UCTRONICS ®

3.5" Raspberry Pi Touch Screen Display LCD Panel, SPI Interface
(High-Speed Version)

Model: U6111

SPECIFICATION

Display
3.5" (Diagonal)

Raspberry Pi Support
Support all standard Raspberry Pi

Native Resolution
480×320 pixels

Display Refresh Rate
60fps (MAX)

Video Input Support
480×320 ~ 1920×1080(scaled)

Hotplug Support
Yes

Video Interface
SPI 125MHz

Backlight Control
On-board backlight switch

Dual Display Support
Yes, up to triple on Pi 4

Power consumption
5V/150mA

Power Input
Raspberry Pi GPIO power pins

Working temperature
-10~55 C

Dimensions
85.6mm×55.98mm

Weight
50g

Touch Screen Support
Raspbian, Ubuntu, Kali, RetroPie

INTRODUCTION

UCTRONICS U6111 is a 3.5" TFT LCD display with SPI interface and touchscreen support. It works with all standard Raspberry Pi models and supports operating systems like Raspbian, Ubuntu, Kali and RetroPie. Windows 10 IoT is NOT supported.

VARIATIONS

● U6111: Display
● U611101: Display with case

PACKING LIST

For U6111

● UCTRONICS 3.5" SPI Pi screen
● This instruction Manual

For U61101

● UCTRONICS 3.5" SPI Pi screen
● Acrylic case set
● This instruction Manual

HARDWARE INSTALLATION

Figure 1 Dimension and Pinout

Figure 2 Align pins and connect to Pi

PIN DEFINITION

PIN NO.	PIN NAME	DESCRIPTION
1, 17	3.3V	3.3V power from Raspberry Pi
2, 4	5V	5V power from Raspberry Pi
3, 5, 7, 8, 10, 12, 13, 15, 16	NC	Not Connected
6,9,14,20,25	GND	Power Ground
11	TP_IRQ	Touch Panel Interrupt request, LOW level for detected panel touch
18	LCD_RS	Register Selection, LOW level for command, HIGH level for data
19	LCD_SI / TP_SI	LCD/ Touch Panel SPI input
21	TP_SO	Touch Panel SPI output
22	RST	Reset
23	LCD_SCK / TP_SCK	LCD / Touch Panel SPI clock
24	LCD_CS	LCD chip select, LOW level enabled
26	TP_CS	Touch Panel chip select, LOW level enabled

DRIVER INSTALLATION

The screen will not work without installing the driver. Connect to the Pi and install the driver before using the screen. There are 2 ways to control the Raspberry Pi.

1. Connect the Raspberry Pi to another working display.
2. Connect with an SSH client like PuTTY. Make sure your Pi is connected to the Internet before you proceed.

Run the following commands to download and install the LCD driver.

```
git clone https://github.com/UCTRONICS/UCTRONICS_HSLCD35.git
```

```
chmod -R 777 UCTRONICS_HSLCD35
```

For different operating systems, the step 3 varies. You need to enter the folder with the name of your specific system. Take the **Raspbian** for example:

```
cd UCTRONICS_HSLCD35/Raspbian
```

```
sudo ./UCTRONICS_HSLCD35_SHOW
```

TROUBLESHOOTING

Q1: Why am I getting a UCTRONICS logo instead of the video feed for about a minute when booting up?

Our drivers need to be loaded on startup, which takes a little time. It's expected to see the UCTRONICS logo. The staying logo also serves as a self-detecting method, and if the driver is not correctly installed, the logo won't go.

Q2: The screen stays after I shut down the system. How do I turn that off?

Like the red indicator light on the Pi, it's normal for the screen to stay because the Pi board still feeds power to it. Please unplug the power cable of your Pi or toggle the backlight on/off button of the screen above the Pi power port.

Q3: Why is my desktop monitor not responding to the dual-display setup?

The native resolution of the display is 480x320, which is not supported by all monitors. For any dual-display setup, make sure you set the resolution of the system to one that's supported, like 640x480 or 1920x1080. However, higher resolutions may leave the contents unreadable on 3.5" screens.

CONTACT US

If you need any further support, feel free to contact us.

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