



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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LIN

The LIN additional board is used to connect a development system to LIN (Local Interconnect Network). The LIN is used in automotive industry and is composed of one master and up to 16 slave devices.

Key features:

- Supports baud rates up to 20 Kbaud;
- Interface to standard USARTs;
- Output voltage of 5V with $\pm 5\%$ tolerances over temperature range;
- Wide supply voltage, 6.0 – 18.0V.

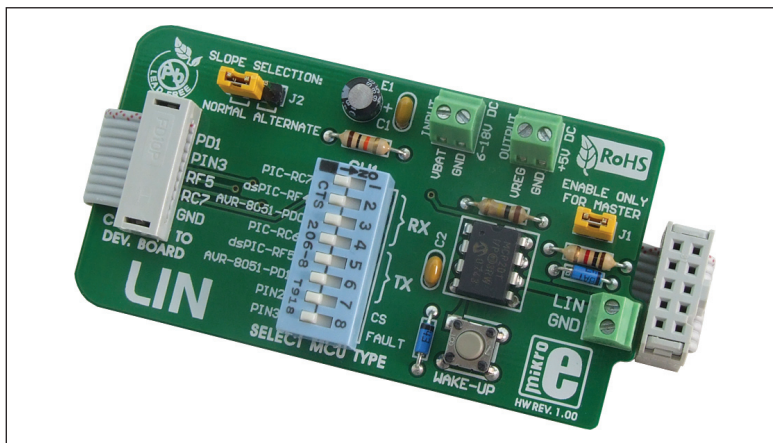


Figure 1: LIN additional board

How to connect the board?

The LIN additional board can be easily connected to a development system via an IDC10 connector on the additional board and one of the development system's ports. The power supply voltage (VBAT) of 6 to 18V DC is supplied via a screw terminal CN4. The additional board can regulate the power supply voltage and decrease it to 5V. This voltage can be used to power a device via a screw terminal CN3, where the maximum current consumed by the device should not exceed 50mA. The additional board is easily connected to devices sharing LIN via a screw terminal CN2. Depending on the development system in use, it is necessary to set the appropriate switch on the DIP switch SW1 to the ON position, table 1.

| | RX | TX |
|----------|---|---------|
| PIC | 1 (RC7) | 4 (RC6) |
| dsPIC | 2 (RF4) | 5 (RF5) |
| AVR-8051 | 3 (PD0) | 6 (PD1) |
| | Position of switches on the DIP switch SW1 for the appropriate development system | |

Table 1

How to use the board?

The LIN board receives data from the development system via UART communication, converts it so that it can be sent further via the LIN network. Jumper J1 is used to turn on/off master mode. When this jumper is placed, the additional board is configured to operate in master mode. Similarly, when this jumper is removed, the additional board operates as a slave device. Jumper J2 is used to set the additional board to normal or alternative “slope” mode.

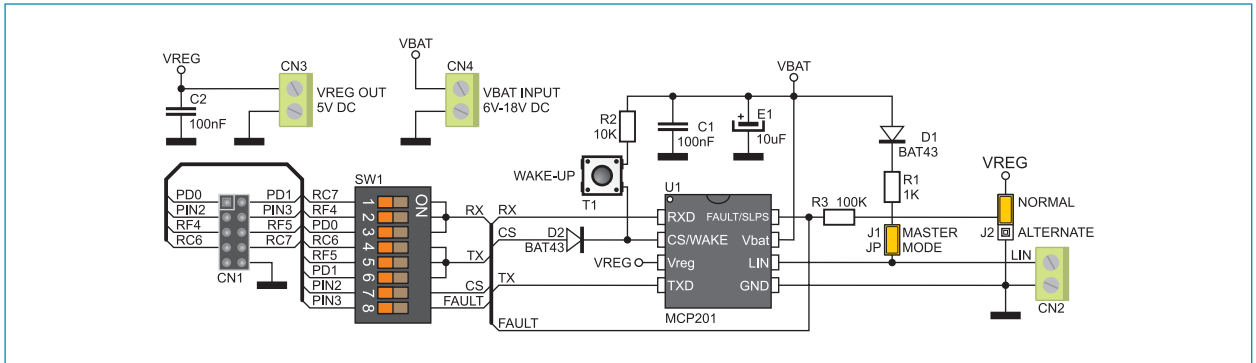


Figure 2: LIN additional board connection schematic

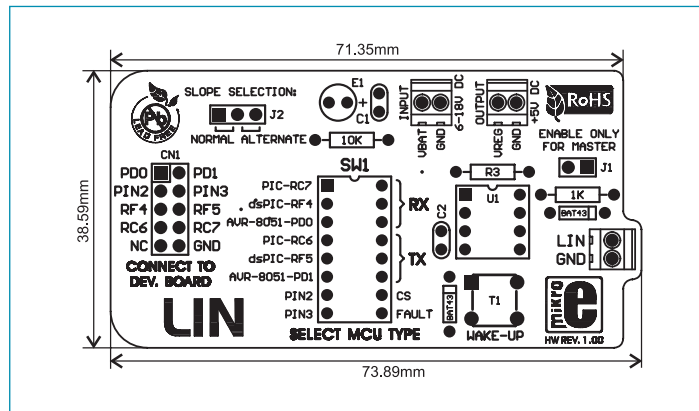


Figure 3: Dimensions of the LIN additional board

Here you can find examples for the LIN additional board: <http://www.mikroe.com/eng/products/view/176/lin-board/>



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