
RK2631A-Technical Specification

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1.Parameter List

Product Specifications	
Model Description	RK2631A Standard type(RJ45/RS485/RS232) RK2631A-W Standard type and WIFI RK2631A-WB Standard type and WIFI、 Bluetooth RK2631A-C Standard type with CAN2.0 RK2631A-WC Standard type and WIFI with CAN2.0 RK2631A-WBC Standard type and WIFI、 Bluetooth with CAN2.0 Note: This product also supports 4G function, such as the need to practice customer service to ask the detailed configuration and the corresponding price
CPU	All winner A40i 1.5GHz quad-core processor
GPU	3D (Mail 400 MP2) + 2D
Memory	DDR3 Standard 1GB (or 2G)
Local Storage	EMMC Flash Standard 8GB
Supported Operating Systems	Ubuntu 18.04 / Android 7.1
Extended memory	TF Card
Ethernet	Wired 10/100M*2
WIFI	WIFI 802.11 a/b/g/n (Optional)
Bluetooth	Bluetooth 4.0 (Optional)
USB	USB2.0 x2, USB Micro x1
HDMI Output	x1
UART	UART TTL x 1 RS232 x 1 RS485 x 4 CAN x 1
MIC	x 1
RTC	Real Time Clock
4G	x 1 (Optional)
Extended Port	bi-directionalx 8 I/O; +/- 15KV ESD
Power	8~40V ; <10W

Operating temperature	-30-70°C
Product Size	
Overall size	With lugs: 198.0×113.1×33.5mm
	Without lugs: 162.0×113.1×33.5mm

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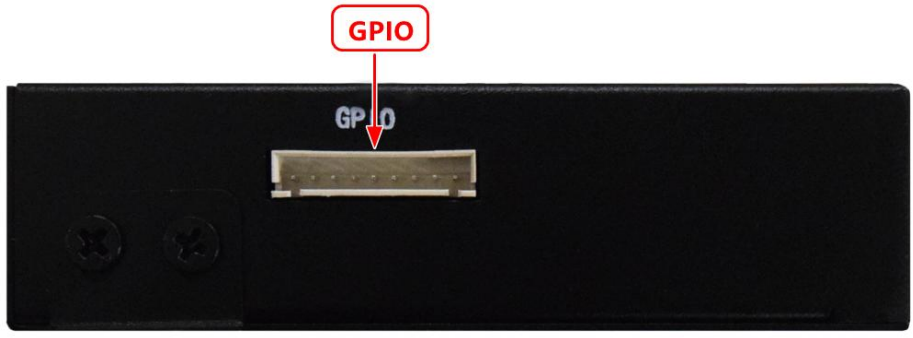
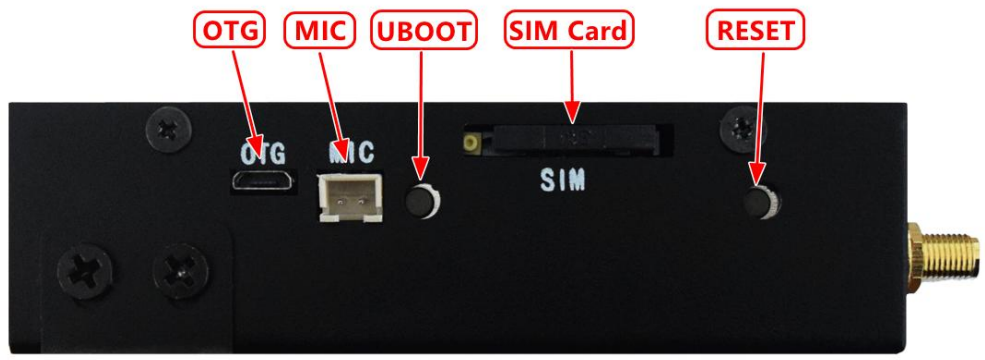
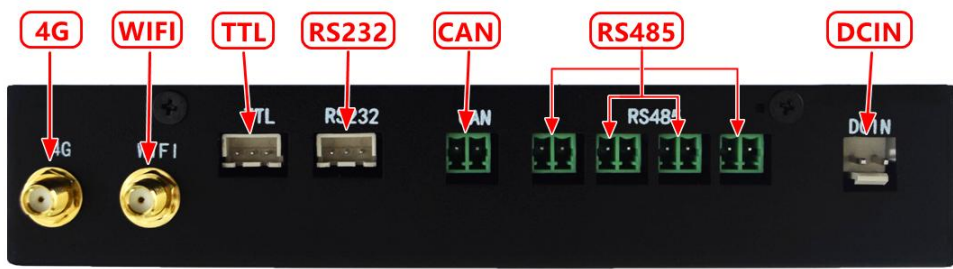
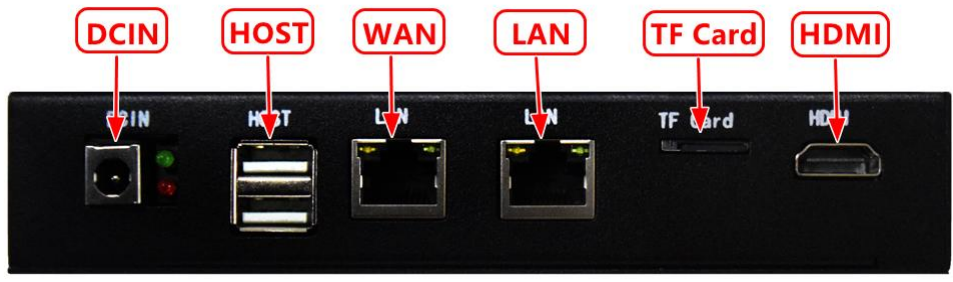
2. Appearance



Front view



Back view



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3. Hardware Interfaces

3.1 Performance Overview

◆ Electrical performance parameters

Properties	Conditions	Min	TYP	Max	Unit
Power Voltage	—	8.0	12.0	40	V
Operation Current	VCC=+12V, running test game load application	—	400	—	mA

◆ Operating environment and reliability parameters

Properties	Conditions	Min	TYP	Max	Unit
Working Temperature	60%RH at 12V voltage	-30	25	70	°C
Storage Temperature	—	-40	25	85	°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	—	-5.0	—	V
	Output 0	—	5.0	—	V
Input Voltage	Input 1	—	-5.0	—	V
	Input 0	—	5.0	—	V
UART TTL Baud rate	User set	300	-	115200	bps

Output Voltage	Output 1	—	5.0	—	V
	Output 0	—	0	0.3	V
Input Voltage	Input 1	—	5.0	—	V
	Input 0	0	—	0.5	V
UART 485_1, 485_2,485_3, 485_4 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 connector

- Two types of power supply connections are provided. One is a DC power supply holder with 2.0mm inner diameter, and one is a 2PIN 3.96mm pitch VH3.96-2P terminal connection, which can be connected to 8V~40V DC power supply.
 - Use DC-044A (2.0) horizontal power supply holder for power interface.
 - Connected via 2PIN 3.96mm pitch VH3.96-2P holders.



Pin	Description	Remark
1	DCIN (+)	12V Input(8-40V)
2	EGND	

3.3 RS232

- Provides 1 RS232 connection via 3PIN 2.54mm pitch terminal block.

RS232



Terminal: XH2.54-3PIN		
Pin	Description	Equipment name
1	GND	/dev/ttyS3
2	RX	
3	TX	

3.4 TTL

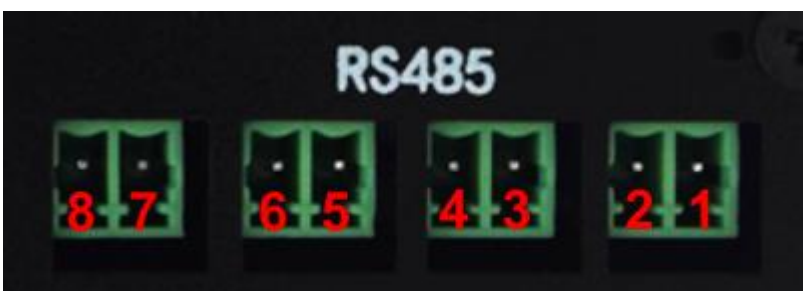
- One TTL level interface is provided, connected via 3PIN 2.54mm pitch terminal block.



Terminal: XH2.54-3PIN		
Pin	Description	Equipment name
1	GND	/dev/ttyS0
2	RX	
3	TX	

3.5 RS485

- Four RS485 channels are provided, connected via 2PIN 3.5mm pitch single layer Phoenix terminals.



Terminal: KF2EDGK-3.5		
Pin	Description	Equipment name
1	RS485_1A	/dev/ttyS4
2	RS485_1B	
3	RS485_2A	/dev/ttyS5
4	RS485_2B	
5	RS485_3A	/dev/ttyS7
6	RS485_3B	
7	RS485_4A	/dev/ttyS6
8	RS485_4B	

3.6 CAN

- Provides 1 channel of CAN, connected via 2PIN 3.5mm pitch single layer Phoenix terminals.



Terminal: KF2EDGK-3.5		
Pin	Description	Equipment name
1	CAN_H	can0
2	CAN_L	

3.7 MIC Interface

- The MIC interface is connected via a 2PIN 2.54mm pitch terminal block.



Terminal: XH2.54-2PIN			
Pin	Description	Pin	Description
1	MIC-	2	MIC+

3.8 GPIO Interface

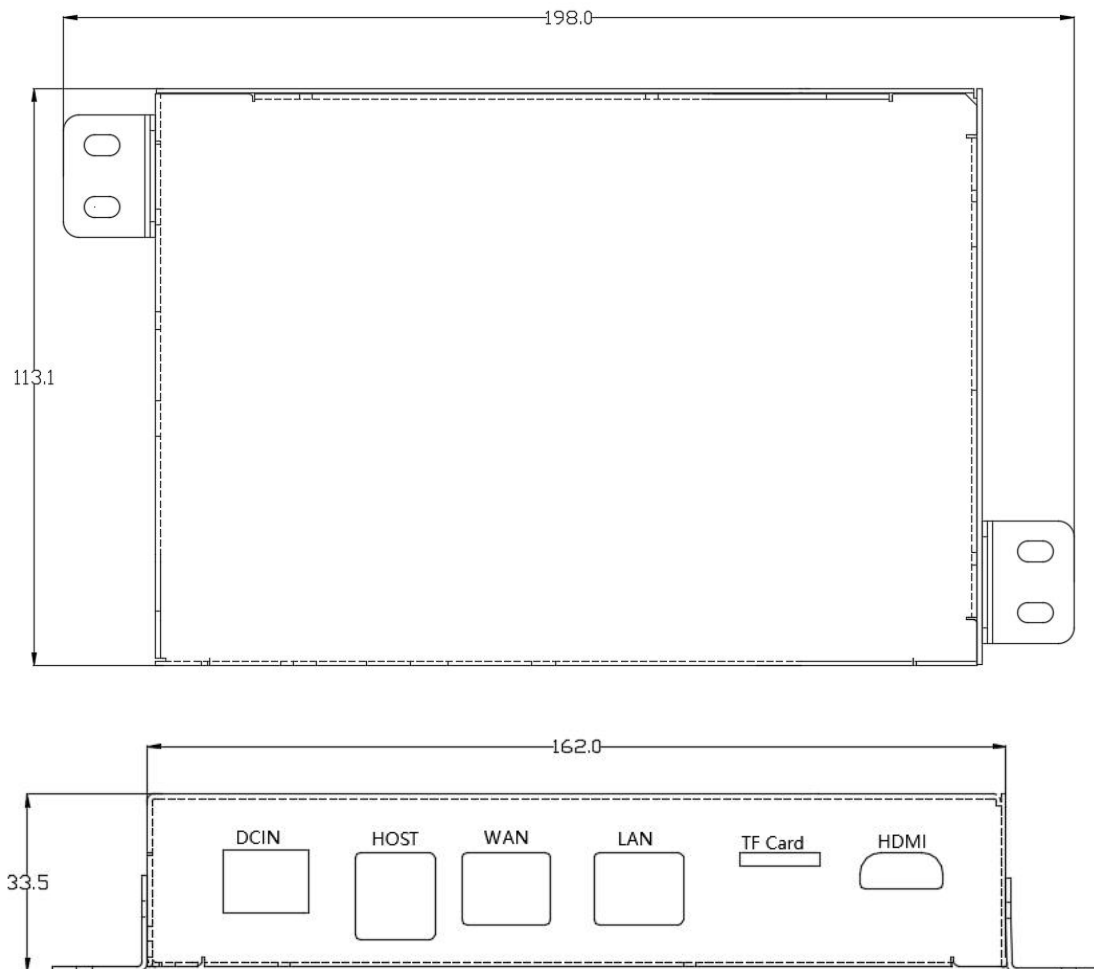
- 通 Connected via a 9PIN 2.54mm pitch terminal block.



Terminal: XH2.54-9PIN		
Pin	Description	Equipment name
1	IO1	PH12
2	IO2	PH13
3	IO3	PH14
4	IO4	PH15
5	IO5	PH16
6	IO6	PH17
7	IO7	PH19
8	IO8	PH25
9	GND	

4.Dimension drawing

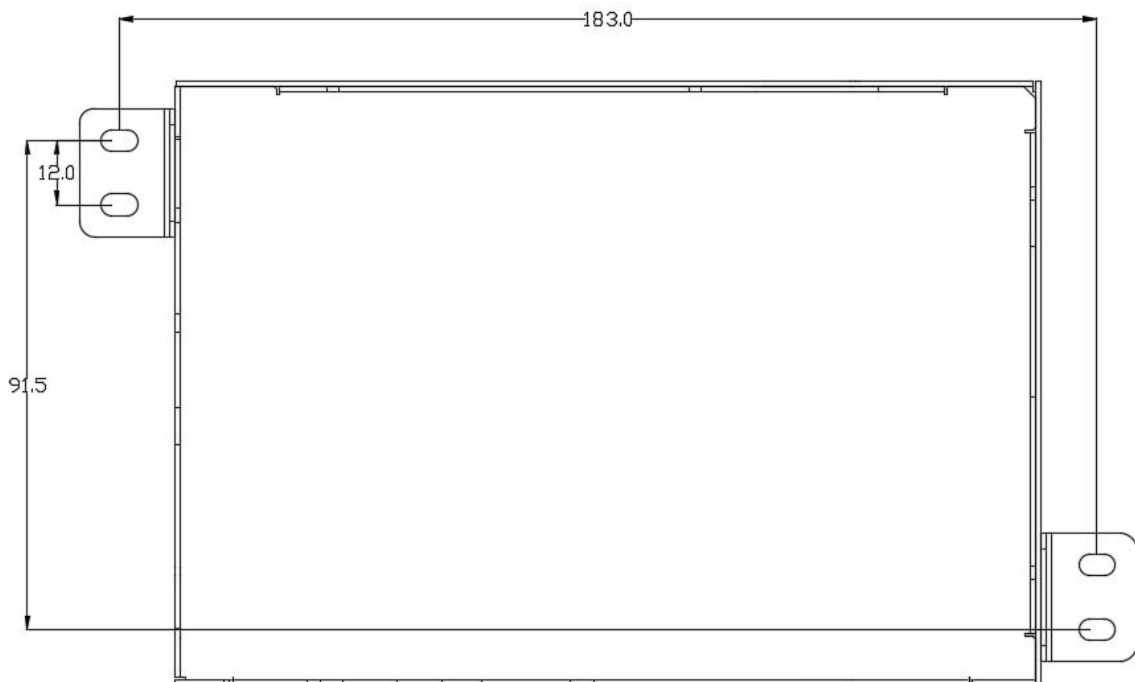
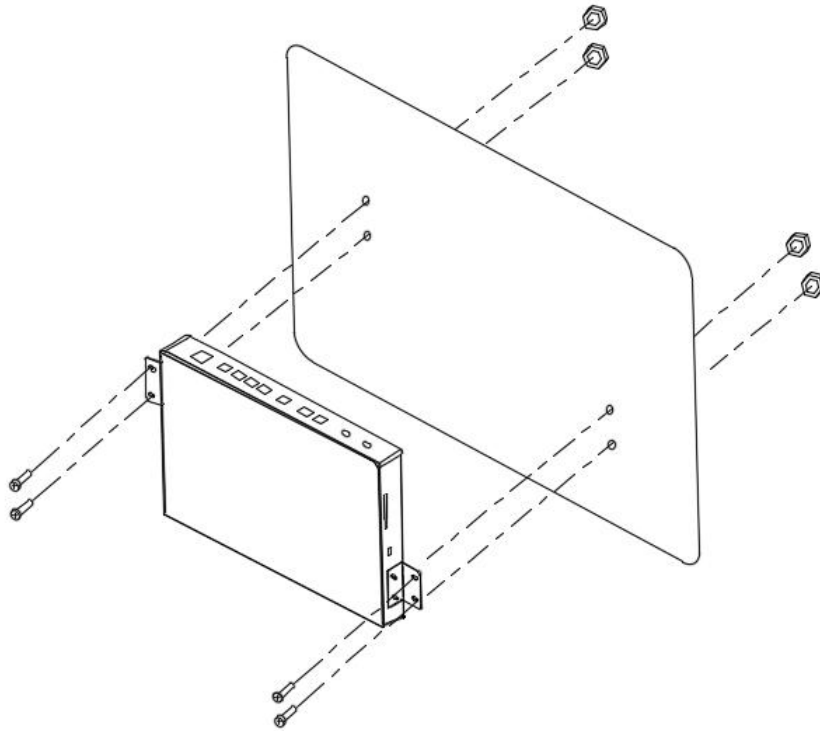
4.1 External dimensions



1. 单位: MM

2. 未注公差 ± 0.3 mm

4.2 Installation method



With: Packaging and physical dimensions

Size				
Product dimensions	198.0(L)x113.1(W)x33.5mm			
Net product weight	595g			
Packaging standards				
Box type	Box size	Number of storeys layers	Quantity/layers	Total
Aircraft Box	30cm(L)×20cm(W)×8cm(H)	1	1	1
Box 3	30cm(L)×25cm(W)×20cm(H)	1	8	8
Box 04	49cm(L)×36cm(W)×28cm(H)	1	1	1