



BN 2268130

# 5.59 cm (2.2") TFT LCD Display Module for Arduino™ ©B Operating instructions

### Latest operating instructions

Download the latest operating instructions at <a href="https://www.conrad.com/downloads">www.conrad.com/downloads</a> or scan the QR code shown. Follow the instructions on the website.



## **Delivery contents**

5.59 cm (2.2") TFT LCD Display Module for Arduino™

## Description

The TFT LCD display module is the ideal extension for your Arduino™. The round shape is perfect for simulating watches or other analogue displays.

The high refresh rate of 256 ms provides a smooth display. The Arduino™ library, which is needed to control the display, can be easily downloaded and enables you to adjust a wide range of settings such as fonts, images and colours. This allows you to quickly configure your own graphics and displays.

#### **Product features**

- · Round 5.59 cm (2.2") TFT LCD display
- Controlled via SPI
- Arduino<sup>™</sup> compatible
- · 3.3 and 5 V/DC compatible

# Requirements

The following components are required to use the board:

- 1 Arduino™ UNO or similar
- · 8 jumpers (jump wires) pin to socket

# Special note

The parameter 5.59 cm (2.2") refers to the screen specifications of the screen supplier. The size of the actual display area is approximately 3.2 cm (1.26", 32 mm diameter).

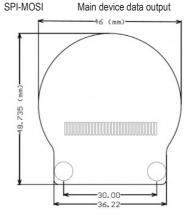
#### Hardware

The display has 8 pin contacts on the rear side that are used to establish the connection to the Arduino  $^{TM}$ .

The following overview shows the functions of the contacts.

- GND Ground connection for power supply
- VCC Power supply (3.3 5 V/DC)

-	LCK	LCD internal register clock line
-	RS	LCD internal register selection
-	CS	Chip select signal
-	WR	LCD data input
-	SPI-SCL	Clock signal



# Operation

Connect the display to an Arduino™ UNO as follows:

Display	Arduino™
GND	GND
VCC	+5V
LCK	D7
RS	D5
CS	D3
WR	D6
SPI-SCL	D13
SPI-MOSI	D11

#### Test program

Two Arduino™ libraries are required to operate the display. You can download these as a ZIP file.

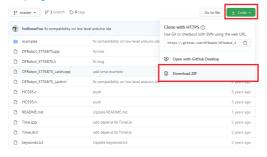
You also need to use Arduino™ IDE version 1.8.7 or later.

The libraries can be downloaded from the following two web-pages:

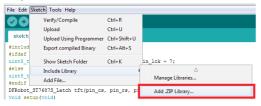
» https://github.com/DFRobot/DFRobot Display

and

» https://github.com/DFRobot/DFRobot ST7687S

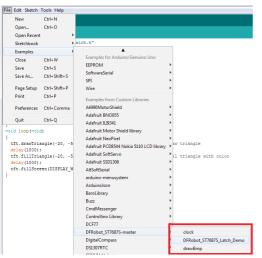


To install the libraries, go to the "Add .ZIP Library..." menu, which you will find in the Arduino™ IDE under "Sketch" - "Include Library".



After installation, go to "Examples" to view various examples that you can try out with this display.

A detailed description of the library can be found at the aforementioned Github links:



#### Note:

The "drawBmp" example does not run on an Arduino™ UNO, because the memory is too small!

## Disposal



Electronic devices are recyclable waste and must not be placed in household waste. At the end of its service life, dispose of the product in accordance with the applicable regulatory guidelines.

You thus fulfil your statutory obligations and contribute to protection of the environment.

# **Specifications**

Power supply	3.3 - 5 V/DC
Power consumption (max.)	50 mA
Display size	5.59 cm (2.2")
Usable display size	3.2 cm (1.62")
Resolution	128 x RGB x 128
	(65535 colours are possible)
Refresh rate	256 ms
Interface	SPI
Pin spacing of pin strip (width)	2.54 mm
Mounting holes Ø	3 mm
Operating temperature	25 °C to +60 °C
Dimensions (W x H x D)	44 x 6 x 47 mm
Weight	13.3 g

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