

XBee® & XBee-PRO® ZB ZigBee® PRO RF Modules

Wireless connectivity using the ZigBee PRO Feature Set

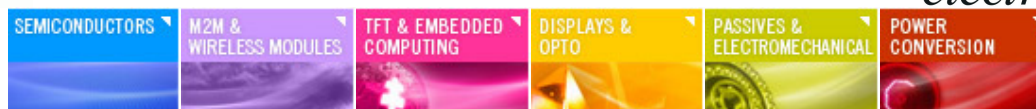


- Interoperability with ZigBee devices from other vendors*
- No configuration needed for out-of-the-box RF communications
- Common XBee footprint for a variety of RF modules
- Self-healing and discovery for network stability
- **New!** – Programmable XBee-Pro ZB available

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. With XBee, users can have their ZigBee network up-and-running in a matter of minutes without configuration or additional development. Programmable XBee-PRO ZB incorporates a Freescale SO8 microprocessor for foolproof customization or application development.

Specifications :

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Platform	XBee® ZB	XBee-PRO® ZB
Performance		
RF Data Rate	250 Kbps	
Indoor/Urban Range	133 ft (40 m)	300 ft. (90 m) / Int'l 200 ft (60 m)
Outdoor/RF Line-of-Sight Range	400 ft (120 m)	2 miles (3200 m)/ Int'l 5000 ft (1500 m)
Transmit Power	1.25 mW (+1 dBm) / 2 mW (+3 dBm) boost mode	63 mW (+18 dBm) / Int'l 10 mW (+10 dBm)
Receiver Sensitivity (1% PER)	-96 dBm in boost mode	-102 dBm
Features		
Adjustable Power	Yes	
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	PCB Embedded Antenna, Wire Whip, U.FL, RPSMA
Programmability	No	Yes
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, 15 channels
Power Requirements		
Supply Voltage	2.1 - 3.6VDC	2.7 - 3.6VDC
Transmit Current	35 mA / 45 mA boost mode @ 3.3VDC	205 mA, up to 220 mA with programmable variant
Receive Current	38 mA / 40 mA boost mode @ 3.3VDC	47 mA, up to 62 mA with programmable variant
Power-Down Current	<1 uA @ 25° C	3.5 uA, 4 uA @ 25° C with programmable variant
Regulatory Approvals		
FCC (USA)	Yes	
IC (Canada)	Yes	
ETSI (Europe)	Yes	
C-TICK (Australia)	Yes	
TELEC (Japan)	Yes	Yes (int'l unit only)