Chipsmall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!
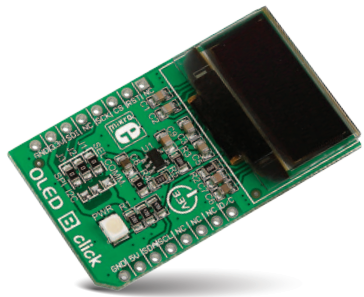
## Contact us

OLED B click™

1. Introduction
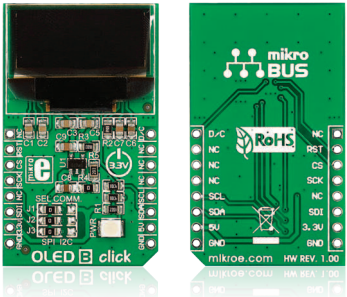
OLED B click™ lets you add a small but bright and crisp display to your design. It carries a blue monochrome passive matrix OLED display and a **SSD1306** IC to control it. OLED B click™ can communicate with the target board either through SPI or I²C interfaces. **mikroBUS™** lines used for SPI are CS, SCK, and MOSI (SDI); I²C output uses SCL and SDA lines; also, both modes use PWM (A/C) and RST lines. You select between SPI and I²C outputs by resoldering three jumpers. OLED B click™ uses a 3.3V power supply.
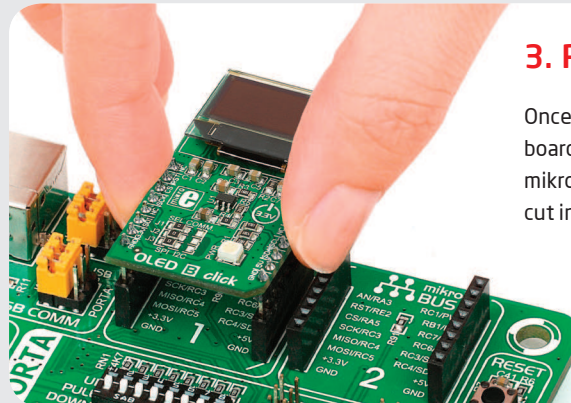
2. Soldering the headers

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.

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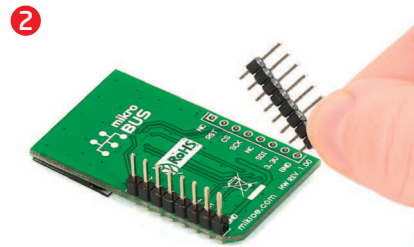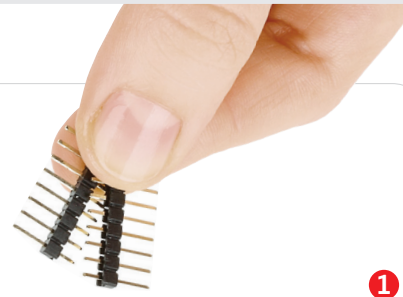
Turn the board upside down so that the bottom side is facing you upwards. Place shorter pins of the header into the appropriate soldering pads.

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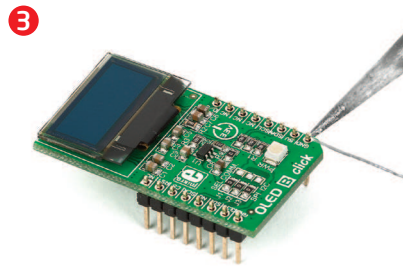
Turn the board upward again. Make sure to align the headers so that they are perpendicular to the board, then solder the pins carefully.

3. Plugging the board in

Once you have soldered the headers your board is ready to be placed into the 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 the pins are aligned correctly, push the board all the way into the socket.
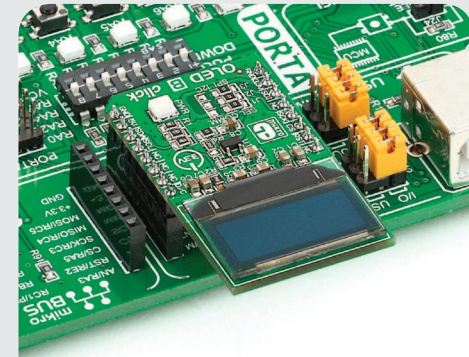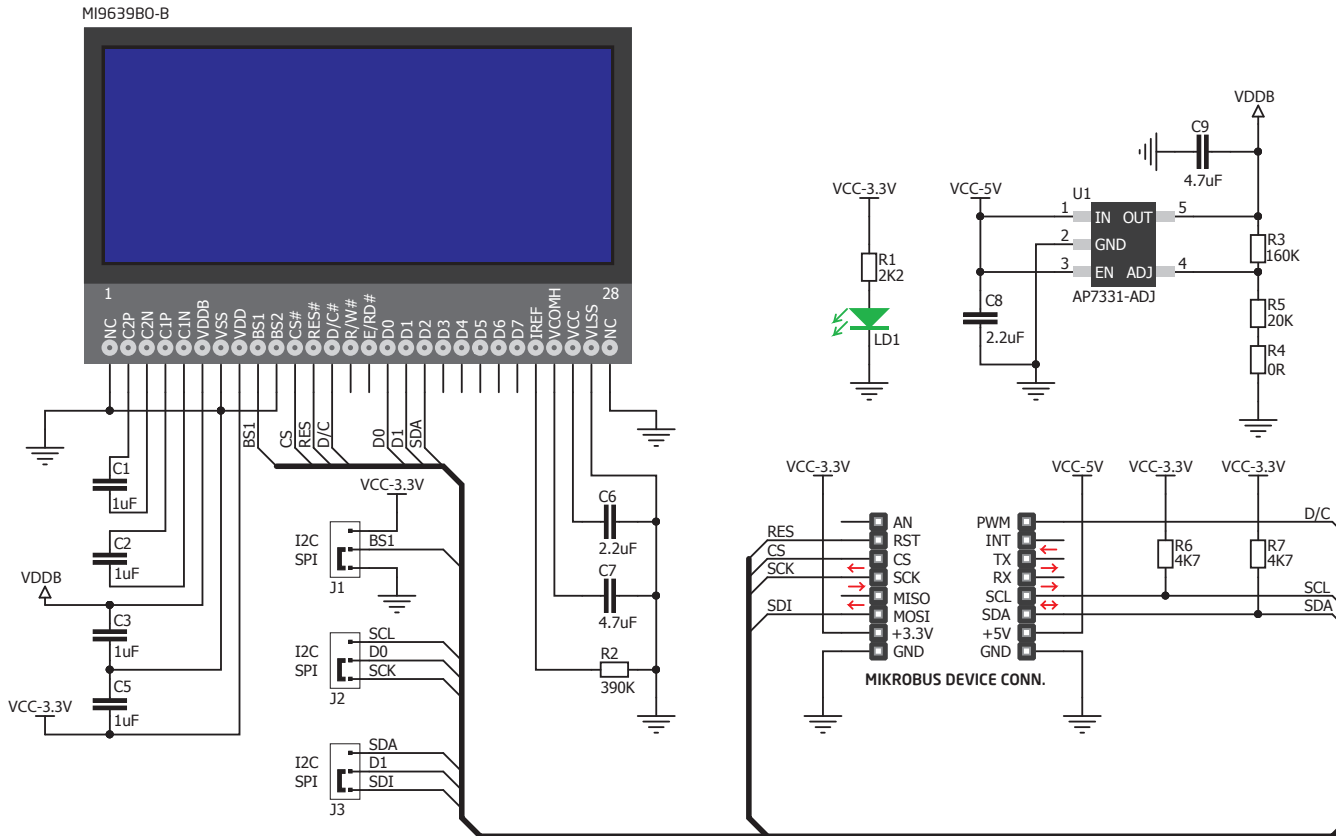
4. Essential features

OLED displays are made from a thin film of organic compound that emits light when exposed to a current. Small monochrome displays like these are ideal for displaying text or icons. They are bright, have a wide viewing angle and low power consumption. The display on OLED B click™ is 19.3 x 7.8mm with a 96 x 39px resolution. The SSD1306 controller has built-in functionalities like contrast control, normal or inverse image display, vertical and horizontal scrolling functions and many more.
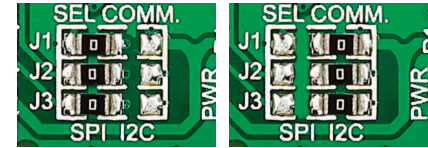
click™
BOARD
www.mikroe.com

OLED B click Manual v100

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5. OLED B click™ board schematic

MI9639B0-B

Pins (left to right): NC C2P C2N C1P C1N VDDB VSS VDD BS1 BS2 CS# RES# D/C# R/W# E/RD# D0 D1 D2 D3 D4 D5 D6 D7 IREF VCOMH VCC VLSS NC

1 ... 28

C1 1uF
C2 1uF
VDDB
C3 1uF
C5 1uF
VCC-3.3V

BS1 CS RES D/C D0 D1 SDA

I2C SPI — BS1 — J1
VCC-3.3V

I2C SPI — SCL D0 SCK — J2

I2C SPI — SDA D1 SDI — J3

C6 2.2uF
C7 4.7uF
R2 390K

VCC-3.3V
R1 2K2
LD1

VCC-5V
C8 2.2uF

VDDB
C9 4.7uF

U1
IN OUT
GND
EN ADJ
AP7331-ADJ
1 2 3 5 4

R3 160K
R5 20K
R4 0R

VCC-3.3V
RES
CS
SCK
SDI

AN
RST
CS
SCK
MISO
MOSI
+3.3V
GND

PWM
INT
TX
RX
SCL
SDA
+5V
GND

MIKROBUS DEVICE CONN.

VCC-5V
R6 4K7
VCC-3.3V
R7 4K7
VCC-3.3V

D/C
SCL
SDA

6. Interface selection

To switch from SPI to I²C output on OLED B click, resolder all three onboard jumpers (**J1**, **J2** and **J3**) to the I²C 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 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 the product's lifetime, so if something goes wrong, we're ready and willing to help!

MikroElektronika
DEVELOPMENT TOOLS | COMPILERS | BOOKS