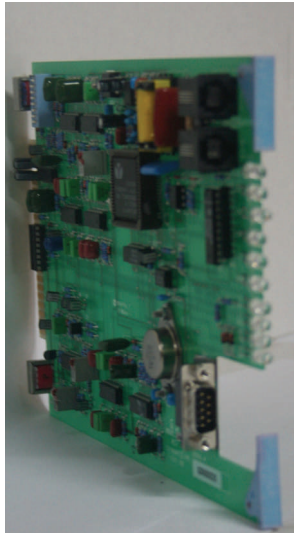




Model SM24000 Series Modem



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 SM24000 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 2400 baud for the dialup section.

The GDI SM24000 series modem provides a high performance, temperature tested, alternative to external modems in many "Field Master" applications.

GDI Communications LLC
PO Box 1330, Verdi, NV 89439
Ph: 775-345-8000 Fax: 775-345-8010 E-mail: sales@sgdi.net



Model SM24000

Series Modem

Specifications

FSK Modem Section

Data Rate and Format

SM24000	0-1200 baud
SM24404:	0-2400 baud
SM24496:	0-9600 baud
	Serial Asynchronous, by bit

Modulation Type and Frequencies

SM24000:	1200Hz/Mark, 2200Hz/Space
SM24404:	2400Hz/Mark, 4400Hz/Space
SM24496:	11200Hz/Mark, 17600Hz/Space
	Phase Coherent FSK

Line Interface

SM24000:	Voice Grade leased line (3002) or private wire (600 ohm)
SM24404/496:	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.22 bis	2400 baud
CCITT V.22	1200 baud
Bell 212A	1200 baud
Bell 103	300 baud
	Automatically adapts to calling or called modem

Serial Data Format

Character Asynchronous
7 data bits with any parity type + 1 or 2 stop bits
8 data bits with Mark or no parity + 1 or 2 stop bits

Line Requirement & Interface

Public Switched Telephone Network
Meets FCC Part 68 requirements
Max. Transmit Level -9 dBm (600 ohm)
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

V.22 bis—Quadrature Amplitude Modulation (QAM)
V.22/212A—Differential Phase Shift Keying (DPSK)
V.21/103—Frequency Shift Keying (FSK)

NVRAM

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

Command Set

Industry Standard "AT" 2400B and 2400

Equalization

(a) Fixed compromise equalization in transmitter
(b) Adaptive equalizer for 1200 and 2400 bps

Performance

Bit Error Rate <1:10⁵ for a S/N ratio of 10 dB
TxD Level -10dBm
RxD Level -45 dBm

Indicators

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

Specifications subject to change without notice

GDI Communications LLC
PO Box 1330, Verdi, NV 89439
Ph: 775-345-8000 Fax: 775-345-8010 E-mail: traffic@sgdi.net