HMI

Android | Linux | Debian | Ubuntu

RK3568 series

H.C.C. INTERNATIONAL LIMITED
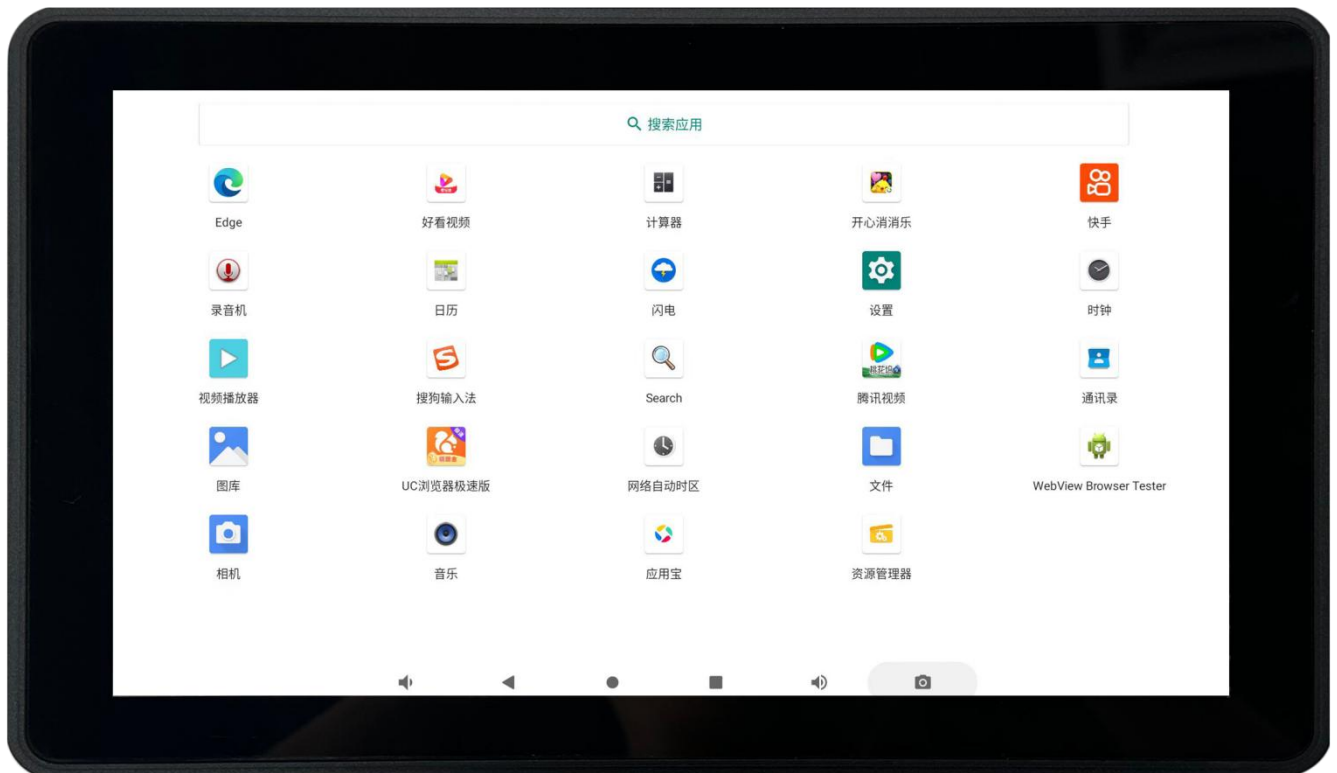
☞ **Product brief introduction**

RK3568 is a high-performance, low-power quad-core application processor specifically designed for personal mobile Internet devices and AIoT devices. We provide many embedded powerful hardware engines to optimize the performance of high-end applications. The built-in NPU supports INT8/INT16/FP16/BFP16 mixed operations. In addition, due to its strong compatibility, network models based on a series of frameworks.
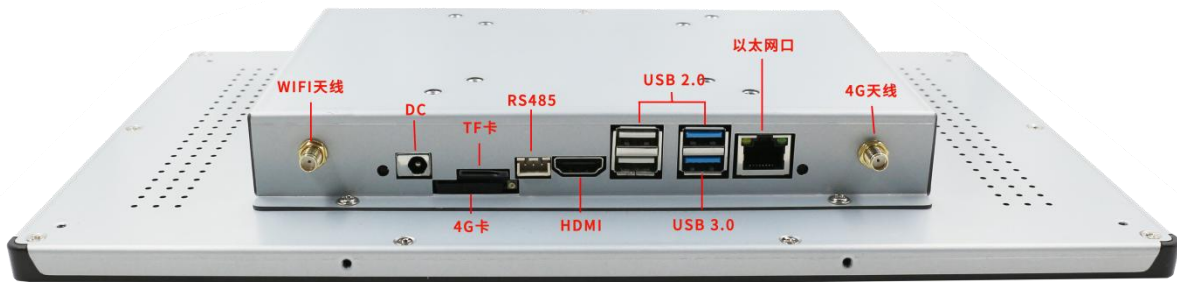
Shell style 1: The front frame is ABS+PC+copper studs+anti-corrosion material, and the back shell is electrolytic plate laser 1.0mm thickness.

Shell style 2: The front frame is aluminum alloy panel, and the back   shell is sheet metal.

☛ Product advantages

● Support WIFI/4th generation/Ethernet and other networking methods can realize remote data transmission, upgrade and update .

● Support multi-channel RS232, RS485, CAN and other different serial port communication to realize the exchange of communication with external devices.

● Support 1080P voice calls, 2 million dual cameras, support voice playback and video playback.

● Passed CE/ROHS/high and low temperature testing and certification, the product is stable and reliable.

● Industrial embedded installation design, suitable for a variety of industries.

● The industrial-grade capacitive touch solution, with stronger anti-interference, widely used in various complex industrial scenarios.

☛ Product parameters (* means optional)

Motherboard	Data
CPU processor	Rockchip RK3568 4 cores Cortex-A55 1.8 GHz
Operating system *	Android | Linux | Debian | Ubuntu （optional）
Running memory *	4GB （or 8GB）
EMMC *	32GB （or 64GB）
Operating voltage and current	The smallest 8V, the largest 24V, recommended 12V 1A The above DC stabilized power supply
Power interface	DC044A

Screen parameters	Data
Screen size *	7 inches | 10.1 inches | 13.3 inches | 15.6 inches | 32 inches | Other sizes can be customized
Screen ratio *	16：9 （Other ratios need to be adjusted）
Resolution *	1024*600 | 1280*800 | 1920*1080 | Support up to 4K
Display size (A.A.)*	32 inches： 698.4(L)*392.85(W)mm （Other sizes can be customized）
The size of the whole machine *	32 inches：752(L)*446(W)*53(THK)mm （Other sizes can be customized）
Backlight brightness *	350 nit (300-2000 nit can be choosed)
Backlight life (hours)	LED backlight 30000Hrs
Touch form *	5-point capacitive and single-point are optional
TP surface hardness	7 Mohs hardness
TP transmittance	>85

Interface parameters	Data
Interface	1 interface is RS485，3 interface is RS232，2 interface is TTL，maximum baud rate115200
USB	1 channel is USB ADB，3 channel is HOST USB2.0,2 channel is PH2.0 4P
Audio	1 channel mono MIC/dual channel HPO, 2 channels mono SPK
TF Card	1 road TF card （Maximum 64G)
Ethernet	1 road Ethernet,10/100M adaptive network interface
WIFI*	Standard: WiFi 2.4G（Optional: WiFi6 2.4G/5G WiFi）
Bluetooth*	1 road bluetooth V5.0
4G*	Full Netcom（Optional）
GPIO port	5 road, default 3.3V supply, 3.3V level bidirectional IO
Environmental parameters	Data
Working temperature	-20 ~ 70°C
Storage temperature	-30 ~ 80℃
Relative humidity	10~90% RH
EMC	Class B，EN55032
ESD	Level 3

☞ Hardware Interface Description

•Power supply and serial communication

Terminal	Terminal Screen Printing	Definition	Description	Remarks
DC044A	DCIN	-	Min 8V, Max 24V, Typical 12V 700mA	
232-4(PH2.0-4P)	VCC	5V		
	RS232-TX4	TX4	Software Identification Port：ttys4	Default interface 4 outputs at RS232 level.
	RS232-RX4	RX4		
	GND	GND	Export destination	
TTL3(PH2.0-4P) TTL5(PH2.0-4P)	VCC	5V		
	UART-TX3	TX3	Software Identification Port：ttys3 Ttys5	Default interface 3 output at TTL level；
	UART-RX3	RX3		
	GND	GND	Export destination	
RS485(PH2.54-3P)	B	485 B	Software Identification Port：ttys9	Default interface 9 output at RS485 level；
	A	485 A		
	G	GND	Export destination	
3.81MM/6P/Green	CANVSS	VSS	Export destination	
	CAN1L	CAN1 L port	Software Identification Port：CAN1	
	CAN1H	CAN1 H port		
	CANVSS	VSS	Export destination	
	CAN2L	CAN2 L port	Software Identification Port：CAN2	
	CAN2H	CAN2 H port		

USB2.0(PH2.0-4P)	VBUS	5V		-
	D-	D-	USB Signal negative	-
	D+	D+	USB Signal positive	
	GND	GND	Export destination	
DB9 Connector 1	2	RX4	232 RX4	232 level
	3	TX4	232 TX4	
	5	GND	Export destination	
DB9 Connector 2/3	2	RX1/7	RX1/7	232 level
	3	TX1/7	TX1/7	
	5	GND	Export destination	
DB9 Connector 4	7	GND		485 level
	8	B	485 B	
	9	A	485 A	

• Audio Part

Terminal	Terminal Screen Printing	Definition	Description	Remarks
Dual SPK	L	Left channel horn positive	4 ohm 3W horn	PH2.0MM-4P Terminal
	L	Left channel horn positive		
	R	Right channel horn positive	4 ohm 3W horn	
	R	Right channel horn positive		

• 4G/5G SIM card holder

Terminal	Terminal Screen Printing	Definition	Description	Remarks
4G/5G card holder	-	Standard large card	Flip-top	Can support

• Burning Key

Terminal	Terminal Screen	Definition	Description
Burning Key	BOOT	-	After installing the RK tool on the computer and installing the driver with 360 Mobile Assistant; press and hold the BOOT button, plug in the power supply, and release the button after 3 seconds; insert the burning cable into the lower interface of USB3.0X2 to burn the firmware;

• MIC interface

Terminal	Terminal Screen Printing	Definition	Description	Remarks
Microphone Interface	MIC	-	Condenser Electret Microphone Head	PH2.0MM-2P Terminal

•USB port

Terminal	Terminal Screen	Definition	Description	Remarks
USB3.0 port		USB-A	USB3.0　ADB	USB3.0 blue double layer below ADB
Double layer USB2.0 port	USB	USB-A	USB2.0 port	Blue double layer USB top
		USB-A	USB2.0 port	
		USB-A	USB2.0 port	-

##The above parameters will have different prices due to different optional functions. It is recommended that you consult the sales manager to select specific parameters before placing an order. You can also consult the engineering department to recommend corresponding configurations based on product equipment requirements.

Remarks：

7 inches display size：94.2（L）　*150.7(W) mm

7inches machine size：111 (W)*171.5(H)*21(THK)mm

10.1inches display size：216.96(L)*135.6(W)

10.1inches machine size：260(L)*178(W)*44(THK)

13.3inches display size：293.76(L)*165.24(W)

13.3inches machine size：350.7(L)*228.2(W)*41(THK)

15.6inches machine size：403.2(L)*261.2(W)*45(THK)mm

32inches display size：698.4(L)*392.85(W)

32inches machine size：752(L)*446(W)*53(THK)

Any size can be customized, please consult the sales manager for specific information.

☛ Technical support

H.C.C.INTERNATIONAL LIMITED

Tel：+86 (0755) - 86315123

Website：www.hccgroup-china.cn

Address Room 1808,Building A7,Creative City,Liuxian Avenue,Nanshan District,Shenzhen,China