2. Soldering the headers

Before using your click[™] board, make sure to solder 1x8 male headers to both left and right side of the board. Two 1x8 male headers are included with the board in the package.



Joystick click[™]

1. Introduction



loystick click[™] is an accessory board in mikroBUSTM form factor. It's a compact and easy solution for adding joystick to your design. It features AS5013 Hall IC as well as N50P105 miniature magnetic joystick module. Joystick click[™] communicates with the target board microcontroller via mikroBUSTH I²C (SDA, SCL), INT, RST and CS lines. The board is designed to use 3.3V power supply only. LED diode (GREEN) indicates the presence of power supply.



Turn the board upside down so that bottom side is facing you upwards. Place shorter pins of the header into the appropriate soldering pads.





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

aligned correctly, push the board all

the way into the socket.



4. Essential features

Joystick click[™] with its AS5013 IC and N50P105 represents smart navigation key concept based on contactless, magnetic movement detection. The AS5013 includes five integrated Hall sensing elements which are monitoring the movement of the magnet, incorporated into the joystick, and provides directly the x and y coordinates via I²C output. An integrated mechanical push button is also built in joystick.



5. Joystick click[®] Board Schematic

VC<u>C-3</u>.3

R1 2K2

VCC-3.3 VC<u>C-</u>3.3 VC<u>C-</u>3.3 VCC-3.3 VCC-3.3 R4 100K U1 R2 10K 10K AS5013 **C**1 mikro LR5 100K 100nF 100nF DIO U2 PWM TST RST TST INT INT RST CS TX SDA VDD → SCL SCL RST VDDp ADD RX SCK FPAD RST SCL SDA MISO MOSI ΝT C3 100nF +3.3V +5V 11 GND GND 🗖

TB1 TB2 TB2 TB2

6. SMD jumper



J1 SMD jumper which is provided on the board is used to select the alternate address for I²C interface. It is soldered to position 0 by default.

7. Code Examples

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



8. Support

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



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