
RK6550B-Technical Specification

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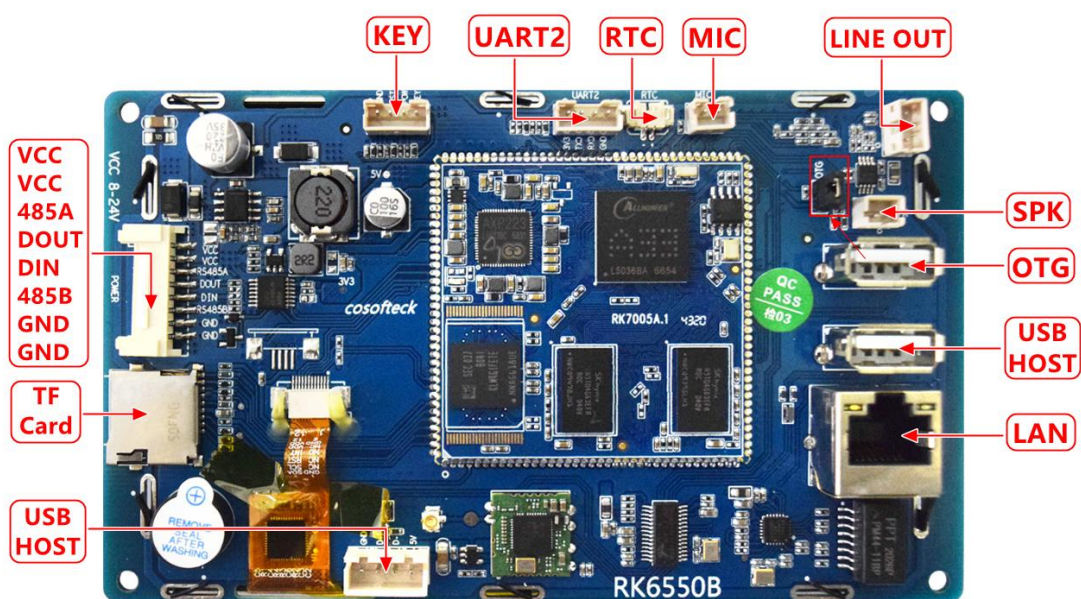
1.Parameter List

Product Specification		
Color LCD/TP	Resolution	5 inch 800x480
	Brightness	400 (TYP)
	Effective Perspective	85/85/80/85, IPS
	TP	Capacitive 5 points
CPU	All Winner A33 1.5GHz Quad-Core Processor	
GPU	3D (Mail 400 MP2) + 2D	
Memory	DDR3: 1GB	
Local Storage	EMMC Flash : 8GB	
Supported OS	Android 4.4.2、 6.0 或 Ubuntu18.04	
Audio/Video	1080P FHD; MPEG2, H.264, VC1, MPEG4/Xvid/DivX6, H.263, MJPEG, VP6/WebM VP8, H.264 MVC, RM, RMVB	
Extended memory	TF Card	
Ethernet	RJ45 10/100Mbps	
WIFI	WIFI 802.11 a/b/g/n(Optional)	
Bluetooth	BT4.2 (Optional)	
USB	USB2.0 HOSTx2, Devicex1	
Buzzer	One	
MIC	1 Way	
LINE OUT	L/R OUT 1 Way	
SPEAKER	2W 8Ω	
UART	UART TTL X 2,RS232 X 1,(One-way TTL and RS232 multiplexing),RS485 X 1	
RTC	Real Time Clock	
Power	8-30V, standard 12V ; < 6W	
Product Size		
Overall Size	137.0×81.0×23.4mm	
Viewing Area	108.0×64.8mm	

2.Product appearance



Front view



Back view

3.Hardware Interfaces

3.1Performance Overview

◆ Electrical performance parameters

Properties	Conditions	Min	TYP	Max	Unit
Power Voltage	—	8.0	12.0	30	V
Operation Current	VCC=+12V, backlight brightness maximum, running test game load application	—	360	—	mA
	VCC=+12V, backlight off	—	100	—	mA

◆ Operating environment and reliability parameters

Properties	Conditions	Min	TYP	Max	Unit
Working Temperature	60%RH at 12V voltage	-20	25	70	°C
Storage Temperature	—	-30	25	80	°C
Working Humidity	25°C	10%	60%	90%	RH
Protective Paint	—	—	None	—	—
ESD protection Level	Class 3				

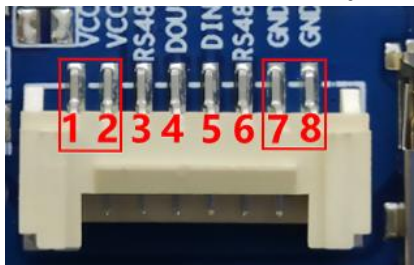
◆ Interface performance parameters

Properties	Conditions	Min	TYP	Max	Unit
UART RS232 Baud rate	User set	300	—	115200	bps
Output Voltage	Output 1	—	0	—	V
	Output 0	—	3.3	—	V
Input Voltage	Input 1	—	-5.0	—	V
	Input 0	—	5.0	—	V

UART UART1, UART2 Baud rate	User set	300	—	115200	bps
Output Voltage	Output 1	—	3.3	—	V
	Output 0	—	0	0.3	V
Input Voltage	Input 1	—	3.3	—	V
	Input 0	0	—	0.5	V
UART RS485 Baud rate	User set	300	—	57600	bps
Serial port level V_AB	Output 1	2.5	5.0	—	V
	Output 0	—	-5.0	-2.5	V
Serial port level V_AB	Input 1	0	2.5	—	V
	Input 0	—	-2.5	-0.2	V

3.2 Power Interfaces

- Connected by 8PIN 2.0mm pitch locking plug, model number: PH-8Y. Recommended 12V DC power supply access, can support wide voltage range 8V~30V.
- Note: It is recommended to supply 12V power (not exceeding 20V, due to the characteristics of switch mode power supply, there is a large fluctuation when powered on, which can easily exceed 30V and cause overvoltage damage)



Pin	Description	Remark
1	VCC	12V Input
2	VCC	
3	RS485_A	RS485 Signal A Equipment name: /dev/ttyS3
4	DOUT (COM1)	Equipment name: /dev/ttyS1
5	DIN (COM1)	
6	RS485_B	RS485 Signal B
7	GND	—
8	GND	

Shorting instructions: COM1 is RS232 level by default, TTL level after shorting the above solder joints.



3.3 COM2 Interfaces

- CCOM2 is connected via a 4PIN 2.0mm pitch plug, model number: PH-4Y.



Pin	Description	Remark
1	3.3VCC	12V Output
2	TXD2 (TTL)	Equipment name: /dev/ttyS2
3	RXD2 (TTL)	
4	GND	GND

3.4 RTC Interfaces

- One RTC external power connector is provided, connected through a 2PIN 1.25mm pitch socket, model number: MX1.25-2P.



Pin	Description	Pin	Description
1	RTC power "+"	2	GND

3.5 MIC Interfaces

- Provide 1 MIC interface, connected by 2PIN 2.0mm pitch vertical socket, model: PH-2Y.



Pin	Description	Pin	Description
1	MIC+	2	MIC-

3.6 LINE OUT

- Provide 1 LINE OUT signal interface, connected by 3PIN 2.0mm pitch vertical socket, model: PH-3Y.



Pin	Description	Pin	Description
1	L	2	R
3	GND	—	—

3.7 SPK Interfaces

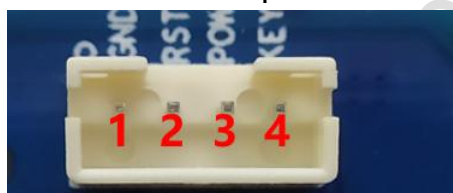
- Provide 1 SPK interface, connected by 2PIN 2.0mm pitch vertical socket, model: PH-2Y.



Pin	Description	Pin	Description
1	VO-	2	VO+

3.8 KEY Interfaces

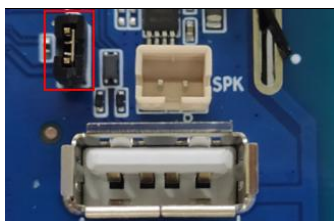
- Provide 3 kinds of key signal interfaces, such as RESET, POWER and KEY, connected by 4PIN 2.0mm pitch vertical socket, model number: PH-4Y.



Pin	Description	Pin	Description
1	GND	2	RESET KEY
3	POWER KEY	4	KEY

3.9 USB Interfaces

- A total of three USB ports are provided, one of which can switch between USB HOST and USB DEVICE functions, do OTG use, and connect through the vertical USB holder.



Note: The jumper cap is shorted to do USB DEVICE. The jumper cap is not shorted, for USB HOST.

- The other 2 channels are USB HOST

a) One of the channels is connected via a vertical USB holder.



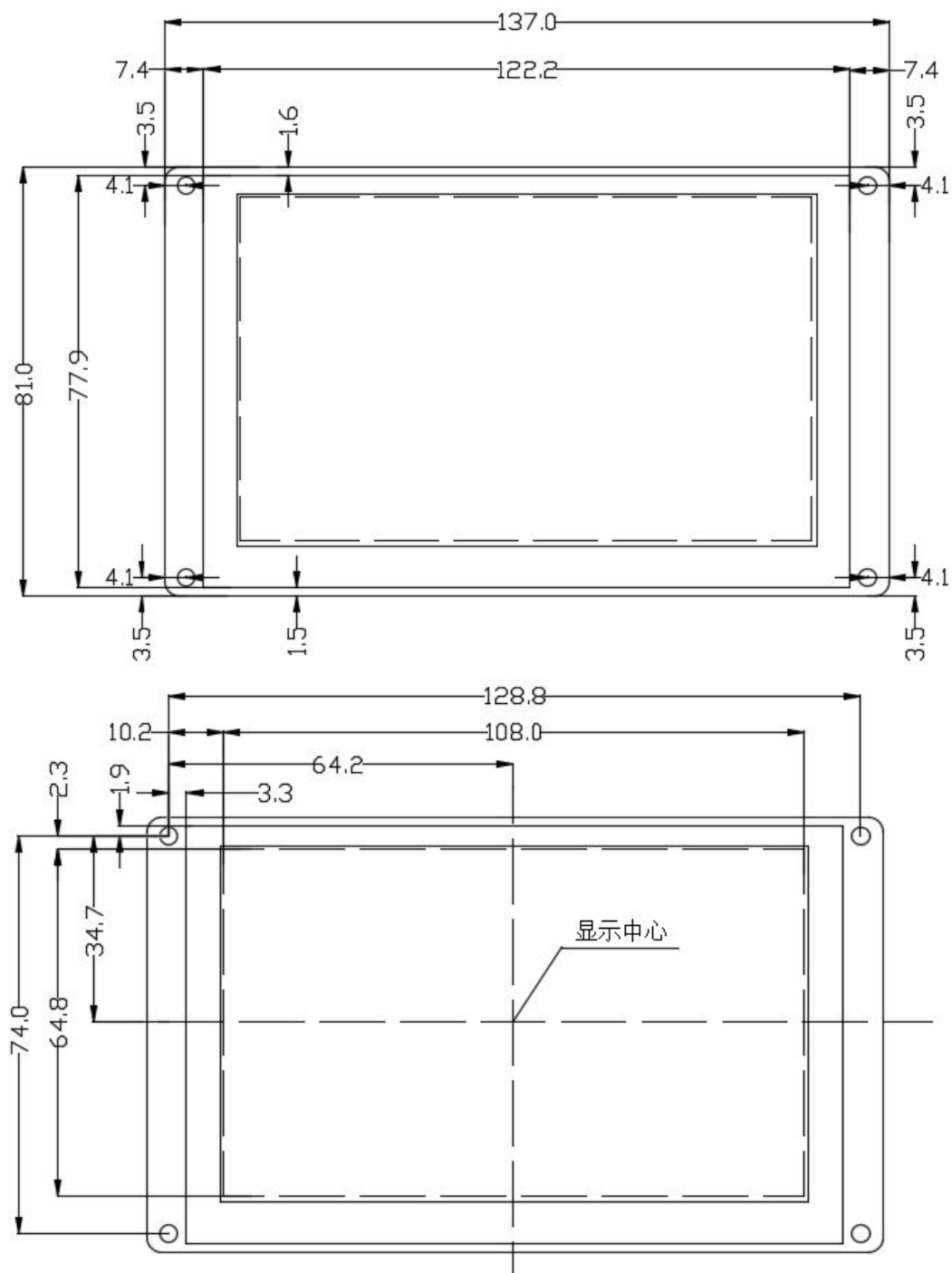
b) The other 1 way is connected through a 4PIN 2.54mm pitch plug, model number: XH-4Y.

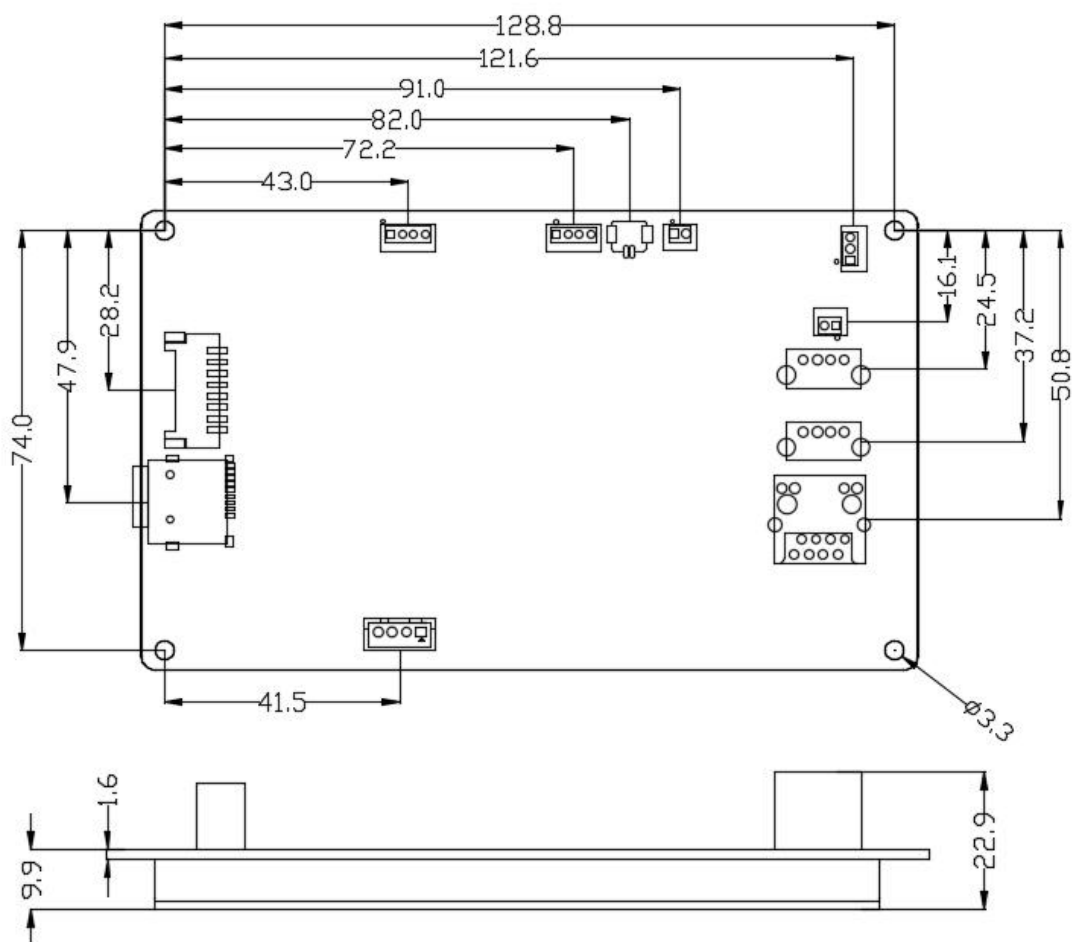


Pin	Description	Pin	Description
1	5V	2	D-
3	D+	4	GND

4.Dimension drawing

4.1Overall dimension drawing





- 1.尺寸定位基准为定位孔。
- 2.未标注公差为 $\pm 0.3\text{mm}$ 。
- 3.虚线标注为有效显示区域。

With: Packaging and physical dimensions

Size				
Product dimensions	137.0(L)x81.0(W)x23.4mm			
Net product weight	170g			
Packaging standards				
Box type	Box size	Number of storeys layers	Quantity/layers	Total
Box 5	44cm(L)×27cm(W)×27cm(H)	1	22	22