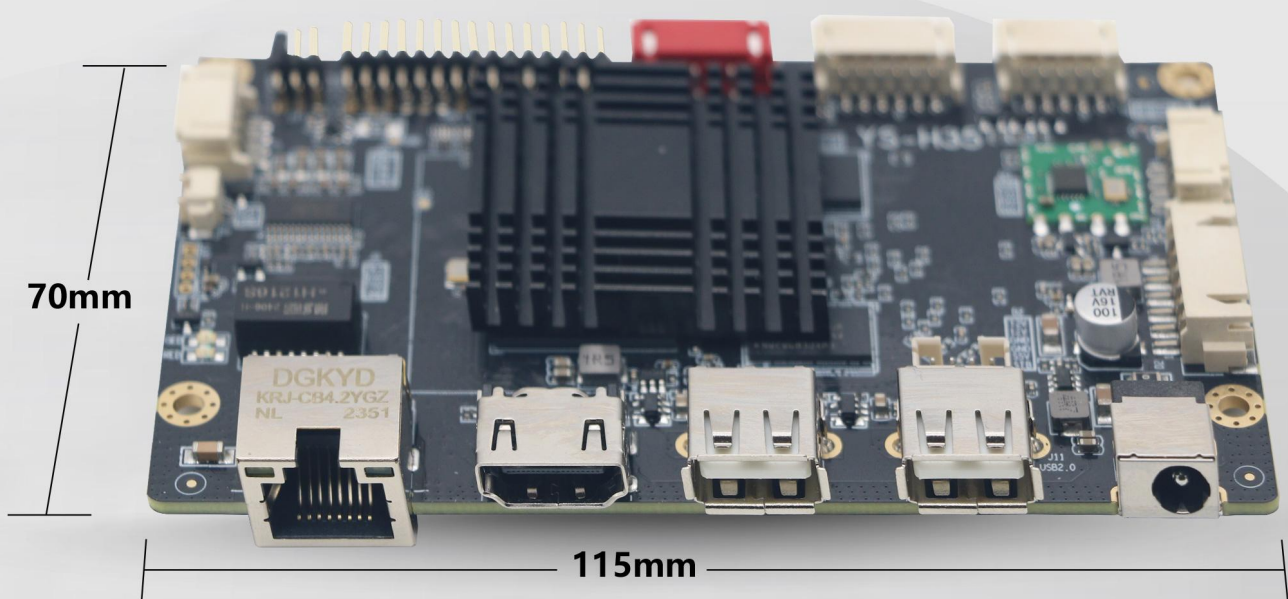


# Specification

## YS-H35

Digital Sign Board



# Contents

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# Declaration

Images and specifications mentioned in this document are for reference only. Any further changes or updates will not be sent to you unless special contract signed. This document serves as a product guide and the statements made in it do not constitute any form of guarantee. Without the written permission of Yisheng Technology Co., Ltd., no individual or organization may reproduce any part of this document or engage in any form of dissemination for profit. In order to obtain the latest version of product information, please visit Yisheng Technology Co., Ltd.'s official website regularly or contact company staff for assistance. Thank you for your understanding and support!

# Revision History

Version	Date	Author	Approver	Description
V2.1	2024.01.27	Zhang Wenjuan	Qin Yongling	Initial version

# Chapter 1 Product Introduction

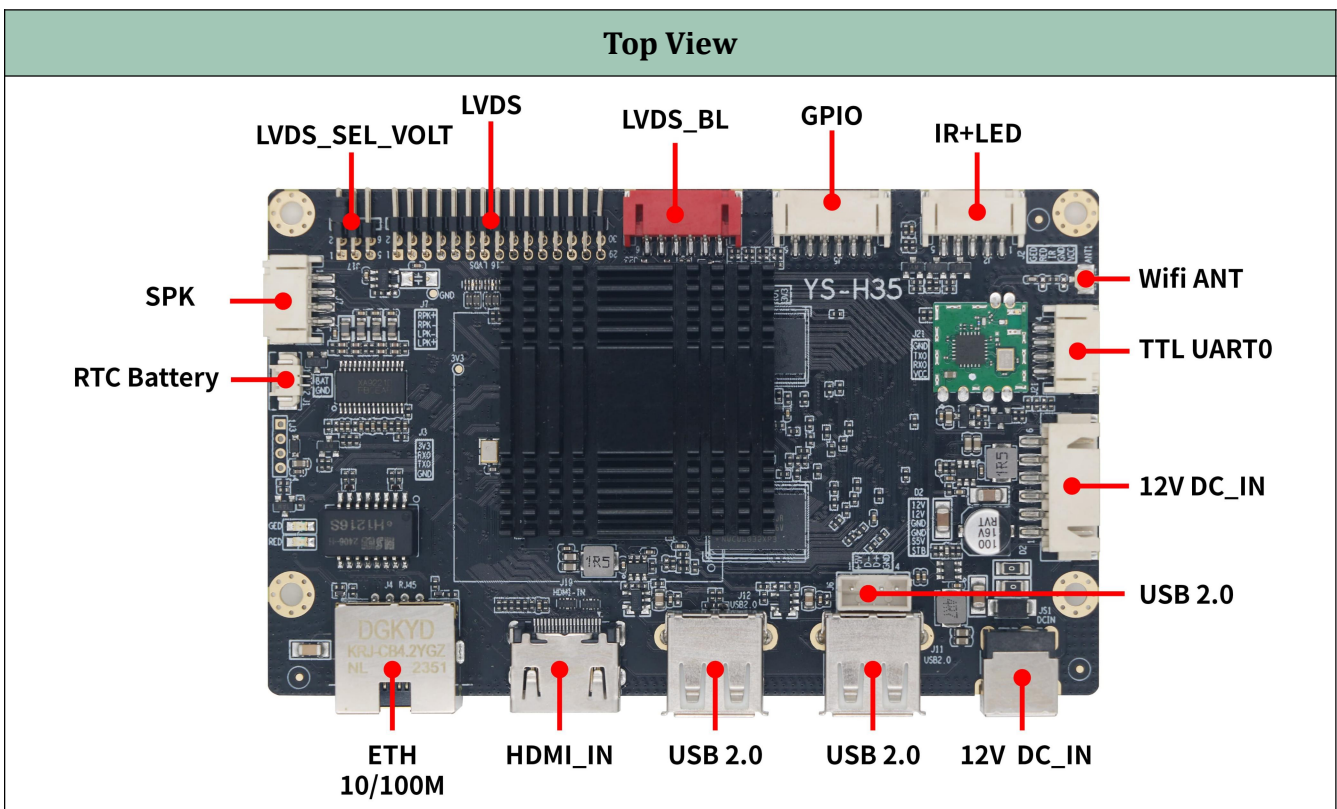
## 1.1 Overview



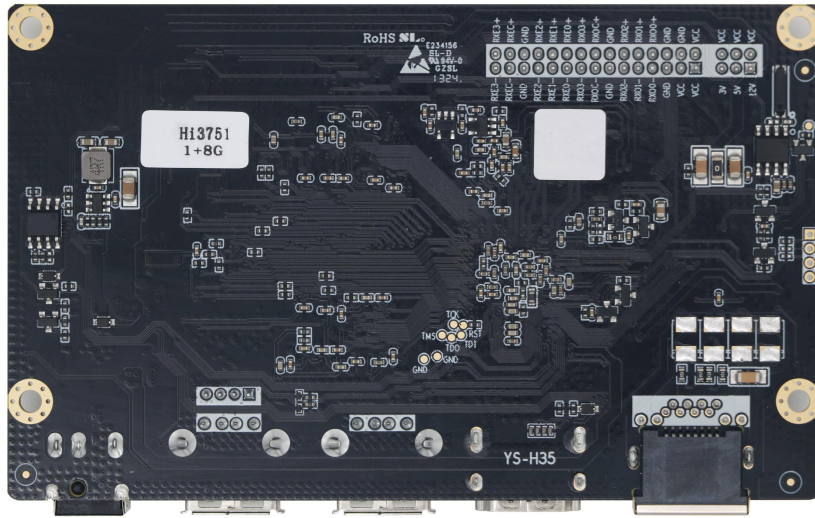
YS-H35 belongs to the intelligent Android motherboard, with rich control interface and extension interface, perfect support for the message system, support for remote production, release, management and real-time update program, support for local/network timing switch; Equipped with industrial binocular camera and face recognition technology, as well as infrared human body temperature measurement module; It is an efficient, safe and highly reliable product.

The product has a wide range of applications in intelligent display terminal, industrial automation terminal and video terminal. Such as: digital signage, intelligent self-service terminal, new retail intelligent terminal, intelligent display, building intercom, etc.

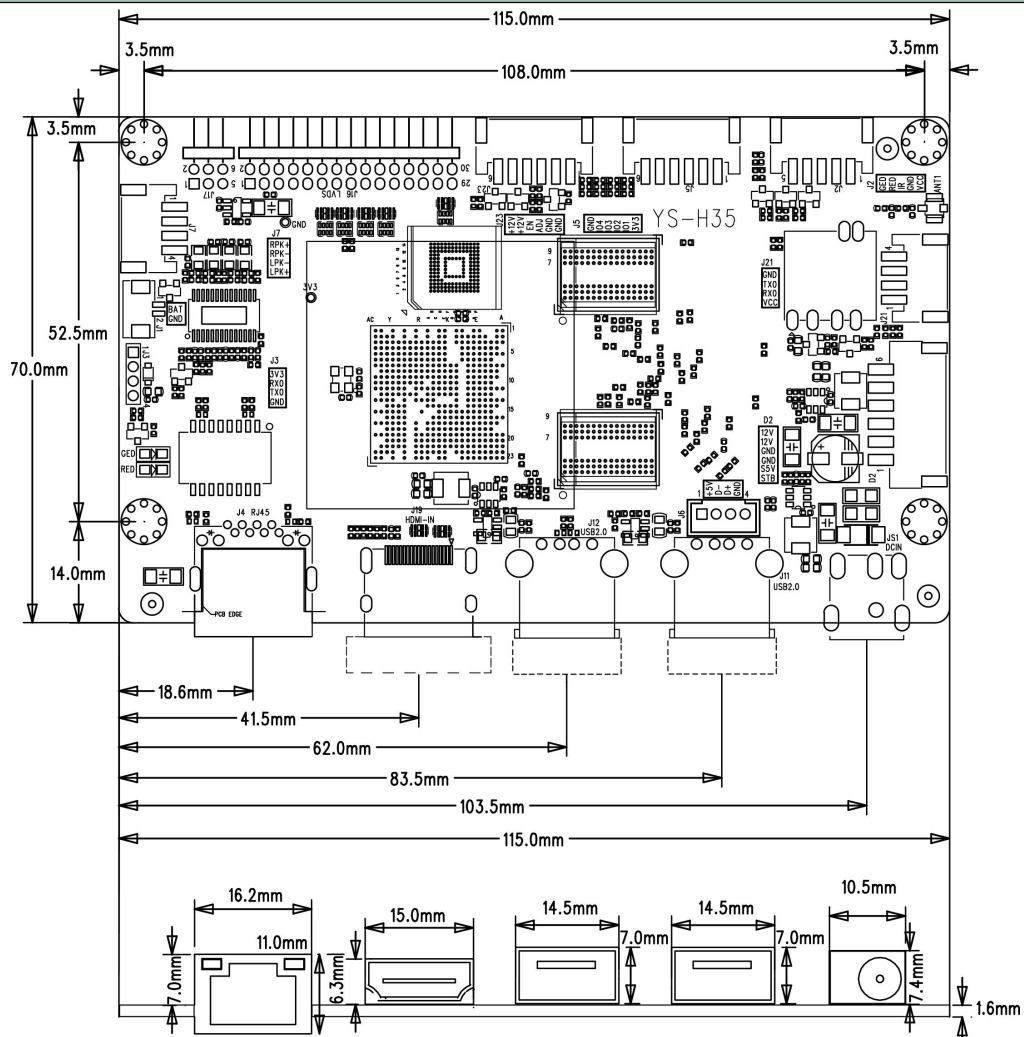
## 1.2 Pictures and Dimensions



Bottom View



Dimensions



\*PCBA L: 115mm

\*PCBA W: 70mm

\*PCBA H: 12mm

\*PCBA Location Hole:  $\Phi 3.2\text{mm} \times 4$

## 1.3 Product Detailed Parameters



### Detail Specification

<b>SOC</b>	Hi3751 V352
<b>CPU</b>	Quad-core Cortex-A53 32bit CPU
<b>GPU</b>	ARM MaliTM-450 OpenGL ES 1.0/1.1/2.0 OpenVG 1.1 Support FHD graphics rendering
<b>OS</b>	<b>Android:</b> Android 9.0
<b>Video CODEC</b>	<b>Video Decoder</b> 1080P@60fps H.264/MVC/MPEG1/MPEG2/MPEG4/AVS+(AVS-P16)/VC-1/VP6/8 VP9 10bit,FHD@60fps
<b>ROM</b>	1GB LPDDR
<b>Storage</b>	8/16GB EMMC
<b>Display Output</b>	1*LVDS (Up to 1920x1080)
<b>Display Input</b>	1*HDMI1.4 (Up to 1080P@60HZ)
<b>Audio</b>	1*SPK (L&R audio-out, Up to 2*8Ω/5W speaker) 1*HP 1*Audio 1*MIC
<b>Network</b>	Ethernet: Support 10/100M WIFI: Support 2.4GHz Band, System: IEE Std.802.11b/g/n Bluetooth: 4.2(Optional)
<b>USB</b>	2*Type-A USB2.0 HOST 1*USB2.0 HOST(4Pin*2.0mm Wafer) (Reserved)
<b>UART</b>	2*TTL(1*TTL Debug)
<b>Other</b>	1*I2C 2*GPIO 1*IR+LED 3*Key (1*PWR_Key,2*Vol_Key)

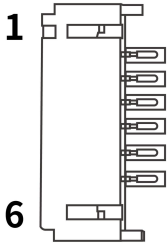
## 1.4 Configuration & General Precautions

1. Relative humidity  $\leq$  85%
2. Storage temperature: - 30 °C to+70 °C
3. Operating temperature: - 15 °C to+60 °C
4. During the assembly of the whole machine, please do not operate the wiring with power to avoid short circuit between bare board and peripheral equipment.
5. Pay attention to the anti-static treatment during the assembly and transportation of the whole machine, and it is necessary to wear electrostatic protection tools such as electrostatic bracelet (sleeve).
6. When assembling the whole machine, it can be installed at the bottom or side, but do not deform or twist the board, and do not bear heavy pressure.
7. Proper distance shall be reserved at the wiring position of each terminal to avoid squeezing the terminal during installation.
8. The connecting line between this board and the supporting module board should not be too long, otherwise it may affect the image quality.
9. The internal wiring of the whole machine shall be reasonable, and the connecting wires shall not pass through the PCB board directly as far as possible.
10. In order to achieve better EMC effect for the whole machine, it is recommended that the screen wire between the main board and the screen should be shielded wire.
11. The specifications of the peripherals connected to the installation shall be confirmed with our company, including but not limited to: voltage limit, current limit, timing, power domain, etc.

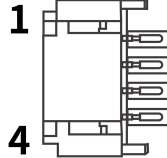
## Chapter 2 Interface Pin Name

### Main interface definition:


#### D2 (4PIN/2.54) 12V PWR\_IN

Exterior	Pin No.	Pin Name	Description
	1	STB	Power supply enable, connect to PSON
	2	S5V	5V constant power supply (standby), connect to 5VS
	3	GND	Ground
	4	GND	Ground
	5	+12V	12V Power Input
	6	+12V	12V Power Input

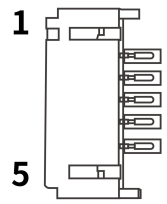
#### J7 (4PIN/2.0) SPK

Exterior	Pin No.	Pin Name	Description
	1	RPK+	Positive output for right Channel
	2	RPK-	Negative output for right Channel
	3	LPK-	Negative output for left Channel
	4	LPK+	Positive output for left Channel

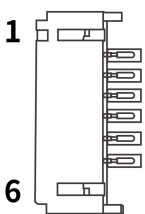
#### J1 (2PIN/2.0) RTC Battery

Exterior	Pin No.	Pin Name	Description
	1	BAT+	Battery Positive
	2	BAT-	Battery Negative

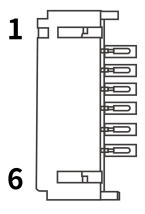
#### J2 (5PIN/2.0) IR+LED

Exterior	Pin No.	Pin Name	Description
	1	VCC	3.3V Power Supply
	2	GND	Ground
	3	IR	Remote Control Infrared
	4	RED	Red Light
	5	GED	Green light

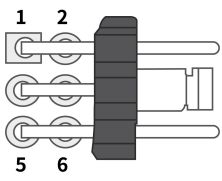
**J5 (6PIN/2.0) GPIO (Power Domain 3.3V)**

Exterior	Pin No.	Pin Name	Description
	1	3V3	Power Supply
	2	IO1	GPIO1
	3	IO2	GPIO2
	4	IO1	GPIO1
	5	IO2	GPIO2
	6	GND	Ground

**J23 (6PIN/2.0) LVDS\_BL**

Exterior	Pin No.	Pin Name	Description
	1	GND	Ground
	2	GND	Ground
	3	ADJ	Backlight Brightness Adjustment
	4	EN	Backlight On/Off Control
	5	+12V	Screen Backlight Power Supply
	6	+12V	Screen Backlight Power Supply

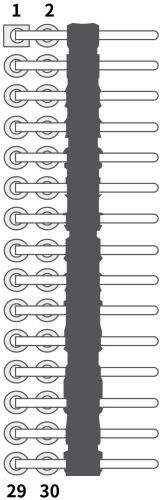
**J17 (6PIN/2.0) LVDS\_SEL\_VOLT**

Exterior	Pin No.	Pin Name	Description
	1	12V	12V Power Supply
	2	VCC_LCD	Screen Voltage Port
	3	5V	5V Power Supply
	4	VCC_LCD	Screen Voltage Port
	5	3.3V	3.3V Power Supply
	6	VCC_LCD	Screen Voltage Port

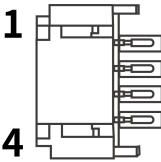
Note: The LVDS screen uses a jumper cap to select the screen power supply. Connect 3.3V to VCC\_LCD, then the screen voltage is 3.3V.

**J16(30PIN/2.0) LVDS**

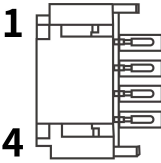
Exterior	Pin No.	Pin Name	Description
	1	PWR	Power Supply
	2	PER	Power Supply
	3	PER	Power Supply
	4	GND	Ground
	5	GND	Ground
	6	GND	Ground
	7	RX00-	LVDS Signal
	8	RX00+	LVDS Signal

	9	RXO1-	LVDS Signal
	10	RXO1+	LVDS Signal
	11	RXO2-	LVDS Signal
	12	RXO2+	LVDS Signal
	13	GND	Ground
	14	GND	Ground
	15	RXOC-	LVDS Signal
	16	RXOC+	LVDS Signal
	17	RXO3-	LVDS Signal
	18	RXO3+	LVDS Signal
	19	RXE0-	LVDS Signal
	20	RXE0+	LVDS Signal
	21	RXE1-	LVDS Signal
	22	RXE1+	LVDS Signal
	23	RXE2-	LVDS Signal
	24	RXE2+	LVDS Signal
	25	GND	Ground
	26	GND	Ground
	27	RXEC-	LVDS Signal
	28	RXEC+	LVDS Signal
29	RXE3-	LVDS Signal	
30	RXE3+	LVDS Signal	

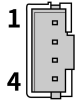
**J3 (4PIN/2.0) TTL UART 0 (Debug) (Power Domain3.3V)**

Exterior	Pin No.	Pin Name	Description
	1	VCC	Power 3.3V (Can optional 5v)
	2	RX0	UART Receive
	3	TX0	UART Transmit
	4	GND	Ground

**J21 (4PIN/2.0) TTL UART 1 (Power Domain3.3V)**

Exterior	Pin No.	Pin Name	Description
	1	VCC	Power 5V (Can optional 3.3v)
	2	RX1	UART Receive
	3	TX1	UART Transmit
	4	GND	Ground

**J6 (4PIN/2.0) USB (Reserved USB)**

Exterior	Pin No.	Pin Name	Description
	1	+5V	USB Power Supply
	2	D-	USB data-
	3	D+	USB data+
	4	GND	Ground

## Chapter 3 Electrical Characteristics

### ◆ Normal Operating Conditions

Interface Type		Min	Typ	Max
Standard power parameters	Vcc	11V	12V	13.5V
	Ripple	/	/	±3%
	Current	2A	3A	/

### ◆ Power Consumption

Interface Type		Min	Typ	Max
Power Supply Current (with no display connected )	Operation Current	/	250mA	400mA
	STAND-BY CURRENT	/	50mA	60mA
	BATTERY OPERATION CURRENT	/	0.0024mA	/

## ◆ USB Power Supply

USB Interface Type	Voltage	Typical Current	Max Current
OTG_USB	5V	500mA	1.5A
HOST_USB	5V	500mA	1.5A

Note: It is recommended that the total current of USB peripherals not exceed 3000mA; otherwise, the machine cannot operate normally.

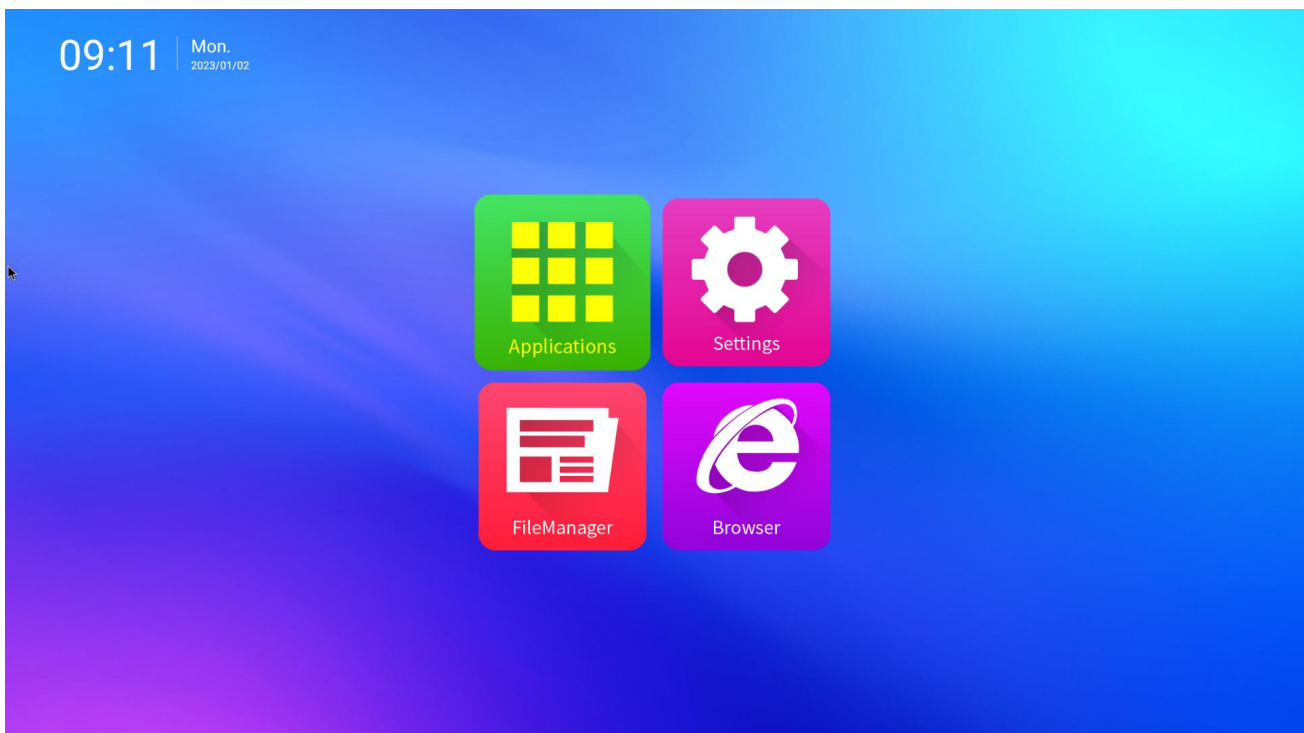
## ◆ Other

Interface Type	Rated Current	Max Current	Max Current
EXT 5V	/	3000mA	
EXT 3.3V	/	3000mA	

# Chapter 4 System Instruction

## 4.1 Android System Interface Description

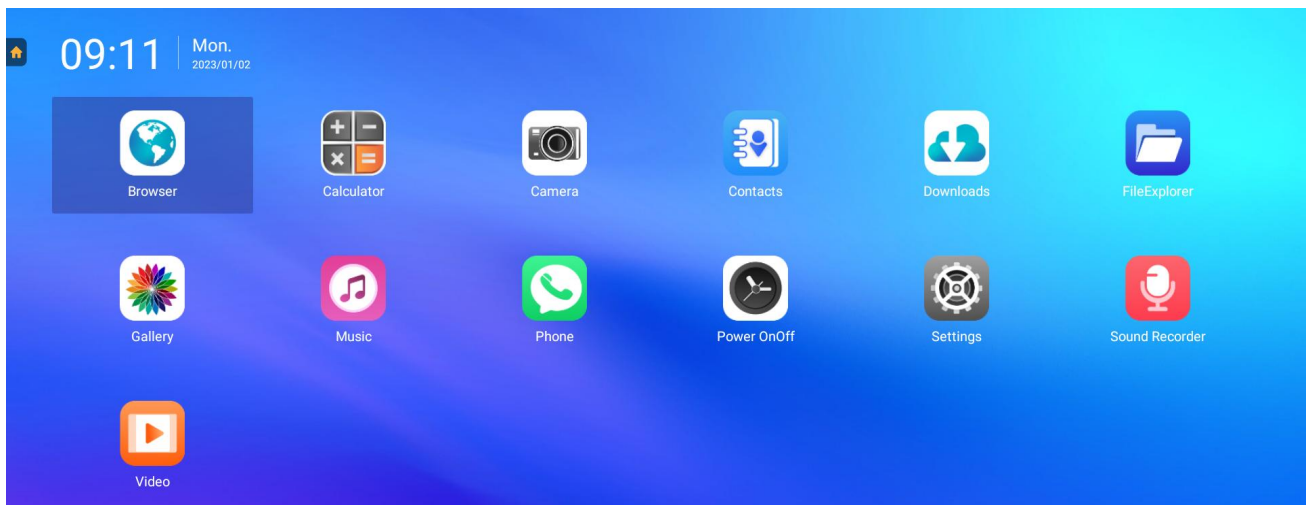
The main menu interface of Android system is divided into four categories: application, settings, file management and browser.



Homepage

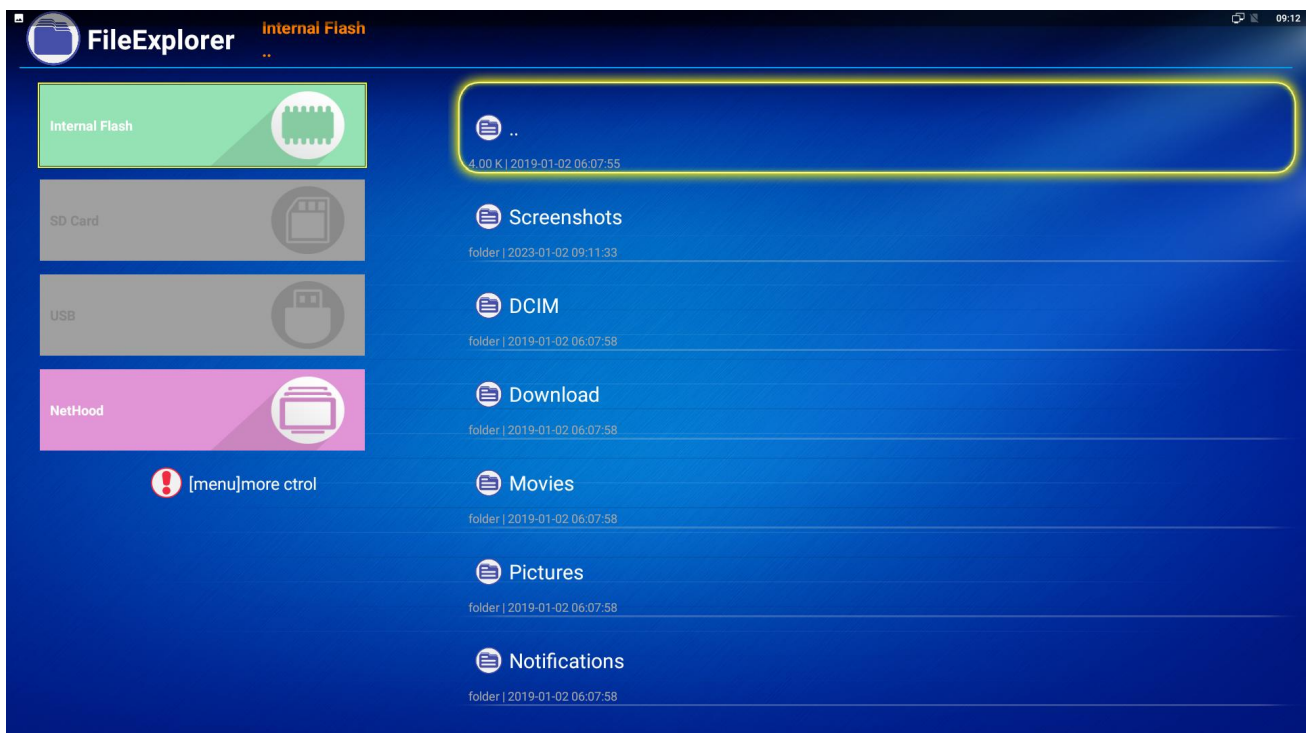
### (1) Application interface

The application interface includes: Power on / off, settings, gallery, file, camera, music, explorer, browser, etc.



Application Interface

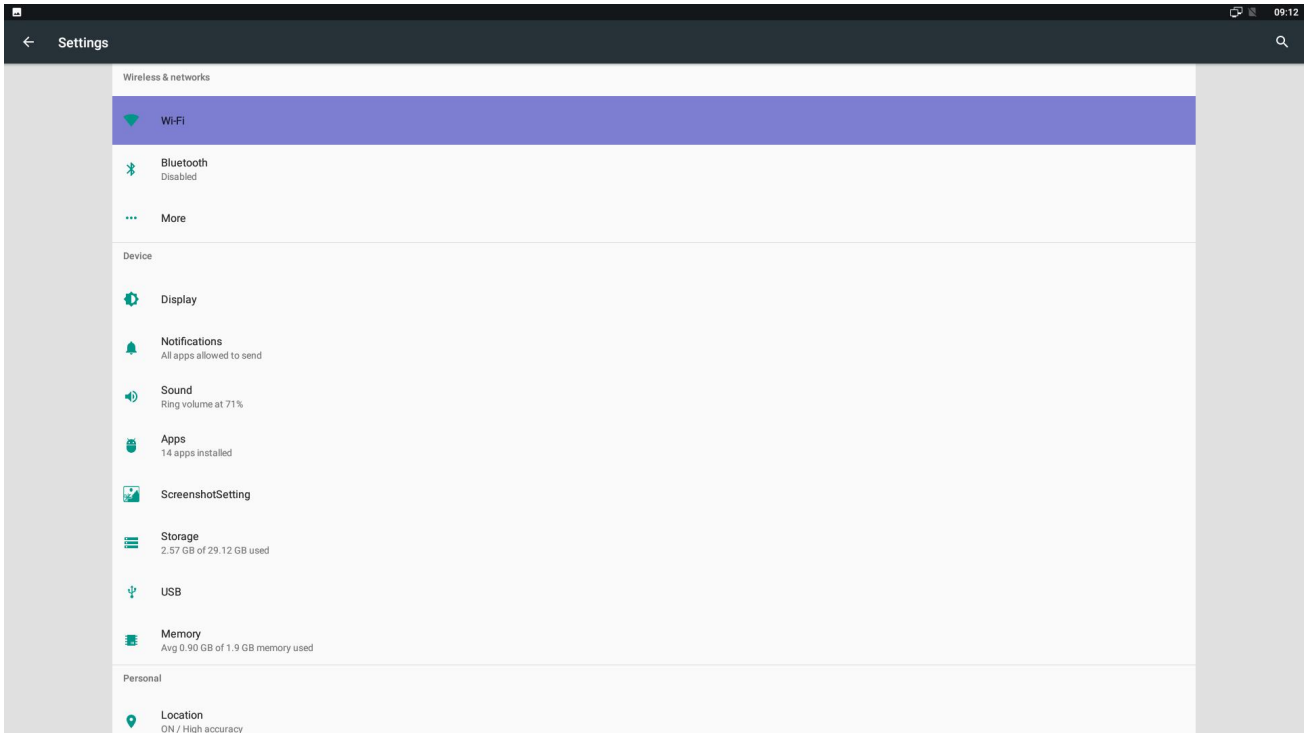
### (2) File Management Interface



File Management Interface

### (3) Setting Menu Interface

It supports the settings of wireless network and device display sound, and can also view the program applications installed on the device, storage memory, etc.

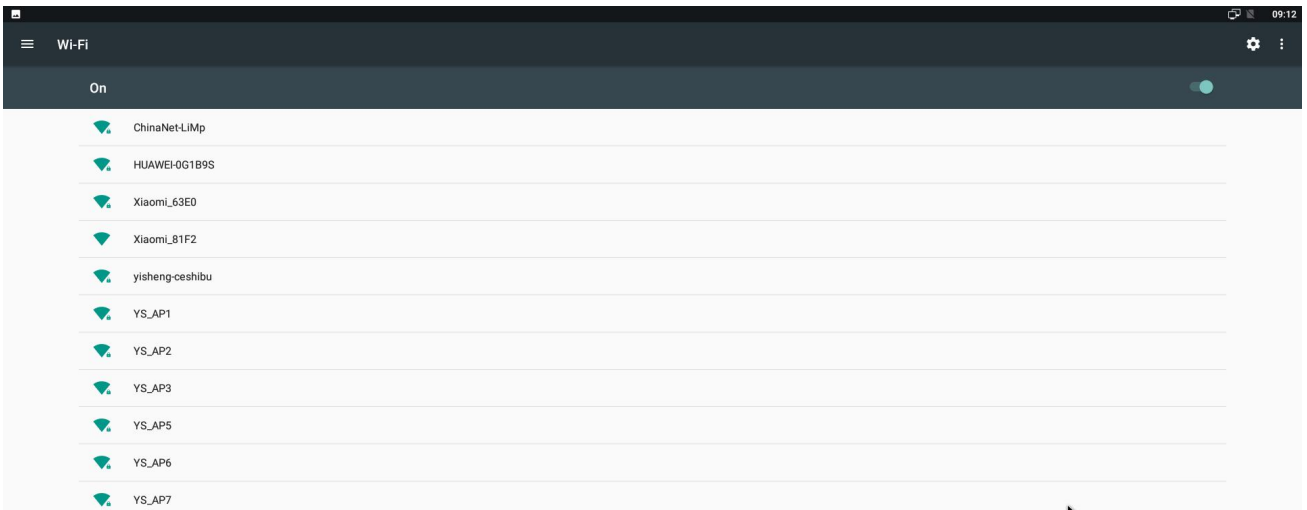


Setting Menu Interface

## 4.2 Network Interface Explanation

### (1) WIFI Network Signal Connection

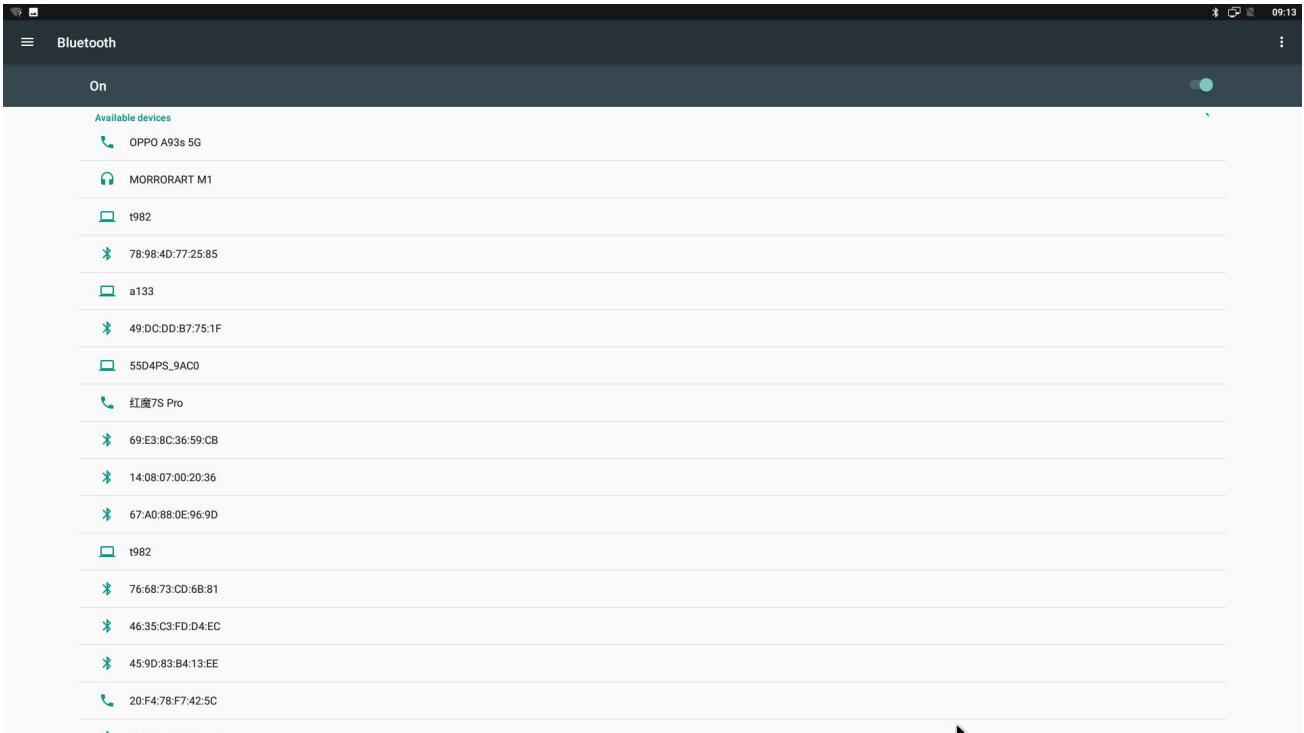
Turn on the WiFi switch in the "setting" interface, as shown in the following figure; Select the WiFi signal to be connected and enter the corresponding password to successfully connect.



WiFi Setting Interface

### (2) Bluetooth Signal Connection

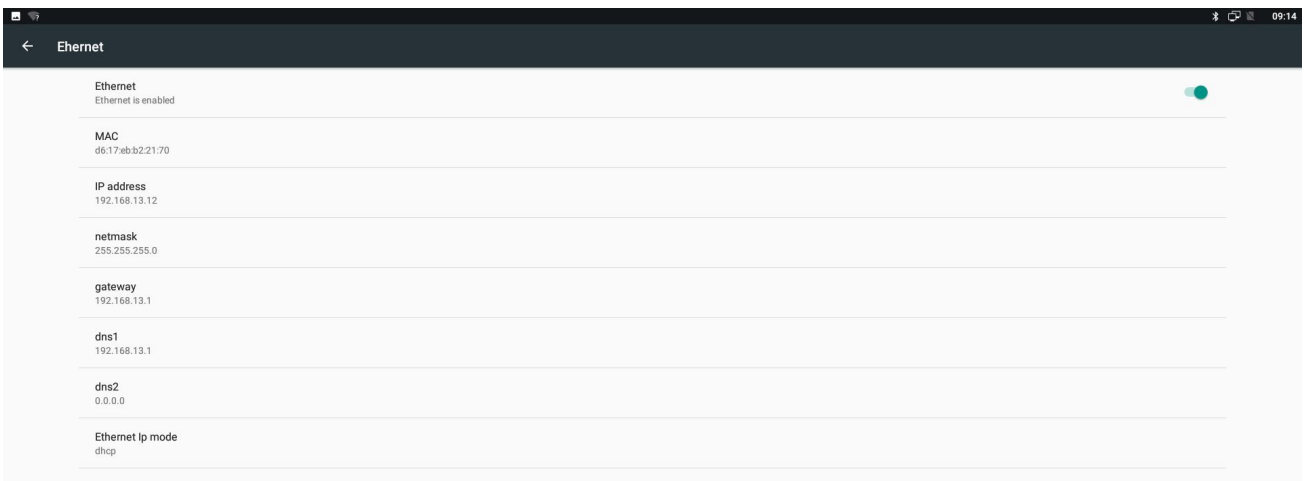
In the "Settings" interface, open the "Bluetooth" function and enter the "pairing with new devices" interface shown in the figure below to search for Bluetooth devices and pair them.



Bluetooth Setting Interface

### (3) Ethernet Connection

In the "Settings" interface, open "More", turn on Ethernet, enter the page shown in the figure below, turn on the Ethernet switch, then plug in the network cable and automatically connect to Ethernet. You can view the IP address, Ethernet MAC address and other information in the interface shown in the figure below.



Ethernet Setting Interface

**NOTICE:**

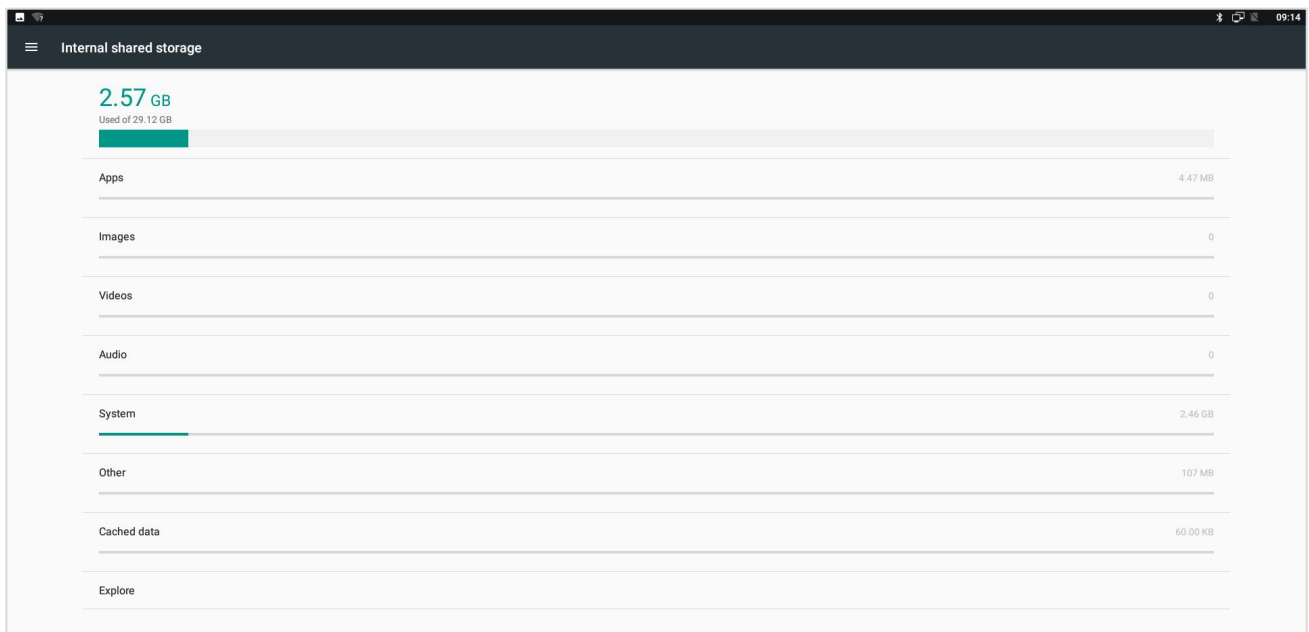
- THE USE OF THE WIRELESS NETWORK MUST BE CONNECTED TO THE WIFI ANTENNA AT THE WIFI ANTENNA HOLDER
- THE AVAILABILITY AND COVERAGE OF WIFI SIGNALS DEPENDS ON THE NUMBER OF SIGNALS, ANTENNA PERFORMANCE AND EXTERNAL ENVIRONMENT.
- THE ETHERNET MAC ADDRESS IS THE ONLY PERMANENT AND VALID DEVICE ID FOR THIS SYSTEM.

THE NETWORK PRIORITY ORDER FOR ALL ANDROID DEVICES IS:

1. ETH Ethernet network
2. WIFI wireless network
3. 3G/4G/5G mobile network

## 4.3 Viewing Storage

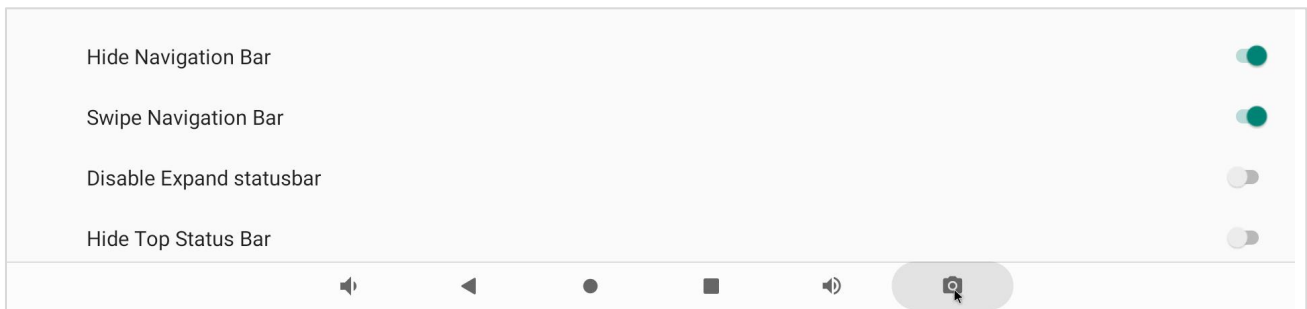
In settings, select "storage" to enter the following interface, where the storage information of the storage space will be displayed. The display of 2.57GB is the used storage space, and 29.12GB is the remaining storage space.



Viewing Storage Interface

## 4.4 Setting The Notification Bar And Navigation Bar

In the setting, select "display": check "hide navigation bar", and the navigation bar will be hidden; Check "swipe navigation bar", and the navigation bar can be slid out by sliding the mouse up from the bottom. The navigation bar will disappear 5 seconds after no operation. If disable expand statusbar is checked, expand statusbar cannot be pulled down; Check "hide top statusbar" to hide the top statusbar showing time and other statuses at the top of the interface.



Navigation Bar

**NOTE:**

"Hide navigation bar" must be selected before "swipe navigation bar" is selected;

When hide top statusbar is selected, expand statusbar is also forced to be hidden by default.

## Chapter 5 Contact Us

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*Looking forward to working with you, thank you*