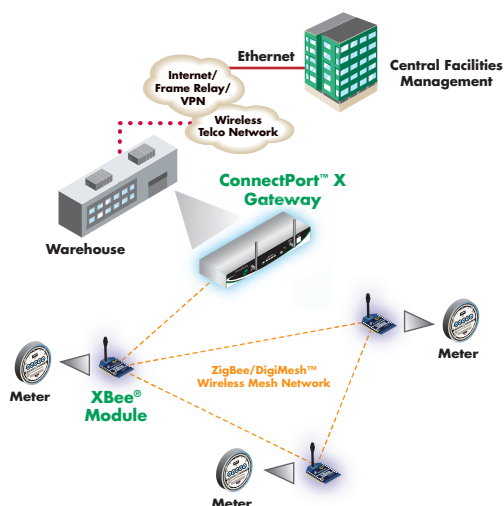


XBee® ZigBee®/Mesh RF Modules

Embedded RF Modules for OEMs

Providing critical end-point connectivity to Digi's Drop-in Networking product family, XBee ZigBee/Mesh RF modules are low-cost and easy to deploy.



Features/Benefits

- ZigBee/mesh and proprietary peer-to-peer mesh topologies
- 2.4 GHz for worldwide deployment
- Fully interoperable with other Digi Drop-in Networking products, including gateways, device adapters and extenders
- Common XBee footprint for a variety of RF modules
- Low-power sleep modes
- Multiple antenna options
- Industrial temperature rating (-40° C to 85° C)
- Low-power and long-range variants available

Overview

XBee Product Family

The XBee family of embedded RF modules provides OEMs with a common footprint shared by multiple platforms, including multipoint and ZigBee/mesh topologies, and both 2.4 GHz and 900 MHz solutions. OEMs deploying the XBee can substitute one XBee for another, depending upon dynamic application needs, with minimal development, reduced risk and shorter time-to-market.

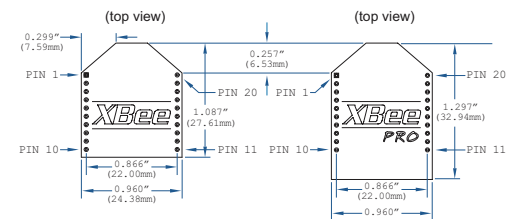
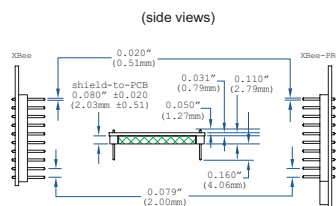
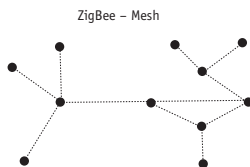
Why XBee ZigBee/Mesh RF Modules?

For applications where robust mesh networking topologies are preferred, XBee ZigBee/mesh OEM RF modules provide developers with both ZigBee mesh and the soon-to-be-released proprietary DigiMesh™ topologies. These networks allow devices to harness the entire network of RF modules to effectively extend range beyond that of a single module, and create a more stable and reliable network. Employing dynamic self-healing, self-discovery functionality for reliable communications, XBee ZigBee/mesh OEM RF modules make mesh networking simple and easy to deploy.

Drop-in Networking End-Point Connectivity

XBee OEM RF modules are part of Digi's Drop-in Networking family of end-to-end connectivity solutions. By seamlessly interfacing with compatible gateways, device adapters and extenders, the XBee embedded RF modules provide developers with true beyond-the-horizon connectivity.

Platform	XBee® ZNet 2.5 (Series 2)	XBee-PRO® ZNet 2.5 (Series 2)
Performance		
RF Data Rate	250 kbps	250 kbps
Indoor/Urban Range	133 ft (40 m)	300 ft (100 m)
Outdoor/RF Line-of-Sight Range	400 ft (120 m)	1 mi (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)	-97 dBm (-98 dBm boost mode)	-102 dBm
Features		
Serial Data Interface	3.3V CMOS UART	3.3V CMOS UART
Configuration Method	API or AT Commands, local or over-the-air	API or AT Commands, local or over-the-air
Frequency Band	2.4 GHz	2.4 GHz
Interference Immunity	DSSS (Direct Sequence Spread Spectrum)	DSSS (Direct Sequence Spread Spectrum)
Serial Data Rate	1200 bps - 1 Mbps	1200 bps - 1 Mbps
ADC Inputs	(4) 10-bit ADC inputs	(4) 10-bit ADC inputs
Digital I/O	10	10
Antenna Options	Chip, Wire Whip, U.FL, RPSMA	Chip, Wire Whip, U.FL, & RPSMA
Networking & Security		
Encryption	128-bit AES	128-bit AES
Reliable Packet Delivery	Retries/Acknowledgments	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	<1 uA @ 25° C
Regulatory Approvals		
FCC (USA)	Yes	Yes
IC (Canada)	Yes	Yes
ETSI (Europe)	Yes	Yes (Int'l Unit Only)
C-TICK (Australia)	Yes	Pending
Telec (Japan)	Yes	Pending (Int'l Unit Only)



Please visit www.digi.com for part numbers.

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Digi International, the leader in device networking for business, develops reliable products and technologies to connect and securely manage local or remote electronic devices over the network or via the web. With over 20 million ports shipped worldwide since 1985, Digi offers the highest levels of performance, flexibility and quality.

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WHEN
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