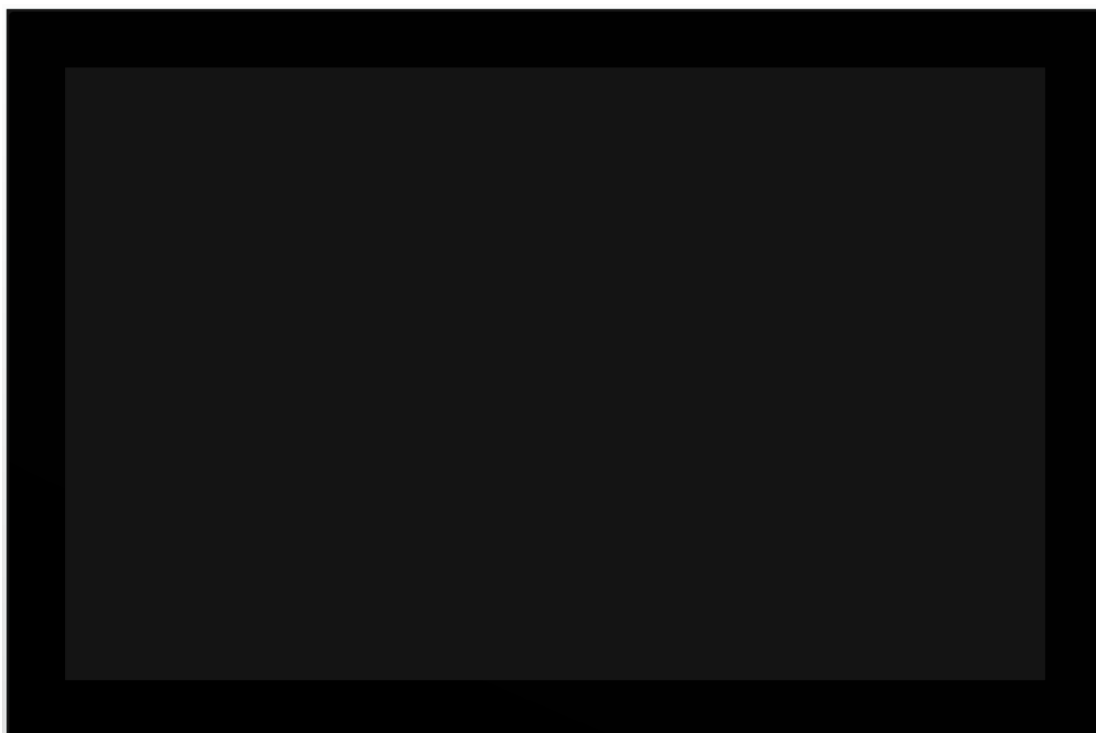


MPI1009

10.1inch-S TFT Display with Iron shell Datasheet



ShenZhen QDtech electronic technology Co.,LTD.

REV	Record	Date
V1.0	First Release	Apr-17-2023

In order to ensure your safe use of this product, please read this
manual carefully

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1. GENERAL INFORMATION

1.1. Description

- ✧ 10.1-inch standard display screen with IPS full view panel for excellent viewing angle
- ✧ Supports HDMI and VGA video input switchable
- ✧ Physical resolution 1280 x 800 dot matrix, capable of supporting up to 1920 x 1080 resolution input
- ✧ Fully protected display screen with casing
- ✧ USB drive free adaptive capacitive touch function, supporting up to 5 touch points (depending on the system)
- ✧ Toughened glass touch panel, hardness up to 6H, durable and scratch resistant
- ✧ Built in stereo dual speakers for direct audio playback
- ✧ Built in 3.5mm headphone output port, supporting audio signal output extension
- ✧ Supports four function adjustments: menu, brightness, volume, and signal switching
- ✧ Those supporting mainstream mini PC such as Raspberry Pi, Banana PI and BB black
- ✧ For Raspberry Pi display, support Raspbian, Ubuntu, Kali, win10 IOT and other systems, touch free drive
- ✧ It can be used as computer monitor, support Win7,Win8 ,Win10 ,Win11 system, and touch free driver
- ✧ It can be used as a universal HDMI monitor, connecting computers, TV boxes, Microsoft Xbox 360, Sony PS4, Nintendo Switch, etc
- ✧ This product has passed CE and RoHS certification

1.2. Image



1.3. Accessory List



①



②



③



④



⑤



⑥

- ① USB TYPE-C Cable x 2
- ② MINI-HDMI Type to VGA Female Adapter Cable x 1
- ③ MINI-HDMI Type to HDMI Type Adapter Cable x 1
- ④ 5V2A Charging Head x 1
- ⑤ Portable Holder x 1
- ⑥ HDMI Female to Micro HDMI Type Adapter Head x 1

2. PARAMETERS

2.1. TFT LCD Parameters

Item	Parameters	Unit
Panel Size	10.1	inch
Panel Type	IPS	-
Resolution	1280 x 800(RGB)	pixels
Active Area	216.55(W) x 135.36(H)	mm
Number of Colors(Max)	16.7M	-
Pixel Pitch	0.1692 x 0.1692	mm
View Angle	170	deg
Luminance(TYP)	250	cd/m ²
Contrast Ratio(TYP)	1000:1	-
Backlight Type	White LED	-
Backlight Current(TYP)	180	mA
Operation Temperature	-10~50	°C
Storage Temperature	-20~60	°C

2.2. Size Parameters

Item	Parameters	Unit
Outline Size	242.50(W) x 161.20(H) x 10.70(T)	mm
Touch Screen Size	241.30(W) x 160.00(H)	mm
Touch Screen Visual Area	217.34(W) x 136.00(H)	mm

2.3. IC and Interface Parameters

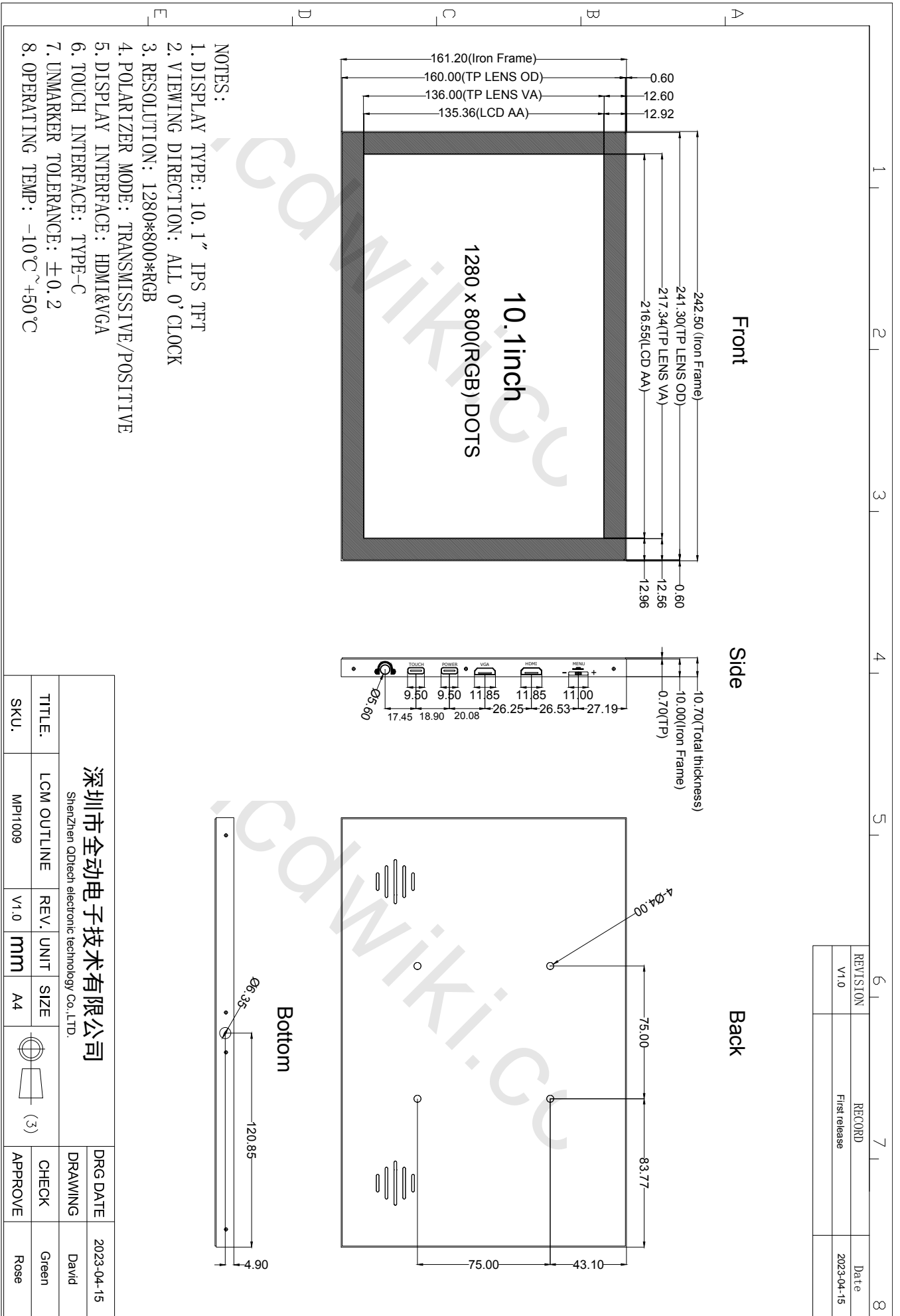
Item	Parameters	Unit
Touch IC	GT911	-
Video Input Interface	Mini HDMI&VGA	-
Audio Output	3.5mm Audio Interface and Stereo speakers	-
Touch Output Interface	Type-C	-
Power Interface	Type-C	-

2.4. Other Parameters

Item	Parameters	Unit
SKU	MPI1009	-
Touch Screen Type	Capacitive Touch Screen	-
Power Voltage	5.0	V
Speaker Power	2 (8Ω) x 2	W
Total Power(Max)	9.0	W
Weight(including package)	938	g

3. SIZE DRAWING

3.1. MPI1009 Size Drawing



REVISION	RECORD	Date
V1.0	First release	2023-04-15

深圳市全动电子技术有限公司 Shenzhen QDtech electronic technology Co.,LTD.			DRG DATE	2023-04-15
TITLE	LCM OUTLINE	REV.	UNIT	SIZE
SKU	MPI1009	V1.0	mm	A4
				CHECK
				APPROVE
				Green
				Rose

4. INTERFACE AND SWITCH



4.1. Interface Description

Symbol	Function Description
HDMI	It is used for HDMI HD video input .It can connect to the source device using an Mini HDMI cable.
VGA	It is used for VGA video input. It can connect to the source device using an MINI-HDMI Type to VGA Female Adapter Cable.
POWER	It can connect to the power using an Type-C cable. This interface is only used for power supply.
TOUCH	It can connect to the source device using a Type-C cable. It is used for touch and power supply.
Headphone	It is a 3.5mm audio interface. It can connect audio output devices, such as headphones

4.2. Switch Function Description

Symbol	Function Description
MENU	<p>Brightness Adjustment: When there is no setting interface displayed, Move the leave switch up to trigger the brightness setting function, and then move it up and down to adjust the brightness value. After setting, short press the switch to exit or wait for 10 seconds for automatic exit</p>
	<p>Volume Adjustment: When there is no setting interface displayed, Move the leave switch down to trigger the volume setting function, and then move it up and down to adjust the volume value. After setting, short press the switch to exit or wait for 10 seconds for automatic exit</p>
	<p>Menu Setting: When there is no setting interface displayed, short press the leave switch to trigger the menu setting function. After entering the menu, move the switch up and down to select, short press to confirm, long press to return or exit.</p>
	<p>Signal Switching: When there is no setting interface displayed, long press the leave switch to trigger switching of HDMI/VGA input signal.</p>

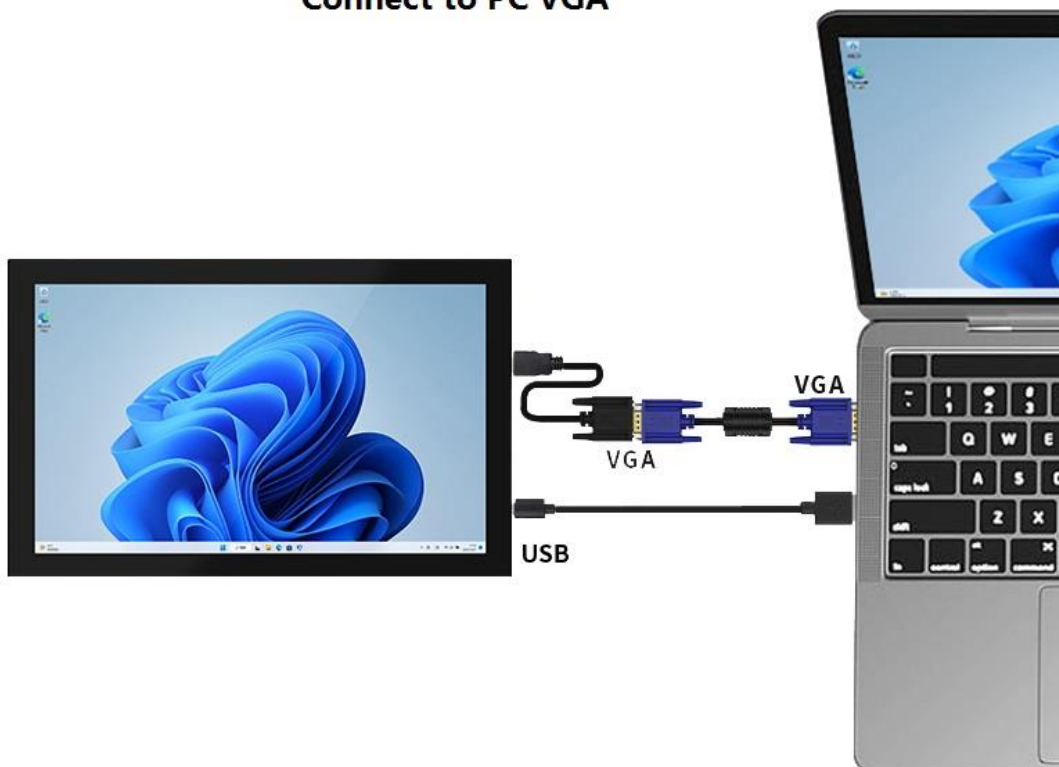
5. CONNECTION AND USAGE

5.1. Connect to PC/Laptop

Connect to PC HDMI

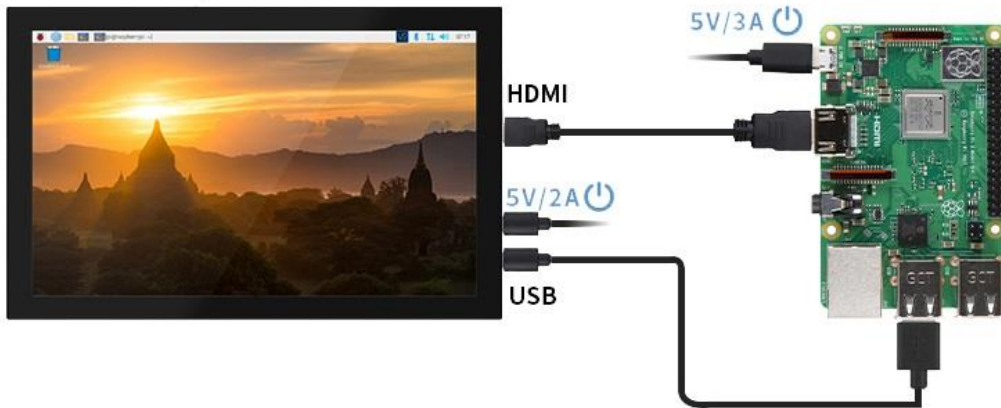


Connect to PC VGA

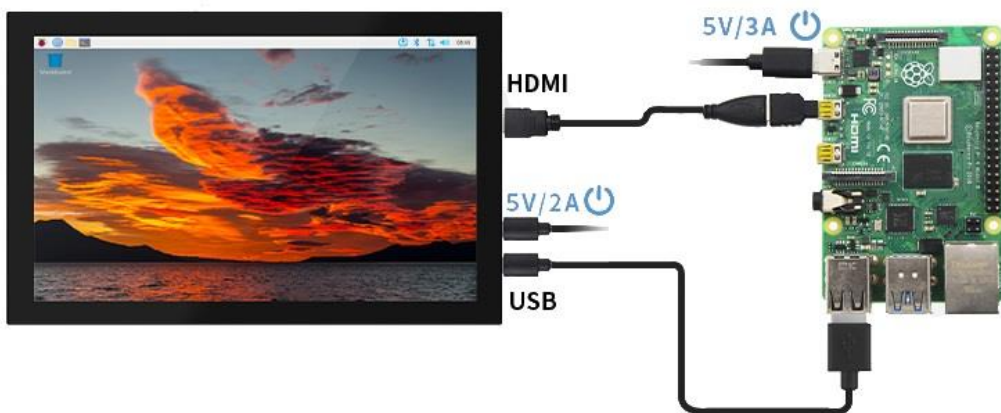


5.2. Connect to Raspberry

Connect to Raspberry Pi 3B+

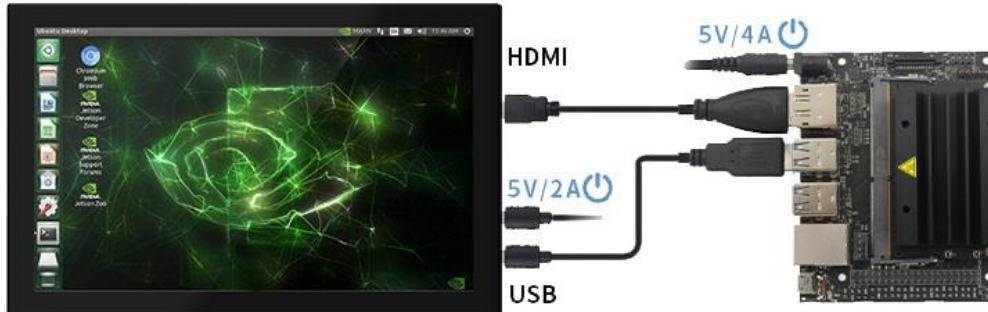


Connect to Raspberry Pi 4B



5.3. Connect to Jetson Nano

Connect to Jetson Nano



5.4. Running Software System

5.4.1. Download the latest Official Image

- 1) Download Raspbian latest Official Image

Download URL: <https://www.raspberrypi.org/downloads/raspbian/>

Username: **pi** Password: **raspberry**

- 2) Download Ubuntu Mate latest Official Image

Download URL: <https://ubuntu-mate.org/download/>

The user name and password can be set by yourself after startup

- 3) Download Kail latest Official Image

Download URL: <https://www.offensive-security.com/kali-linux-arm-images/>

Username: kali(The old version is **root**) Password: kali(The old version is **toor**)

- 4) Download Retropie latest Official Image

Download URL: <https://retropie.org.uk/download/>

Username: **pi** Password: **raspberry**

5.4.2. Brun Official Image

- 1) Download and install tool software (If they are already installed, this step can be ignored)

SD card format software SDCard Formatter_download URL :

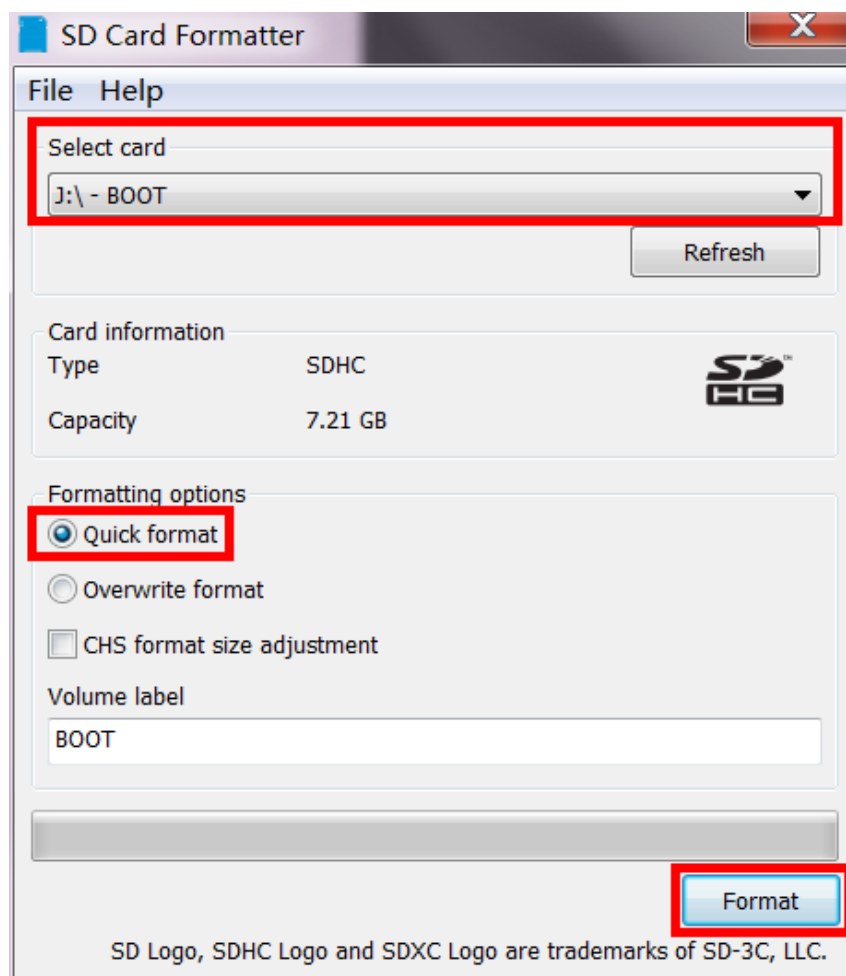
https://www.sdcard.org/downloads/formatter_4/

Image burning software win32diskimager download URL:

<https://sourceforge.net/projects/win32diskimager/>

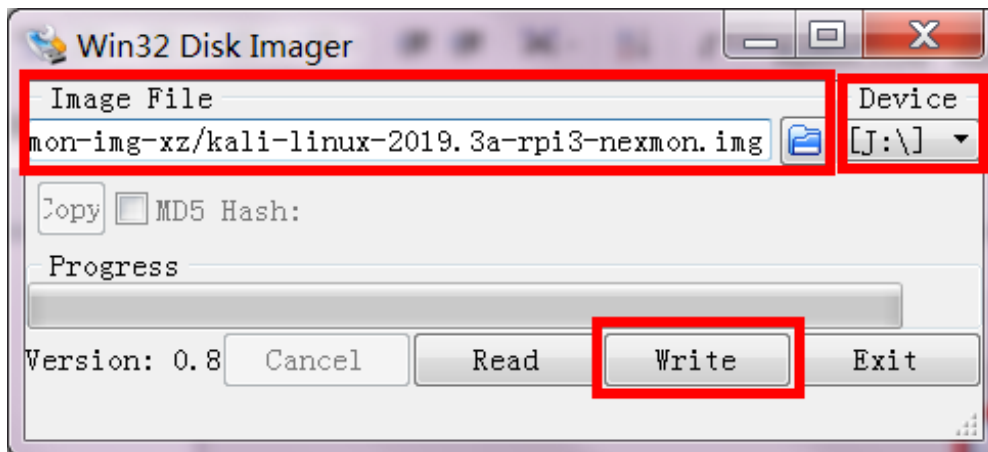
2) Format SD card

Insert the SD card into the card reader -> Insert the card reader into the computer -> Open the SDFormatter software -> Select SD card -> Select **Quick format** (generally select quick format, other options can be selected according to your own needs) -> Click the **Format** button -> Select "Yes" -> Click **OK** after formatting.



3) Brun Image

Open the win32diskimager software -> Select the image file to be burned (xxx.img) -> Select SD card -> Click the "write" button -> Select "Yes" -> Wait for the burning to complete (the whole process lasts about 10 minutes)



5.4.3. Modify the "config.txt" configuration file

Open the "config.txt" file in the root directory of SD card on the computer, find the following content:

dtoverlay=vc4-kms-v3d

and modify it to:

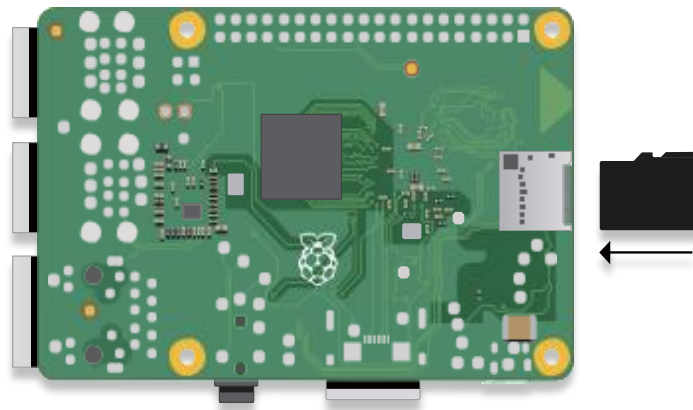
dtoverlay=vc4-fkms-v3d

After the modification is completed, then add the following at the end of the file, save and exit.

```
max_usb_current=1
hdmi_force_hotplug=1
config_hdmi_boost=7
hdmi_group=2
hdmi_mode=1
hdmi_mode=87
hdmi_drive=2
hdmi_cvt 1280 800 60 6 0 0 0
```

5.4.4. Insert SD card

After the above steps are completed, pop up the SD card on the computer and insert it into the SD card slot on the back of the raspberry pie.



5.4.5. Running system

After connecting the Raspberry Pi and the display module, power on the raspberry pie. You can see that the display screen has screen output and can be touched normally.

6. SAFETY PRECAUTIONS

6.1. Electricity and Safety

- Do not use a damaged power cord or plug, or a loose power socket
- Do not touch the power plug with wet hands
- Do not let any object compress or wrap the power cord
- Please Unplug the power cord when the device is unattended for a long time
- Insert the power plug all the way in so it is not loose

6.2. Installation and Safety

- Do not install the product near heat sources
- Do not set down the product on its front
- Do not install the product on an unstable or vibrating surface (insecure shelf, sloped surface, etc.)
- Do not place the monitor in any Damp area

6.3. Cleaning Products

Take the following steps when cleaning

- 1) Power off the product and computer
- 2) Disconnect the power cord from the product
 - Hold the power cable by the plug and do not touch the cable with wet hands.
Otherwise, an electric shock may result
- 3) Wipe the monitor with a clean, soft and dry cloth
 - Do not apply a cleaning agent that contains alcohol, solvent, or surfactant to the monitor
 - Do not spray water or detergent directly on the product
- 4) Wet a soft and dry cloth in water and wring thoroughly to clean the exterior of the product
- 5) Connect the power cord to the product when cleaning is finished
- 6) Power on the product and computer