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.
# 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

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**About CalAmp**

CalAmp (NASDAQ: CAMP) is a proven leader in providing wireless communications solutions to a broad array of vertical market applications and customers. CalAmp’s extensive portfolio of intelligent communications devices, robust and scalable cloud service platform, and targeted software applications streamline otherwise complex machine-to-machine (M2M) deployments. These solutions enable customers to optimize their operations by collecting, monitoring and efficiently reporting business-critical data and desired intelligence from high-value remote assets. For more information, please visit www.calamp.com.

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