

# BUZZ click<sup>™</sup>

#### 1. Introduction



## Front and back side appearance of the BUZZ click Board

BUZZ Click is an accessory board in **mikroBus<sup>m</sup>** form factor. Board features a piezo speaker capable of emitting audio signals. Buzzer's resonant frequency is 3.8kHz (where you can expect it's best performance). On-board buzzer driver can be connected to either digital (GPI) or PWM line. You can use either of those two pins to provide the signal from the microcontroller to the buzzer driver. Board is set to use 5V power supply by default. Solder **PWR SEL** SMD jumper to 3.3V position if used with 3.3V systems.

#### 2. Soldering the headers

Before using your click board, make sure to solder the provided 1x8 male headers to both sides of the board. Two 1x8 male headers are included with the board in the package.

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Turn the board upward again. Make sure to align the headers so that they are perpendicular to the board, then solder the pins carefully.



#### 4. Creating Sound

On-board buzzer driver can be connected to either digital (GPI) or PWM line. You can create sound using Sound library supported in mikroElektronika compilers, or utilize microcontroller internal PWM module to create the signal for the buzzer. Signal frequency determines the sound pitch, and the duty cycle determines the amplitude (sound volume).



Turn the board upside down, so that

bottom side is facing you upwards. Place

shorter parts of the header pins in the

both soldering pad locations.

#### 3. Plugging the board in

Once you have soldered the headers your board is ready to be placed into desired mikroBUS<sup>TM</sup> socket. Make sure to align the cut in the lower-right part of the board with the markings on the silkscreen at the mikroBUS<sup>TM</sup> socket. If all the pins are aligned correctly, push the board all the way into the socket.



#### 5. Buzz click Board Schematics

+3V3

P1

RST

CS

SCK

MISO

MOSI +3.3V

GND



#### 6. Power supply selection



VCC

On-board PWR SEL zeroohm resistor (SMD jumper) is used to determine whether 5V or 3.3V power supply is used. This resistor

is provided in 5V position by default. In order to use BUZZ click with 3.3V development system, it is necessary to resolder this jumper to +3.3V position.

#### 7. Code Examples

Once you have done all the necessary preparations, it's time to get your click board up and running. We have provided the examples for mikroC, mikroBasic and mikroPascal compilers on our Libstock website. Just download them and you are ready to start.



#### 8. Support

MikroElektronika offers Free Tech Support (www.mikroe.com/esupport) until the end of product lifetime, so if something goes wrong, we are ready and willing to help!



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