



Model 33000 Series Modem

FEATURES

- * Standard "AT" Command Set
- * Private Wire & Dialup Modem on a single Card
- * Low Power Consumption
- * Front Edge Mounted Status Indicators
- * Auto Dial — Auto Answer—Auto Speed Detect
- * Highly Flexible Configuration Options
- * Wide Operating Temperature Range -37 to +74°C
- * Configuration options stored in NVRAM— no jumpers

Description

The GDI Smart Modem SM33000 series modems are a combination of two modems on a single card that plugs directly into the Model 170 modem slot. One modem is the functional equivalent of a GDI Series 400 modem while the other is a versatile, AT command set compatible dial-up modem. Models are available to operate on 1200, 2400, or 9600 baud for the FSK section and up to 33.6 Kbaud for the dialup section.

The GDI SM33000 series modem provides a high performance, temperature tested, alternative to external modems in many "Field Master" applications.

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Model 33000 Series Modem

Specifications

FSK Modem Section

Data Rate and Format

SM33000 0-1200 baud
SM33404: 0-2400 baud
SM33496: 0-9600 baud
Serial Asynchronous, by bit

Modulation Type and Frequencies

SM33000: 1200Hz/Mark, 2200Hz/Space
SM33404: 2400Hz/Mark, 4400Hz/Space
SM33496: 11200Hz/Mark, 17600Hz/Space
Phase Coherent FSK

Line Interface

SM33000: Voice Grade leased line (3002) or private wire (600 ohm)
SM33404/496: Dry Private Wire (600 ohm)

Receiver Characteristics

Dynamic Range +3dBm to -48 dBm
Carrier Detect Threshold -42+3dBm
Carrier Detect Hysteresis ~3dB
Demodulation Distortion <10%
(1200bps, -40 dBm, 1:1 data pattern)
Receiver Frequency
Tolerance +25Hz (for -40dBm)

Serial Interface

Meets EIA RS-232C and CCITT V.24

Indicators

Transmit Data (XMT), Receive Data (RCV)
Clear to Send (CTS), and Receiver Carrier (CAR)

Timing (Switch Selectable)

RTS/CTS 6 or 12 + 2 mS
CAR Delay 4 or 8 + 2 mS
(Soft) Carrier Turnoff 5 or 10 + 2 mS
Receiver Squelch 3 or 6 + 2 mS

Mode Options (Switch Selectable)

2 wire Half Duplex or 4 wire Full Duplex

Smart Modem Section

Compatibilities

CCITT V.34, CCITT V.32 bis, CCITT V.32
CCITT V.22 bis, CCITT V.22, Bell 212A
Bell 103
Automatically adapts to calling or called modem

Transmit and Receive Frequencies

Data Carrier 1800 +/- 0.5 Hz
Calling Tone 1300 +/- 10 Hz
Answer Tone 2100 +/- 15 Hz
Receive Frequency +/- 14 Hz
Transmit Level Fixed at -11 +/- 2 dBm

Line Requirement & Interface

Public Switched Telephone Network
Meets FCC Part 68 requirements
2-Wire Full Duplex (TIP and RING)

Modes of Operation

Asynchronous
Full or Half Duplex
Automatic and manual Call Originate
Automatic and manual Call Answer

Modulation

Quadrature Amplitude Modulation FSK and DPSK

NVRAM

Allows storage of two user profiles and four 36-digit dial strings. Eliminates switches and jumpers.

Receiver Performance

Signal to Noise Ratio -26 dB
Dynamic Range -12 dBm to -42 dBm
Ring Detect Sensitivity 38 VRMS

Indicators

SD, RD, OH, CD, AA and HS
Mounted on front edge of PCB

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