7inch HDMI LCD (C)

From Waveshare Wiki

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Introduction

1024×600, 7 inch Capacitive Touch Screen LCD, HDMI interface, supports various systems

More (http://www.waveshare.com/7inch-HDMI-LCD-C.htm)

Working with PC

This product supports Windows 10/8.1/8/7 operation systems. For the Windows 10/8.1/8 OS, the touch screen supports multi-touch up to 10 points. For some Window 7 OS, the touch screen supports single touch only.

Turn on the "backlight" switch then connect the LCD to your PC (USB Port of LCD -> USB Port of PC; HDMI Port of LCD -> HDMI Port of PC. Please first connect the USB Ports then connect the HDMI Port). A new

7inch HDMI LCD (C)
Supports various systems

7 inch Capacitive Touch Screen LCD, HDMI interface, supports various systems

7inch HDMI LCD (C) (with bicolor case)

7inch HDMI LCD (C) + Bicolor case

Primary Attribute

Category: OLEDs / LCDs, LCD, Raspberry Pi LCD

Brand: Waveshare

Website

English: Waveshare website (http://www.waveshare.com/)

Chinese: 官方中文站点 (http://www.waveshare.net/)

Onboard Interfaces

USB	HDMI

Related Products

- 7inch HDMI LCD (C) + Bicolor case (http://www.waveshare.com/7inch-

touch drive will be recognized by Windows and you can use the LCD as a human interface device. When multiple displays are detected by your PC, the LCD can only be used to control the cursor on main display. So it is proposed to set the LCD as the main display.

hdmi-lcd-c-with-bicolor-case.htm)
- Bicolor Case for 7inch LCD (http://www.waveshare.com/bicolor-case-for-7inch-lcd.htm)

Working with Raspberry Pi

For the Windows OS on PC, the resolution of the LCD is automatically identified. Hence, you do not need to make the relative settings. When working with Raspberry Pi, you should set the resolution of the LCD by yourself, or else the LCD screen will not work. For more detail information, please read the following section.

Turn on the "backlight" switch then connect the LCD to your Pi (HDMI Port of LCD -> HDMI Port of Pi; USB Port of LCD -> USB Port of Pi; 5V~2A power supply). Download the Raspbian image from Raspberry Pi web site (https://www.raspberrypi.org/downloads/). Write the image to a TF card and append the following lines to the config.txt file which is located in the root of your TF card:

```
max_usb_current=1
hdmi_group=2
hdmi_mode=1
hdmi_mode=87
hdmi_cvt 1024 600 60 6 0 0 0
```

You must make sure that there are no spaces on either side of the equal sign.

Save and connect the TF card to your Pi then power up.

(Touch input working well means that the LED firmware is Rev2.1. If the LCD firmware is 1.1, see #About LCD revision)

Note: Resolution of Ubuntu Mate OS or Windows 10 IoT Core OS can also be set properly by editing config.txt.

About LCD revision

An LCD with Rev 2.1 firmware does not require any drivers, that is, touch function works properly without installing any software. So we did not provide any drivers and images for Rev 2.1 LCDs. The following drivers are only available for the LCD with Rev 1.1 firmware. But if you install the driver to the Rev 2.1 one, it will lead touch function not to work.

Rev2.1 New Features

- Upgrade to IPS screen, wider viewing angle, more clear displaying.
- Standard HID protocol, easy to be integrated into your system.
- For the Raspberry Pi, supports Raspbian, Ubuntu Mate, single touch, and driver free.
- When work as a computer monitor, supports Windows 10/8.1/8/7, five-points touch, and driver free.

Rev1.1 and before

- For the Raspberry Pi, comes with Raspbian driver (works with your Raspbian directly), and Ubuntu image.
- When work as a computer monitor, touch function is unavailable.

How to distinguish

- See the backside of your LCD. The Revision number "Rev2.1" printed means that the LCD firmware is Rev 2.1.
- However, "Rev1.1" printed on the backside doesn't mean that the LCD firmware must be Rev 1.1. Generally speaking, a LCD shipped after January 1, 2016 may be a Rev 2.1 one, although it was printed "Rev1.1".

Note: The only difference between Rev 1.1 and Rev 2.1 is the firmware, but hardware solutions, placement and routing are all the same. (PCB printings might be different due to different production batches.)

You can verify the firmware by these steps:

1. Using Raspberry Pi: Connect the LCD to your Pi (HDMI Port of LCD -> HDMI Port of Pi; USB Port of LCD -> USB Port of Pi; 5V~2A power supply). Download the image, e.g. Raspbian, from Raspberry Pi web site (https://www.raspberrypi.org/downloads/). Write the image to a TF card and add the following code to the end of /boot/config.txt:

```
max_usb_current=1
hdmi_group=2
hdmi_mode=1
hdmi_mode=87
hdmi_cvt 1024 600 60 6 0 0 0
```

You must make sure that there are no spaces on either side of the equal sign.

Save and connect the TF card to your Pi then power up. If touch works, that means the firmware revision is Rev 2.1.

2. Without Raspberry Pi: A PC (Windows 10 / 8.1 / 8 / 7) is required which cannot connect with other display device. Connect the LCD to your PC (USB Port of LCD -> USB Port of PC; HDMI Port of LCD -> HDMI Port of PC. Please first connect the USB Ports then connect the HDMI Port). If a new touch drive is recognized by Windows, that means the firmware revision is Rev 2.1. In this case, after the driver successfully installed, you can use the LCD as a human interface device.

- If the touch function doesn't work properly after these steps, the firmware revision is often Rev 1.1, which can also work by other methods, see Rev 1.1 Manual.

Detailed infomation

Depending on the firmware, please view the instructions of different revision:

- 7inch HDMI LCD (C) (Firmware Rev 2.1) User Manual
- 7inch HDMI LCD (C) (Firmware Rev 1.1) User Manual(Not support Raspberry Pi 3 Model B) (http://www.waveshare.com/wiki/7inch_HDMI_LCD_(C)_(Firmware_Rev_1.1)_User_Manual)
- How to install 7inch Bicolor case

Resources

An LCD with Rev 2.1 firmware does not require any drivers, that is, touch function works properly without installing any software. So we did not provide any drivers and images for Rev 2.1 LCDs. The following drivers are only available for the LCD with Rev 1.1 firmware. But if you install the driver for the Rev 2.1 one, it will lead touch function not to work.

Raspbian Image (supports Rev 2.1 LCD)

- Click here to download the latest official Raspbian image
  (https://www.raspberrypi.org/downloads/)

Raspbian Images (only support Rev 1.1 LCD)

- RPI3_RPI2_7.0_1024x600_cap_usb_touch_HID_2016-05-27-raspbian-
  jessie_4.4.13v7_20160620.7z (https://drive.google.com/uc?
  id=0B8Xjwnqc7XAMY083M3JLM0plWm8&export=download)
- 7inch HDMI LCD (C) Raspberry B / B+ Raspbian image 2015-11-21 jessie
  (https://drive.google.com/file/d/0B5ceUb50sIDnUi1JZTFRdXF6MU0/view?usp=sharing)
- 7inch HDMI LCD (C) Raspberry 2 Model B Ubuntu image
  (https://drive.google.com/file/d/0B5ceUb50sIDnX2ZVbVVLbFNxSHc/view?usp=sharing)

Angstrom Image for Beaglebone Black (supports Rev 2.1 LCD)

- 7inch HDMI LCD (C) Angstrom image (https://drive.google.com/open?
  id=0B0ay87Q7P7pfeUJ4NWN1OTl4am8)

Raspbian Images for Banana Pi / Banana Pro (support Rev 2.1 LCD)

- 7inch HDMI LCD (C) Raspbian image
  (https://drive.google.com/file/d/0ByL9hUnl93qmM2xoRG8yWGdKMGM/view)
- 7inch HDMI LCD (C) Lubuntu image
  (https://drive.google.com/file/d/0ByL9hUnl93qma0ZObHhXeEh4VjQ/view)

Angstrom Image for Beaglebone Black (only supports Rev 1.1 LCD)

- 7inch HDMI LCD (C) Angstrom image
  (https://drive.google.com/file/d/0B5ceUb50sIDnc3lnMDVNQ3BQa3M/view?usp=sharing)

Raspbian Images for Banana Pi / Banana Pro (only support Rev 1.1 LCD)

- 7inch HDMI LCD (C) Raspbian image
  (https://drive.google.com/file/d/0B5ceUb50sIDneHdtSlg5OHJWeVE/view?usp=sharing)
- 7inch HDMI LCD (C) Lubuntu image
  (https://drive.google.com/file/d/0B5ceUb50sIDnbFVSeDhsS0Rxazg/view?usp=sharing)

Drivers for Raspbian (only support Rev1.1 LCD)

Out of date, Not available for any Raspbian OS later than 27-May-2016.

- RPI_2B_USB_TOUCH_CAP_RASPBIAN-4.1.13-v7-7.0-1024x600-20151211.tar
  (https://drive.google.com/file/d/0B5ceUb50sIDnMzNHdXVNbFk5eE0/view?usp=sharing) (For
  Raspberry Pi 2 Model B)
- RPI_B+_USB_TOUCH_CAP_RASPBIAN-4.1.13-7.0-1024x600-20151211.tar
  (https://drive.google.com/file/d/0B5ceUb50sIDnUmJiak9qTFJsZUU/view?usp=sharing) (For
  Raspberry Pi B+/A+/B)
- RPI_2B_USB_TOUCH_CAP_RASPBIAN-3.18.16-v7-7.0-1024x600-20150910.tar
  (https://drive.google.com/file/d/0B5ceUb50sIDnY2RJbG84MkMzanM/view?usp=sharing) (For
  Raspberry Pi 2 Model B)
- RPI_B+_USB_TOUCH_CAP_RASPBIAN-3.18.16-7.0-1024x600-20150910.tar
  (https://drive.google.com/file/d/0B5ceUb50sIDnbF8tMUlrX1hZcXM/view?usp=sharing) (For

Raspberry Pi B+/A+/B)

Support

Contact your seller (fast response and most recommended)

or send emails to **service@waveshare.com** (not fast enough but please be patient) for help.

Our working time: 09:00-18:00 (**UTC+8** Monday to Saturday)

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