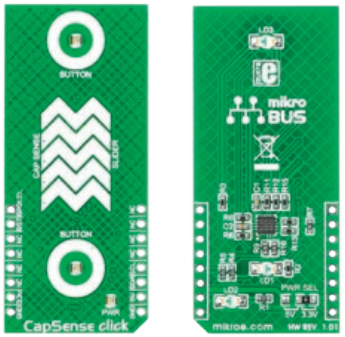
CapSense click™

1. Introduction



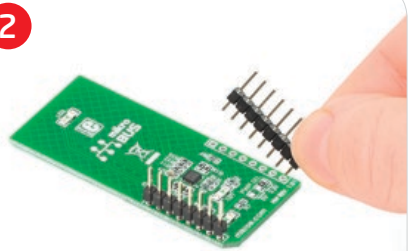
CapSense click™ is an accessory board in **mikroBUS™** form factor. It's a compact and easy solution for adding capacitive sensing elements to your design. It features **CY8C201A0** capacitive controller and capacitive sensing elements. CapSense click™ communicates with the target board microcontroller 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.

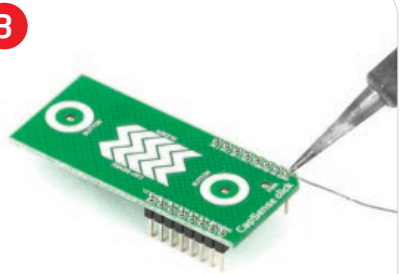
1

2

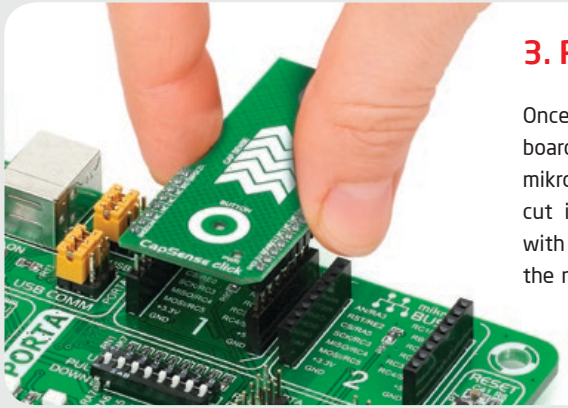


Turn the board upside down so that bottom side is facing you upwards. Place shorter pins of the header into the appropriate soldering pads.

3

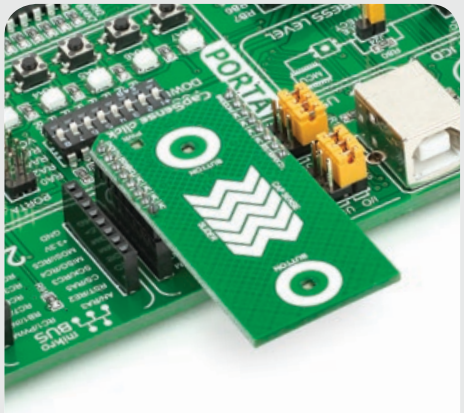


Turn the board upward again. Make sure to align the headers so that they are perpendicular to the board, then solder the pins carefully.



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.



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.

click™
BOARD
www.mikroe.com

CapSense click Manual
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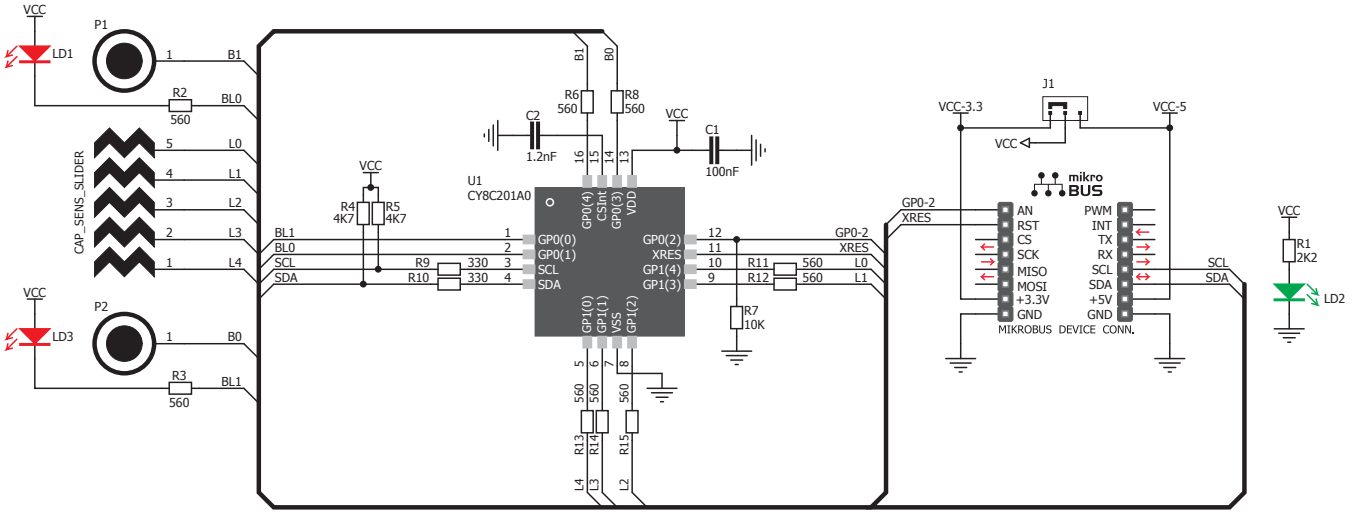
5. CapSense click™ Board Schematic



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.

LIBSTOCK.com

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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