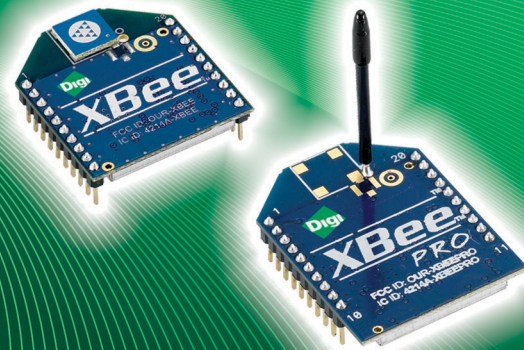


XBee® & XBee-PRO® ZB

ZigBee® Embedded RF Modules for OEMs

XBee and XBee-PRO ZB embedded RF modules deliver low-cost, low-power wireless connectivity using the ZigBee PRO Feature Set.



Overview

XBee and XBee-PRO ZB embedded RF modules provide wireless connectivity to end-point devices in ZigBee mesh networks. Utilizing the ZigBee PRO Feature Set, these modules are interoperable with other ZigBee devices, including devices from other vendors*. XBee users can have their ZigBee network up-and-running in a matter of minutes, without configuration or additional development.

XBee modules are ideal for low-power, low-cost applications. XBee-PRO modules are power-amplified, extended-range versions of XBee modules. Products in the XBee family are easy to use, share a common hardware footprint, and are interoperable with other XBee products. Available in a variety of protocols for different applications, one XBee can be substituted for another with minimal development time and risk.

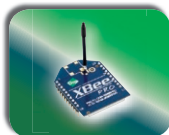
Digi's unsurpassed offering of Drop-in Networking products provides seamless communication between devices. XBee adapters provide wireless connectivity to devices in wired networks. XBee wall routers extend the range and strength of a ZigBee network. ConnectPort™ X gateways enable users to access remote devices in a network.

*Interoperability requires the ZigBee Feature Set or ZigBee PRO Feature Set to be deployed on all devices. Contact Digi Support for details.

Related Products



Gateways



Modules



Adapters



Development Kits

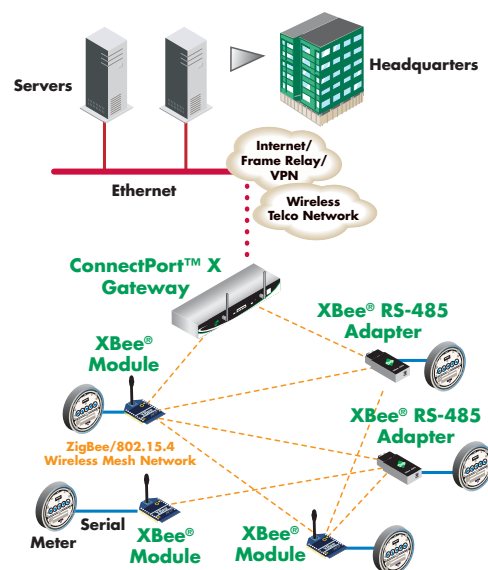


Network Extenders



Sensors

Application Highlight

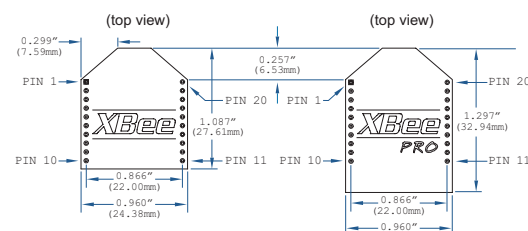
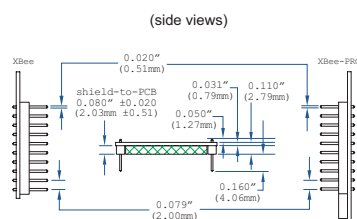
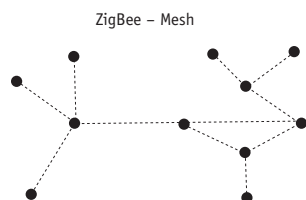


Features/Benefits

- Interoperability with ZigBee devices from other vendors*
- No configuration needed for out-of-the-box RF communications
- Advanced configuration options available via simple AT or API commands
- Common XBee footprint for a variety of RF modules
- Outdoor RF line-of-sight range up to 1 mile (1.6 km)
- ZigBee mesh networking protocol
 - Improved data traffic management
 - Remote firmware updates
 - Self-healing and discovery for network stability



Platform	XBee® ZB	XBee-PRO® ZB
Performance		
RF Data Rate	250 Kbps	
Indoor/Urban Range	133 ft (40 m)	300 ft (90 m)
Outdoor/RF Line-of-Sight Range	400 ft (120 m)	1 mile (1.6 km)
Transmit Power	1.25 mW (+1 dBm) / 2 mW (+3 dBm) boost mode	50 mW (+17 dBm) / Int'l 10 mW (+10 dBm)
Receiver Sensitivity (1% PER)	-96 dBm in boost mode	-102 dBm
Features		
Serial Data Interface	3.3V CMOS UART	
Configuration Method	API or AT commands, local or over-the-air	
Frequency Band	2.4 GHz	
Interference Immunity	DSSS (Direct Sequence Spread Spectrum)	
Serial Data Rate	1200 bps - 1 Mbps	
ADC Inputs	(4) 10-bit ADC inputs	
Digital I/O	10	
Antenna Options	Chip, Wire Whip, U.FL, RPSMA	
Networking & Security		
Encryption	128-bit AES	
Reliable Packet Delivery	Retries/Acknowledgments	
IDs and Channels	PAN ID, 64-bit IEEE MAC, 16 channels	PAN ID, 64-bit IEEE MAC, 13 channels
Power Requirements		
Supply Voltage	2.1 - 3.6VDC	3.0 - 3.4VDC
Transmit Current	35 mA / 45 mA boost mode @ 3.3VDC	295 mA @ 3.3VDC
Receive Current	38 mA / 40 mA boost mode @ 3.3VDC	45 mA @ 3.3VDC
Power-Down Current	<1 uA @ 25° C	<10 uA @ 25° C
Regulatory Approvals		
FCC (USA)	Yes	
IC (Canada)	Yes	
ETSI (Europe)	Yes	Yes (int'l unit only)
C-TICK (Australia)	Yes	
Telec (Japan)	Yes	Yes (int'l unit only)



Visit www.digi.com for part numbers.

DIGI SERVICE AND SUPPORT - You can purchase with confidence knowing that Digi is here to support you with expert technical support and a strong five-year warranty. www.digi.com/support

Digi International
877-912-3444
952-912-3444
info@digi.com

Digi International France
+33-1-55-61-98-98
www.digi.fr

Digi International KK
+81-3-5428-0261
www.digi-intl.co.jp

Digi International (HK) Limited
+852-2833-1008
www.digi.cn



91001471
B2/809

BUY ONLINE • www.digi.com

© 2008-2009 Digi International Inc.
All rights reserved. Digi, Digi International, the Digi logo, the Making Wireless M2M Easy logo, ConnectPort, XBee and XBee-PRO are trademarks or registered trademarks of Digi International Inc. in the United States and other countries worldwide. All other trademarks are the property of their respective owners.

