

PSTN Modems

Features

- 300 to 14.4k baud telephone modems
- Low power operations
- Small, rugged design
- Flexible "AT" command set
- IEEE 472 surge protection

Applications

Remote environment data acquisition and control for:

- ◆ Water resources information and control
- ◆ Irrigation management
- ◆ Flood warning
- ◆ Reservoir management



Description

The low powered Stevens Environmental Phone Modem 2400 is a land-line public switched telephone modem designed for data rate transmissions up to 2400 bits per second. The Environmental Model also includes auto answering, "AT" command set and IEEE 472 lightning and transient protection. The unique feature of the Environmental Phone Modem 2400 is its very low standby power of 50 microAmps, which permits long-term operations on dry cell or rechargeable lead-acid battery power supplies.

The Stevens XE is a land-line public switched telephone modem designed for data rate transmissions up to 14.4k bits per second. The XE will store its hardware settings in a non-volatile memory, thus the settings will be restored each time power is removed and reapplied. With the settings programmed prior to shipment, the modem will answer incoming calls after one ring and negotiate a link with the originating computer modem. Afterwards, the XE will automatically hang up upon loss of carrier. This makes it possible to interface to any serial device without requiring handshaking signals or AT commands.

The VX1040 communication module is the rack mount version of the Stevens XE. The VX1040 also includes an RS232 and RS485 port.

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Stevens

PSTN Modems



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Technical Specifications

	EM 2400	XE
Data Communications		
Data Interface	RS232	RS232
Data Rates	2400, 1200, 300 bits per second	300 - 14.4 bits per second
Operations	Full-duplex on 2-wire dial-up line	Full-duplex on 2-wire dial-up line
Compatibility	V.22bis / V.22 / V.21, Bell212A / 103	V.32bis / V.32 / V.22bis / V.22 V.21 / Bell212A / 103
Dialer Type	DTMF or pulse	DTMF or pulse
Transmitter Output	-11.5 dBm minimum	-12 dBm minimum
Receive Dynamic Range	-3 to -43 dBm	-3 to -43 dBm
Line Impedance	600 ohms, transformer coupled	600 ohms, direct current
User Configuration	Non-volatile EEPROM to store user configuration	Non-volatile EEPROM to store user configuration
Equalization	Adaptive equalization with auto-retrain	Adaptive equalization with auto-retrain
Control	AT command interpreter	AT command interpreter
Power		
Power Mode	Switched power or constant	Constant
Voltage	5 to 15 volts, direct current	7 to 16 volts, direct current
Standby Current	50µA typical (low-power mode only)	50 milliAmps
Active Current	75 milliAmps	150 milliAmps
Line Protection	IEEE 472 lightning and transient protection	
Environmental		
Temperature Range	-40 to +85 C, 0 to 95% relative humidity, non-condensing	-30 to +60 C, 0 to 99% relative humidity, non-condensing
H x L x D	1.62 in. x 7.29 in. x 5.20 in. (41 mm x 185 mm x 132 mm)	3.3 in. x 5.6 in. x 1.4 in. (84 mm x 141 mm x 35 mm)
Weight	1.1 lbs. (0.5 kg)	0.36 lbs. (0.16 kg)

Ordering Information

Part No.	Description
90237	Environmental phone modem 2400 w/o cable
45048	Environmental phone modem cable
70067	XE phone modem
70013	VX1040 rack mount communications module

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