



XBee-PRO S2C 802.15.4 w/Wire Antenna (XBP24CAWIT-001)

Product ID: 32419

Overview

XBee 802.15.4 RF modules are ideal for applications requiring low latency and predictable communication timing. Providing quick, robust communication in point-to-point, peer-to-peer, and multipoint/star configurations, XBee 802.15.4 products enable robust end-point connectivity with ease. Whether deployed as a pure cable replacement for simple serial XBEE® S2C 802.15.4 RF MODULES communication, or as part of a more complex hub-and-spoke network of sensors, XBee 802.15.4 RF modules maximize performance and ease of development.

XBee 802.15.4 modules seamlessly interface with compatible gateways, device adapters and range extenders, providing developers with true beyond-the-horizon connectivity. The updated XBee S2C 802.15.4 module is built with the SiliconLabs EM357 SoC and offers improved power consumption, support for over-the-air firmware updates, and provides an upgrade path to DigiMesh® or ZigBee® mesh protocols if desired.

Features

- Simple, out-of-the-box RF communications, no configuration needed
- Point-to-multipoint network topology
- 2.4 GHz for worldwide deployment
- Common XBee footprint for a variety of RF modules
- Industry leading sleep current of sub 1uA
- Firmware upgrades via UART, SPI or over the air
- Migratable to DigiMesh and ZigBee PRO protocols and vice-versa

Application Ideas

- Remote industrial control and monitoring
- Long range remote control
- Wireless data acquisition

Note: This product replaces 32407, the XBee-PRO 802.15.4 Extended-Range Module, Wire Antenna (XBP24-AWI-001). Read about Digi's product line changes [here](#).

Note: Because XBee modules have 2 mm pin spacing, we recommend one of our adapter boards for each module. Our adapter boards provide several advantages to the XBee modules such breadboard-friendly standard 0.1 inch pin spacing, mounting holes, and easy-to-solder connections. Even if you are communicating point-to-point without a PC, we still recommend that you always have at least one XBee USB Adapter Board (# 32400) so you can easily configure and test each XBee module prior to putting it in a point-to-point application.

Specifications

- Data Rate: RF 250 Kbps, Serial up to 1 Mbps
- Indoor/Urban Range: 300 ft (90 m)
- Outdoor/LOS Range: 2 miles (3200 m)
- Transmit Power: 63 mW

- Digital I/O Lines: 15
- A-to-D Conversion: (4) 10-bit
- Voltage requirements: 2.7 to 3.6 VDC
- Current requirements @ 3.3 VDC: 120 mA (transmit) / 31 mA (receive) / <1 μ A @ 25 °C (power-down)
- Communication: UART, SPI
- Dimensions: 0.960 x 1.297 in (2.438 x 3.294 cm)
- Operating temperature range: -40 to +185 °F (-40 to +85 °C)