

# ***XBee™ OEM RF Modules***

*ZigBee™/802.15.4 OEM RF Modules by MaxStream, Inc.*

## **XBee™**

Indoor/urban Range:	up to 100' (30 m)
Outdoor line-of-sight Range:	up to 300' (100 m)
Transmit Power Output:	1 mW (0 dBm)
Power-down Current:	< 10 $\mu$ A
Operating Frequency:	2.4 GHz
RF Data Rate:	250,000 bps



## **XBee-PRO™**

Indoor/urban Range:	up to 300' (100 m)
Outdoor line-of-sight Range:	up to 1 mile (1.6 km)
Transmit Power Output:	100 mW (20 dBm) EIRP
Power-down Current:	< 10 $\mu$ A
Operating Frequency:	2.4 GHz
RF Data Rate:	250,000 bps

***RS-232 & USB  
interface packages available***

**Easy-to-Use!** No configuration is necessary for out-of-box RF operation. Simply feed data into one module, then the data is sent out the other end of the wireless link. If more advanced functionality is needed, the modules support an extensive set of AT commands.

### Key Features



#### **Price-to-Performance Value.**

Due to innovations stamped in its design, the XBee-PRO yields 2-3x the range of standard ZigBee modules. This allows OEMs & integrators to cover more ground with fewer devices. Additionally, XBee Modules are easy-to-use and therefore greatly reduce the cost of data system development.



#### **Low Power Consumption.**

XBee Modules require little power (45 mA TX current for the XBee, 270 mA for the XBee-PRO). Additionally, sleep modes are supported that enable power-down currents that reach below 10  $\mu$ A.



#### **Receiver Sensitivity.**

MaxStream modules 'hear' what others cannot; therefore supplying greater range and reliability in wireless links. For every 6 dB gained in TX power or RX sensitivity, OEMs and integrators can double the range of a wireless link. XBee Modules outperform higher costing modules due in large part to range gained through superior RX sensitivity.



#### **Worldwide Acceptance.**

FCC (U.S.A.), IC (Canada), ETSI (Europe) pending



Systems that include XBee Modules inherit MaxStream's certifications. Contact MaxStream for a complete list of government agency approvals.

### Sample Applications

#### **Security systems & lighting controls**



#### **Home automation & building control**



#### **Home appliances & fire/CO2 alarms**



#### **Monitoring of remote systems**



#### **Sensor data capture in embedded networks**





#### **Call today!**

- Free RF Consultation
- Volume Discounts
- Development Kit Pricing

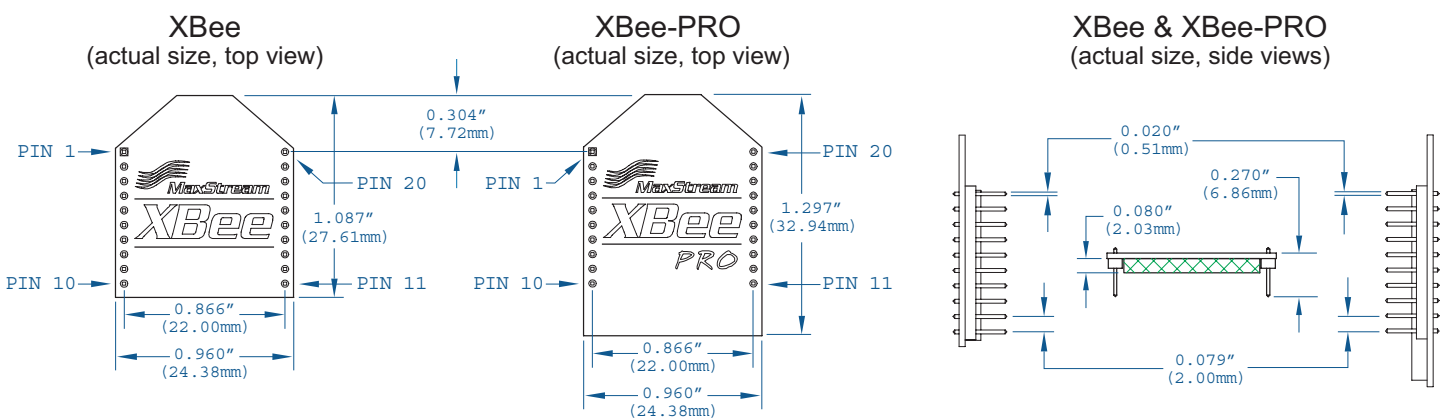


# XBee™ & XBee-PRO™ 2.4 GHz OEM RF Modules

Specifications		 <b>XBee</b>	 <b>XBee-PRO</b>
<b>Performance</b>	Indoor/Urban Range	up to 100 ft. (30 m)	up to 300 ft. (100 m)
	Outdoor RF line-of-sight Range	up to 300 ft. (100 m)	up to 1 mile (1.6 km)
	Transmit Power Output	1 mW (0 dBm)	60 mW (18 dBm), 100 mW EIRP
	RF Data Rate	250,000 bps	250,000 bps
	Receiver Sensitivity	-92 dBm (1% PER)	-100 dBm (1% PER)
<b>Power Requirements</b>	Supply Voltage	2.8 – 3.4 V	2.8 – 3.4 V
	Transmit Current (typical)	45 mA @ 3.3 V	270 mA @ 3.3 V
	Receive Current (typical)	50 mA @ 3.3 V	55 mA @ 3.3 V
	Power-down Current	< 10 µA	< 10 µA
<b>General</b>	Frequency	ISM 2.4 GHz	ISM 2.4 GHz
	Dimensions	0.960" x 1.087" (2.438cm x 2.761cm)	0.960" x 1.297" (2.438cm x 3.294cm)
	Operating Temperature	-40 to 85° C (industrial)	-40 to 85° C (industrial)
	Antenna Options	U.FL Connector, Chip Antenna or Whip Antenna	U.FL Connector, Chip Antenna or Whip Antenna
<b>Networking and Security</b>	Supported Network Topologies	Point-to-Point, Point-to-Multipoint, Peer-to-Peer and Mesh	Point-to-Point, Point-to-Multipoint, Peer-to-Peer and Mesh
	Number of Channels	16 Direct Sequence Channels (software selectable)	13 Direct Sequence Channels (software selectable)
	Filtration Options	Channel, PAN ID & Source/Destination Addresses	Channel, PAN ID & Source/Destination Addresses
<b>Agency Approvals</b>	FCC Part 15.247	pending	pending
	Industry Canada (IC)	pending	pending
	Europe	pending	pending

Specifications are subject to change without notice.

## Mechanical Drawings



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