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# RK7630V-Technical Specification

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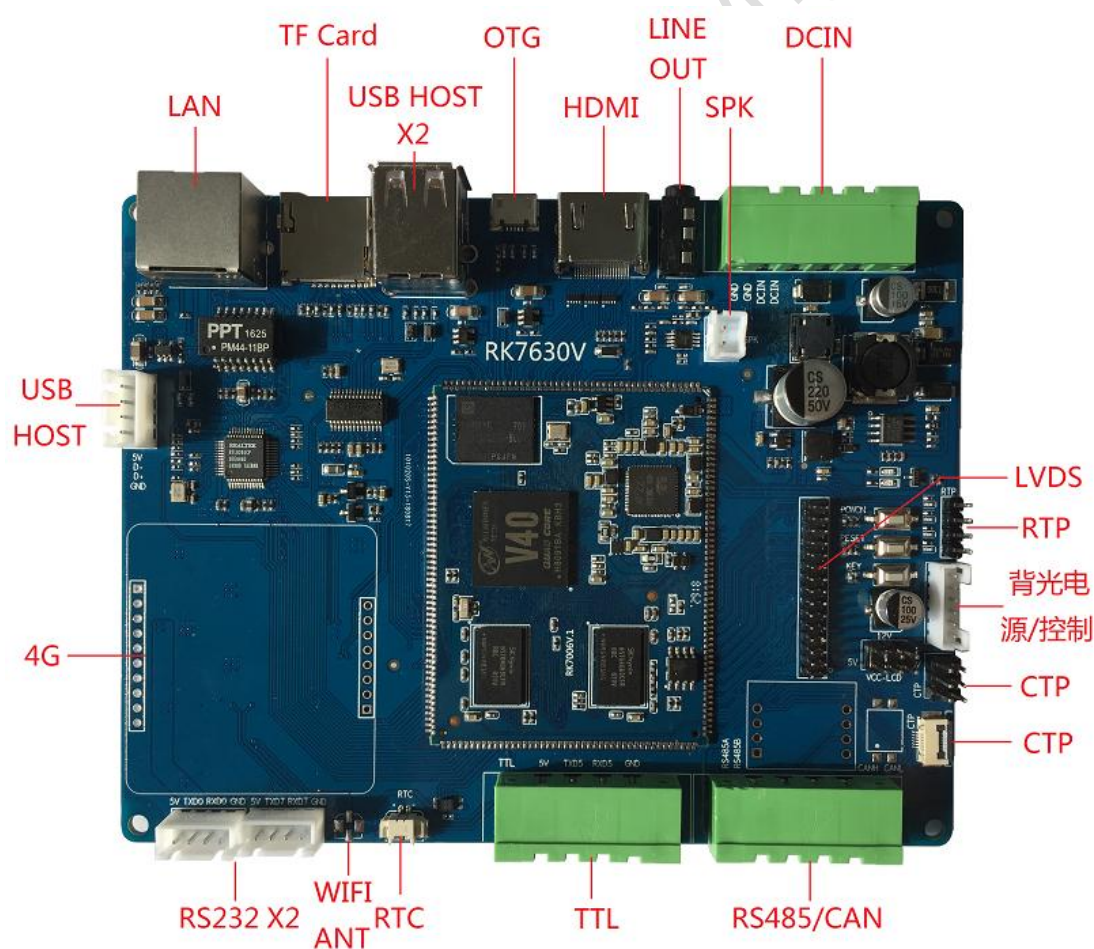
## Function

<b>Model Description</b>	RK7630V Standard type(DDR1G+EMMC8G) RK7630V-C Standard type with CAN2.0 RK7630V-W Standard type and WIFI RK7630V-WC Standard type and WIFI with CAN2.0 RK7630V-WB Standard type and WIFI、Bluetooth RK7630V-WBC Standard type and WIFI、Bluetooth with CAN2.0 <b>Note: This product also supports 4G and GPS BeiDou function, such as the need to practice customer service to ask the detailed configuration and the corresponding price</b>	
<b>Function</b>	<b>Description</b>	<b>Remark</b>
<b>CPU</b>	V40, ARM Cortex quad-core, 1.5GHz	Industrial-grade design standards
<b>Memory</b>	1-2GB DDR3: 1GB(default)	
<b>Flash</b>	EMMC Flash: 8GB(default)	Compatible 4G,8G,16G,32G
<b>SD card</b>	TF card	
<b>4G</b>	4G All-net Access	
<b>GPS/BeiDou</b>	GPS,BeiDou	
<b>Gravity Induction</b>	Gravity Induction	
<b>WIFI/BT</b>	WIFI b/g/n, (BT4.0 compatible design)	
<b>Ethernet</b>	10/100Mbps	
<b>RS485</b>	RS485x1	
<b>CAN</b>	CANx1	
<b>RS232/TTL</b>	TTLx3 or RS232x3	
<b>Line Out</b>	Line Outx1	
<b>SPK</b>	3Wx1	
<b>USB Host</b>	x3, Route 1 is a row of seats	Host 2.0 (Support USB CAMERA)
<b>USB OTG</b>	x1	OTG 2.0
<b>RTC</b>	Coin cell batteries	
<b>TFT - LCD</b>	Single/dual LVDS 8/6-bit, power supply, backlight	2.0mm row plug; support to 1080P

<b>Touch Screen</b>	Resistors ; Capacitors ; Infrared	FPC or Plugs or USB
<b>Power input</b>	Wide pressure: 8V-40V (12V/2A)	
<b>Size</b>	142*110mm	
<b>Operating temperature</b>	-40~80°C	
<b>Operating Systems</b>	Android 4.4 (or Lubuntu14.04)	

# 1 .Hardware interface

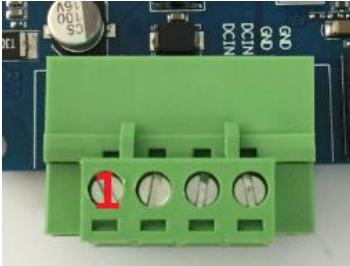
## 1.1 Appearance



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## 1.2 Power connector

The power connector is connected via a 4PIN 5.08mm pitch Phoenix terminal with flange.



Pin	Description	Pin	Description
1	12V	2	12V
3	GND	4	GND

## 1.3 SPEAK

The audio interface is connected via a 2PIN 2.54mm pitch white socket.



Pin	Description	Pin	Description
1	VO-	2	VO+

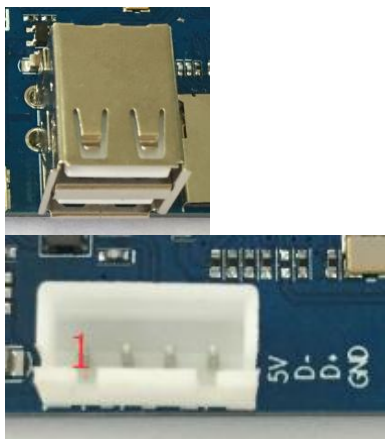
## 1.4 OTG

There are 4 USB channels, 1 of which is OTG, connected via MIC USB socket.



## 1.5 HOST

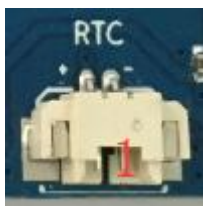
3 way HOST, two of which are connected through double layer USB holders, and the other one is connected through a 4PIN 2.54mm pitch white socket.



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

## 1.6 RTC

The RTC connectors are connected via 2PIN 1.25mm pitch horizontal patch connectors.



Pin	Description	Pin	Description
1	RTC-	2	RTC+

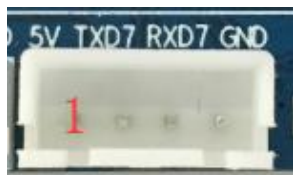
## 1.7 RS232

Two RS232 channels are provided, each connected via a 4PIN 2.54mm pitch white socket.



Pin	Description	Pin	Description
1	5V	2	TXD0(RS232)
3	RXD0(RS232)	4	GND

This 232 driver device name /dev/ttyS0



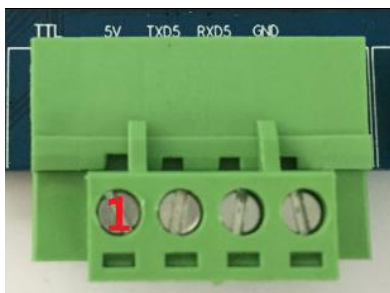
Pin	Description	Pin	Description
1	5V	2	TXD7(RS232)
3	RXD7(RS232)	4	GND

This 232 driver device name /dev/ttyS2

Note: These two interfaces can be used as TTL at the same time.

## 1.8 UART

Provides 1 x 2-wire TTL serial port. Connected via 4PIN 5.08mm pitch Phoenix terminals with flange.



Pin	Description	Pin	Description
1	5V	2	UART_TX5
3	UART_RX5	4	GND

This UART driver device name /dev/ttyS5

## 1.9 RS485/CAN

Provides 1 RS485, 1 CAN, connected via 4PIN 5.08mm pitch flanged Phoenix terminals.



Pin	Description	Pin	Description
1	RS485A	2	RS485B
3	CANH	4	CANL

The 485 driver device name /dev/ttyS4

## 1.10 LVDS

LVDS LCD (row of plugs): Compatible with 8-bit or 6-bit LVDS signals, rich resolution support. Connects via 30PIN 2.0mm pitch inline dual row pins.



Pin	Description	Pin	Description
1	VCC_LCD	2	VCC_LCD
3	VCC_LCD	4	GND
5	GND	6	GND
7	LVDS0_DN0	8	LVDS0_DP0
9	LVDS0_DN1	10	LVDS0_DP1
11	LVDS0_DN2	12	LVDS0_DP2
13	GND	14	GND
15	LVDS0_DNC	16	LVDS0_DPC
17	LVDS0_DN3	18	LVDS0_DP3
19	LVDS1_DN0	20	LVDS1_DP0
21	LVDS1_DN1	22	LVDS1_DP1
23	LVDS1_DN2	24	LVDS1_DP2
25	GND	26	GND
27	LVDS1_DNC	28	LVDS1_DPC
29	LVDS1_DN3	30	LVDS1_DP3

## 1.11 LVDS power input

The LVDS power supply is connected via 6PIN 2.54mm pitch inline dual row pins. Input power is selected using a jumper cap short.



Pin	Description	Pin	Description
1	NC	2	3V
3	12V	4	VCC-LCD



5	NC	6	5V
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- The LVDS power input is 3V when the jumper cap is shorted to pins 4 and 2.



- The LVDS power input is 5V when the jumper cap is shorted to pins 4 and 6.



- The LVDS power input is 12V when the jumper cap is shorted to pins 4 and 3.



## 1.12 Backlight power/control

The backlight power control interface is connected via a 6PIN PH2.0mm pitch white socket.



Pin	Description	Pin	Description
1	12V	2	12V
3	LVDS_BL_EN	4	LVDS_PWM
5	GND	6	GND

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## 1.13 Resistor RTP (row of plugs)

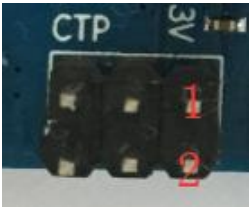
Resistive TP interface. Connected via 4PIN 2.54mm pitch single row of pins.



Pin	Description	Pin	Description
1	RTP_X+	2	RTP_Y+
3	RTP_X-	4	RTP_Y-

## 1.14 CTP (row of plugs)

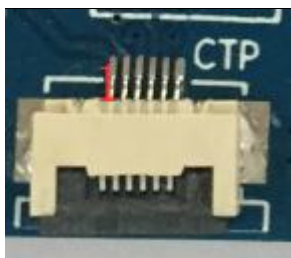
Capacitive TP interface. Connected via 6PIN 2.54mm pitch inline double row of pins.



Pin	Description	Pin	Description
1	VCC_3V3	2	CTP-WAKE
3	CTP-INT	4	CTP-SCK
5	CTP-SDA	6	GND

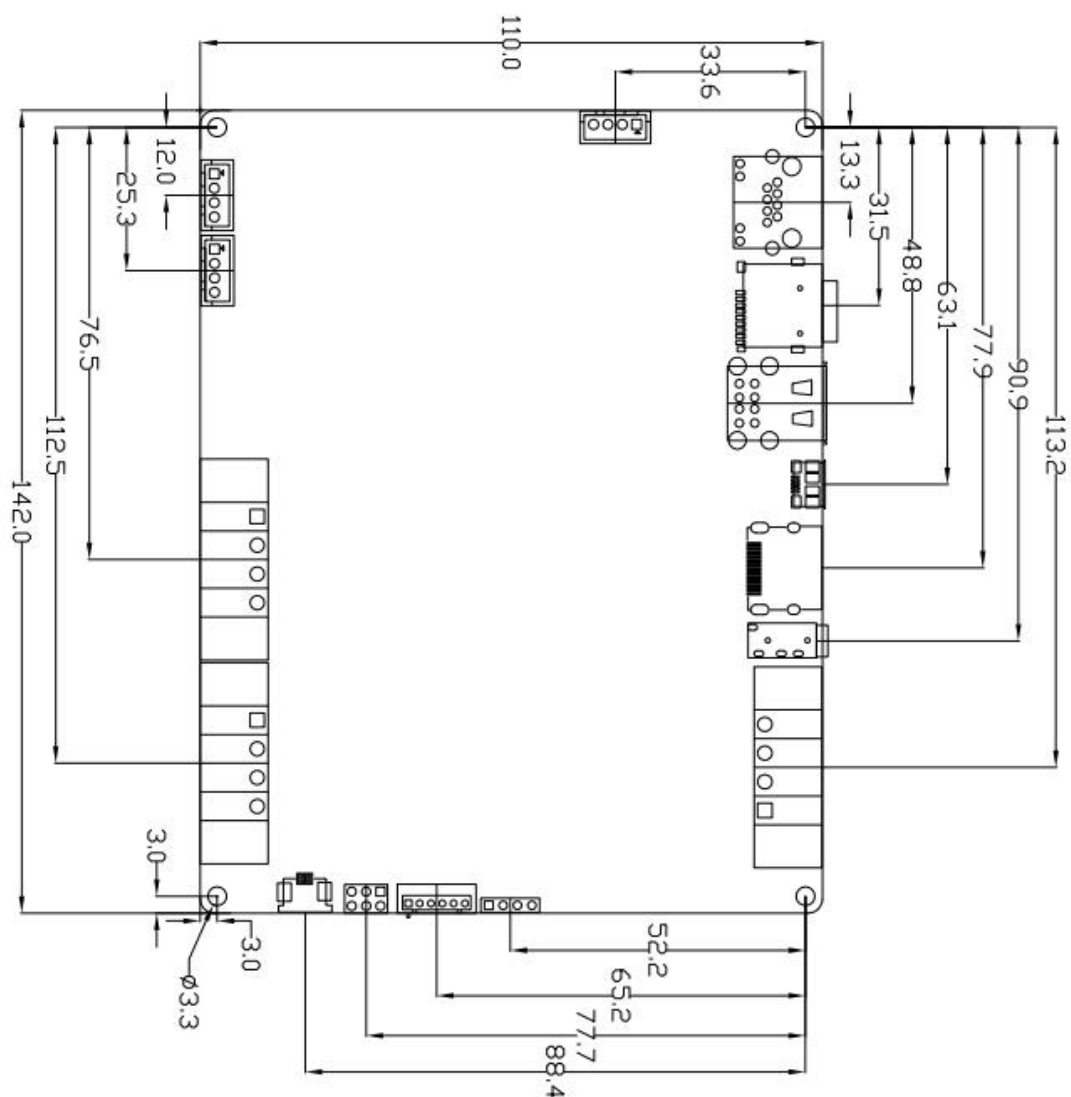
## 1.15 CTP(FPC)

Capacitive TP connector.



Pin	Description	Pin	Description
1	VCC_3V3	2	CTP-WAKE
3	CTP-INT	4	CTP-SCK
5	CTP-SDA	6	GND

## 2.Dimension drawing



1. 尺寸定位基准为定位孔。
2. 未标注公差为 $\pm 0.3\text{mm}$ 。