

SHENZHEN SUNCHIP TECHNOLOGY CO., LTD

Quad-core RK3328 Android decoder drives all in one board specification (Model: AD-B01-V1.1)

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Chapter I product overview

Overview:

Intelligent industrial all in one board adopts Rockchip RK3328 quad-core chip solution and supports Android7.1 system. Powerful computing power. With HDMI interface, support H.265 4K video playback. With a rich interface, the product becomes more versatile.

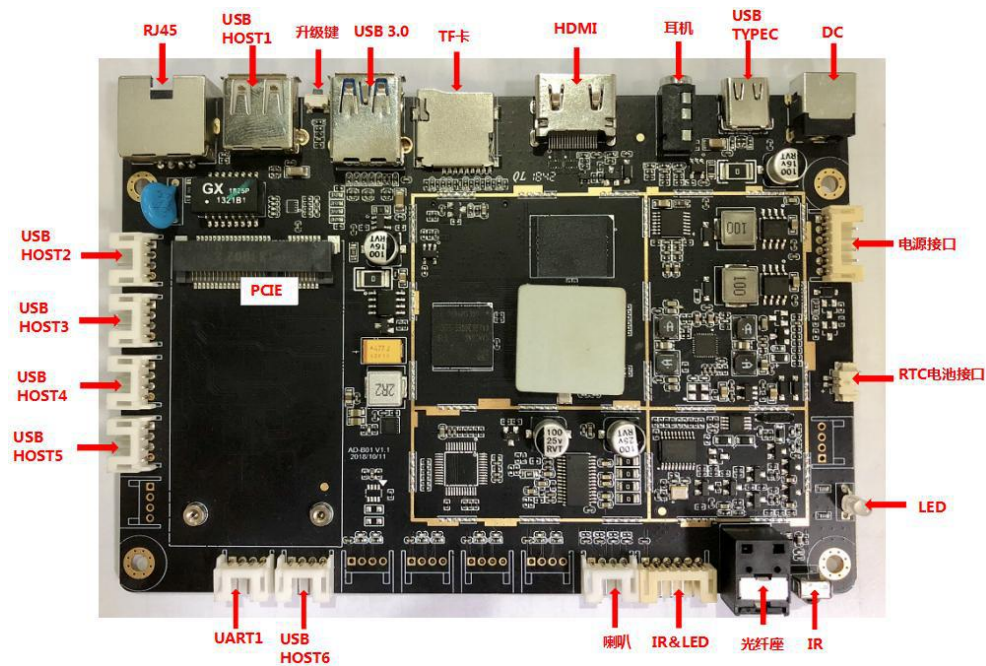
Characteristic:

- ◆ Multiple interactive mode interfaces: infrared remote control, USB mouse.
- ◆ A variety of network interfaces: Ethernet, 4G, wireless WIFI, Bluetooth.
- ◆ Multi-channel USB interface, serial output.
- ◆ Support 4K video playback with HDMI 2.0 HD output.
- ◆ Strong anti-electromagnetic interference and electromagnetic compatibility.

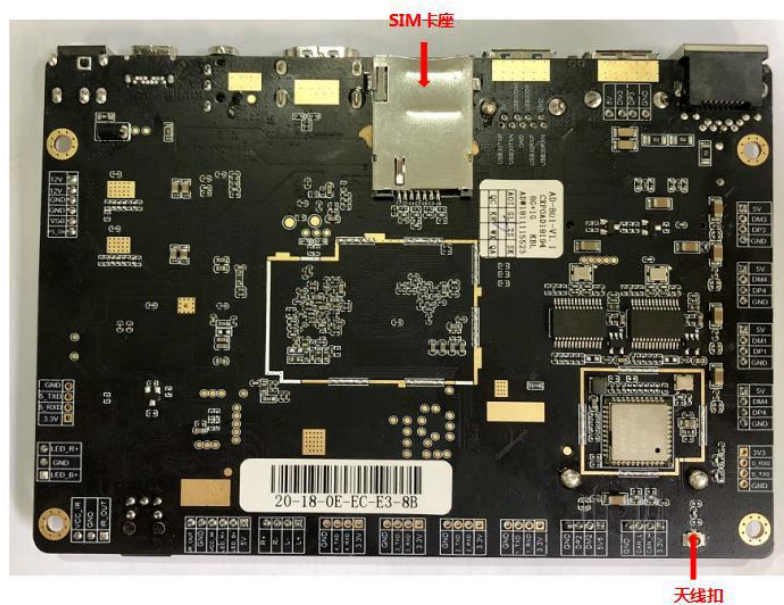
Chapter 2 Product Specifications

Product picture

Front:



Back:



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Basic hardware specifications:

CPU	Rockchip RK3328 quad core Cortex-A53 quad core GPU Mali-450MP2
Main frequency	1.5GHZ
Deposit	LPDDR3 1G/2G
Built-in storage capacity	EMMC 8GB/16G/32G/64G optional (labeled8GB)
Network	With RJ45 interface, support 10/100/1000 Ethernet
	Support 4G PCIE interface
	With Wifi & BT module, support Wi-Fi 802.11b / g / n protocol. Support BT4.0
Real Time Clock	Built-in real-time clock powered battery
Interface device	Support USB camera
	6 USB HOST, 1 USB 3.0
	SD card, maximum support 64GB
	Class D amplifier: 5W*2 8 ohms, support microphone
	HDMI 2.0 output
Audio	MP3, AAC, WMA, FLAC, OGG, Dolby Digital, Dolby Digital Plus
Video	Supports 1080P@60FPS decoding of video formats such as MPEG1, MPEG2, MPEG4, VP9, VP8, MVC, etc., and supports 4K@60FPS decoding of H.264 and H.265 video formats.
Picture	Support JPG, BMP, PNG and other image formats to browse and support rotation / image zoom function
Power Adapter	Input: AC100-240V.50-60HZ, Output: DC12V 3A

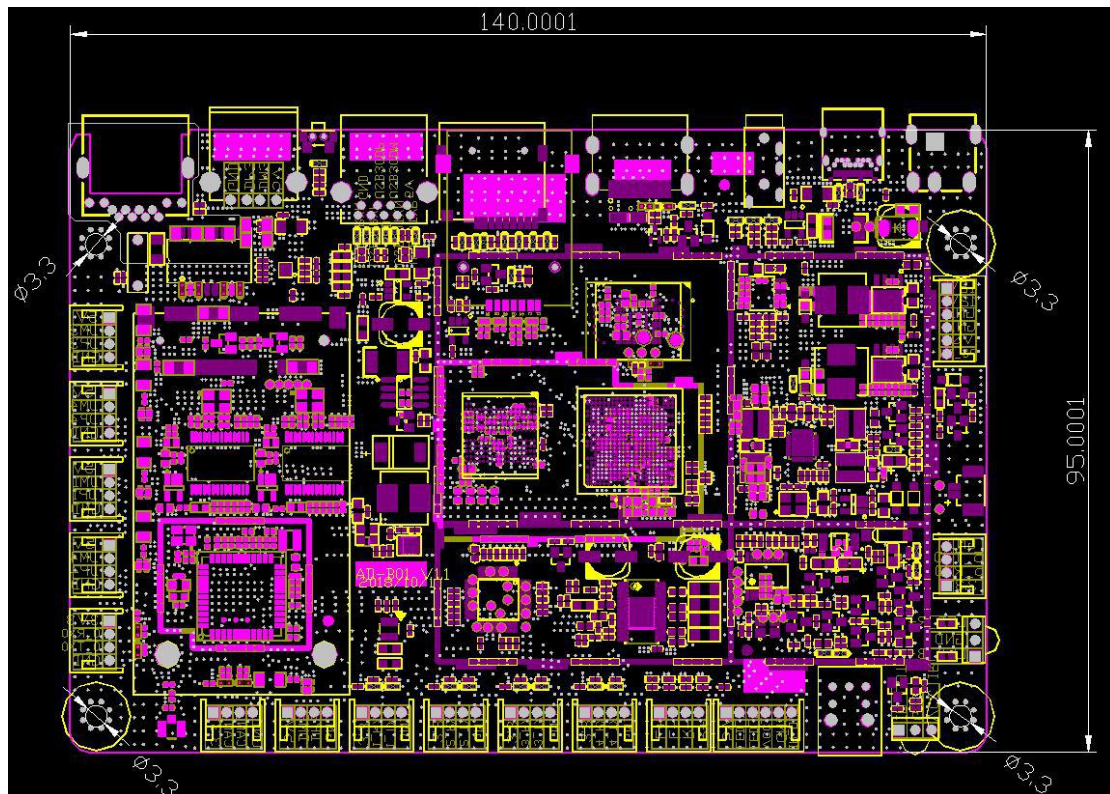
Basic software specifications:

Operating system	Android 7.1
Basic software function	Web browsing, email, e-book, resource manager
Sound mode	Clock, alarm clock, calculator, recording

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Voice support	Multinational voice
recording	Support MP3, WMA format recording
tool	Calendar
	Alarm Clock
	Calculator
	note
	Weather + clock
	recording
File processing	EPUB, WORD, EXCEL, POWERPOINT, PDF, TXT
E-book	PDF,TXT,CHM,DOC,EXCEL,EPUB,RTF,FB2
schedule	calendar
Input	Standard Andriod keyboard, optional third-party input method (Chinese, Korean, Japanese, etc.)
Internet	Browser -ChromeLite
	Email
	Gmail
System Management	APK installer
	Original Android system, open root permissions, product customization development
	Real-time remote monitoring, system crash self-recovery, 7*24 hours unattended
	Support OTA remote upgrade
	System setting
	Google Maps
	Global time

PCBA structure



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Electric

● Power interface (12V IN)

No.	Definition	Attributes	Description
1	12V_IN	Input	12V power input
2	12V_IN	Input	12V power input
3	GND	ground line	ground line
4	GND	ground line	ground line
5	VSB	Control foot	Control foot
6	PS_ON	Control foot	Control foot

● USB-HOST interface (USB-HOST JACK)

No.	Definition	Attributes	Description
1	VCC_5V	Output	5V voltage output
2	HOST_DM	Output	Data
3	HOST_DP	Input	Data
4	GND	ground line	ground line

● Serial interface (UART1 JACK)

No.	Definition	Attributes	Description
1	VCC_IO	Output	3.3V voltage output
2	UART1_RX	Input	receive
3	UART1_TX	Output	send
4	GND	ground line	ground line

● IR & LED (JACK)

No.	Definition	Attributes	Description
1	5.0V	Output	5.0 V output
2	LED_B+	Output	Blue light positive
3	LED_R+	Output	Red light positive
4	VCC_IR	Output	5 V Output
5	GND	ground line	ground line
6	IR_OUT	Input	Infrared signal input

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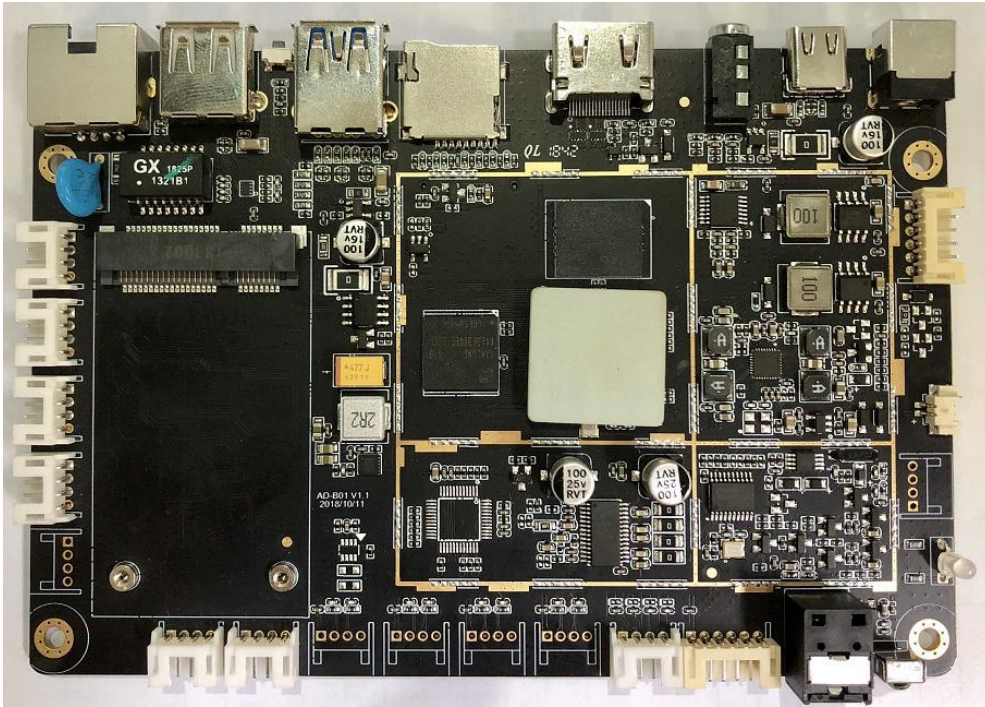
- Speaker output interface (SPEAKER OUT JACK)

No.	Definition	Attributes	Description
1	SPL+	Output	Left channel output positive
2	SPL-	Output	Left channel output negative
3	SPR-	Output	Right channel output negative
4	SPR+	Output	Right channel output positive

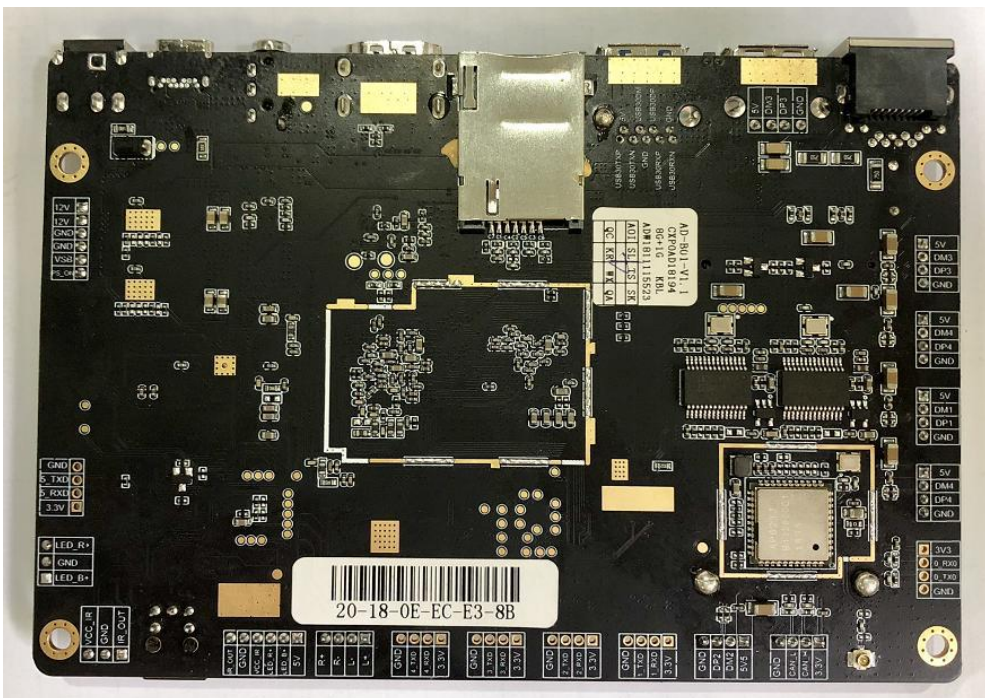
◆ Appendix

Product picture

- Front



- Back:



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◆ Mainboard installation instructions:

1. Take the board and install the wristband. If the working environment is dry, the wristband must wear a wired static bracelet.
2. When installing the board, pay attention to the finger should be placed on the side of the board, do not touch the center of the board, the center of the board is an important device and components that are extremely sensitive to ESD, easily damaged by ESD static electricity.
3. When installing the peripheral pin header type interface device, it should be inserted under the motherboard, and inserted; it can not be forced to insert, it is easy to deform the motherboard, and it is easy to damage the components of the BGA package on the motherboard.
4. Before the screw is screwed, the motherboard must be leveled to ensure the height of the positioning post. Otherwise, the motherboard may be deformed, causing the solder ball to crack and damage the components.

◆ Tips:

Pay special attention to the power supply used by the mainboard. The power supply voltage requirement of our mainboard is DC_12V, the working voltage range is 9V-15V, and the ripple is less than 100mV. When selecting the power supply, pay attention to the power surge voltage PP value cannot exceed 15V, once the power supply voltage or power supply The surge voltage PP value exceeds the range of the mainboard voltage to 15V, the mainboard will be permanently burned or open circuit breaker, the power supply ripple is greater than 100mV. It is easy to interfere with the mainboard or work unstable, especially for the sensor device and touch screen. Point phenomenon, we recommend the use of power supply 12V / 3A, such as the use of peripheral equipment is more recommended to use 12V/5A. Before powering on the mainboard, please make sure that the power supply voltage is within the required range, whether the power supply wiring is correct, whether the screen line and voltage jump cap of the display are correct, and whether the connection and pin of each socket are correct, and ensure the power supply voltage. The power supply can be used under the condition that the socket wiring is completely correct.

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