Product Manual

XbEE Breakout Board

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## Index

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>About Elint Labz</td>
<td>2</td>
</tr>
<tr>
<td>Introduction</td>
<td>3</td>
</tr>
<tr>
<td>Specification</td>
<td>3</td>
</tr>
<tr>
<td>Supported cables:</td>
<td>4</td>
</tr>
<tr>
<td>How to interface:</td>
<td>8</td>
</tr>
</tbody>
</table>
About Elint Labz

Elint Labz (usually abbreviated as EL) is an electronics design & development tools designer & manufacturer with headquarters in Bengaluru, India. We design, develop & manufacture development boards based on micro-controller & microprocessors, breakout boards for various sensors & actuators. Our domain & expertise is in the area of Electronics & Embedded Systems.

Elint Labz was founded in 2014 however the actual operations started from 2015 when it became a full time subsidiary of Hogst Innovative Solutions Pvt. Ltd. & is presently a part of Ajaramara Group a conglomerate of various domains of industries, registered in India as Ajaramara Dynamics Pvt. Ltd. under Companies Act of 2013.

As in the name company (Elint Labz) – Electronic intelligence (ELINT) is intelligence gathered by the use of electronic sensors, Laboratories (LABZ) are facilities that provides controlled conditions in which scientific or technological research, experiments and measurement may be performed. EL is an enterprise built to develop smart & intelligent electronics & EL is committed to help achieve electronics literacy in India. No matter the vision or skill level, our products and resources are designed to make electronics & programmable development hardware more accessible.

Elint Labz as a platform helps developers & young engineers from prototyping to product development. We provide open source hardware solutions and small quantity manufacturing services using a design from manufacturing framework. We are a strong promoter of the maker movement in India, most of the manufacturing happens with support of our various Indian partners & couple of our collaboration partners who have manufacturing & sourcing facilities in Germany, Korea & Shenzhen.

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Introduction

Elint Labz has built a Xbee breakout board which enables you to mount the Xbee module on it. This board breaks out all 20 pins of the XBee to a standard spacing dual row header. It has a Serial port. It has Led's to indicate the status of the signals.

Specification

- Operating Voltage: 5V
- Size: 55mm x 42mm

Variants

- None

Supported cables:

- 4-4A
Details:

Xbee breakout board is featured to mount the Xbee module on it. This PCB has a dual in-line package of 20 pins of the Xbee. The Xbee can be mounted on the Xbee slot. The outer row header pins are directly connected to Xbee slot. We can connect either male or female header pins for external communication.

The Xbee can be mounted as shown in the below figure.
The breakout board has a Serial port. This port is used to connect to the microcontroller.

![UART Port](image1)

The breakout board has a Reset button. This is used to reset the Xbee.

![RESET](image2)

The breakout board has five LED’s indicating signal status. The Power LED will indicate that board is powered up. Tx and Rx led’s will indicate the status of transmitting and receiving signals of the Xbee.
RSSI led will indicate the strength of the transmit/receive signal. It turns on when it receives acknowledgement of transmit/receive signal.

The ASSO is an Associate led.
If we use this Xbee board as an Co-ordinator/ router, then
● Once the Coordinator has successfully started, the Associate LED will blink 1 time per second. (The LED is solid if the Coordinator has not started.)
● When association is considered as completed, the Associate LED will blink quickly (5 times per second).
● Once the Confirmation is received, the End Device is Associated and the Associate LED will blink rapidly (2 times per second).

How to interface:

We can make use of 4-3A and 3-4A cables to connect to the serial port.