

# USER MANUAL\_V1

The device is a fully self-contained small form-factor, single stream, 802.11 b/g/n wifi module, which provides a wireless interface to any equipment with a UART interface for data transfer. It supports AP and STA wireless networking and support WIFI Direct mode. It integrates MAC, baseband processor, RF transceiver with power amplifier in hardware and all wifi protocol and configuration functionality and networking stack, in embedded firmware to make a fully self-contained 802.11 b/g/n wifi solution for a variety of applications.

## Device Features

Single stream WIFI @2.4G with support for WEP security mode as well as WPA/WPA2

Fully self-contained serial-to-wireless functionality

Support IEEE802.11 b/g/n wireless standards

Support work as STA/AP

Support smart configuration

Support PCB/External antenna option

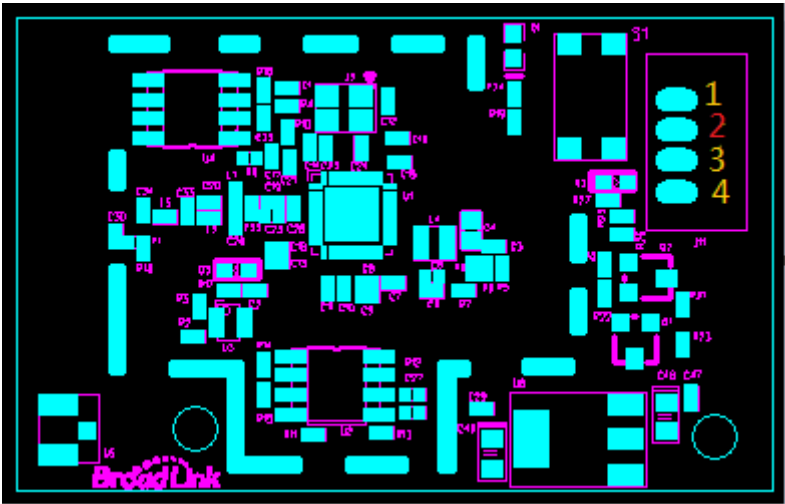
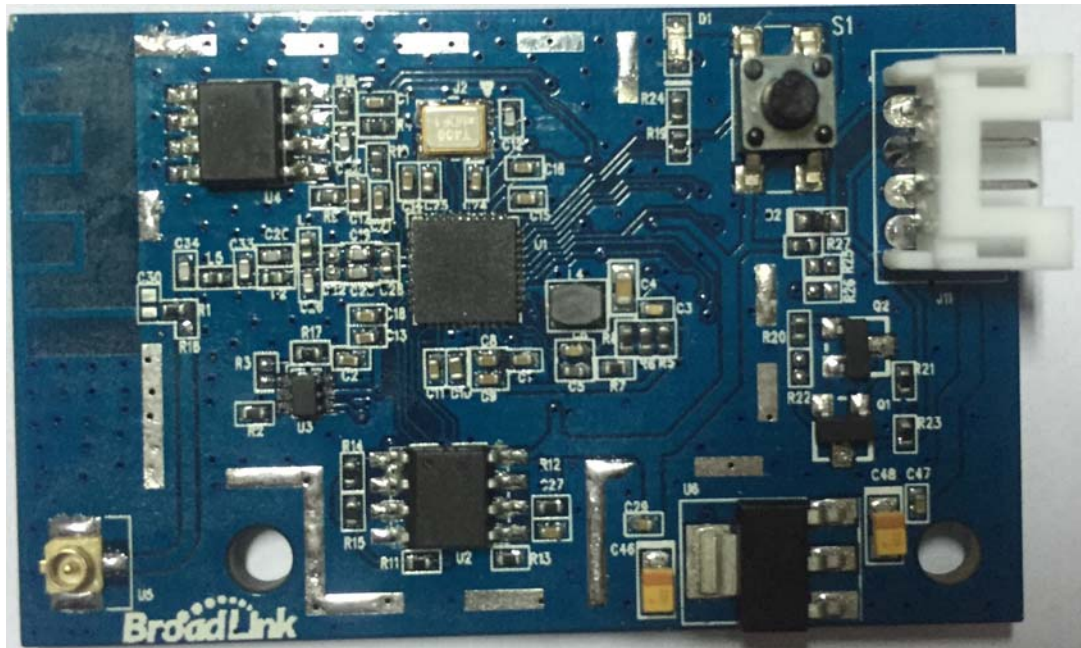
Small size:49.6mm x 31mm x 4mm

## Device paremeters

| Class    | Item                      | Parameters  |
|----------|---------------------------|---|
| Wireless | Wireless standard         | 802.11 b/g/n  |
|          | Frequency range           | 2.412GHz~2.472GHz For CE<br>2.412GHz~2.462GHz For FCC |
|          | Transmit Power            | 802.11b:16dBm<br>802.11g:14dBm<br>802.11n:13dBm       |
|          | Receiver Sensitivity      | 802.11b<-78dBm<br>802.11g<-68dBm<br>802.11n<-66dBm    |
|          | PCB antenna gain          | 2dB   |
| Hardware | Operating voltage         | 5V  |
|          | Operating current         | Max(tx):~240mA  |
|          | OPERATING temp            | -10~70℃   |
|          | size                      | 49.6mm x 31mm x 4mm                                   |
|          | VIL                       | ≤0.3VCC   |
|          | VIH                       | ≥0.7VCC   |
|          | ESD(Human Body Model)     | 2kv@25℃   |
|          | ESD(Charged Device Model) | 500v@25℃  |
| software | Network type              | STA/AP  |
|          | Security mechanisms       | WEP/WPA/WAP2  |
|          | Encryption                | WEP64/WEP128/TKIP/AES                                 |
|          | Reserved resource         |   |

|  |                  |                       |
|--|------------------|-----------------------|
|  | Network protocol | IPv4,TCP/UDP/DNS/DHCP |
|--|------------------|-----------------------|

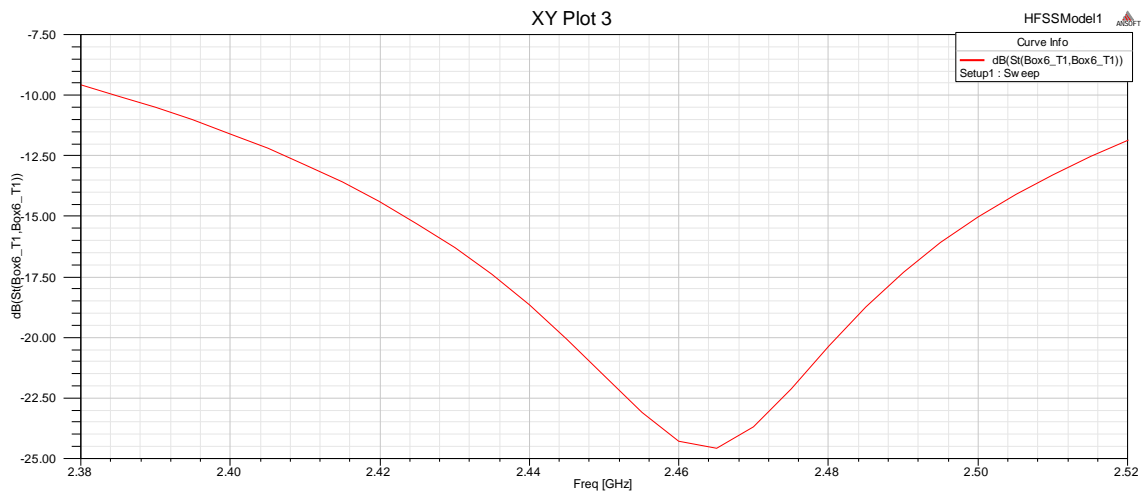
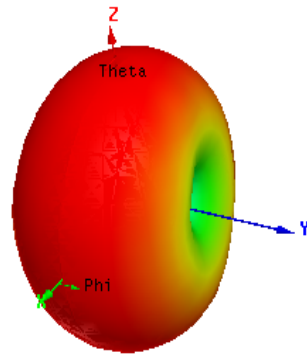
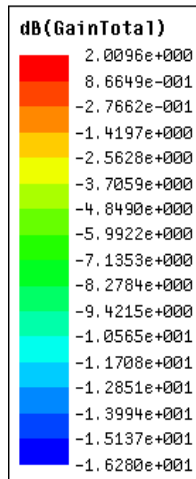
# Hardware



(Unit: mm)

## Pin assignment

| Pin  | Pin name | Description | Type  | Note                          |
|------|----------|-------------|-------|-------------------------------|
| Pin4 | VDD      | VCC 5V      | POWER | UART0<br>Only for Passthrough |
| Pin3 | GND      | GND         | POWER |                               |
| Pin2 | UART0_TX | UART0_TX    | O     |                               |
| Pin1 | UART0_RX | UART0_RX    | I     |                               |



The device also supports external antenna. The parameters required are as followed:

|                 |           |
|-----------------|-----------|
| Frequency range | 2.4G~2.5G |
| Impedance       | 50Ohm     |
| VSWR            | <2        |
| Return loss     | <-10dB    |
| Connector type  | IPEX      |

## Information to be supplied to the end user by the OEM or

### Integrator

The following regulatory and safety notices must be published in documentation supplied to the end user of the product or system incorporating the Inter® wireless adapter, In compliance with local regulations. Host system must be labeled with “Contains FCC ID: 2ACDZ-WT1HBS05”, FCC ID displayed on label.

## **Warning**

1. This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

3. This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. It must be used at least 20cm away from the body of the user.