

# XBee Shield V1.0

- Enhanced XBee wireless module breakout Shield

## Overview



XBee Shield V1.0 is an enhanced serial port XBee module breakout board, it's compatible with Arduino and IFLAT-32, it can directly plug in with Arduino/IFLAT-32 board, and use any pin of the basic board to connect with the XBee module serial port.

## Features

- Stackable interfaces compatible with Arduino or IFlat-32 for easy cascading
- Provide maximal 500mA under 3.3V
- More indicator (ON/SLEEP, RSSI, ASS, Din, Dout)\* LED for XBee
- Switchable of communication with FTDI-USB /Base board
- Full 2.54mm break out for XBee
- With 3 optional wireless program hardware interfaces.

\*RSSI: Receiver Signal Strength Indication

ASS : Association

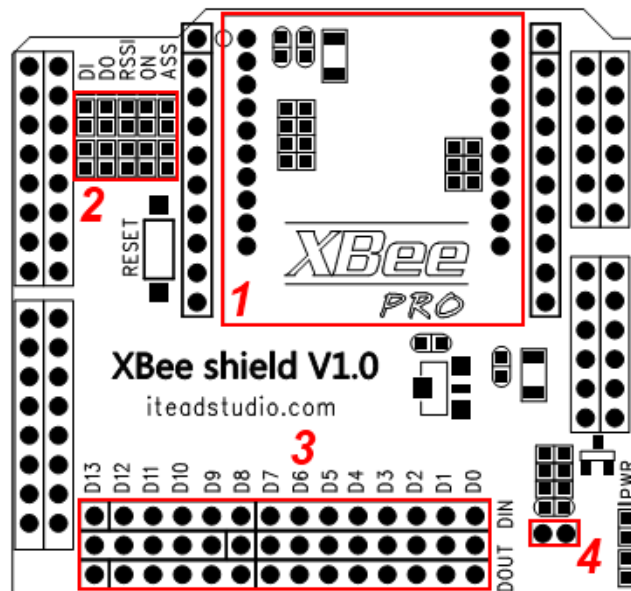
## Specifications

PCB size	54.9mm X 58.8mm X 1.6mm
Indicators	PWR State, DI, DO, RSSI, ON, ASS
Power supply	5V DC
Communication Protocol	UART/XBee
RoSH	Yes

## Electrical Characteristics

Specification	Min	Type	Max	Unit
Power Voltage	4.5	5	5.5	VDC
Input Voltage VH:	4.5	5	5.5	V
Input Voltage VL:	-0.3	0	0.5	V
Current Consumption	-	20	40	mA

## Hardware

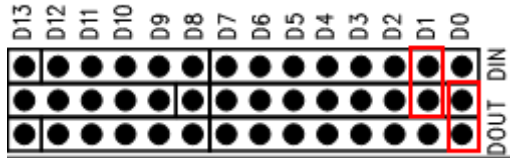


Zone	Description
1	XBee Socket
2	Indication LEDs
3	DIN and DOUT connection select
4	RTS and D3 pins connectivity options

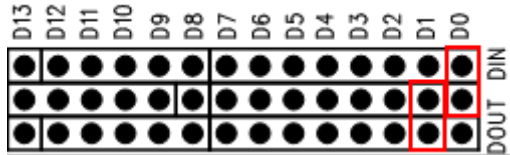
## Installation

In zone 3, two jumpers are set to connect XBee\_DIN, XBee\_DOUT to Digital pins of Arduino.

XBee communicate to Arduino hardware serial ports, set the jumper connect DIN to D1, DOUT to D0.



XBee communicate to FTDI-232 hardware serial ports: set the jumper connect DIN to D0, DOUT to D1. With this setting, you can use the X-CTU to update and program the XBee module on shield.

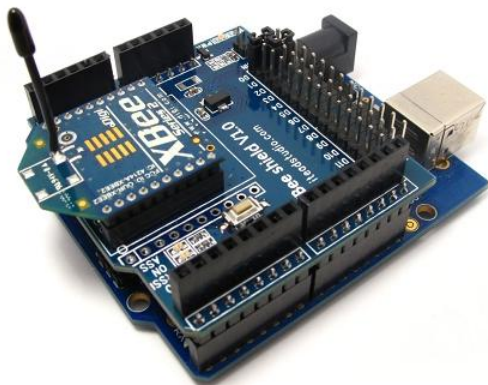


When XBee communicate to Arduino software serial ports, set the jumper connect DIN to D2~13, DOUT to D2~D13 by the configuration of your code.

The Software Serial Library of Arduino:

<http://arduino.cc/en/Reference/SoftwareSerial>

## Wireless Arduino program by XBee



This shield provides 3 optional hardware interfaces for Arduino wireless program.

1. CTS selection: When R6 is soldered on board, the CTS pin of XBee will connect to the RST pin of Arduino to provide the reset signal. Get more information

about this reference design here:

<http://arduino.cc/en/Main/ArduinoXbeeShield>

2. DTR selection: When R8 is soldered on board, the DRT pin of XBee will connect to the RST pin of Arduino to provide the reset signal. If the XBee firmware supports the complete serial port functions, this selection can be used to program the arduino.

3. The default selection is using the D3 pin for reset signal. The default setting can be used as a receiver. When put jumper on zone4, the D3 connect with the DTS, and the shield can be used as a transmitter.

More information about this design here:

<http://ladyada.net/make/xbee/arduino.html>

**Note:** Arduino program setting above just support the XBee series 1 with model XB24.

## License



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## Revision History

Rev.	Description	Release date
v1.0	Initial version	2011-3-21