

## V.3600 DATA/FAX MODEM Sunrise Series



### KEY FEATURES

- High speed fax allows communication with any ITU-T Group III compatible fax device
- Remote configuration: front panel and AT driven; option settings of a remote unattended modem can be changed over the phone line; password security denies access to unauthorized users
- Automode ITU-T V.8 compliant ensures connection at the highest common rate
- Automatic Rate Adaption (ARA) dynamically adjusts data rate backward or forward to conform to various line conditions and multiple levels of security
- Password with automatic callback, user programmed
- Capacity 50 passwords / 50 phone numbers
- Dial backup switches to a dial line if the leased line connection fails, automatically returns to leased line operation
- Integrated V.25 bis combines modem and autocall, requires only one port on the host machine, eliminating the need for additional hardware
- Asynchronous error correction/data compression ITU-T standard V.42 bis, Hayes AT command set compatible, 2 and 4-wire leased line operation with storage for nine phone numbers
- Autodial
- Auto answer
- Call progress indication
- Software volume control
- Available both as a standalone unit and as a rackmount card for RM16M enclosure.

The **Raymar-Telenetics** V.3600 is a high performance V.34/V.42 bis data and fax modem. It allows users to transmit critical applications at 33.6 kbps in synchronous and asynchronous environments, and is capable of throughput rates up to 230.4 kbps. **Raymar-Telenetics'** technology continues to offer exceptional speed, features, and versatility for all networking needs.

### DATA MODEM OVERVIEW

Compliant with ITU-T V.34, the V.3600 incorporates advanced technology that enhances operation on less-than-ideal transmission lines. These include: echo canceling, automatic adaptive line equalizing, trellis coding techniques, adaptive transmit power selection, constellation shaping, and nonlinear encoding and precoding. The V.3600 LCD front panel gives you interactive fingertip control of option selection and modem configuration. The 32-character display and three pushbutton keys let you scroll through a complete menu of option choices, displaying the currently selected options and prompting you for changes. The V.3600 is also easily configured by AT commands or by the remote configuration feature. Nine preset factory option configuration sets simplify set up for most standard applications.

### FAX MODEM OVERVIEW

The V.3600 is fully ITU-T Group III compatible to let you communicate with any other Group III compatible fax device. The V.3600 conforms to the EIA-578 standard interface between a fax modem and a computer with fax software. When used with an EIA Class 1 software package, the V.3600 can send and receive a fax document at 14400, 9600, 7200, 4800, or 2400 bps. T.30 error correction ensures your fax will arrive at its destination without transmission errors.

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# V.3600 DATA / FAX MODEM - Sunrise Series

## MODEM SPECIFICATIONS

### DATA RATES

- ITU-T V.34 33600, 31200, 28800, 26400, 24000, 21600, 19200, 16800, 14400, 12000, 9600, 7200, 4800, 2400
- ITU V.32bis 14400, 12000, 9600, and 7200 trellis coded
- ITU V.32 9600 and 4800 bps uncoded
- ITU V.22bis 2400 and 1200 bps
- ITU V.21 300 bps (async only)
- Bell 212A 1200 bps
- Bell 103 300 bps (async only)

### OPERATION

- 2-wire full-duplex dial-up or leased line
- 4-wire full-duplex leased line

### MODULATION

Compatible with ITU-T V.34, V.33, V.32bis, V.32, V.29, V.27, V.22bis, V.22, V.21 and Bell 212A and 103

### ERROR CORRECTION/DATA

#### COMPRESSION PROTOCOLS

- MNP 2-5; ITU-T V.42/V.42 bis
- Transmitter Output Level  
-9 dBm permissive, -9 to -30 dBm in 1 dB increments for cellular applications, 0 to -30 dBm in 1 dB increments for leased line operations (V.34: -6+ to -30 dBm in 1 dB increments for leased line operation.)

### CARRIER DETECT LEVEL

Dynamic to -43 dBm

### RTS/CTS DELAY

0 to 150 ms ( $\pm 2$  ms) in 10ms increments

### LINE EQUALIZATION

Automatic adaptive

### TIMING

Internal, external, or receive

### INTERNAL/EXTERNAL

#### TRANSMIT CLOCK FREQUENCY

Selected bit rate  $\pm 0.01\%$

### DIGITAL INTERFACE

EIA-232D, ITU-T V.24; DB25 female connector

### TELCO CONNECTION

8-pin modular jack, dial and leased lines

### TEST

- V.54 remote loopback control
- V.52 511 PN pattern
- Analog loopback
- Analog loopback with test pattern
- Local digital loopback
- Remote digital loopback
- Remote digital loopback with test pattern
- Test pattern generation/checking

## FAX SPECIFICATIONS

### COMPATIBILITY

ITU-T Group III compatible when used with Class 1 fax software

### DATA RATES

14400, 12000, 9600, 7200, 4800, 2400 bps

### OPERATION

Half-duplex over 2-wire dial lines

### MODULATION

14400 / 12000 / 9600 / 7200 bps QAM  
4800 / 2400 bps DPSK; 300 bps FSK

### COMPLIANCE

EIA-578; ITU-T V.21, V.27ter, V.29, V.17

## General Specifications

### ENVIRONMENTAL

Operating temperature: 32°-122°F (0° to 50° C)  
Storage temperature: -40°-158°F (-40° to 70° C)  
Relative humidity: 0-95%, non-condensing

### SIZE

Width: 7.0 in (17.7 cm)  
Height: 2.5 in (6.3 cm)  
Depth: 9.6 in (24.3 cm)

### POWER REQUIREMENTS

- 115 VAC  $\pm 10\%$ , 50/60 Hz;
- 230 VAC  $\pm 15\%$ , 50/60 Hz; maximum 14 watts
- Available 12-60 VDC input
- Available +12/-12/+5 direct input DC

### CERTIFICATION COMPLIANCE / APPROVALS

Safety: UL 1950, CSA 950  
Telecom: FCC Part 68 (U.S.)  
IC-CS-03 (Canada)  
EMC Compliance: FCC Part 15, Class A



Front



Back

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## V.3600 RM Variant

### Size

Width: .9 in (2.2cm)  
Height: 6.3 in (16 cm)  
Depth: 8.7in (22cm)



Manufactured in the USA by RAYMAR-TELENETICS

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### 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.

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