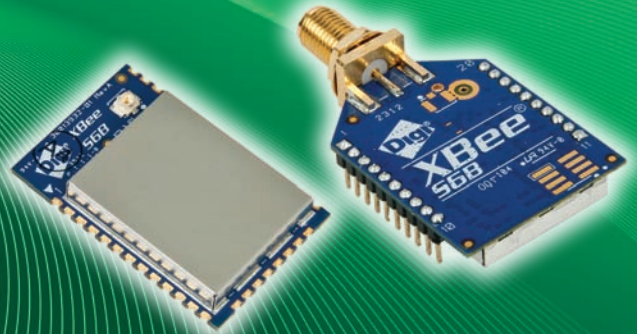# XBee® Wi-Fi

Embedded Wi-Fi Module for OEMs

Embedded Wi-Fi modules provide ultra low-power 802.11b/g/n communications in the flexible XBee hardware and software footprint.

Overview

XBee Wi-Fi embedded RF modules provide simple serial to IEEE 802.11 connectivity. By bridging the low-power/low-cost requirements of wireless device networking with the proven infrastructure of 802.11, the XBee Wi-Fi creates new wireless opportunities for energy management, process and factory automation, wireless sensor networks, intelligent asset management and more. Featuring easy provisioning methods and native Device Cloud by Etherios™ connectivity, XBee Wi-Fi modules give developers the fastest IP-to-device and device-to-cloud capability possible. Focused on the rigorous requirements of these wireless device networks, the module gives developers IP-to-device and device-to-cloud capability.

XBee modules offer developers tremendous flexibility and are available in surface mount and through-hole form factors. The XBee Wi-Fi shares a common footprint with other XBee modules. This allows different XBee technologies to be drop-in replacements for each other.

As a member of the XBee family, the XBee Wi-Fi combines hardware with software for a complete modular solution. XBee Wi-Fi modules are designed to communicate with access points in existing 802.11 infrastructures. Developers can use AT and API commands for advanced configuration options.

Related Products
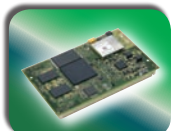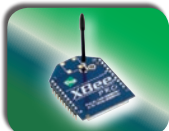
Wi-Fi System-on-Modules

Wi-Fi Modules

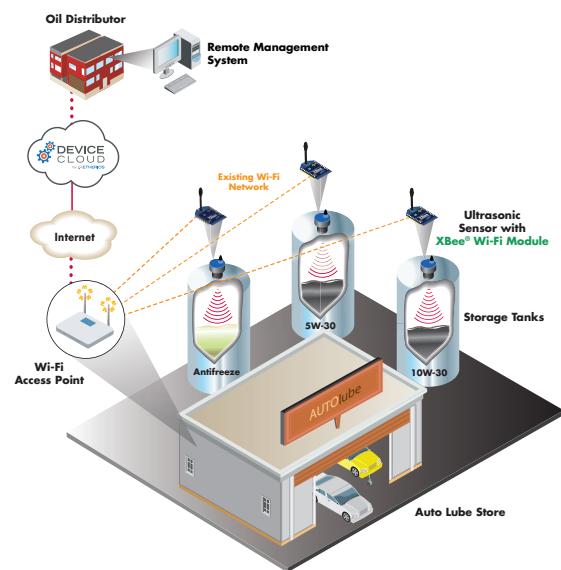**Device Cloud Solutions**

Wireless Serial Servers

XBee Modules

Development Kits

Application Highlight

Oil Distributor

Remote Management System

DEVICE CLOUD by etherios

Internet

Existing Wi-Fi Network

Ultrasonic Sensor with XBee® Wi-Fi Module

Wi-Fi Access Point

Antifreeze

5W-30

10W-30

Storage Tanks

AUTOlube

Auto Lube Store

Features/Benefits

- **Native Device Cloud integration for data acquisition and device management**

- **Hardware and software complete module easily joins existing 802.11 b/g/n (Wi-Fi) infrastructures**

- **Common XBee footprint allows OEMs to support a variety of wireless protocols**

- **Flexible SPI and UART serial interfaces**

- **Available in Surface Mount and Through-Hole form factors**

- **Support for low-power sleeping applications with <6 µA power-down current**

- **Over-the-air data rates up to 72 Mbps**

- **Simple provisioning methods including Soft AP and Wi-Fi Protected Setup (WPS)**

Platform	XBee® Wi-Fi (S6B)
Features	
Serial Data Interface	UART up to 1 Mbps, SPI up to 6 Mbps
Configuration Method	API or AT commands
Frequency Band	ISM 2.4 GHz
ADC Inputs	4 (12-bit)
Digital I/O	10
Form Factor	Through-Hole, Surface Mount
Antenna Options	Through-Hole: PCB (Embedded), U.FL, RPSMA, Integrated Wire SMT: PCB (Embedded), U.FL, RF Pad
Operating Temperature	-30º C to +85º C
Dimensions (L x W)	Through-Hole: 0.960 in x 1.297 in (2.438 cm x 3.294 cm) SMT: 0.87 in x 1.33 in x 0.12 in (2.20 cm x 3.40 cm x 0.30 cm)
Networking and Security	
Security	WPA-PSK,WPA2-PSK and WEP
Channels	13 channels
Wireless LAN	
Standard	802.11b/g/n
Data Rates	1 Mbps to 72 Mbps
Modulation	802.11b: CCK, DSSS 802.11g/n: OFDM with BPSK, QPSK, 16-QAM, 64-QAM
Transmit Power	Up to +16 dBm
Receiver Sensitivity	-93 to -71 dBm
Power Requirements	
Supply Voltage	3.14 - 3.46 VDC
Transmit Current	Up to 309 mA
Receive Current	100 mA
Power-Down Current	<6 µA @ 25º C
Regulatory Approvals	
FCC (USA)	Yes
IC (Canada)	Yes
CE/ETSI (Europe)	Yes
C-TICK (Australia)	Yes
Telec (Japan)	Yes
Anatel (Brazil)	Pending

Visit www.digi.com for part numbers.