



# WAVESHARE 18396 5 Inch DSI LCD Touch Display Instruction Manual

[Home](#) » [WAVESHARE](#) » WAVESHARE 18396 5 Inch DSI LCD Touch Display Instruction Manual 

## Contents

- 1 WAVESHARE 18396 5 Inch DSI LCD Touch Display Instruction Manual
- 2 5inch DSI LCD
- 3 Introduction
- 4 Features
- 5 User guide
- 6 Hardware connection
- 7 Software setting
- 8 Backlight Control
- 9 Sleep
- 10 Disable touch
- 11 Resources
- 12 3D Drawing
- 13 Software
- 14 FAQ
- 15 Anti-Piracy
- 16 Beware of knock-offs
- 17 Support
- 18 Technical Support
- 19 Read More About This Manual & Download PDF:
- 20 Documents / Resources
  - 20.1 References

# WAVESHARE 18396 5 Inch DSI LCD Touch Display Instruction Manual



## 5inch DSI LCD

From Waveshare Wiki Jump to: navigation, search

## Introduction

5inch Capacitive Touch Display for Raspberry Pi, 800 × 480, TFT Wide Angle, MIPI DSI Interface.

## Features

5inch TFT screen, hardware resolution is 800 x 480. Capacitive touch panel, support 5-point touch.

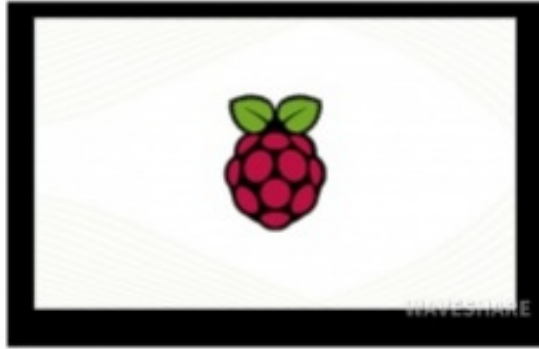
Tempered glass capacitive touch panel, hardness up to 6H.

Supports Pi 4B/3B+/3A+/3B/2B/B+/A+. Another [DSI- Cable-15cm \(https://www.waveshare.com/dsi-cable-15cm.htm\)](https://www.waveshare.com/dsi-cable-15cm.htm) is required for CM3/3+/4.

DSI interface, refresh rate up to 60Hz.

When used with Raspberry Pi, it supports Raspberry Pi OS / Ubuntu / Kali and RetroPie without a driver

## 5inch DSI LCD



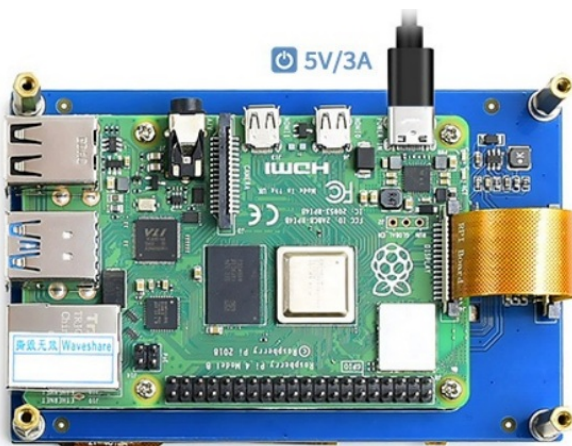
(<https://www.waveshare.com/5inch-dsi-lcd.htm>)

5inch capacitive Touch Screen LCD for  
Raspberry Pi  
DSI Interface

## User guide

### Hardware connection

Using the FFC cable, connect the 5inch DSI LCD to the DSI port of the Raspberry Pi.  
For easy use, you can fix the Raspberry Pi on the backside of the 5inch DSI LCD by screws.



(/wiki/File:4.3inch-

### Software setting

(/wiki/File:4.3inch-

Supports Raspberry Pi OS / Ubuntu / Kali and RetroPie systems for Raspberry Pi.

- Download the image from the [Raspberry Pi website \(https://www.raspberrypi.com/software/ operating-](https://www.raspberrypi.com/software/operating-)

[systems/](#)).

- Download the compressed file to the PC, and unzip it to get the .img
- Connect the TF card to the PC, and use [SDFormatter \(https://files.waveshare.com/upload/d/d7/Panasonic\\_SDFormatter.zip\)](https://files.waveshare.com/upload/d/d7/Panasonic_SDFormatter.zip) software to format the TF card.
- Open the [Win32DiskImager \(https://files.waveshare.com/upload/7/76/Win32DiskImager.zip\)](https://files.waveshare.com/upload/7/76/Win32DiskImager.zip) software, select the system image downloaded in step 2, and click 'Write' to write the system image.
- After the programming is completed, open the txt file in the root directory of the TF card, add the following code at the end of config.txt, save and eject the TF card safely.
- Power on the Raspberry Pi and wait for a few seconds until the LCD displays And the touch function can also work after the system starts.

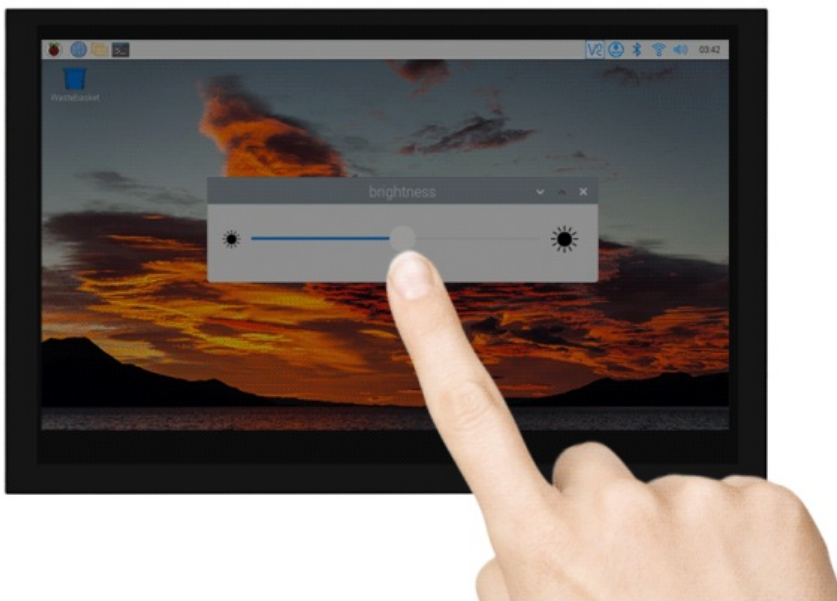
## Backlight Control

The backlight brightness can be controlled by entering the following commands in the terminal:

Where X indicates any number from 0 to 255. 0 means the backlight is the darkest, and 255 means the backlight is the brightest. For example:

In addition, Waveshare provides a corresponding application (which is only available for the Raspberry Pi OS system), which users can download and install by the following way:

Once the installation is complete, the demo can be opened in the Start Menu -> Accessories -> Brightness, as follows



## Sleep

Run the following commands on the Raspberry Pi terminal, and the screen will enter sleep mode:

## Disable touch

At the end of the config.txt file, add the following commands corresponding to disabling touch (the config file is located in the root directory of the TF card, and can also be accessed through the command: `sudo nano /boot/config.txt`):

Note: After adding the command, it needs to be restarted to take effect.

## Resources

## 3D Drawing

[5inch DSI LCD 3D Drawing \(https://files.waveshare.com/upload/e/ed/5inch\\_DSI\\_LCD\\_3D\\_Dra](https://files.waveshare.com/upload/e/ed/5inch_DSI_LCD_3D_Dra)

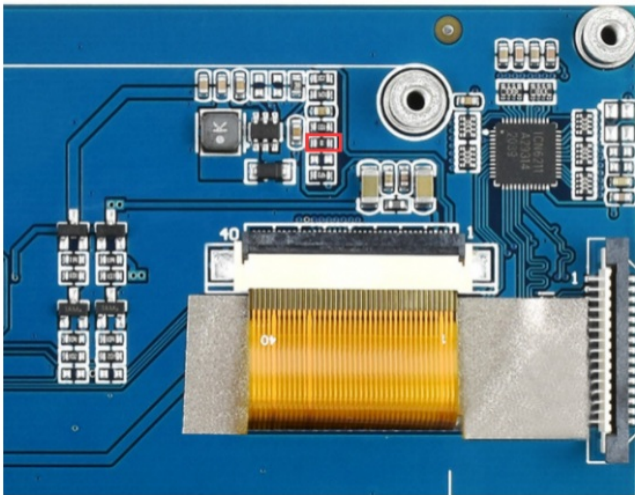
## Software

[Panasonic SDFormatter \(https://files.waveshare.com/upload/d/d7/Panasonic\\_SDFormatter.zip\)](https://files.waveshare.com/upload/d/d7/Panasonic_SDFormatter.zip)

[Win32DiskImager \(https://files.waveshare.com/upload/7/76/Win32DiskImager.zip\)](https://files.waveshare.com/upload/7/76/Win32DiskImager.zip) [PuTTY \(https://files.waveshare.com/upload/5/56/PuTTY.zip\)](https://files.waveshare.com/upload/5/56/PuTTY.zip)

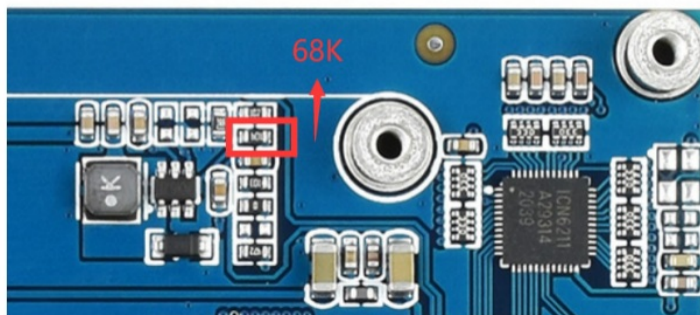
## FAQ

As shown in the figure below, first remove the original soldered resistor, and then connect the pad (left pad) of the resistor to the P1 pin of the Raspberry Pi, and you can use GPIO to control the backlight.



(/wiki/File:5inch-DSI-faq.png)

- `gpio -g pwm 18 0`
- `gpio -g mode 18 pwm` (the occupied pins are PWM pins) `gpio pwmc 1000`
- Control brightness
- `gpio -g pwm 18 X` (X is between 0 and 1024, 0 is the darkest, and 1024 is the brightest)
- PS: In order to ensure a good customer experience, the default factory minimum brightness is the visible state. If you need to completely turn off the backlight to achieve a black screen effect, please manually change the 100K resistor as shown below to a 68K resistor:



(/wiki/File:4.3DSI-brightness-2.png)

## Anti-Piracy

Since the first-generation Raspberry Pi released, Waveshare has been working on designing, developing, and producing various fantastic touch LCDs for the Pi. Unfortunately, there are quite a few pirated/knock-off products in the market. They're usually some poor copies of our early hardware revisions, and comes with none support service.

To avoid becoming a victim of pirated products, please pay attention to the following features when purchasing:



(<https://files.waveshare.com/upload/6/6d/RPi-LCD-Anti-Piracy-I.jpg>)

([Click to enlarge \(https://files.waveshare.com/upload/6/6d/RPi-LCD-Anti-Piracy-I.jpg\)](#))

## Beware of knock-offs

Please note that we've found some poor copies of this item in the market. They are usually made of inferior materials and shipped without any testing.

You might be wondering if the one you're watching or you've purchased in other non-official stores is original, feel free to contact us.

## Support

### Technical Support


If you need technical support or have any feedback/review, please click the **Submit Now** button to submit a ticket. Our support team will check and reply to you within 1 to 2 working days. Please be patient as we make every effort to help you to resolve the issue.

Working Time: 9 AM – 6 AM GMT+8 (Monday to Friday) [Submit Now \(https://support.waveshare.com/hc/en-us/requests/new\)](https://support.waveshare.com/hc/en-us/requests/new)

Retrieved from "[https://www.waveshare.com/w/index.php?title=5inch\\_DSI\\_LCD&oldid=70206](https://www.waveshare.com/w/index.php?title=5inch_DSI_LCD&oldid=70206)  
([https://www.waveshare.com/w/index.php?title=5inch\\_DSI\\_LCD&oldid=70206](https://www.waveshare.com/w/index.php?title=5inch_DSI_LCD&oldid=70206))

***Read More About This Manual & Download PDF:***

## Documents / Resources

	<p><b><a href="#">WAVESHARE 18396 5 Inch DSI LCD Touch Display</a></b> [pdf] Instruction Manual</p> <p>18396, 18396 5 Inch DSI LCD Touch Display, 5 Inch DSI LCD Touch Display, DSI LCD Touch Display, LCD Touch Display, Touch Display, Display</p>
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## References

-  [files.waveshare.com/upload/d/](https://files.waveshare.com/upload/d/)
-  [Raspberry Pi OS – Raspberry Pi](#)
-  [Operating system images – Raspberry Pi](#)
-  [5inch Capacitive Touch Display For Raspberry Pi, 800×480, DSI Interface](#)
-  [DSI FFC Flexible Flat Cable 15cm](#)
-  [5inch DSI LCD - Waveshare Wiki](#)
-  [5inch DSI LCD - Waveshare Wiki](#)
-  [File:4.3DSI-brightness-2.png - Waveshare Wiki](#)
-  [File:4.3inch-DSI-LCD-2.jpg - Waveshare Wiki](#)
-  [File:43H-800480-IPS07.GIF - Waveshare Wiki](#)
-  [File:5inch-DSI-faq.png - Waveshare Wiki](#)