

Battery Boost Shield™

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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Battery Boost Shield

The Battery Boost Shield is step-up DC-DC converter for battery powered devices such as Mikroelektronika's mikroMMB boards (mikroMMB for PIC32, mikroMMB for dsPIC33, mikroMMB for PIC24, mikroMMB for PIC18F...)

Key features:

- Two AAA 1,5V battery holders;
- Output voltage 4V DC;
- Output current ~300mA

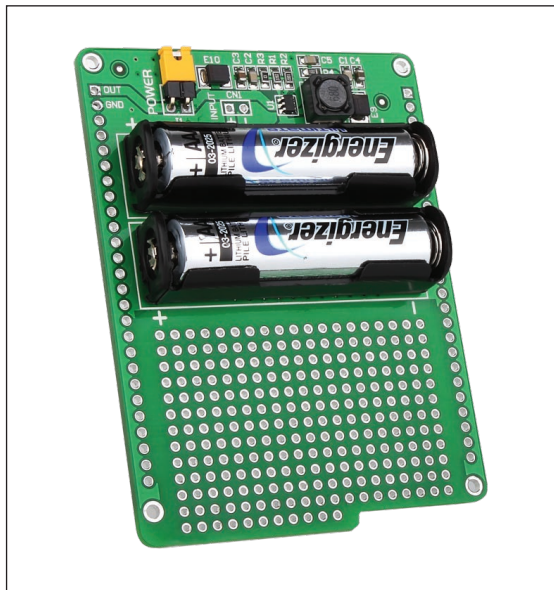


Figure 1: Battery Boost Shield

How to use the board?

First thing you need to do is to place two 1.5V AAA batteries in to the battery holders. Instead of AAA batteries you can use other DC power supply source in range between 0.65V and 4V DC which is connected via pads marked with INPUT. Pad marked with "+" is used for positive voltage connection and pad marked with "-" is used for GND. When batteries are inserted additional board will start step-up DC-DC voltage conversion. To use converted voltage connect positive input of powered device with pad marked with OUT and GND with pad marked with GND. To power up powered device place jumper J1 on Battery Boost.

To connect Battery Boost Shield with mikroMMB board it is necessary to solder supplied headers to appropriate pads on Battery Boost Shield and mikroMMB board, Figure 2 (A and B).

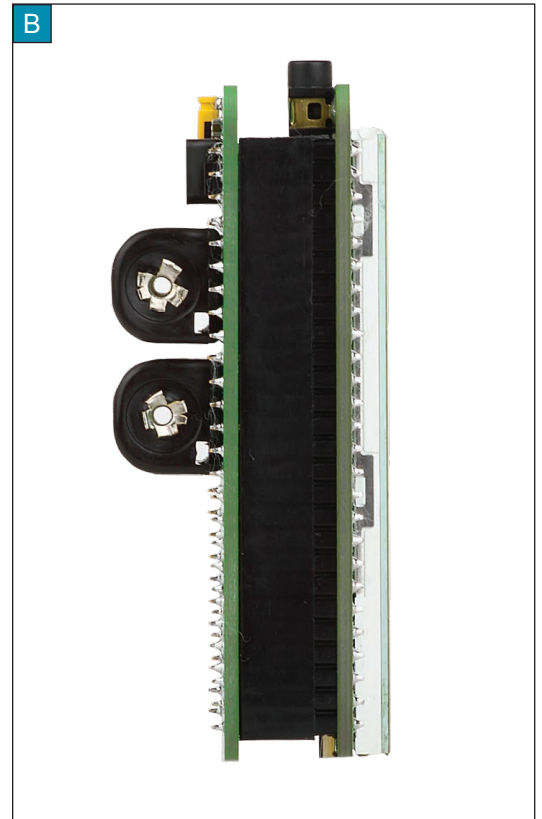
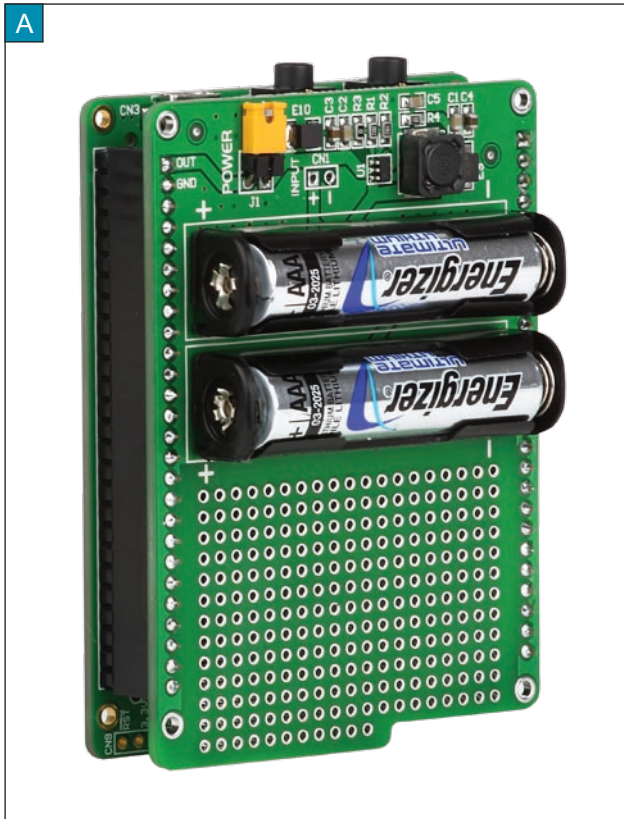


Figure 2: Battery Boost Shield connected to mikroMMB

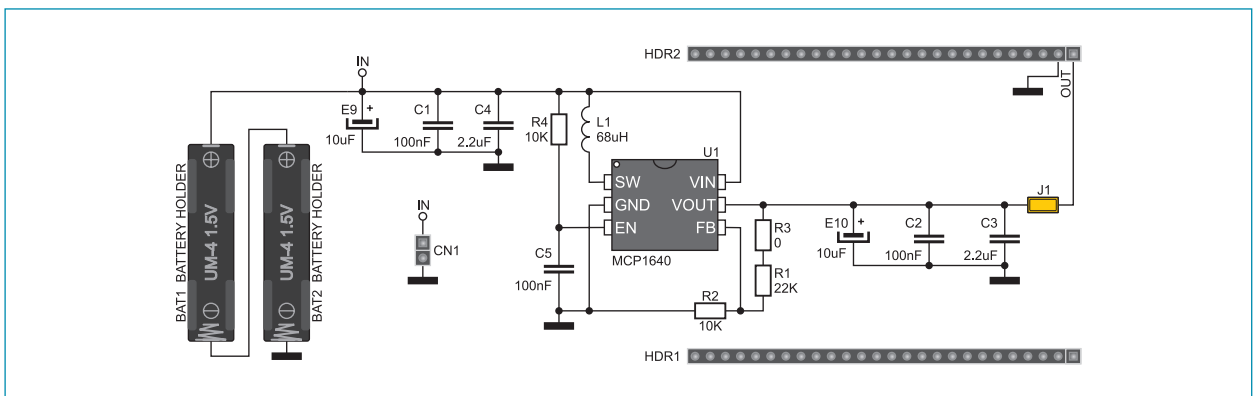


Figure 3: Battery Boost Shield connection schematics

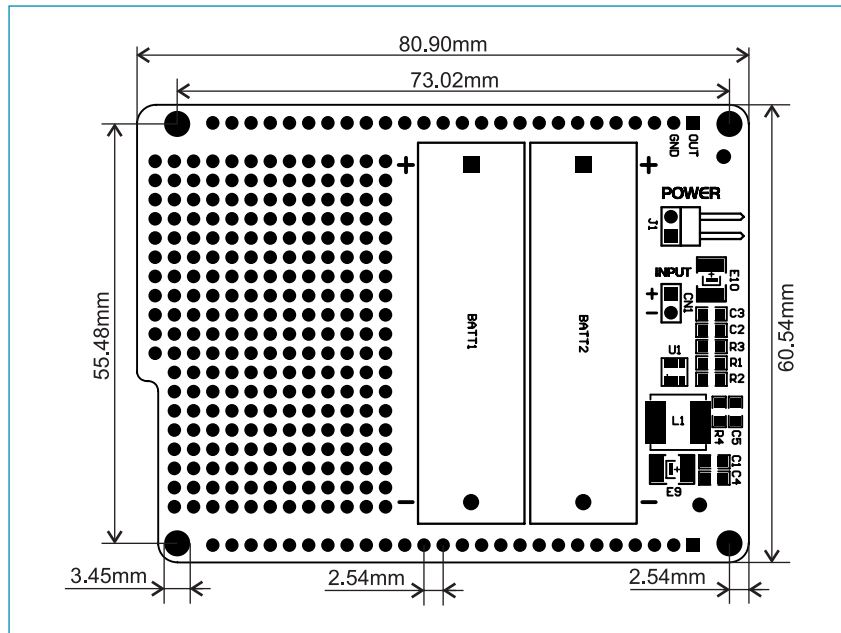


Figure 4: Battery Boost Shield dimensions



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