 Rack Enclosure dimensions comply with EIA specifications for mounting a 19" wide cabinet. Rack adapters allow mounting in a standard 23" telephone equipment cabinet. The rack occupies 10.5" of vertical cabinet spacing. Two fans are provided for proper ventilation. A front panel locking bar secures the installed modems for relocation and transit.

ACCOMMODATES LEASED LINE AND DIAL-UP TERMINATIONS

Both dial-up and leased line connections are accommodated by the 1616 Rack Enclosure. The standard rack configuration supports four Amphenol-type 25-pair connectors. The connector pinouts are similar to those offered by a USOC RJ-26X style termination. One connector is provided for dial-up (and dial backup) access while the other is available for private line terminations. The dial-up connector accommodates Tip and Ring, PR and PC, and MI and MIC connections. For dial-up use the configuration that is compatible with most dial-up security callback systems. The leased line connector accommodates transmit and receive pairs.

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OPTION CARD PROVIDES MODULAR TELEPHONE LINE TERMINATIONS

For flexibility, the 1616 Rack Enclosure is available with an option card for termination of telephone circuits. Both the leased and dial-up multiline termination connectors are broken out into individual line terminations. The Dial-up/Leased Line Breakout Card provides 16 individual RJ-45 type, 8-pin connector jacks, and 16 6-pin modular jacks for leased line connections.

MAKE BUSY OPTION

A Make Busy Option Card is available with the 1616 Rack Enclosure to allow the user to busy out dial-up telephone lines from the rack's front panel. The Make Busy Option Cards can be ordered for RJ2MB and RJ4MB jack connections.

NETMUX

NetMux concentrates the diagnostic channels of the installed rack-mount modems to a single modular connector interface. Interface to the diagnostic ports of the installed V.32 modems is via the 50-pin diagnostic card connector on the motherboard of the rack enclosure. NetMux includes an 8-pin modular jack that provides the interface to the serial port of the network controller. A separate 8-pin modular connector is provided to extend the diagnostic connection to additional NetMux units. Power to the NetMux concentrator is provided by the rack enclosure.

PRODUCT SPECIFICATIONS

COMPATIBILITY

Compatible with Penril V.32, V.32M, V.32/14.4, V.32/14.4M, V.32/19.2, V.32/19.2M, V.34 and V.34M rack-mount modems

EIA specifications for 19-inch wide telephone equipment cabinet; can be easily adapted to fit 23-inch cabinet.

CAPACITY

Up to 16 modems

INTERFACE

DTE: RS-232C/D DB-25 female connector for each modem

DIAL LINES: 50-pin male connector RJ-26X compatible

LEASED LINES: 50-pin male connector

Modular connectors available on optional add-on card

RJ2MB compatibility available using optional add-on card

REQUIREMENTS

LINE: Unconditioned four-wire or two-wire leased, or two-wire switched lines (one or two per slot)

POWER: 100 to 132 VAC, 60 Hz \pm 5%

POWER CONSUMPTION

45 watts (empty rack)

HEAT DISSIPATION

144 BTU/hr. (empty rack)

ENVIRONMENT

Ambient temperature: 0 to 50°C (32 to 122°F)

Storage temperature: -20 to 70°C (-4 to 158°F)

Relative humidity: 10 to 95% at 24°C (75°F) non-condensing

PHYSICAL SPECIFICATIONS

Width: 19 inches (48.2 cm)

Height: 10.5 inches (26.7 cm)

Depth: 15.75 inches (40.0 cm)

Weight: 23 pounds (10 kg) Approx

WARRANTY

Raymar-Telenetics manufactured products are warranted against defects in hardware material and workmanship under normal use for one (1) year from date of original retail purchase. Defective product will be repaired or replaced, determination to be made by Raymar-Telenetics, at no charge. Repaired or replaced products are warranted for 90 days or for original warranty period, whichever is longer. Warranty extends to original end-user only.

ORDERING INFORMATION

MODEL	LENGTH	DESCRIPTION
PEN-1616-03	NA	Penril Rack Enclosure, 117 VAC
PEN-1616-02	NA	Penril Rack Enclosure, -48 VDC
PEN-1616-33	NA	Penril Rack Enclosure, 220 VAC
PEN-1636-02	NA	16-Slot Enclosure (CE) w/Netmux, 230VAC
PEN-1636-03	NA	16-Slot Enclosure (CE), 230VAC
PEN-5500-04	NA	Dial Line/Leased Line Card Factory Installed
PEN-5500-14	NA	Dial Line/Leased Line Card Upgrade Kit
PEN-5502-05	NA	Make Busy Option Card Factory Installed
PEN-5502-06	NA	MB Option Card (RJ2MB Config.) Factory Installed
PEN-5502-14	NA	Make Busy Option Card Upgrade Kit
PEN-5502-15	NA	MB Option Card (RJ2MB Config.) Upgrade Kit
PEN-5503-02	NA	23 in Rack Adapters
PEN-5506-02	NA	RJ2MB Option Card Factory Installed
PEN-5506-12	NA	RJ2MB Option Card Upgrade Kit
PEN-5507-03	NA	Blank Panel Set (8 each)
PEN-5507-14	NA	Spacer Set 16S (8 each)
PEN-5516R-06	NA	NetMux Factory Installed
PEN-5516R-16	NA	NetMux Upgrade Kit
PEN-5600-01	7'	Cable, 50-pin to 50-pin Connector
-02	14	Wires for Connection from DL Rack
-03	25	Dial or Leased Line Connector to Punch Down Block (eg., 668 block)
PEN-5601-01	7'	Cable, 50-pin to 50-pin, RJ-26X Compatible
-02	14	With MI and MIC Connections. Used for Dial
-03	25	or Leased Line Connectors. All Pins Wired
PEN-5602-01	7'	Cable, 50-pin to 50-pin, RJ-21X Compatible
-02	14	Tip and Ring Wired Only. Used for Dial-up
-03	25	Connection.
PEN-5603-01	7'	Cable, 50-pin to 50-pin, RJ-26X Compatible.
-02	14	Used for Dial-up Connection. MI and MIC are
-03	25	Not Wired
PEN-5604-01	7'	Cable, 6-pin to Spade Tips for Connection
-02	14	from 6-position Jack to Screw Down Terminal
-03	25	Blocks
PEN-5605-01	7'	Cable, 6-pin to 6-pin Modular for Connection
-02	14	from 6-position Jack to RJ-AA Connection
-03	25	Block
PEN-5606-01	7'	Cable, 8-pin to 6-pin Modular for Connection
-02	14	from Dial-line Modular Jack Card to RJ-11
-03	25	Connection Block
PEN-5607-01	7'	Cable, 8-pin to 8-pin Modular for Connection
-02	14	from Dial-line Modular Jack Card to RJ-45
-03	25	Connection Block
PEN-5533-06	NA	Power Supply Module, 230VAC, with Fan
PEN-5533-07	NA	Power Supply Module, 230VAC, without Fan

Specifications subject to change without notice; confirm when ordering.



Manufactured in the USA by RAYMAR-TELENETICS