Guardian™

Serial Modem or Analog Radio for Licensed Spectrum

CalAmp®
connecting tomorrow today

HIGH SPEED SERIAL CONNECTIVITY FOR REMOTE MONITORING & CONTROL

The Guardian wireless modem provides a high-speed data link suitable for a wide variety of applications requiring system security and diagnostic reporting. Designed for speed and efficiency, Guardian provides over-the-air data rates up to 19.2 kbps in a 25 kHz channel.

Selectable operating modes provide flexibility: RS-232, RS-422, and RS-485 compatible; simplex, half-duplex or full-duplex operation; RTS-CTS handshaking protocol or data activated transmission (DOX) mode. Transparent, asynchronous serial formats are supported, such as Modbus™, Modbus-RTU™, AB DF1™, and various other protocol formats.

Guardian is also selectable for analog operation: paging, phone line substitution, slow speed data applications, 600 ohm or high impedance audio input/output selection.

Real-time, non-intrusive online diagnostics report received signal strength (RSSI), RF power output, supply voltage, and other radio performance statistics. Field Programming Software offers unit programming, link testing and RF path verification. CalAmp products are covered by a standard one-year warranty

Experience The Advantage

> 1-10 Watts Continuous Duty; software selectable

> 10-30 VDC Wide Range Power Supply

> On/Offline Diagnostics for Network Health & Status

> User selectable data rates: 4,800, 9,600, 19,200 kbps

> OTA compatible with T-96SR and TSLM

> Flexible, programmable External I/O interface

> RS-232, RS-422, RS-485

> OTA compatible with DL-3400 and JSLM analog product lines

GUARDIAN SPECIFICATIONS

GENERAL

Frequency Range	136-174 MHz, 406-512 MHz
Channel Bandwidth	12.5 kHz, 25 kHz
Modes of Operation	Modem and Analog:
	Simplex, Half-Duplex, Full-Duplex
	Simplex, Half-Duplex (900 MHz)
Modulation	2FSK
Certifications	FCC, IC, UL Class I, Div II

RECEIVER

Bit Error Rate @ 1x10-6	
12.5 kHz	-107 dbm @ 9.6 kbps;
	-110 dbm @ 4.8 kbps
25 kHz	-100 dbm @19.2 kbps;
	-107 dbm @9.6 kbps;
	-110 dbm @4.8 kbps
Adjacent Channel	60 db @ 12.5 kHz; 70 db @ 25 kHz

TRANSMITTER

Frequency Stability	1.0 ppm
Carrier Output Power	1-10 Watts
Duty Cycle	100% (Power Foldback for High Temps)
Output Impedance	50 Ω

MECHANICAL

Nominal Dimensions	5.50 W x 2.125 H x 4.25" D,
	13.97 x 5.40 x 10.8 cm
Shipping Weight	2.4 lbs, 1.1 kg

ENVIRONMENTAL

Operating Temperature	-30° to +60° C
Operating Humidity	5% to 95% Non-condensing

INTERFACES

Serial COM 1, COM 2	RS-232 DB-9
Analog User	I/O Right Angle, RS-422, RS-485,
	8 Contacts (Male)
Antenna	TNC Female (Tx/Rx), SMA Female
	(Rx)-Full Duplex models only