# **EasyBuzz**<sup>®</sup>

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.

# Manual

# Additional board

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# EasyBuzz

The EasyBuzz additional board is used to emit audio signals by using a piezo buzzer supplied on the board.

### **Key features:**

- 3.8kHz resonant frequency;
- Low power consumption;
- 3.3 or 5V DC power supply voltage.



Figure 1: EasyBuzz additional board

### How to connect the board?

The EasyBuzz additional board can be easily connected to a development system via a 2x5 connector CN1 on the additional board.

### How to use the board?

In order to enable the EasyBuzz board to emit audio signals, it is necessary to connect it to a development system and write the appropriate program to be loaded into the microcontroller. The program should define which of the microcontroller pins will be used to generate a voltage signal of specific frequency. Resonant frequency is 3.8kHz, whereas frequencies in a range between 20Hz and 20kHz may also be used. The best sound quality is achieved when using frequencies between 2 and 4kHz.

In order to connect the board to the microcontoller on the development system, it is necessary to set the appropriate switch on DIP switch SW1 to the ON position. It depends on the microcontroller pin, used to emit voltage signal, which one of these switches will be set ON.



Figure 2: EasyBuzz additional board connection schematic



Figure 3: Dimensions of the EasyBuzz additional board



Figure 4: Additional board connected to a development system



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