



# RF Field Modem - XB (2.4 GHz)

## Wireless Sensor Network Serial Cable Replacement

Ad Hoc Electronics' 2.4 GHz Field Modem and Blue Modem are self-contained radio modems that can be battery or externally powered. The modems were engineered to provide the optimal combination of battery life and transmit power.



### RELIABLE RANGE

- Long Range Data Integrity -- up to 1 mile
- -100 dBm Receiver Sensitivity (@250 kbps)
- ZigBee™ / 802.15.4 RF Protocol
- 100 mW (EIRP) Power output

### EASY-TO-USE

- Simple Configuration
- FCC approved
- Low-power options

### BLUE MODEM™



Interface

### FIELD MODEM™



RS-232 Interface

### NETWORK DIAGRAM

#### Sample Field Modem Application

- RS-232 or Bluetooth device connects to Field Modems via their serial or Bluetooth ports.
- RF signals are sent and received between devices.

**Instant Gratification!** The modems come configured to provide reliable out-of-box wireless communications.

#### Basic Point-to-point RF Link



Multipoint, Peer-to-peer & Mesh Networks also Supported

### SPECIFICATIONS

Range	up to 1 mile (RF line-of-sight) up to 300' (indoor/urban)
Operating Frequency	2.4 GHz (DSSS - Direct Sequence Spread Spectrum)
Receiver Sensitivity	-100 dBm
Transmit Power	60mW, 100mW EIRP (w/ high-gain antenna)
Power Supply	Internal batteries 2xL91 (AA) or External 8-30 VDC, manually switched
Interface	RS-232 (RJ-45 connector) or Bluetooth
Interface Data Rate	1,200 - 115,200 bps (user-settable)
Encryption	128-bit AES
Dimensions	5.48" x 3.26" x 1.06" 139mm (L) x 83mm (W) x 27mm (H)
Ambient temperature*	-20° to +55°C (preliminary)
Storage temperature*	-40° to +85°C (preliminary)
Certifications (Field Modem) (Bluetooth interface)	FCC: OUR-XBEEPRO, IC: 4214A-XBEEPRO FCC: T9J-RN41, IC: 6514A-RN41, Bluetooth SIG listing: B013180

### SAMPLE APPLICATIONS



The Field Modem was engineered to provide system integrators the ability to add battery-powered nodes to wireless data networks.

- Wireless Sensor Networks
- Data Acquisition
- Remote Monitoring
- Environmental Controls
- Private Networks
- Mobile Terminals

**For Reliable Radio Modems & Dedicated Technical Support**

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\* Note: Battery life adversely affected by temperature extremes