

# 5inch DSI LCD

## Introduction

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

## Features

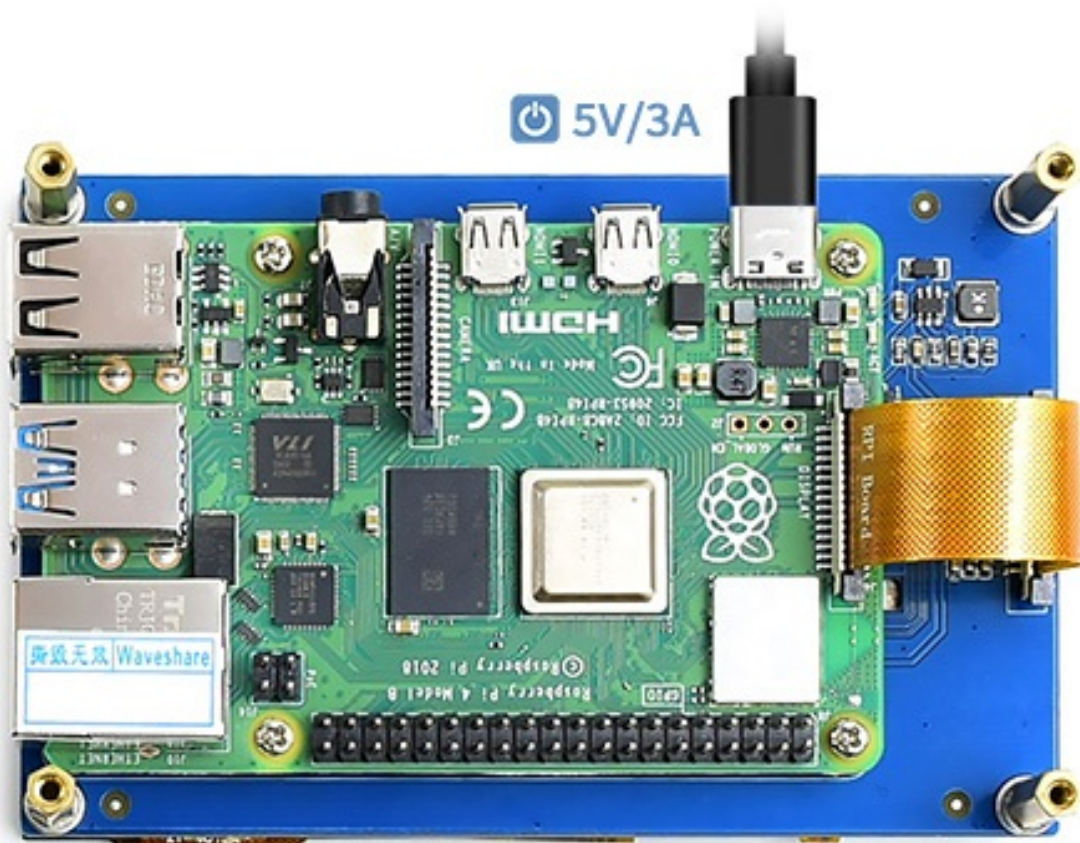
- 5inch TFT screen. 800x480 hardware resolution
- Capacitive touch panel, support 5-point touch
- Supports Pi 4B/3B+/3A+/3B/2B/B+/A+. Another adapter board is required for CM3/3+
- DSI interface, refresh rate up to 60Hz.
- Supports Raspbian/Ubuntu/Kali and WIN 10 IoT, driver-free.

## User guide

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### Hardware connection

- Connect the DSI interface of 5inch DSI LCD to the DSI interface of Raspberry Pi.
- For easy use, you can fix the Raspberry Pi on the backside of the 5inch DSI LCD by screws



### Software setting

- 1) Download image (Raspbian, Ubuntu, Kali, or WIN 10 IOT) from the Raspberry Pi website. <https://www.raspberrypi.org/downloads/>
- 2) Download the compressed file to the PC, and unzip it to get the .img file.
- 3) Connect the TF card to the PC, use SDFormatter.exe software to format the TF card.

- 4) Open the Win32DiskImager.exe software, select the system image downloaded in step 2, and click 'Write' to write the system image.
- 5) After the image has finished writing, save, and quit the TF card safely.
- 6) Power on the Raspberry Pi and wait for a few seconds until the LCD displays normally. And the touch function can also work after the system starts.

## Rotation

To change the orientation of the display, you can modify /boot/config.txt file as below

- Open the file

```
sudo nano /boot/config.txt
```

- Add the following code at the end of config.txt

- Rotate 90 degrees

```
display_lcd_rotate=1
dtoverlay=rpi-ft5406,touchscreen-swapped-x-y=1,touchscreen-inverted-x=1
```

- Rotate 180 degrees

```
display_lcd_rotate=2
dtoverlay=rpi-ft5406,touchscreen-inverted-x=1,touchscreen-inverted-y=1
```

- Rotate 270 degrees

```
display_lcd_rotate=3
dtoverlay=rpi-ft5406,touchscreen-swapped-x-y=1,touchscreen-inverted-y=1
```

If you use Raspberry Pi 4, you need to remove the line: `dtoverlay=cv4-fkms-V3D`

- Save and reboot Raspberry Pi

```
sudo reboot
```

## Backlight Controlling

- Open a terminal and type the following command to adjust the brightness. **Note:** If the command reports the 'Permission denied' error, please switch to the 'root' user mode and execute it again.

```
echo X > /sys/class/backlight/rpi_backlight/brightness
```

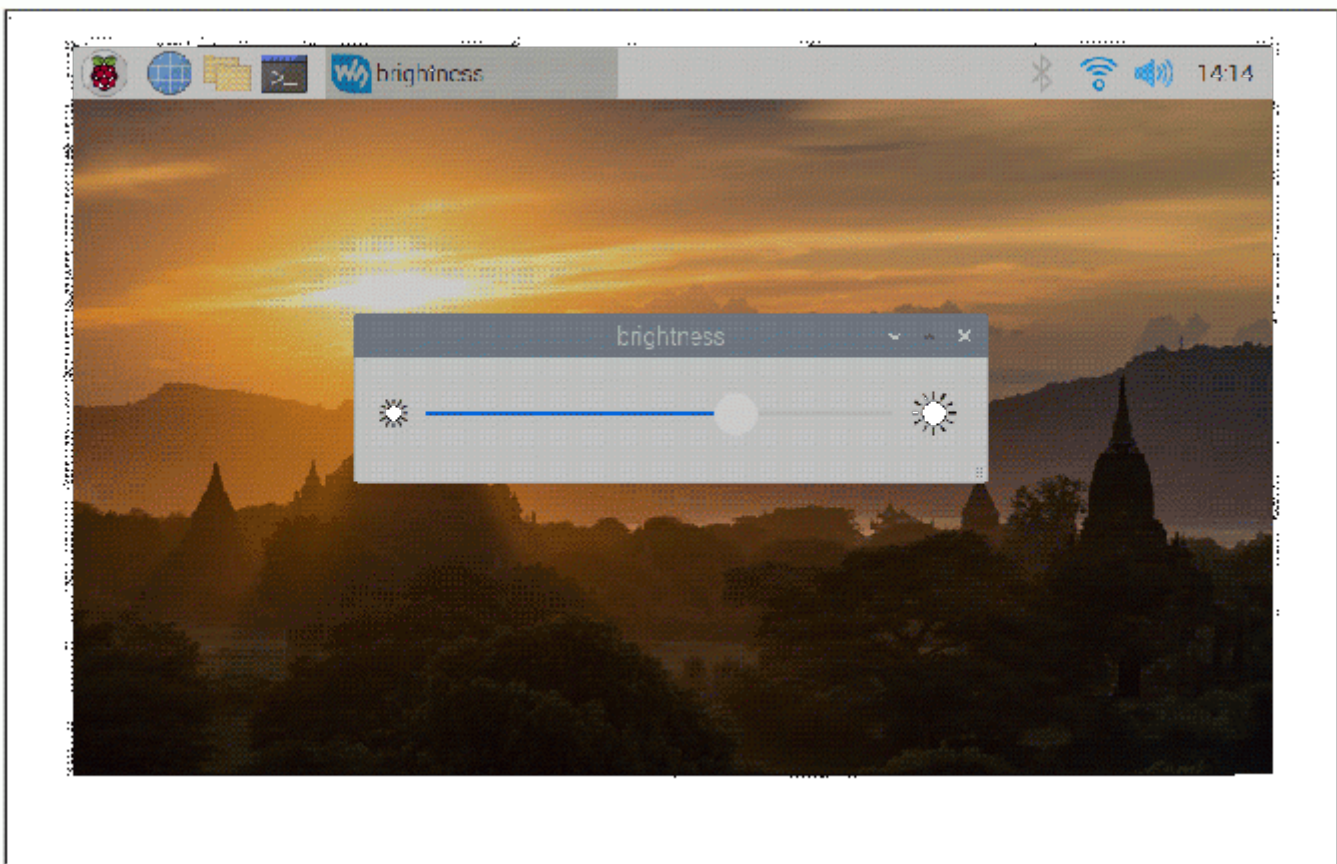
X can be value in range 0~255. The backlight is darkest if you set it to 0 and the backlight is set to lightest if you set it to 255

```
echo 100 > /sys/class/backlight/rpi_backlight/brightness
echo 0 > /sys/class/backlight/rpi_backlight/brightness
echo 255 > /sys/class/backlight/rpi_backlight/brightness
```

- We also provide an example for brightness adjusting, you can download and install it by following commands:

```
wget https://www.waveshare.net/w/upload/3/39/Brightness.tar.gz
tar -xzf Brightness.tar.gz
cd brightness
./install.sh
```

After connecting, you can choose Menu -> Accessories -> Brightness to open the adjustment software



## Install virtual keyboard

Open a terminal and install it by the following command

```
sudo apt-get install matchbox-keyboard
```

After installing, you can click Accessories -> Keyboard to open the keyboard.