



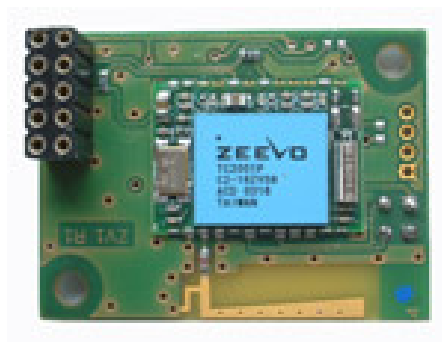
AT01BT – Bluetooth Module & Daughter Board

Outline

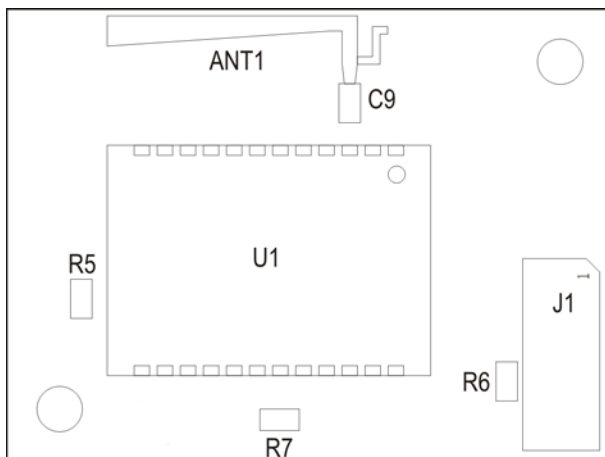
This document describes a motherboard for ZV3001. The AT01BT board has been designed to simplify projects based on Zeevo's ZV3001 Bluetooth module. It includes an "F" antenna, a RS232 transceiver and a voltage regulator.

The size is 40x30mm including the antenna and the 100mil connector (J1).

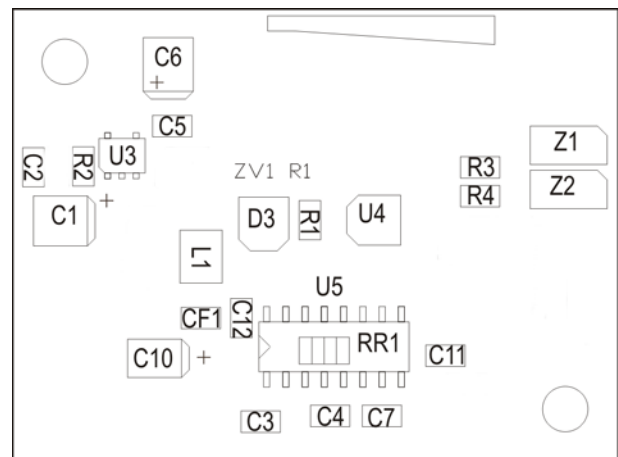
The board is available in both 3.3 and 5 Volt power supply versions.



Layout



Upper layout



Bottom layout



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Pin-Out

The hardware interface has been implemented via a 2 rows by 5 pins 100 mils connector according to the following pin-out:

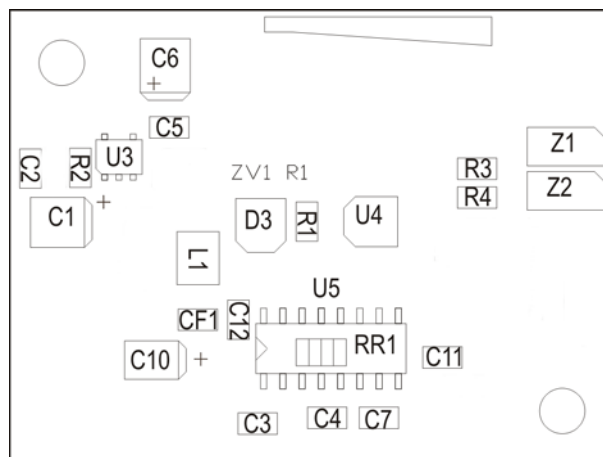
| J1 pinout | | | |
|-----------|------------------|----|-------------------|
| 1 | GND | 2 | Vcc 5V +/- 5% |
| 3 | Reset (1) | 4 | GPIO4 (2, 3) |
| 5 | RX – RS232 (out) | 6 | GPIO5 (2, 4) |
| 7 | CTS – RS232 (in) | 8 | TX – RS232 (in) |
| 9 | GND | 10 | RTS – RS232 (out) |

Note:

- (1) Active low. Left unconnected if not used.
- (2) 3.3Volt I/O no 5Volt tolerant
- (3) Mapped as Baseband Activity (SPP FW). This terminal is high if there is any baseband activity
- (4) USER Definable (SPP FW)

How to modify the board

The board can be easily modify in order to interface 3.3Volt UART. Three simple steps are needed to modify the board to interface 3.3V async serial link:



- 1 Carefully de-soldering U5
- 2 Add 4 x 0 Ω resistors to RR1
- 3 Power the board and check the voltage on J1 pins before connect to you device.

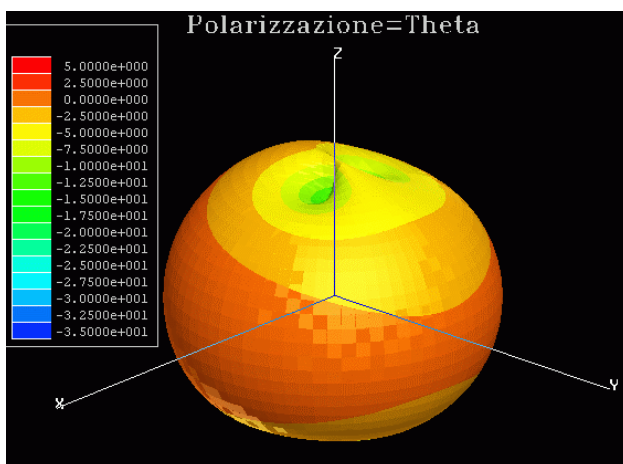


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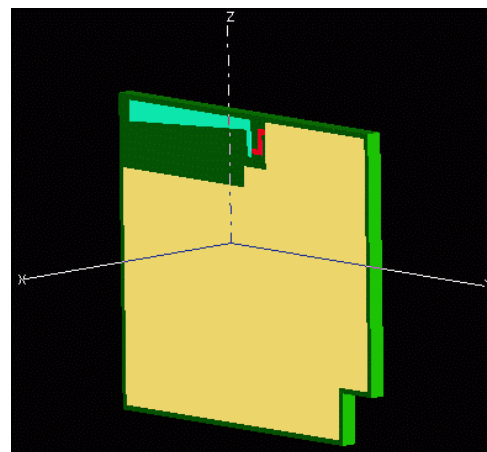
Electrical Characteristics

| Hardware Specifications (1) | | | | | |
|--|-----------|------|-----|--------|-----------------|
| | | min | typ | max | Note |
| Supply Voltage | AT01BT-33 | 3.0 | 3.3 | 3.6 | Volt |
| | AT01BT-50 | 3.8 | 5.0 | 7.0 | Volt |
| Current | AT01BT-33 | 2 | 42 | 67 | mA 115Kbaud (2) |
| | AT01BT-50 | 3 | 44 | 69 | mA 115Kbaud (2) |
| GPIO | | 3.0 | 3.3 | 3.6 | Volt (3) |
| Frequency | | 2400 | | 2483.5 | MHz (3) |
| Sensitivity level | | | -80 | | dBm (3) |
| Antenna impedance | | | 50 | | ? (3) |
| Maximum out.pwr. | | | 0.5 | | dBm (3) |
| Operating temp. | | 0 | | 70 | °C (3) |
| Note: (1) Recommended operating condition for which the device is intended to be functional (2) min value valid if Sniff mode (3) from Zeevo's ZV3001 data sheet | | | | | |

Antenna Characteristics



3D Radiation diagram



Antenna's orientation

More detailed information on ZV3001 module can be found on Zeevo's technical documentation available at www.zeevo.com or from Azzurri Technology's Technical Sales team www.azzurri.com.

