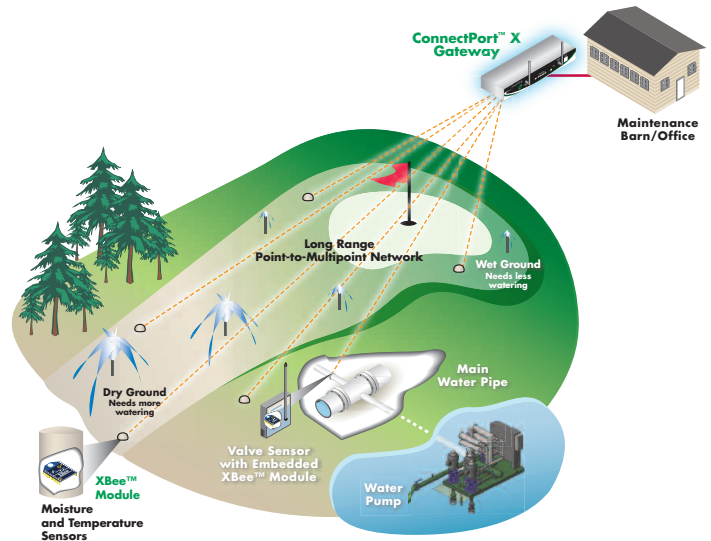
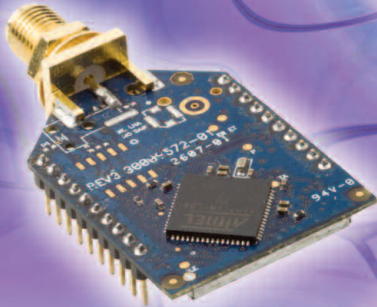


Long range embedded RF modules for OEMs

XBee-PRO 868 modules provide exceptional RF range performance for European point-to-multipoint applications.



## Features/Benefits

- 868 MHz ISM band for Europe
- 500 mW (+27 dBm) EIRP with +2 dBi antennas
- -112 dBm receive sensitivity
- 25 m (40 km) RF LOS range with dipole antenna
- 50 m (80 km) RF LOS range with high gain antennas
- Over-the-air configuration
- Capable of interoperability with Digi Drop-in Networking products utilizing XBee-PRO 868 technology
- Common XBee footprint for a variety of RF modules
- Multiple antenna options
- Industrial temperature rating (-40° to +85° C)

## Overview

XBee-PRO 868 embedded RF modules are ideal for applications requiring maximum range performance in a wireless solution. Leveraging the 868 MHz frequency band for European countries, the XBee-PRO 868 uses an easy to configure point-to-multipoint networking protocol with RF LOS range beyond 40 kilometers. Capable of 500 mW of EIRP and a -112 dBm receive sensitivity, the XBee-PRO 868 is the most powerful XBee product ever offered.

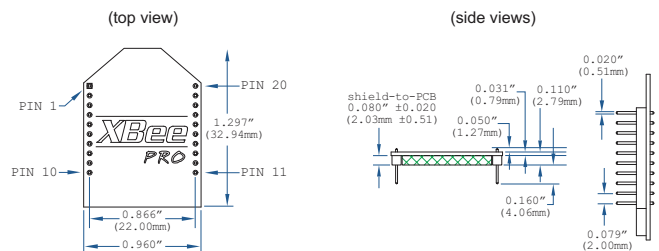
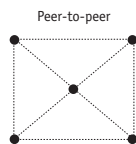
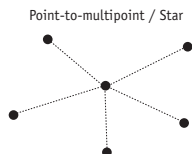
### XBee Protocols

XBee embedded RF modules are available with different protocols to suit a variety of applications and networking topologies. Supported protocols include IEEE 802.15.4, the ZigBee PRO Feature Set, proprietary long range and DigiMesh. XBee modules share a common hardware footprint and are modeled after a common software API. Once deployed into an application, OEMs can rapidly change from one protocol to another with reduced time and development risk.

### Drop-in Networking Compatibility

XBee embedded RF modules are compatible with Digi's Drop-in Networking adapters, network extenders and gateways that use the same protocol. This allows OEMs to embed XBee solutions into an application and have seamless communication to other devices using USB, RS-232, RS-485, digital and analog I/O, Ethernet, WiFi and Cellular IP with plug-and-play ease.

Platform	XBee-PRO® 868
<b>Performance</b>	
RF Data Rate	24 Kbps (limited to 10% duty cycle)
Indoor/Urban Range	Up to 1800 ft (550 m)
Outdoor/RF Line-of-Sight Range	Up to 25 miles (40 km) with dipole antenna (Italy only) up to 10 miles (16 km) with dipole antenna (13.7 dBm)
Transmit Power	1 mW (0 dBm) to 315 mW (+25 dBm)
Receiver Sensitivity (1% PER)	-112 dBm
<b>Features</b>	
Serial Data Interface	3.3V CMOS Serial UART
Configuration Method	API and AT commands
Frequency Band	868 MHz ISM
Interference Immunity	Multiple transmissions, acknowledgements
Serial Data Rate	1.2 Kbps to 230.4 Kbps (nonstandard rates available)
ADC Inputs	Coming in future firmware revisions
Digital I/O	Coming in future firmware revisions
Antenna Options	Wired Whip, U.FL connector, RPSMA connector
<b>Networking &amp; Security</b>	
Encryption	128-bit AES
Reliable Packet Delivery	Retries/Acknowledgments
Addressing Options	Network ID, 32-bit address
Channels	Single channel
<b>Power Requirements</b>	
Supply Voltage	3.0 – 3.6 VDC
Transmit Current	500 mA typical at 3.3V (800 mA max)
Receive Current	65 mA typical
Power-Down Current	Coming in future firmware revisions
<b>Regulatory Approvals</b>	
FCC (USA)	No
IC (Canada)	No
ETSI (Europe)	Yes (Italy 25 mW max, Slovak Republic 10 mW max)
C-TICK (Australia)	No
Telec (Japan)	No



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