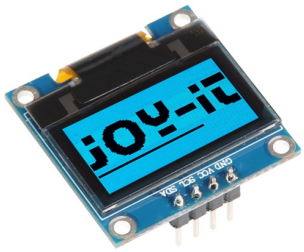
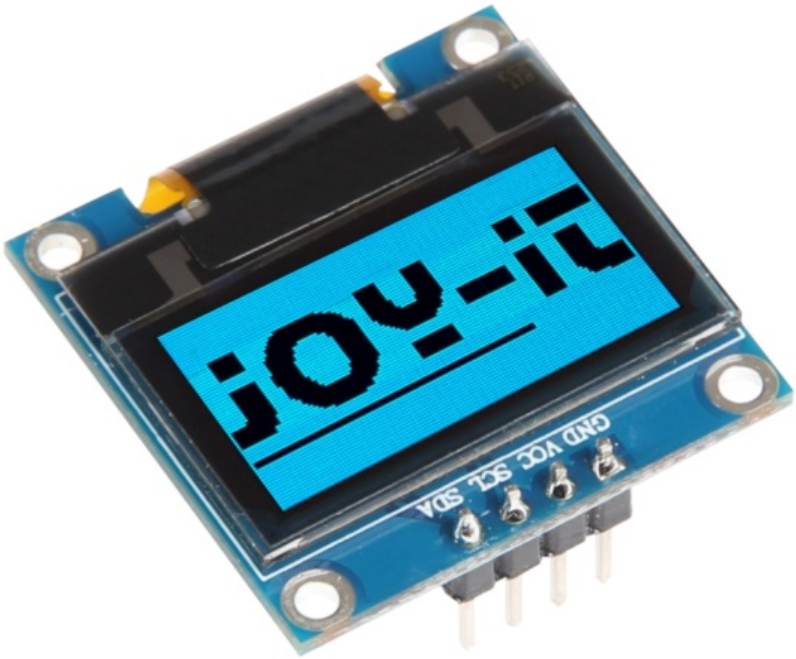


JOY-iT SBC-OLED01 OLED Display 128×64 Module Instruction Manual

OLED DISPLAY 128X64
SBC-OLED01



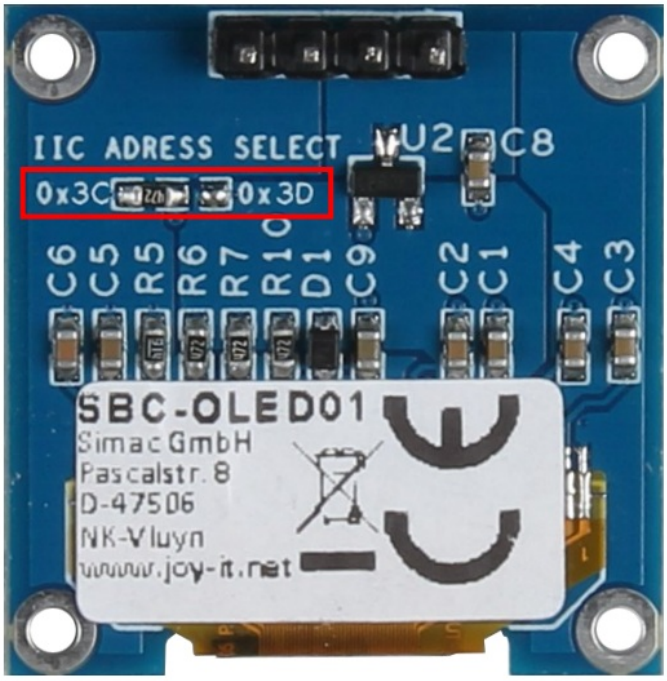
Contents

GENERAL INFORMATION

Dear customer,
Thank you for purchasing our product. In the following, we will show you which things should be noted during the use.
Should you encounter any unexpected problems, do not hesitate to contact us.

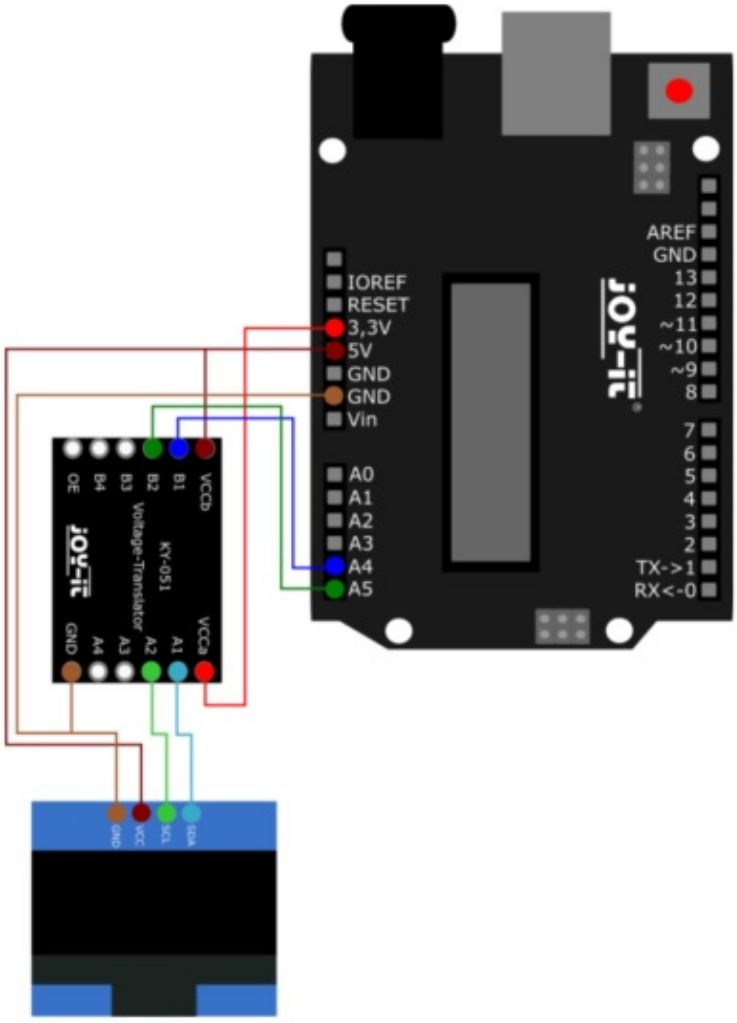
I2C ADRESSE

On the backside of the OLED display is a resistor, with which you can set the I2C address of the display to 0x3D.
In the delivery state, the display is accessible via the I2C address 0x3C.
To change the address, re-solder the resistor marked in the figure.



USAGE WITH ARDUINO

3.1 Connection The SBC-OLED01 has a logic level of 3.3V. Therefore, when using an Arduino Uno, a voltage translator must be used, otherwise, it may cause damage to the display. In our example, we use the COM-KY051VT.



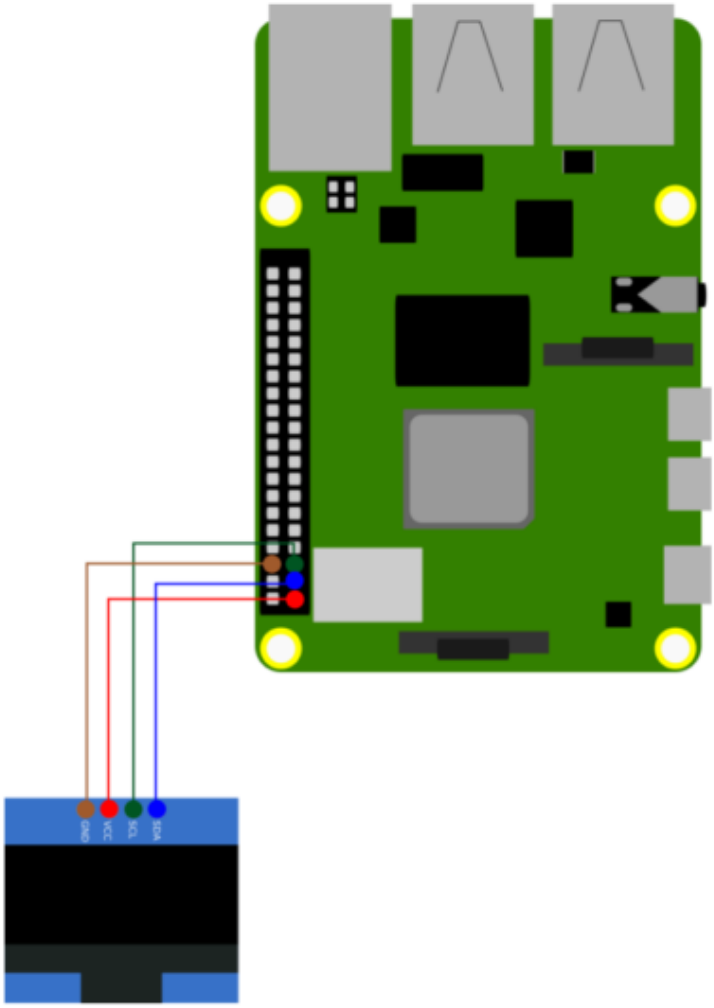
OLED	Arduino	Voltage translator
GND	GND	GND
VCC	5V	VCCb
–	3,3 V	VCCa
–	A5	B2
SCL	–	A2
–	A4	B1
SDA	–	A1

3.2 Code example
Before you can transfer the code example to your Arduino using your Arduino IDE, you must first install the additional libraries **Adafruit GFX Library** (released under the **BSD License**) and **Adafruit_SSD1306** (released under the **BSD License**) from **Adafruit**.
These libraries allow you to use the display as easily and quickly as possible. You can search for and install them under Sketch → Include Library → Manage Libraries….

You can download our code examples here. You can upload the code to your Arduino using the Upload button. Make sure that you have selected Port and Board correctly under Tools.

USAGE WITH RASPBERRY PI

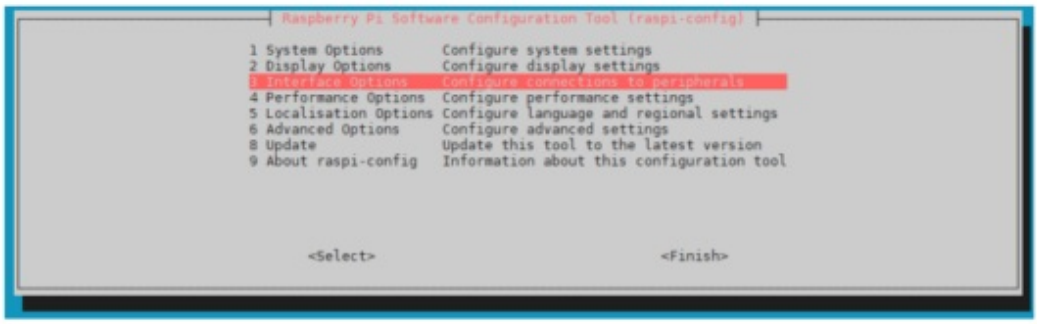
Connection



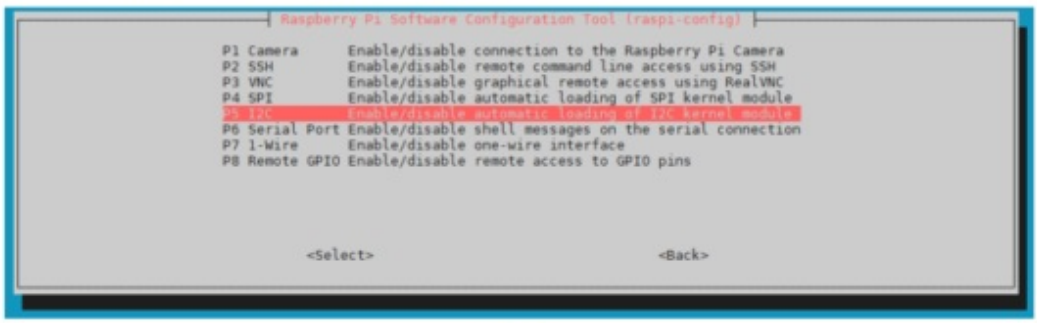
OLED	Raspberry Pi
GND	GND
VCC	3,3V
SCL	GPIO 3 (SCL)
SDA	GPIO 2 (SDA)

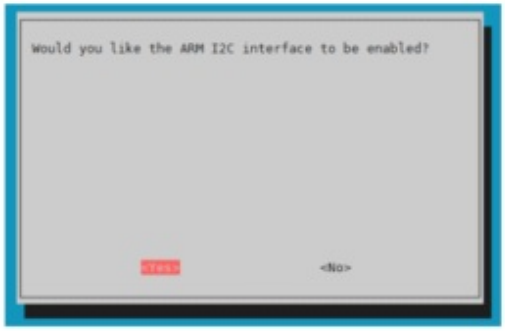
Installation

First, enable I2C on your Raspberry Pi. To do this, enter the following command into your console. sudo raspi-config



Now activate I2C under ***3 Interface Options → P5 I2C.***





Now, enter the following commands to install the necessary libraries.
sudo apt-get install python3-pip
sudo apt-get install python3-pil
Now, open the config.txt to increase the baud rate for the display. To do this, execute the following command.
sudo nano /boot/config.txt
Add the following line at the end of the file.
[all]
dtparam=i2c_baudrate=1000000

Save the file with CTRL + O and close it with CTRL + X.
Now restart the Raspberry Pi with the following command.
sudo reboot
For the display, we use the Adafruit CircuitPython SSD1306 library from Adafruit, which is released under the MIT License. You can download it with the following command.
sudo pip3 install adafruit-circuitpython-ssd1306

Code example

You can download our sample code with the following command.
wget **https://www.joy-it.net/files/files/Produkte/SBC-OLED01/SBC-OLED01_Codeexample_RaspberryPi.zip**
Unzip the file with the following command.
unzip SBC-OLED01_Codeexample_RaspberryPi
You can now execute the code with the following command. Please note that the directory may differ.
cd SBC-OLED01_Codeexample_RaspberryPi python3 SBC-OLED01.py

OTHER INFORMATION

Our information and take-back obligations according to the Electrical and Electronic Equipment PR Act (ElektroG)
The symbol on electrical and electronic equipment:

This crossed-out dustbin means that electrical and electronic appliances do not belong in the household waste. You must return the old appliances to a collection point. Before handing over waste batteries and accumulators that are not enclosed by waste equipment must be separated from it.c

Return options:
As an end-user, you can return your old device (which essentially fulfills the same function as the new device purchased from us) free of charge for disposal when you purchase a new device.
Small appliances with no external dimensions greater than 25 cm can be disposed of in normal household quantities independently of the purchase of a new appliance.

Possibility of return at our company location during opening hours:
SIMAC Electronics GmbH, Pascalstr. 8, D-47506 Neukirchen-Vluyn, Germany

Possibility of return in your area:
We will send you a parcel stamp with which you can return the device to us free of charge. Please contact us by email at **Service@joy-it.net** or by telephone.

Information on packaging:
If you do not have suitable packaging material or do not wish to use your own, please contact us and we will send you suitable packaging.

SUPPORT

If any questions remained open or problems may arise after your purchase,we are available by e-mail, telephone and ticket support system to answer these.

E-Mail: **service@joy-it.net**
Ticket-system: **http://support.joy-it.net**
Telephone: +49 (0)2845 98469 – 66 (10 – 17 o'clock)

For further information visit our website: **www.joy-it.net**

Published: 06.01.2022

www.joy-it.net
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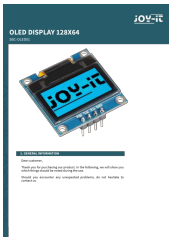
Pascalstr. 8, 47506 Neukirchen-Vluyn

Documents / Resources

	**JOY-iT SBC-OLED01 OLED Display 128x64 Module** [pdf] Instruction Manual SBC-OLED01, OLED Display 128x64 Module, SBC-OLED01 OLED Display 128x64 Module

References

- ITnet | Servizi di Colocation e Cloud
- Joy-IT Helpdesk
- For Makers and Professionals | Joy-IT
- GitHub - adafruit/Adafruit_CircuitPython_SSD1306: Adafruit CircuitPython framebuf driver for SSD1306 or SSD1305 OLED displays. Not for use with displayio. See README.
- Adafruit_CircuitPython_SSD1306/LICENSE at main · adafruit/Adafruit_CircuitPython_SSD1306 · GitHub
- GitHub - adafruit/Adafruit_SSD1306: Arduino library for SSD1306 monochrome 128x64 and 128x32 OLEDs
- Adafruit_SSD1306/license.txt at master · adafruit/Adafruit_SSD1306 · GitHub
- GitHub - adafruit/Adafruit-GFX-Library: Adafruit GFX graphics core Arduino library, this is the 'core' class that all our other graphics libraries derive from
- Adafruit-GFX-Library/license.txt at master · adafruit/Adafruit-GFX-Library · GitHub
- KY-051 Voltage Translator | Joy-IT