

# BeePROTO™

## Manual

*All Mikroelektronika's development systems feature a large number of peripheral modules expanding microcontroller's range of application and making the process of program testing easier. In addition to these modules, it is also possible to use numerous additional modules linked to the development system through the I/O port connectors. Some of these additional modules can operate as stand-alone devices without being connected to the microcontroller.*

# Additional board

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## BeePROTO

The BeePROTO additional board enables wireless communication via the ZigBee module whose operation is in compliance with the IEEE802.15.4 standard. The additional board communicates to the microcontroller via UART connection.

### Key features:

- High RX sensitivity (-101 dBm);
- Up to 3 dBm output power;
- Very low power consumption (< 6  $\mu$ A in deep sleep mode);
- 2.4 GHz ISM band;
- Power supply 3.3 or 5V DC.

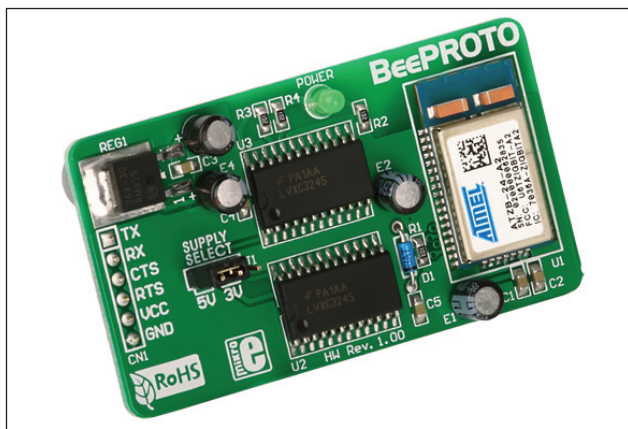


Figure 1: BeePROTO additional board

### How to connect the board?

The BeePROTO additional board is connected to a microcontroller or some other device via pads CN1. Jumper J1 is used to select power supply voltage (3.3V or 5V) to be used to power the additional board.

The function of pins:

- |      |  |
|------|--|
| Tx   | - UART receive input   |
| Rx   | - UART transmit output   |
| CTSD | - CTS output (Clear To Send) for UART hardware flow control. Active low  |
| RTSD | - RTS input (Request To Send) for UART hardware flow control. Active low |

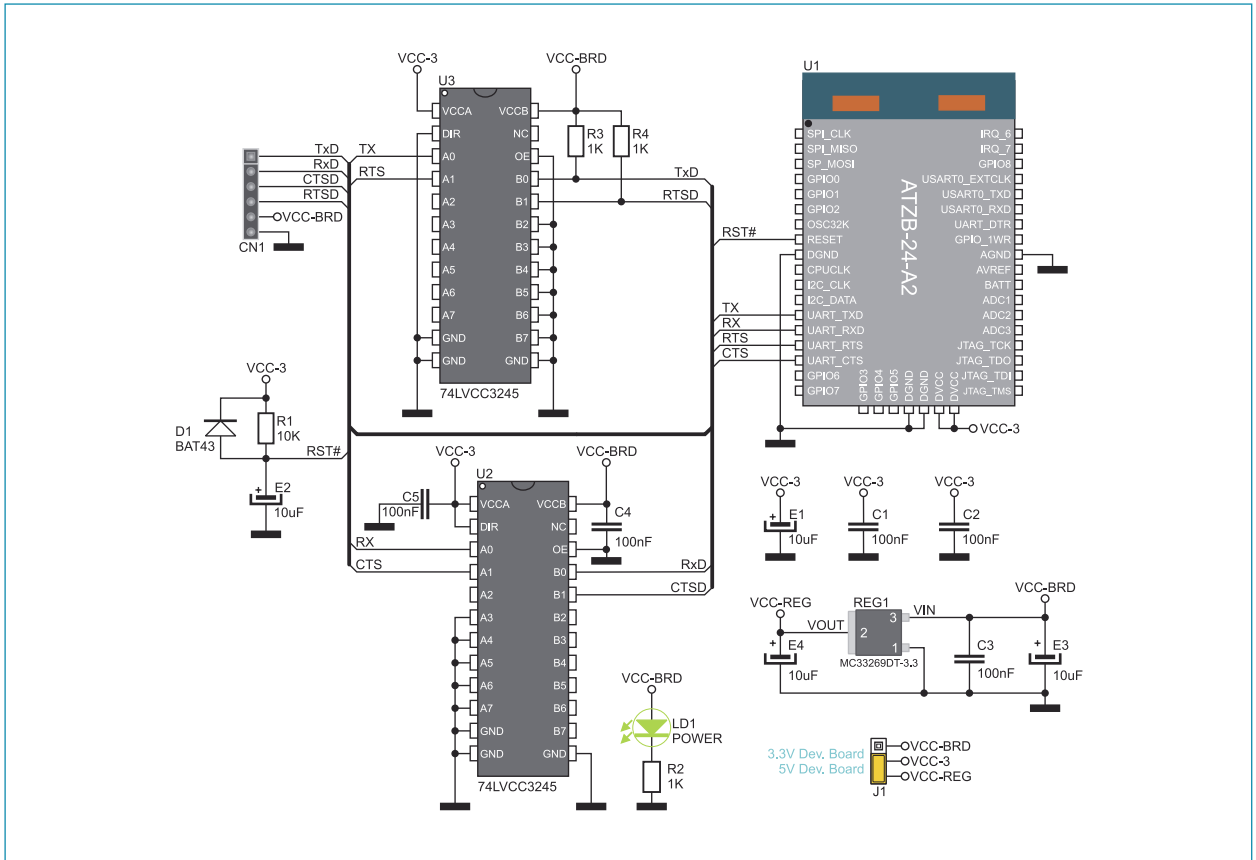


Figure 2: BeePROTO additional board connection schematic

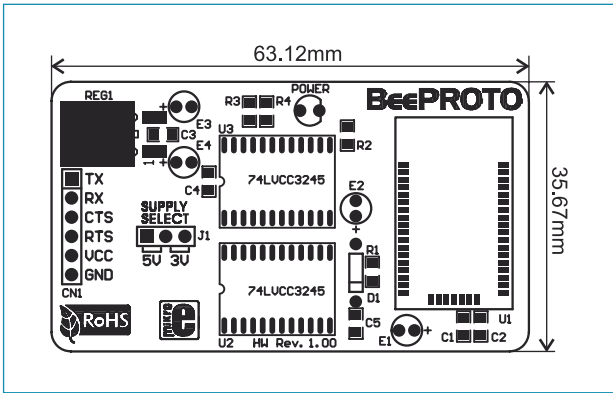


Figure 3: Dimensions of the BeePROTO additional board



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