



# QYP215C5C2

## Specification

Ver.#: 1.10

2026.01



## Technical Support

Please contact us, if any doubt. (Monday to Friday 8:30-12:00, 13:30-17:30):

Technical Email: [supports@qiyangtech.com](mailto:supports@qiyangtech.com)

Technical support Tel.: 0571-87858811-805

Official website: [www.qiytech.com](http://www.qiytech.com) (Chinese)/ [www.qiyangtech.com](http://www.qiyangtech.com) (English)

## Information update and access

### 1、 Information Updating

Product-related information will be constantly improved and updated. When you use these contents, please make sure that it is up to date.

### 2、 Update Notification

Qiyang product information updates will be notified via WeChat public account, so stay tuned!



### 3、 How to obtain information

After purchasing, please contact the relevant sales staff of our company to obtain it.

**Version Records**

Version	Hardware	Description	Date	Reviser
1.0	RK3288	First version release	2023-07	MaoH
1.1	RK3288	Pin definitions match the shell 's silkscreen.	2026-01	MaoH

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**Notice: This manual introduces the hardware interfaces of the mainboard.**

## I.Preface

### 1.1.Company Profile

Zhejiang Qiyang Intelligent Technology Co., Ltd., established in 2007, which locates in Hangzhou, Zhejiang, PRC. It is a high-end technological enterprise that specializes in exploitation, fabrication, and selling embedded computer mainboards. With 10 years of experiences, Qiyang has established the completed service chain from the design concept to mass production successfully.

The R&D team is organized by 30 more technical engineers. Qiyang focus on providing functional embedded hardware, software tool and customization solutions. It has been applied to Industrial Control, Internet of Things, New Retail, Smart Medical, Electricity Device, Environmental Surveillance, Charging Pile etc.

With the growth of the business, Qiyang has set up an SMT factory in Zhuji, Zhejiang province, which is 5000m<sup>2</sup>, with a 2xSMT production line. The SMT factory performs the ISO9001 Quality Management System strictly. Relying on the solid production ability, the SMT factory's annual capacity is about a million sets, which totally guarantee the delivery date.

Qiyang has a thorough sales marketing network, professional sales, and after-sales team to provide full technical support and service. The business has spread over 120 countries and areas, it helps the clients to introduce the products into the market efficiently and successfully. The combination and extension of research and development, production capacity, and market, that provide a solid foundation for Qiyang to provide specialized, globalized embedded hardware and software.

### 1.2.QY-P215C5C2 Android Tablet Use Suggestion:

1. Please read the instructions first before using the development board;
2. Please check the packing list and see whether there is a missing file before using the development board.
3. Please understand the basic structure and composition of board, including the allocation of hardware resource, etc.
- 4.7inch, 10.1 Inch, 15.6 Inch, 21.5 Inch are also available, we accept batch order.

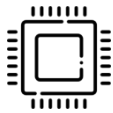
## II .Product Introduction

# QY-P215C5C2 Tablet



- Based on RK3288 quad-core processor, ultra-high performance
- Mali-T764 GPU, support Open GL ES1.1/2.0/3.0, OpenVG1.1, OpenCL, Directx11
- Support 4G, Wi-Fi, Bluetooth, Ethernet communication
- HD display, resolution up to 1920\*1080
- 4\*RS232, multiplexing with 2-ch RS485
- Metal shell, flat design

Quad core 1.8GHz	2G DDR3	8GB eMMC	4-ch USB2.0	4-ch serial port
Audio/ Speaker out	MIC input	Wi-Fi/BT	1-ch 100Mbps Ethernet	4-ch GPIO
1-ch SIM Card	Android 7.1			



### Smart chip, powerful core

Based on Rockchip RK3288 quad-core processor, clocked at 1.8GHz, integrated Mali T764 GPU, can realize 4K\*2K H.264 and H.265 video hard decoding



### Strong communication and transmission capabilities

Onboard BT/Wi-Fi module, itself is with 4XRS232 multiplexed with RS485, 1-ch 100M Ethernet port, reserved MINI PCI-E, 4G module can be connected (\*optional)



### Metal Plate Housing

38 steps process, frosted surface treatment, fanless design, efficient thermal conductivity, 60°C aging



### Rich peripheral interface

Integrated with the interfaces, such as USB, serial port, MIPI, MINI PCI-E, Ethernet, audio, camera, SIM, etc



### IPS screen HD display

21.5 inch full-fit IPS high-definition screen with 1920\*1080 resolution, full-view high-definition display, vivid color reproduction, clear and smooth picture, support for multi-touch, sensitive and stable touch



### Easily use and develop

Provide all source code, technical information and development tools, easy and convenient to develop test, 7x24hrs stable running

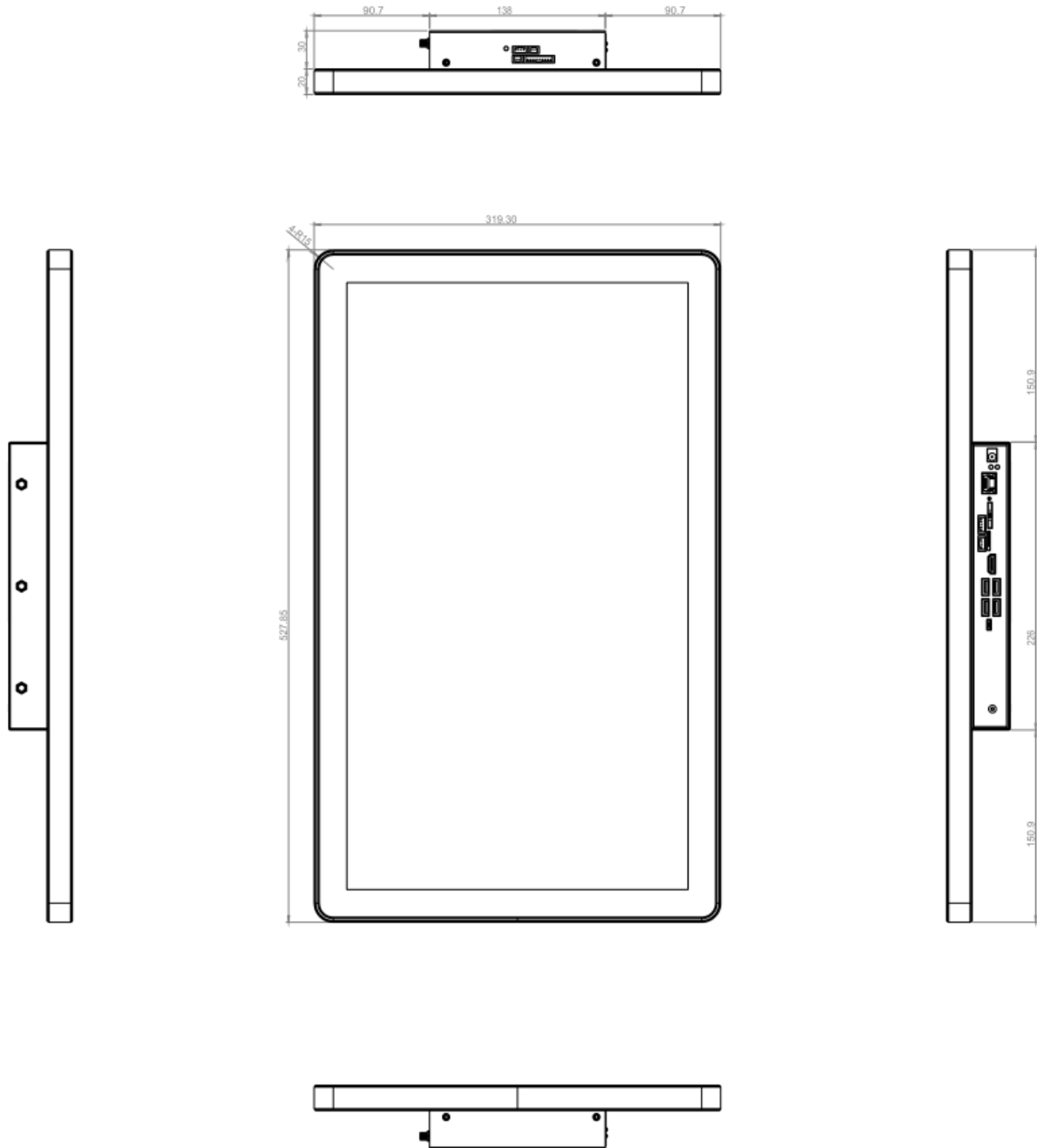
### III. Parameters

<b>Screen</b>	Size	21.5 Inches, full viewing angle
	Resolution	1920*1280
	Brightness	350 CD/M <sup>2</sup>
	Touch	Capacitive touch screen
<b>Performance Parameter</b>	SOC	RockChip RK3288-W
	CPU	Quad-core Cortex-A17 processor, clocked at 1.8GHz
	GPU	Mali-T764 GPU, support AFBC (frame buffer compression) Support OpenGL ES1.1/2.0/3.0, OpenCL, Directx9.3 Embedded high-performance 2D acceleration hardware
	VPU	Support 4K 10bits H265/H264 video decoding 1080P multi-format video decoding (VC-1, MPEG-1/2/4, VP8) 1080P video encoding, support H.264, VP8 format
	RAM	2GB DDR3
	ROM	8GB eMMC, compatible with 16GB eMMC/32GB eMMC
	Wireless Network	2.4GHz Wi-Fi, support 802.11 b/g/n protocol Support BT4.2
	Network	10/100Mbps adaptive Ethernet
	Speaker	8Ω2W speaker
	RTC	Support
	Watchdog	Hardware Watchdog
	UART	RS232x4, baud rate supports 9600bps~115200bps, multiplexed with 2-ch RS485
		RS485x2, baud rate supports 9600bps~115200bps, multiplexed with RS232
	<b>Optional Modules</b>	MIC
Speaker		8Ω2W/5W speaker (Optional)
4G CAT1		Support 4G CAT1 full Netcom (Optional)
4G LTE		Support 4G LTE full Netcom (Optional), additional 4G module is required
<b>Hardware Connector</b>	Power Connector	DC 5.5mm*2.1mm (DC9~30V Input)
	GPIO	WAFER PH2.0mm spacing-5Pin (TTL 0~3.3V, no isolation)
	Ethernet interface	RJ45 10/100Mbps
	USB	USB 2.0 HOSTx4, USB 2.0 OTGx1
	RS232	4XRS232, baud rate supports 9600bps~115200bps, multiplexed with 2XRS485
	RS485	4XRS232, baud rate supports 9600bps~115200bps, multiplexed with 2XRS232
	SIM Slot	Drawer type ,SIM card slot
	Indicator	Power Indicator x1 (Red), System Operation Indicator x1 (Green).
	Line In.	WAFER PH2.0mm spacing-2Pin (MIC x 1)
	Line Out.	WAFER PH2.0mm spacing-4Pin (SPEAK x 1)
	HDMI	Comply with HDMI 2.0
	Button	User MODE button x 1
	SD Card	Micro SD x1
<b>System Software</b>	Operation System	Android7.1
	OTA Upgradation	YES
	Power In	DC12V-6A (Recommend)

<b>Electrical Characteristics</b>	Operational Temperature	-10°C ~ +60°C
	Storage Temperature	-20°C ~ +70°C
	Humidity	5%~95%, non-condensing
	Power consumption	About 25W
<b>Others</b>	Size	527.9mm x 319.3mm x 50mm
	Weight	6KGS
	Material	Galvanized sheet + aluminum profile
	Protection Level	IP50 protection design of the whole machine
	Installation Mode	Flush installation, wall installation, bracket installation

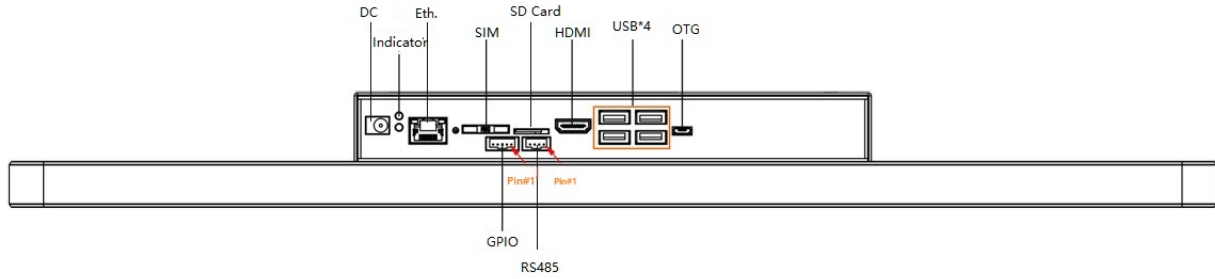
## IV. Structure & Size

- Size: 527.9mm x 319.3mm x 50mm

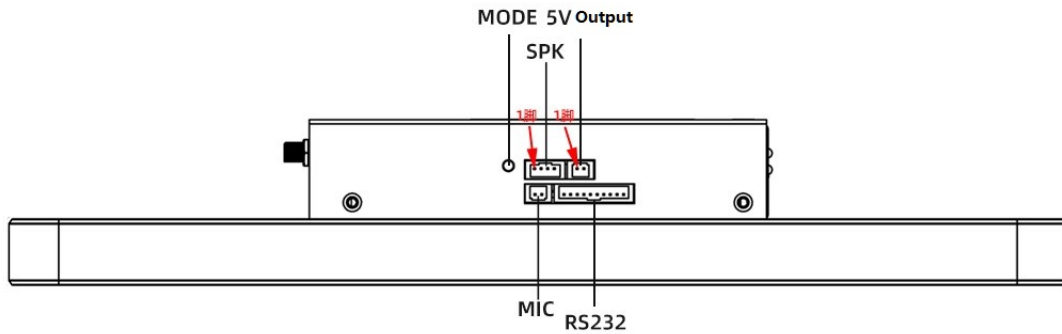


## V. Pin Definition

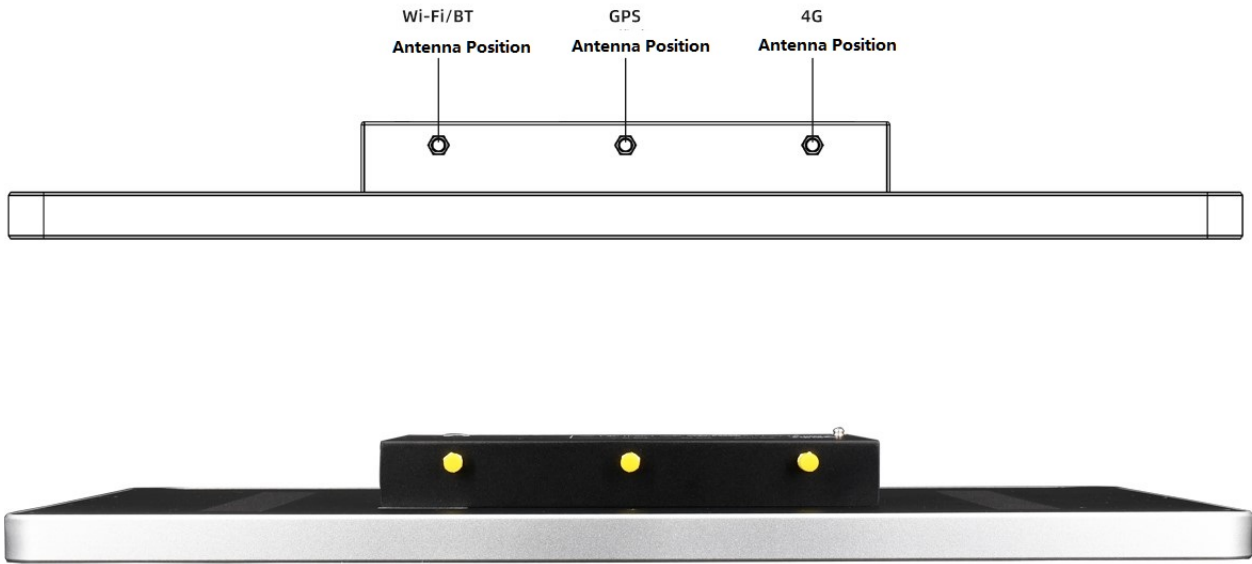
### Front Side



### Side Edge



Back Side



RS232\_Pin Definition

No.	Pin Definition	Description	Device Node
1	GND	GND	
2	T4	RS232_4	/dev/ttyS4
3	R4		
4	T3	RS232_3	/dev/ttyS3
5	R3		
6	GND	GND	
7	T2	RS232_2	/dev/ttyS2
8	R2		
9	T1	RS232_1	/dev/ttyS1
10	R1		

RS485\_Pin Definition

No.	Pin Definition	Description	Device Node
1	A1	RS485_1	/dev/ttyS3
2	B1		
3	A2	RS485_2	/dev/ttyS4

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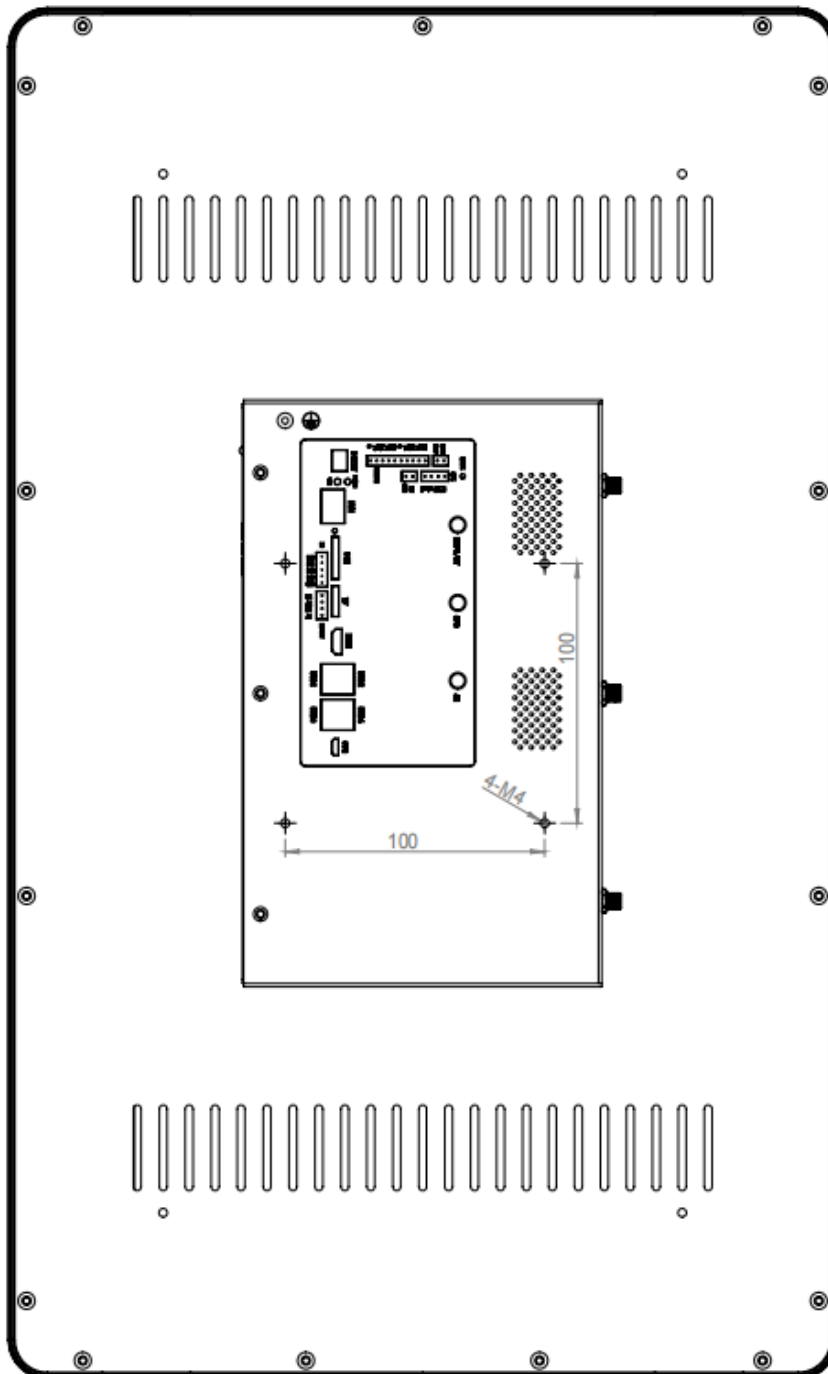
4	B2		
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## GPIO\_ Pin Definition

No.	Pin Definition	Description	Device Node
1	GND	EARTH_GND	
2	IO3	IN/OUT(Direct from CPU)	/dev/IO3
3	IO2	IN/OUT(Direct from CPU)	/dev/IO2
4	IO1	IN/OUT(Direct from CPU)	/dev/IO1
5	IO0	IN/OUT(Direct from CPU)	/dev/IO0

## VI. Installation Mode

Installation Position: VESA standard position: 100\*100mm, 4\*M4 position hole



## VIII. Application Area

It is widely used in smart cabinets, new retail, self-service terminals, smart factories, IoT gateways, food safety, smart medical, robotics, power equipment, smart agriculture and other industries.



Smart cabinet



New retail



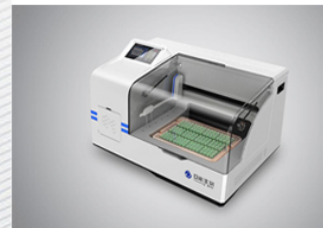
Self-service Terminals



Smart Factories



IoT Gateways



Food Safety



Smart Medical



Robotics



Power Equipment



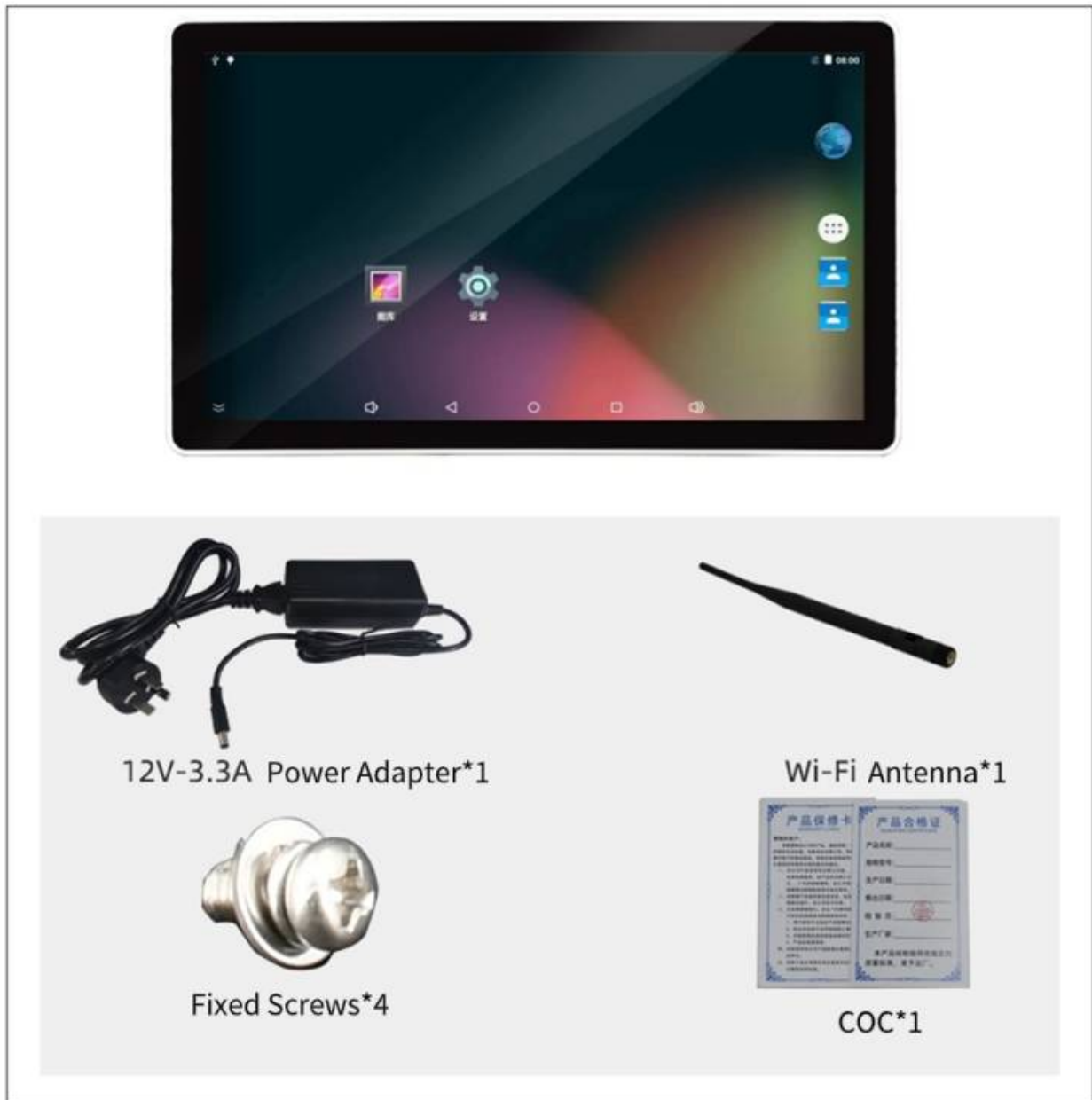
Smart Agriculture

## VIII.Shipping List

### Shipping List

Item No.	Name	Specification	Qty	Remark
1	21.5 Inch Tablet	Model No.: QYP215C5C2	1	
2	Power Adapter	DC12V-6A	1	Cable Length:2.6 meter
3	WIFI	2.4G folding WIFI Antenna	1	Length:11CM
4	Fixing Screw	M4*10 (Black) cross screw	4	
5	COC		1	
6	Carton Box		1	

### Product Picture



### Package Picture



### Configuration Information

No.	Model No.	Description
1	QYP215C5C2-1N00	Wi-Fi
2	QYP215C5C2-1N10	Wi-Fi+4G (CAT4)
3	QYP215C5C2-1N11	Wi-Fi+4G+GPS (CAT4)
4	QYP215C5C2-1N20	Wi-Fi+4G (CAT1)

## **Zhejiang Qiyang Intelligent Technology Co., Ltd**

**Tel:** 86-571-87858811 / 87858822

**Fax:** 86-571-89935912

**Technical Support:** 0571-87858811 ext.805

**E-MAIL:** [supports@qiyangtech.com](mailto:supports@qiyangtech.com)

**Website:** <http://www.qiytech.com> or <http://www.qiyangtech.com>

**ADD:** 3rd Floor, Building A, WSCG Building, NO.6 Xiyuan 8th Road,  
Sandun Town, Xihu District, Hangzhou City, Zhejiang China

**Postal Code:** 310013