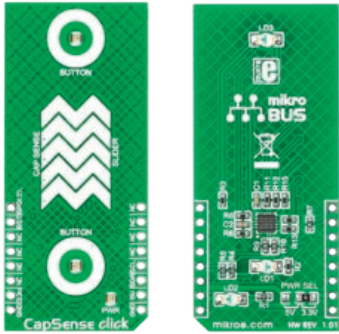




CapSense click™

1. Introduction



CapSense click™ is an accessory board in **mikroBUS™** form factor. It's a compact and easy solution for adding capacitive sensing elements to your design. It features **CY8C201A0** capacitive controller and capacitive sensing elements. CapSense click™ communicates with the target board microcontroller via **mikroBUS™** I2C (SDA, SCL), AN and RST lines. The board is designed to use 3.3 V or 5 V power supply. LED diode (GREEN) indicates the presence of power supply.

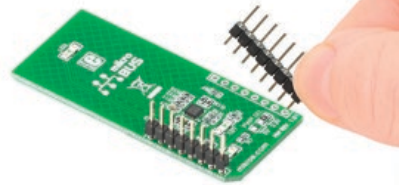
2. Soldering the headers

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.



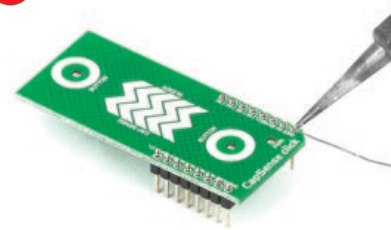
1

2

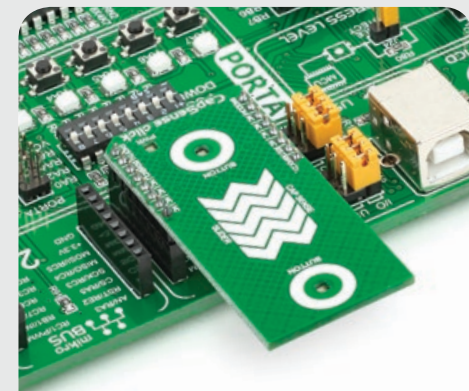


Turn the board upside down so that bottom side is facing you upwards. Place shorter pins of the header into the appropriate soldering pads.

3



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

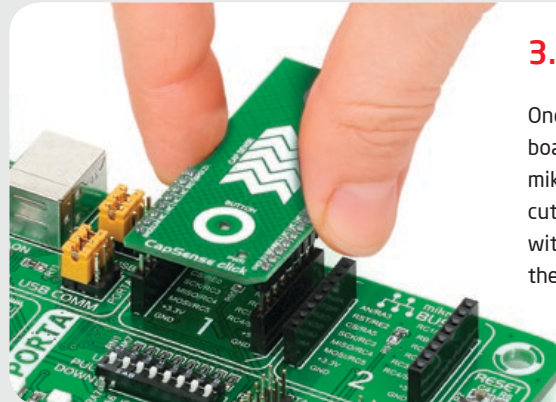


4. Essential features

CapSense click™ with its **CY8C201A0** IC is a capacitive sensing module that takes human body capacitance as an input and directly provides the real time sensor information via I²C output. The board contains capacitive sensing elements (5-segment slider and two buttons) as well as two LEDs. The **CY8C201A0** has high immunity against radiated and conductive noise.

3. Plugging the board in

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

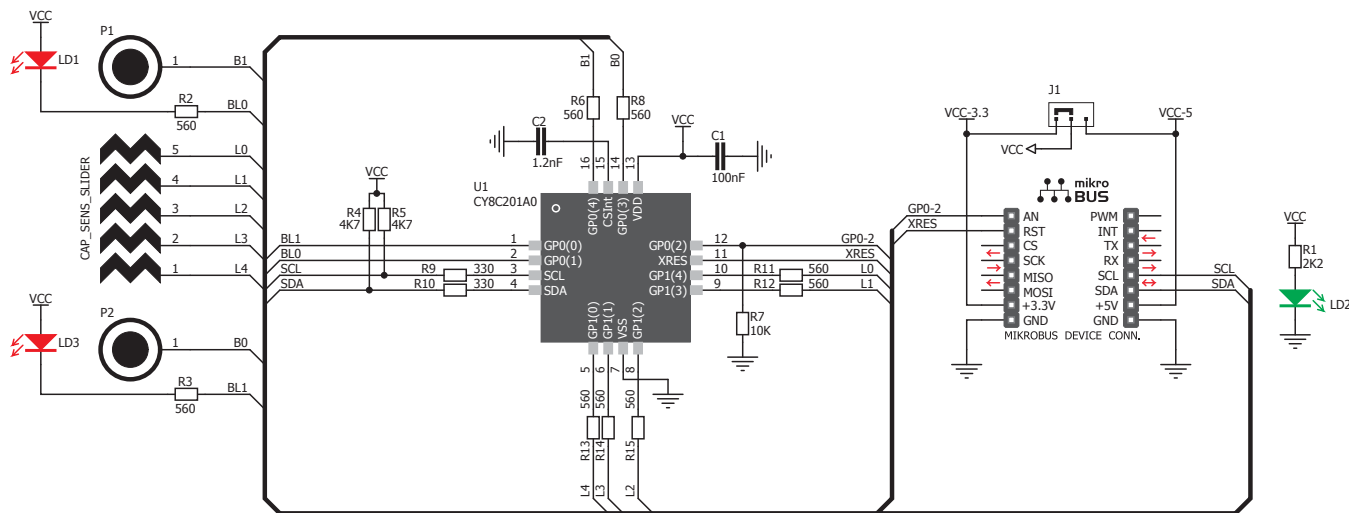


click™
BOARD
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CapSense click Manual
ver. 1.00

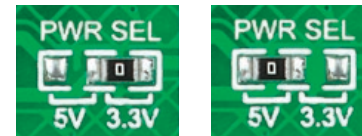


5. CapSense click™ Board Schematic



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6. SMD jumper



There is one zero-ohm SMD jumper **J1** used to select whether 3.3 V or 5 V power supply is used. Jumper **J1** is soldered in 3.3 V position by default.

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/support) until the end of product lifetime, so if something goes wrong, we are ready and willing to help!



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