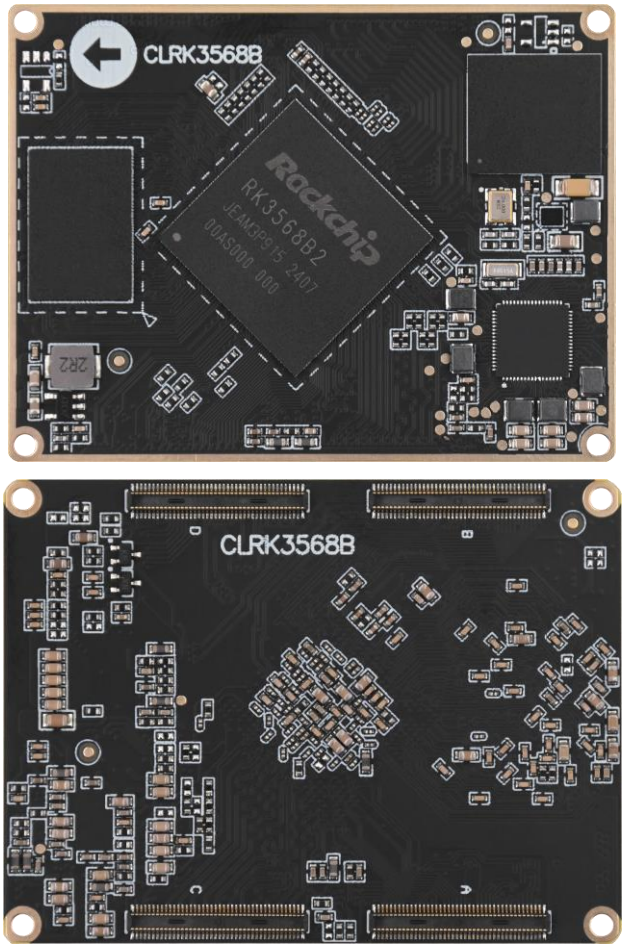
ATK-CLRK3568B

Core Board Specification

V1.1



ALIENTEK

1. Shopping:

TMALL: https://zhengdianyuanzi.tmall.com

TAOBAO: https://openedv.taobao.com

2. Download

Address: http://www.openedv.com/docs/index.html

3. FAE

Website : www.alientek.com

Forum : http://www.openedv.com/forum.php

Videos : www.yuanzige.com

Fax : +86 - 20 - 36773971

Phone : +86 - 20 - 38271790

Disclaimer

The product specifications and instructions mentioned in this document are for reference only and subject to update without prior notice; Unless otherwise agreed, this document is intended as a product guide only, and none of the representations made herein constitutes a warranty of any kind.

In order to get the latest version of product information, please regularly visit the download center or contact the customer service of Taobao ALIENTEK flagship store. Thank you for your tolerance and support.

Revision History:

Version	Version Update Notes	Responsible person	Proofreading	Date
V1.0	release officially	ALIENTEK Linux Team	ALIENTEK Linux Team	2024.08.15
V1.1	Delete the descriptions related to CAN	ALIENTEK Linux Team	ALIENTEK Linux Team	2025.04.10

Catalogue

Chapter 1. Core board overview

1.1 Core board introduction

The ATK-CLRK3568B core board is a product developed by ALIENTEK based on the RK3568 chip from Rockchip. It is a core board designed for embedded Android, Linux and OpenHarmony operating systems. It mainly targets the customized markets in industries such as IoT gateways, NVR storage, industrial control tablets, industrial inspection, industrial boxes, karaoke, cloud terminals, vehicle infotainment, etc.

The Rockchip RK3568 chip is a mid-to-high-end general-purpose SoC, using 22nm process technology, with 4 Cortex-A55 cores, and a maximum clock speed of 2.0GHz. It has built-in H264/H265 hardware encoding and decoding capabilities, supporting 4K@60fps decoding and 1080P@60fps encoding. It also supports high-quality JPEG encoding and decoding. It has a built-in 3D GPU (Mali-G52), supporting OpenGL ES1.1/2.0/3.2, OpenCL2.0 and Vulkan 1.1. Additionally, it has a 1.0TOPs NPU, supporting INT8 and INT16. It also has an 8M ISP, supporting multi-screen heterogeneous display. The RK3568 supports various peripheral interfaces such as SATA, PCIE, USB3.0, I2C, SPI, NET, UART, ADC, RGB, LVDS/MPI DSI, HDMI, etc. It supports neural network acceleration and has a processing performance of up to 1.0TOPS. It supports INT8/INT16/FP16/BFP16 MAC mixed operations and supports deep learning frameworks: TensorFlow, tf-life, Pytorch, Caffe, ONNX, MXNet, etc.

There are two options for memory: 2G LPDDR4X + 32G EMMC and 4G LPDDR4X + 64G EMMC, which can meet most development capacity requirements.

ALIENTEK uses a 320P board-to-board interface form for the ATK-CLRK3568B core board and the baseboard. It exposes 127 GPIOs (which can be re-used for other functions), 105 other function pins (HDMI, EDP, USB, MIPI screen, MIPI camera, SARADC, audio, etc.), and 14 power pins (power supply pins for the core board and core board PMIC output power pins, excluding GND). The core board provides rich development documents and software resources, and all software resources are freely available. To improve the development efficiency and shorten the development cycle for enterprise users, ALIENTEK specially compiled a series of materials that will be used in development stages for core board users, covering schematics, baseboard design materials, mechanical structure, component packaging, connector specifications, factory system image source code, compiler, software packages, etc., to facilitate enterprise users' development.

1.2 Purchase Channels

ALIENTEK Official Store:

https://zhengdianyuanzi.tmall.com/category-1498161504.htm?spm=a1z10.1-b-s.w5002-24686329123.3.221960a1ipYkUs&search=y&catName=Linux%BF%AA%B7%A2%B0%E5

Data Download

ALIENTEK Data Download Center:

http://www.openedv.com/docs/boards/arm-linux/index.html

Chapter 2. Core board hardware parameters

2.1 Hardware Parameters

Item	Parameter	Note
Size	60mm*45mm	Length * Width
CPU	Rockchip RK3568	BGA636 package
Memory	2/4GB LPDDR4X	Surface mount packaging. Due to the impact of chip supply, there may be chips from various manufacturers. All will be based on the actual model used for assembly.
Storage	32/64G	Surface mount packaging. Due to the impact of chip supply, there may be chips from various manufacturers. All will be based on the actual model used for assembly.
Power management chip	RK809	
Operating voltage (1)	Two voltage inputs: 3.3V and 5.0V	
Power consumption (2)	≥2.0W	Static power consumption. The specific power consumption depends on the peripheral.
Operating temperature	Commercial grade: 0℃ ~ +70℃ Industrial grade: -40℃ ~ +85℃	RK3568B2 is for commercial use, while RK3568J is for industrial use. Both are compatible. They are collectively referred to as RK3568.
Number of pins	320Pin	
Pin spacing	0.4mm	Center spacing of the pins on the core board
Core board connection method	BTB	Connector: DF40C-80DS-04V, male socket
PCB process	10 layers, gold plating process, independent grounding signal layer	Adopt lead-free technology

Note:

（1）The working voltage of the core board is respectively provided by one 3.3V input and one 5.0V input. For details, please refer to the schematic diagram of the RK3568 core board.

（2）The power consumption data of the core board is based on an input of 12V/2.5A from the environment, with only the serial port UART2 connected and no other peripherals connected. The specific power consumption data depends on the peripherals connected to the development board.

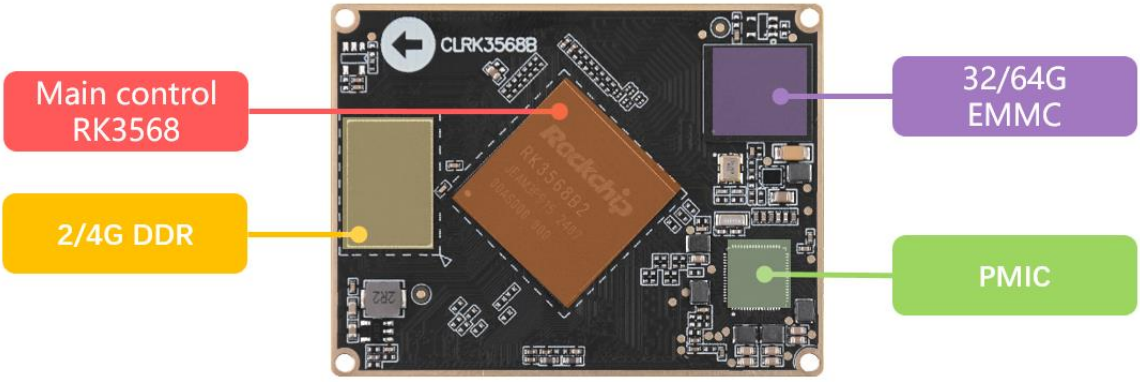


Figure 2-1 Front resources of the core board

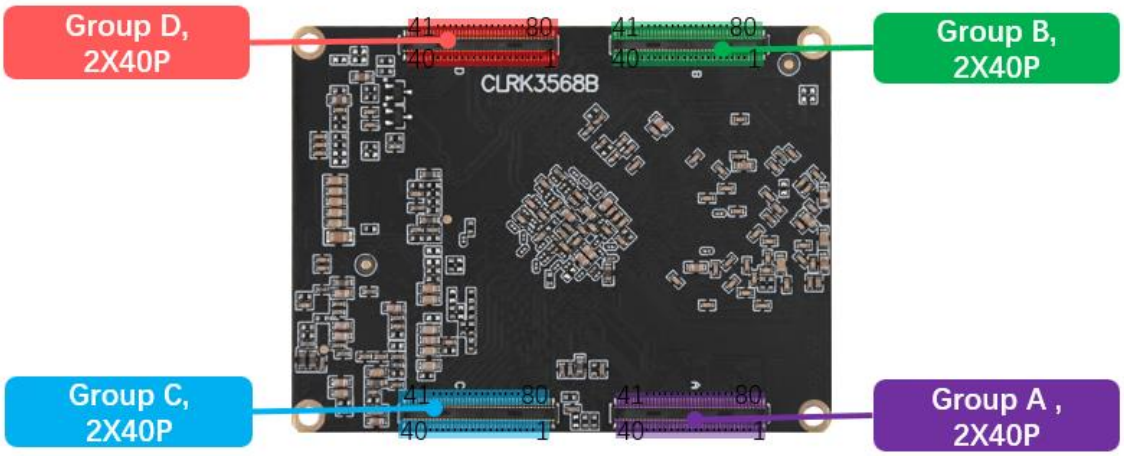


Figure 2-2 Backside resources of the core board

2.2 Parameters of RK3568 Chip

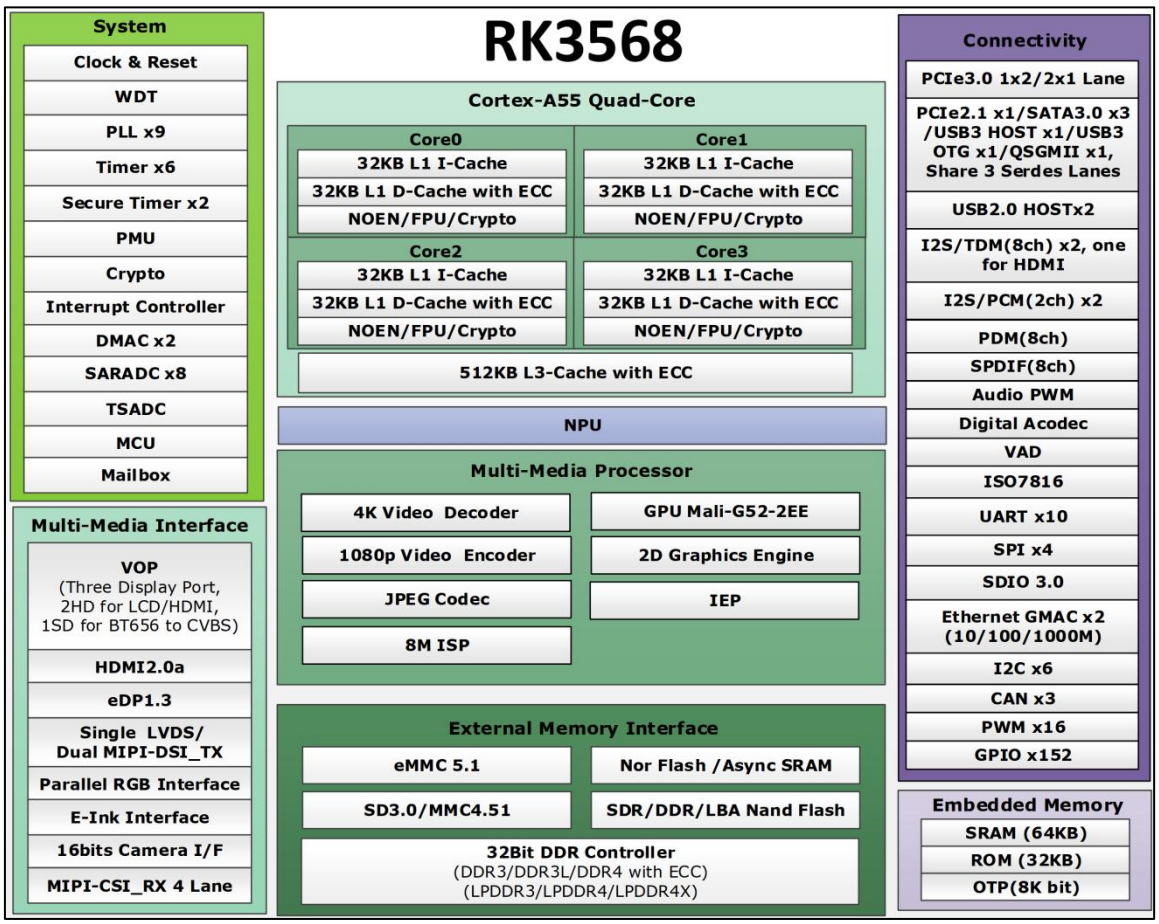


Figure 2-3 Chip resources

For specific detailed parameters, please refer to the data sheet of the RK3568 chip.

RK3568 main control chip resources			
Processor	Quad-core Cortex-A55, 2.0GHz	GPU	Mali G52
NPU	1.0 TOPS	RGA 2D Image Engine	2D image cropping, format conversion, scaling, rotation, image overlay, etc.
Video encoder	1080P@60fpsH.265/H.264	Video Decoder	4k@60fps H.265/H.264/VP9
JPEG decoder	Maximum support: 8176×8176 Per second: 76 million pixels	JPEG Encoder	Maximum support: 8192×8192 Up to 90 million pixels per second
MIPI CSI RX	1x4-lane/2x2-lane @2.5Gbps/lane	DVP	8/10/12/16 bits Maximum support: 150 MHz
ISP	Support 3A, HDR, 3DLUT, BLC, etc.	VICAP	Support BT.656/601/1120, etc.

RGB/BT1120	Supports 1080P at 60fps Supports RGB format (8-bit maximum); Data rate up to 150MHz	MIPI DSI TX	Supports 2 channels of DSI, with each channel supporting 4 data channels; the maximum support is 2.5 Gbps/lane. Single MIPI mode supports 1080P@60Hz display; Dual MIPI mode supports 1440P@60Hz display; Supports RGB format (up to 8 bits)
BT656	Support PAL and NTSC	LVDS	Supports RGB888 and RGB666 input; Supports VESA/JEIDA data format input
HDMI TX	Up to 10-bit deep color mode 1080P@120Hz and 4K@60Hz, supports 3D video format, RGB/YUV (up to 10-bit) format, HDCP 1.4/2.2	EDP	Up to 4 physical channels, with a bandwidth of up to 2.7 Gbps per lane; supports PSR, 2K@60Hz, and RGB formats (up to 10 bits)
EBC	Compatible with EPD, Supports 2200*1650, 16-bit data, 16-level grayscale, and a maximum of 256 frames per scan.	USB 2.0 HOST	× 2, Supports high-speed (480Mbps), full-speed (12Mbps) and low-speed (1.5Mbps) modes
SD3.0/MMC4.5	× 1, The data bus width is 4 bits.	SDIO3.0	4-bit data bus width
UART	× 10, 5/6/7/8 bits, the maximum baud rate supported is 4 Mbps	Ethernet	× 2， 10/100/1000M RGMII 10/100 RMII
PWM	× 16 Supports continuous mode or single-shot mode	Timer	× 6,64 bits Non-secure application program
PDM	× 8 Sampling rate up to 192 KHz Supports PDM main receiving mode	I2S	× 8 Sampling rate up to 192 KHz Audio resolution 16 - 32 bits
SPI	× 4, 32-bit support One chip-select output, Two chip-select outputs	I2C	× 6, Supports 7-bit and 10-bit address modes Data transmission rate supports 100Kbit/s, 400Kbit/s, and 1Mbit/s
GPIO	× 152 has the function of reusability	Package	FCCSP636L

Note: These are the parameter values of the chip data manual resources, not the available resource parameter values of the core board.

2.3 Pin Order and Output Interface Signals

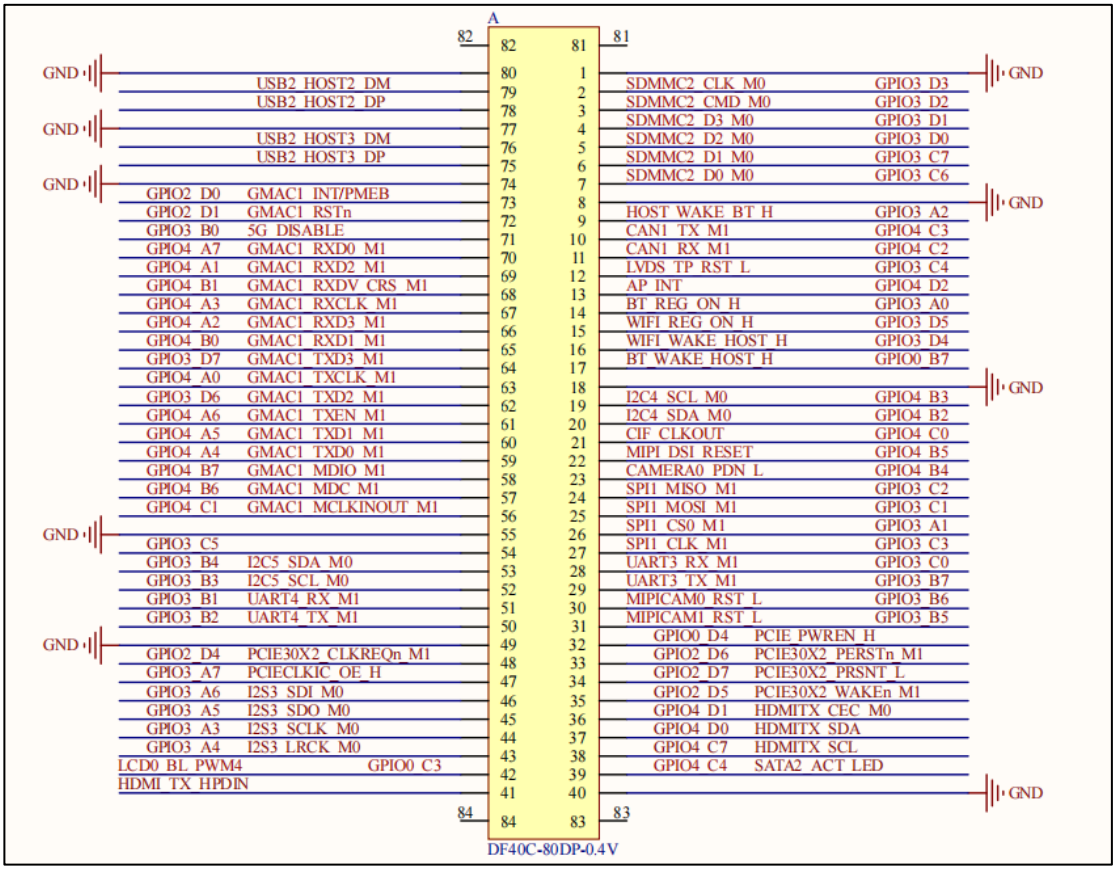


Figure 2-4 Core Board A Circuit Diagram

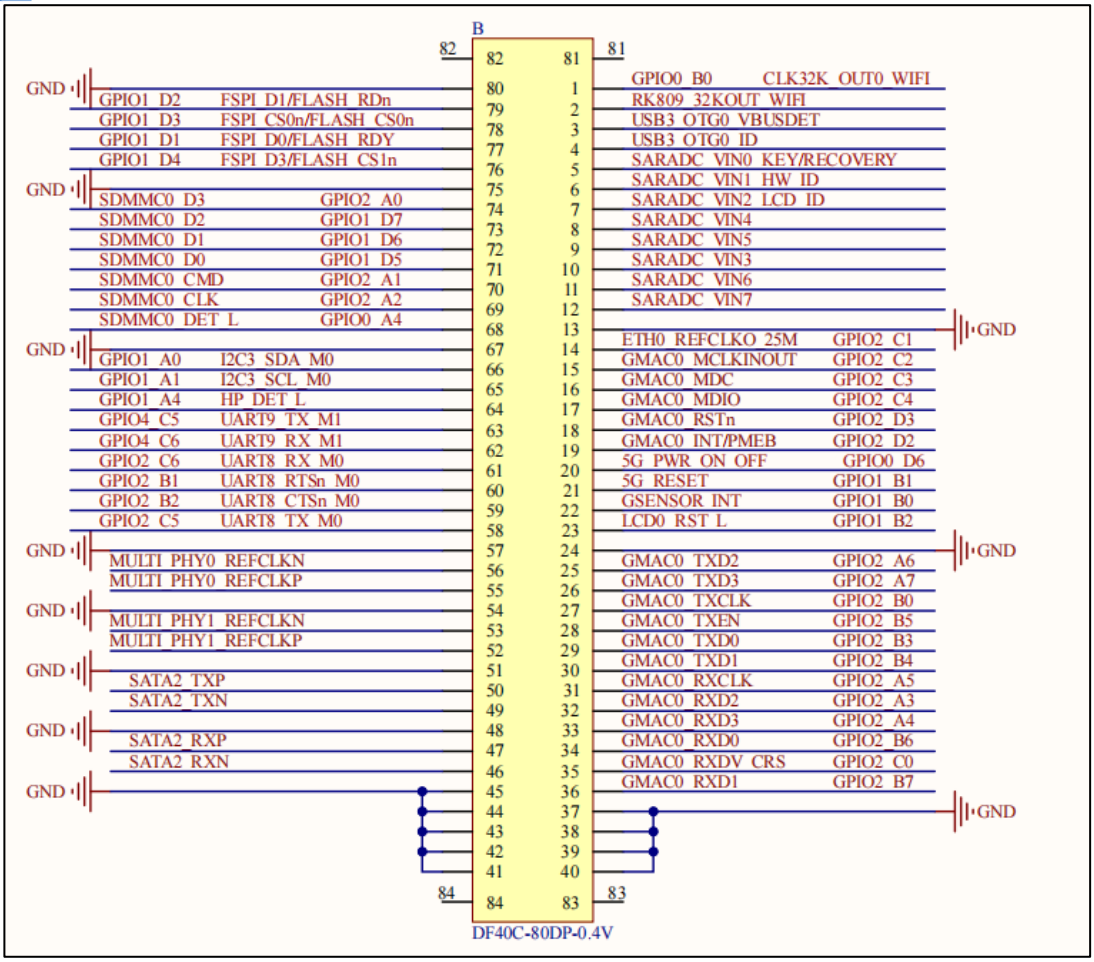


Figure 2-5 Core Board B Circuit Diagram

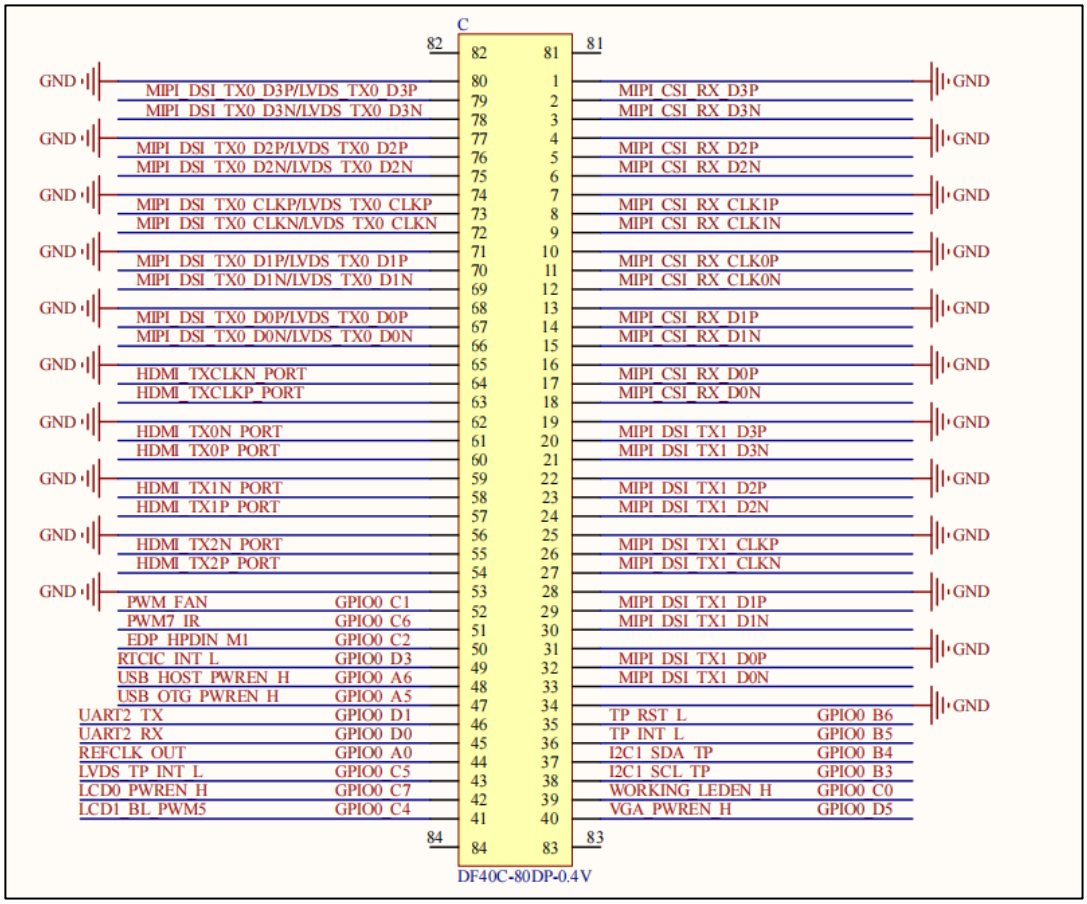


Figure 2-6 Core Board C Circuit Diagram

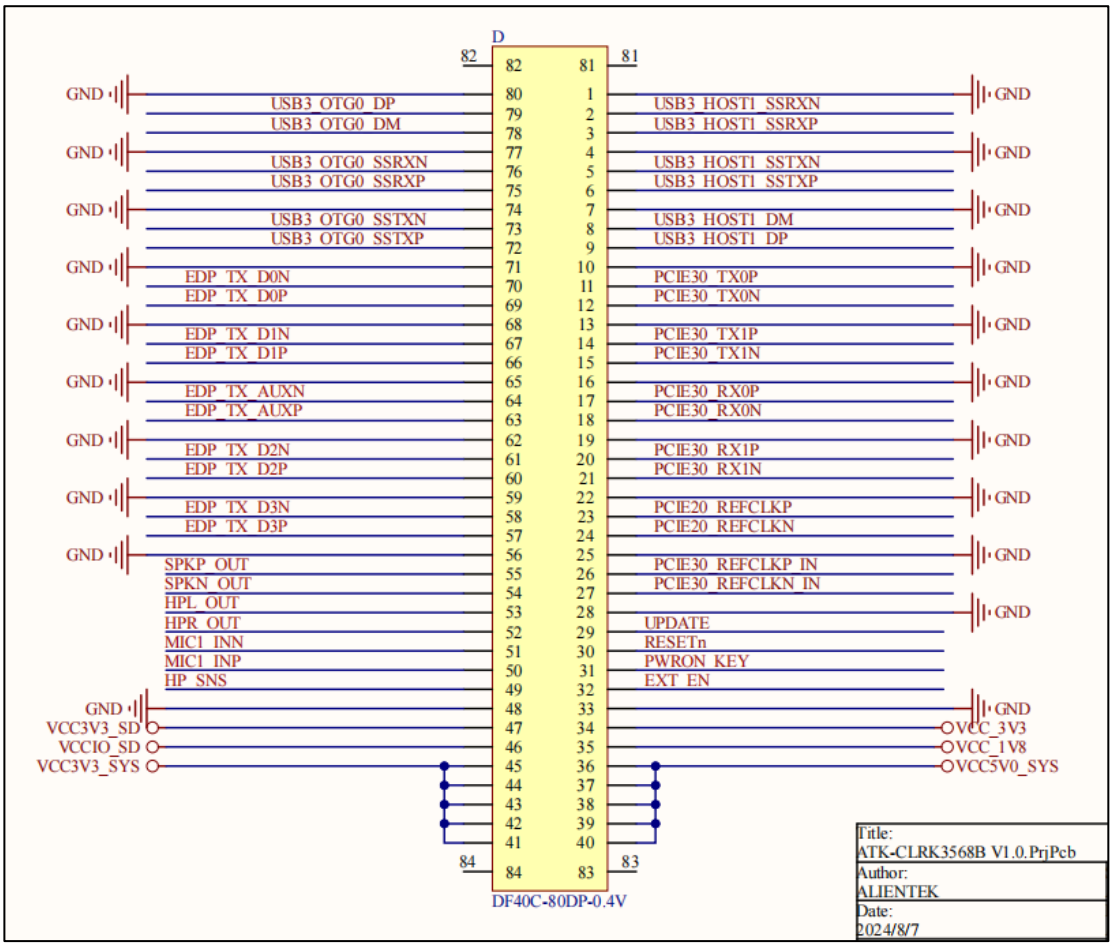


Figure 2-7 Core Board D Circuit Diagram

The core board socket is divided into four parts: A, B, C and D. In total, there are 320 pins. When using it, simply insert the core board into the female socket. The female socket can be purchased from the official store.

2.4 Reusable Resources of Core Board Pins

The core board has connected all the IOs on the processor. Users can design their own baseboards according to their own needs to utilize the IO resources on the core board and convert the IOs into the functions they require. The default factory firmware of the core board only supports the functions described in Section 2.3 and cannot be directly used for other re-usable functions. The firmware for re-usable functions needs to be developed separately.

According to the peripheral functions, the following lists the maximum number of single peripheral resources that the ATK-CLRK3568B core board can reuse. The specific selection can be combined with the data sheet of the chip. The reference is from the data sheet of the RK3568 chip (The maximum number of single peripheral resources: refers to the maximum number of a certain peripheral that the core board can use without using other peripherals).

Function interface	Pin peripheral function	Maximum	Note
Video input interface	MIPI CSI	2	Each interface has 4 channels, The maximum data rate of MIPI CSI is 2.5 Gbps per channel.
	DVP	1	8/10/12/16 DVP interfaces, capable of supporting maximum 150 MHz input data
	BT.1120*	1	BT.601/BT.656 and BT.1120 VI interface
System components	PWM	16	IR application recommendations: Use PWM3/PWM7/PWM11/PWM15
Video output interface	RGB\BT656\BT1120 LVDS\HDMI\ EDP\EBC	1	Support for triple-screen display or multi-screen display 1、HDMI+MIPI+LVDS 2、EDP/VGA+MIPI+LVDS
Audio interface	I2S	4	I2S0/I2S1 are 8-channel, while I2S2/I2S3 are 2-channel.
Communication peripherals	SDIO	1	Compatible with SDIO 3.0, with a 4-bit data bus width.
	Ethernet	2	10/100/1000M Ethernet controller
	USB 2.0 HOST	2	Available for USB HUB expansion
	USB 3.0 OTG	1	
	SPI	4	
	I2C	6	
	UART	10	
Others	GPIO	152	Pay attention to pin reassignment
	SARADC	8	10-bit resolution, up to 1MS/s sampling rate, 6 single-ended input channels

*Note: The ATK-CLRK3568B core board only supports the modules and accessories sold by the ALIENTEK store. Other items require users to develop them themselves or communicate and learn in the group. Currently, all the materials provided by ALIENTEK are stored in the cloud drive.

Chapter 3. Core board software resources

3.1 Factory system software resources

The factory Linux system software resources are shown in Table 3.1 below:

Table 3.1 Development board factory Linux system software resources

Type	Description	Note
U-Boot	Version: 2017.09	Provide the source code
Linux Kernel	Version: 4.19.232/5.10.160	Provide the source code
Buildroot	Verson: 2018.02	Provide the source code
Qt5	Version: 5.15.2	Provide the source code
Cross compiler	SDK source code is provided as a complete package.	Used for compiling the root file system and upper-layer applications
		Used for compiling U-Boot and Linux Kernel
System Flashing Method	Upper computer programming	Provides usage tutorials
MIPI LCD drive	MIPI DSI drive	Provide the source code
Touch	GT911 capacitive touchscreen (available only from ALIENTEK)	Provide the source code
Network	Gigabit Ethernet PHY is YT8531	Provide the source code
USB HOST	One USB HOST 3.0 port, two USB HOST 2.0 ports	Provide the source code
USB OTG	USB slave and host	Provide the source code
4G/5G module	Supports Quectel5G module RM500U, Quectel 4G module EM05, etc.	Provide the source code
PMIC	RK809 power management chip	Provide the source code
Function keys	ADC implements 4 function buttons	Provide the source code
UPDATE button	Upgrade function	Provide the source code
RESET button	Reset function	Provide the source code
PWRON button	Sleep function	Provide the source code
External RTC	PCF8563 RTC chip	Provide the source code
Six-axis sensor (I2C)	SH3001，I2C interface	Provide the source code
TF card/EMMC	SDMMC drive	Provide the source code
LED	GPIO	Provide the source code
Audio	Power chip RK809 has built-in audio	Provide the source code
SDIO WIFI&BT	RTL8852BS, supports WIFI6	Provide the source code
Serial port	USB debugging serial port, 232, 485	Provide the source code
ADC	ADC driver	Provide the source code
MIPI CSI	Supports IMX415, IMX335 and OV13850	Provide the source code

PWM	LCD PWM backlight	Provide the source code
Light sensor (I2C)	Supports AP3216C light sensor	Provide the source code
IR	Support infrared receiving function	Provide the source code
HDMI	HDMI output, HDMI audio, 4K@60fps	Provide the source code
PCIE M.2	Support M.2 interface hard drive	Provide the source code
SATA	Support SATA hard drive	Provide the source code
LVDS	Support LVDS screen	Provide the source code
eDP	Support eDP screen	Provide the source code

Table 3.1 Resources of the factory Linux system software for the development board

The resources of the factory-prepared Android system software are as shown in Table 3.2:

Type	Description	Note
U-Boot	Version: 2017.09	Provide source code
Linux Kernel	Version: 4.19.232/5.10.160	Provide source code
Android	Provide source code	Provide source code
System burning method	Upper computer programming	Provide usage instructions
MIPI LCD driver	MIPI DSI driver	Provide source code
Touch	GT911 capacitive touchscreen (available only from ALIENTEK)	Provide source code
Network	Gigabit Ethernet PHY is YT8531	Provide source code
USB HOST	One USB HOST 3.0 port, two USB HOST 2.0 ports	Provide source code
USB OTG	USB slave and master	Provide source code
4G/5G module	Supports Quectel 5G module RM500U, Quectel 5G module EM05, etc.	Provide source code
PMIC	RK809 power management chip	Provide source code
Function keys	ADC implements 4 function buttons	Provide source code
UPDATE button	Upgrade function	Provide source code
RESET button	Reset function	Provide source code
PWRON button	Power-off screen function	Provide source code
External RTC	PCF8563 RTC chip	Provide source code
Six-axis sensor (I2C)	SH3001, I2C interface	Provide source code
TF card/EMMC	SDMMC driver	Provide source code
LED	GPIO	Provide source code
Audio	Power chip RK809 has built-in audio	Provide source code
SDIO WIFI&BT	RTL8852BS, supports WIFI6	Provide source code
Serial port	USB debugging serial port, 232, 485	Provide source code
ADC	ADC driver	Provide source code
MIPI CSI	Support IMX415, IMX335 and OV13850	Provide source code
PWM	LCD PWM backlight	Provide source code
Light sensor (I2C)	Support AP3216C light sensor	Provide source code

IR	Support infrared receiving function	Provide source code
HDMI	HDMI output, HDMI audio, 4K@60fps	Provide source code
PCIE M.2	Supports M.2 interface hard drive	Provide source code
SATA	Supports SATA hard drive	Provide source code
LVDS	Supports LVDS screen	Provide source code
eDP	Supports eDP screen	Provide source code

Table 3.2 Android System Software Resources of the Development Board upon Factory Assembly

Chapter 4. Core board certification instructions

4.1 FCC certification - Commercial grade

ATTESTATION OF CONFORMITY

Global Testing Group

No. 24AE071011F002

The device bearing the trade name and model specified below has been shown to comply with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified.

Report No.	:	E04A24071011F00201
Applicant	:	Guangzhou Xingyi Electronic Technology Co., Ltd
Address	:	Room 805-808, Room 801, Building 4, No. 1, 3, and 5, Kesheng Road, Guangzhou Private Science and Technology Park, No. 1633 Beitai Road, Baiyun District, Guangzhou City
Manufacturer	:	Guangzhou Xingyi Electronic Technology Co., Ltd
Address	:	Room 805-808, Room 801, Building 4, No. 1, 3, and 5, Kesheng Road, Guangzhou Private Science and Technology Park, No. 1633 Beitai Road, Baiyun District, Guangzhou City
Description of Product	:	RK3568 commercial core board
Model No.	:	ATK-CLRK3568B
Trade Mark	:	/
Rating	:	Input:DC12V 2.5A
Test Standards	:	FCC 47 CFR Part 15 Subpart B

Test Laboratory

Shawn Wen
Laboratory Manager
Date of Issue: August 6, 2024

This attestation of conformity is based on a single evaluation of the submitted sample(s) of the above mentioned product. It does not imply an assessment of the production of the products.

Guangdong Global Testing Technology Co., Ltd.
Room 101-105, 203-210, Building 1, No.2, Keji 8 Road, Songshan Lake Park, Dongguan city, Guangdong, People's Republic of China, 523808
Web: www.gtggroup.com E-mail: info@gtggroup.com Tel.: 86-4007558988

1

Figure 4-1 FCC Certification

4.2 FCC certification - Industrial grade

GTG Global Testing Group

ATTESTATION OF CONFORMITY

No. 24AE071011F005

The device bearing the trade name and model specified below has been shown to comply with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified.

Report No.	:	E04A24071011F00501
Applicant	:	Guangzhou Xingyi Electronic Technology Co., Ltd
Address	:	Room 805-808, Room 801, Building 4, No. 1, 3, and 5, Kesheng Road, Guangzhou Private Science and Technology Park, No. 1633 Beitai Road, Baiyun District, Guangzhou City
Manufacturer	:	Guangzhou Xingyi Electronic Technology Co., Ltd
Address	:	Room 805-808, Room 801, Building 4, No. 1, 3, and 5, Kesheng Road, Guangzhou Private Science and Technology Park, No. 1633 Beitai Road, Baiyun District, Guangzhou City
Description of Product	:	RK3568 Industrial core board
Model No.	:	ATK-CLRK3568B
Trade Mark	:	/
Rating	:	Input:DC12V 2.5A
Test Standards	:	FCC 47 CFR Part 15 Subpart B

Test Laboratory

Shawn Wen
Laboratory Manager
Date of Issue: August 6, 2024

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Guangdong Global Testing Technology Co., Ltd.
Room 101-105, 203-210, Building 1, No.2, Keji 8 Road, Songshan Lake Park, Dongguan city, Guangdong, People's Republic of China, 523808
Web: www.gtggroup.com E-mail: info@gtggroup.com Tel.: 86-4007558988

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Figure 4-2 FCC Certification - Industrial Grade

4.3 CE certification - Commercial grade

ATTESTATION OF CONFORMITY

GTG Global Testing Group

No. 24AE071011E001

The submitted sample of below equipment has been tested in according to Electromagnetic Compatibility Directive 2014/30/EU with the following standards. The test report(s) show that the product complies with standard(s) recognized as giving presumption of compliance with the principal protection requirement of the EC Council Directive of 2014/30/EU.

Report No.	:	E04A24071011E00101
Applicant	:	Guangzhou Xingyi Electronic Technology Co., Ltd
Address	:	Room 805-808, Room 801, Building 4, No. 1, 3, and 5, Kesheng Road, Guangzhou Private Science and Technology Park, No. 1633 Beitai Road, Baiyun District, Guangzhou City
Manufacturer	:	Guangzhou Xingyi Electronic Technology Co., Ltd
Address	:	Room 805-808, Room 801, Building 4, No. 1, 3, and 5, Kesheng Road, Guangzhou Private Science and Technology Park, No. 1633 Beitai Road, Baiyun District, Guangzhou City
Description of Product	:	RK3568 commercial core board
Model No.	:	ATK-CLRK3568B
Trade Mark	:	/
Rating	:	Input:DC12V 2.5A
Test Standards	:	EN 55032:2015/A11:2020 EN 55035:2017/A11:2020

After preparation of the necessary technical documentation as well as the EU declaration of conformity, the CE marking as below can be affixed on the product if all relevant effective EU-directives or regulations related to CE marking have been complied with. The EU declaration of conformity is issued under the sole responsibility of the applicant or manufacturer.

CE

Test Laboratory

Shawn Wen
Laboratory Manager
Date of Issue: August 6, 2024

This attestation of conformity is based on a single evaluation of the submitted sample(s) of the above mentioned product. It does not imply an assessment of the production of the products.

Guangdong Global Testing Technology Co., Ltd.
Room 101-105, 203-210, Building 1, No.2, Keji 8 Road, Songshan Lake Park, Dongguan city, Guangdong, People's Republic of China, 523808
Web: www.gtggroup.com E-mail: info@gtggroup.com Tel: 86-4007558988

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Figure 4-3 CE Certification - Commercial grade

4.4 CE Certification - Industrial grade

ATTESTATION OF CONFORMITY

GTG Global Testing Group

No. 24AE071011E004

The submitted sample of below equipment has been tested in according to Electromagnetic Compatibility Directive 2014/30/EU with the following standards. The test report(s) show that the product complies with standard(s) recognized as giving presumption of compliance with the principal protection requirement of the EC Council Directive of 2014/30/EU.

Report No.	:	E04A24071011E00401
Applicant	:	Guangzhou Xingyi Electronic Technology Co., Ltd
Address	:	Room 805-808, Room 801, Building 4, No. 1, 3, and 5, Kesheng Road, Guangzhou Private Science and Technology Park, No. 1633 Beitai Road, Baiyun District, Guangzhou City
Manufacturer	:	Guangzhou Xingyi Electronic Technology Co., Ltd
Address	:	Room 805-808, Room 801, Building 4, No. 1, 3, and 5, Kesheng Road, Guangzhou Private Science and Technology Park, No. 1633 Beitai Road, Baiyun District, Guangzhou City
Description of Product	:	RK3568 Industrial core board
Model No.	:	ATK-CLRK3568B
Trade Mark	:	/
Rating	:	Input:DC12V 2.5A
Test Standards	:	EN 55032:2015/A11:2020 EN 55035:2017/A11:2020

After preparation of the necessary technical documentation as well as the EU declaration of conformity, the CE marking as below can be affixed on the product if all relevant effective EU-directives or regulations related to CE marking have been complied with. The EU declaration of conformity is issued under the sole responsibility of the applicant or manufacturer.

CE

Test Laboratory

Shawn Wen
Laboratory Manager
Date of Issue: August 6, 2024

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1

Figure 4-4 CE Certification - Industrial Report

4.5 RoHS certification - Commercial grade

UONE

CERTIFICATE OF CONFORMITY

No.:U00902240808604-1E

Applicant	:	Guangzhou Xingyi Electronic Technology Co., Ltd
Address	:	Room 805-808, Room 801, Building 4, No. 1, 3, and 5, Kesheng Road, Guangzhou Private Science and Technology Park, No. 1633 Beitai Road, Baiyun District, Guangzhou City
Manufacturer	:	Guangzhou Xingyi Electronic Technology Co., Ltd
Address	:	Room 805-808, Room 801, Building 4, No. 1, 3, and 5, Kesheng Road, Guangzhou Private Science and Technology Park, No. 1633 Beitai Road, Baiyun District, Guangzhou City
Factory	:	Dongguan Zhichen Electronic Technology Co., Ltd
Address	:	301, Building 1, No. 16 Xingui Road, Lincun, Tangxia Town, Dongguan City, Guangdong Province
Trade Mark	:	正点原子
Sample Name	:	RK3568 commercial core board
Model No.	:	ATK-CLRK3568B

The submitted sample of the above mentioned product has been tested and found to comply with the following European Directive:

RoHS Directive 2011/65/EU & (EU) 2015/863

The standard(s) used for showing compliance with the essential requirements:

Applicable Standard(s)	Test Report(s) Number
IEC 62321-1:2013, IEC 62321-2: 2021 IEC 62321-3-1:2013 IEC62321-4: 2013+A1:2017, IEC 62321-5:2013 IEC 62321-6:2015, IEC 62321-7-1: 2015 IEC 62321-7-2: 2017, IEC 62321-8: 2017	U00902240808604-1E

Shen Zhen UONE Test Co., LTD.
1101, Building D, Pengzhou Industrial Park, Fuhaiwei, No. 78, Yanhu Road, Yanchuan Community, Yanluo Street, Baoan District, Shenzhen
Tel: 0755-23695858 Fax: 0755-23699878 E-mail: service@uonetest.com http://www.uonetest.com

Figure 4.5-4-5 RoHS Certification - Commercial grade

4.6 RoHS certification - Industrial grade

UONE

CERTIFICATE OF CONFORMITY

No.:U00902240808604-2E

Applicant	:	Guangzhou Xingyi Electronic Technology Co., Ltd
Address	:	Room 805-808, Room 801, Building 4, No. 1, 3, and 5, Kesheng Road, Guangzhou Private Science and Technology Park, No. 1633 Beitai Road, Baiyun District, Guangzhou City
Manufacturer	:	Guangzhou Xingyi Electronic Technology Co., Ltd
Address	:	Room 805-808, Room 801, Building 4, No. 1, 3, and 5, Kesheng Road, Guangzhou Private Science and Technology Park, No. 1633 Beitai Road, Baiyun District, Guangzhou City
Factory	:	Dongguan Zhichen Electronic Technology Co., Ltd
Address	:	301, Building 1, No. 16 Xingui Road, Lincun, Tangxia Town, Dongguan City, Guangdong Province
Trade Mark	:	正点原子
Sample Name	:	RK3568 Industrial core board
Model No.	:	ATK-CLRK3568B

The submitted sample of the above mentioned product has been tested and found to comply with the following European Directive:

RoHS Directive 2011/65/EU & (EU) 2015/863

The standard(s) used for showing compliance with the essential requirements:

Applicable Standard(s)	Test Report(s) Number
IEC 62321-1:2013, IEC 62321-2:2021 IEC 62321-3-1:2013 IEC62321-4: 2013+A1:2017, IEC 62321-5:2013 IEC 62321-6:2015, IEC 62321-7-1: 2015 IEC 62321-7-2: 2017, IEC 62321-8: 2017	U00902240808604-2E

Shen Zhen UONE Test Co., LTD.
1101, Building D, Pengzhou Industrial Park, Fuhaibei, No. 78, Yanhu Road, Yanchuan Community, Yanluo Street, Baoan District, Shenzhen
Tel: 0755-23695858 Fax: 0755-23699878 Email: service@uonetest.com http://www.uonetest.com

Figure 4-6 RoHS Certification - Industrial grade

Chapter 5. Core Board Structural Dimensions

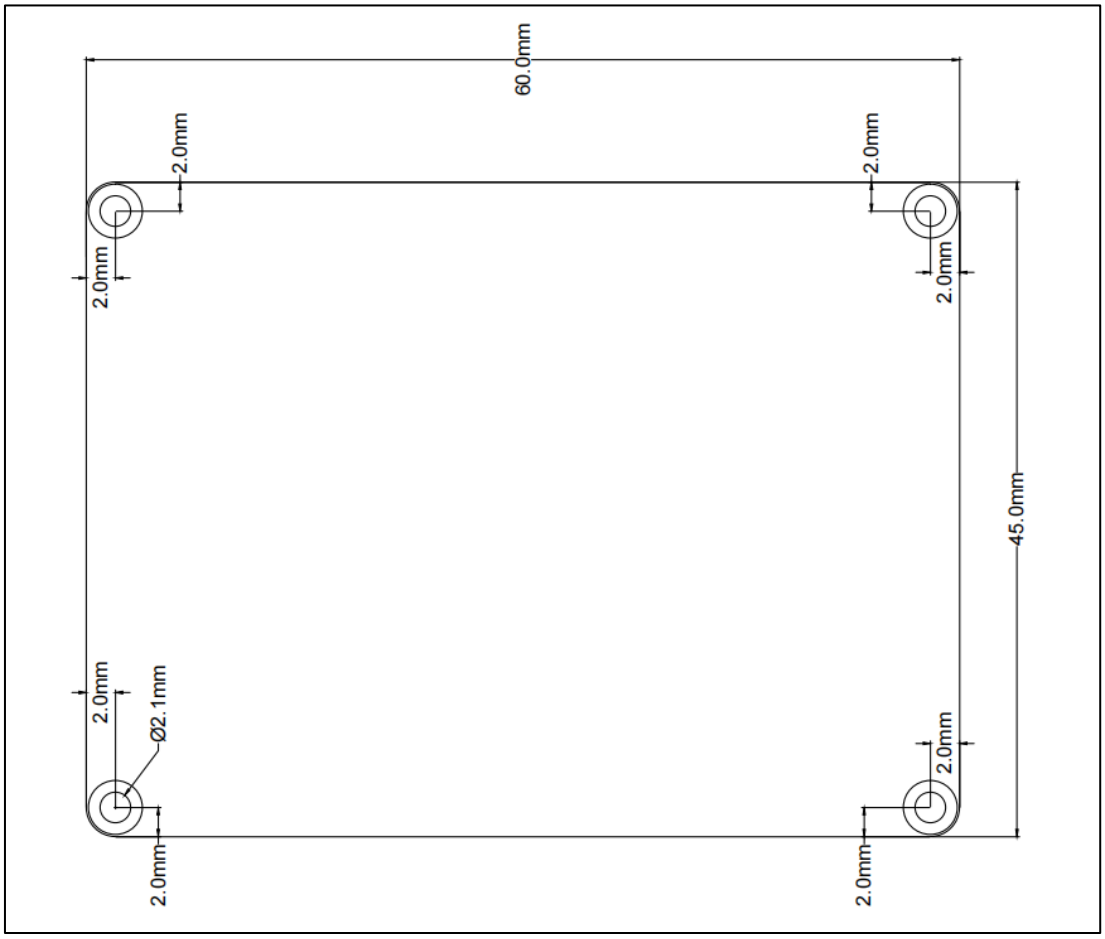

Figure 5-1 Core board structure size diagram

Chapter 6. Development materials

Download development materials:

http://www.openedv.com/docs/boards/arm-linux/index.html

Core Board Information List:

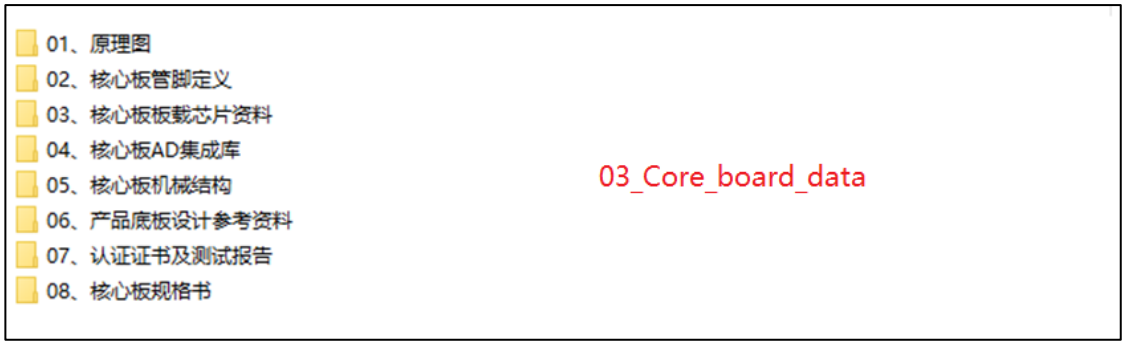

Figure 6-1 Core Board Information List

Chapter 7. Optional accessories

7.1 Optional Accessories

The following accessories can all be purchased at the ALIENTEK store.
https://zhengdianyuanzi.tmall.com

MIPI camera	IMX335, IMX415, OV13850
MIPI screen	5.5 inch 1080×1920, 5.5 inch 720×1080, 10.1 inch 800×1280
Baseboard connector (connected to the main board)	DF40C-80DS-04V(HRS)
Other accessories	USB serial converter three-in-one module (RS232, RS485, TTL), USB Type-C cable
Core board cooling	Development board cooling fan kit

Chapter 8. Precautions and maintenance

Notes

- Do not plug and unplug peripheral modules with power!
- Before using the product, please carefully read this manual and related development manuals, and pay attention to the applicable matters of the platform.
- Follow all instructions and warnings on the product.
- Please use this product in a cool, dry and clean place.
- Please keep the product dry. If any liquid splashes or soaks, power off immediately and let dry thoroughly.
- Do not use organic solvents or corrosive liquids to clean the product.
- Do not use or store this product in dusty, dirty and messy environment.
- If not used for a long time, please package this product, pay attention to moisture-proof and dust-proof.
- Pay attention to the ventilation and heat dissipation of the product during use to avoid component damage caused by excessive temperature during operation.
- Do not use this product in alternating hot and cold environment to avoid dew damage to components.
- Do not treat this product roughly, drop, knock or shake violently may damage the line and components.
- Pay attention to anti-static when using this product.
- FPC flexible cable is fragile, when plugging cable, pay attention to check whether the metal at both ends of the cable is misplaced and falling off.
- All products have passed the product test before shipment. Please use the development board corresponding to the ALIENTEK for power on test for the first time.
- Do not repair or disassemble the company's products by yourself. If the product fails, please contact the company in time for maintenance.
- Unauthorized modification or use of unauthorized parts may damage the product, the resulting damage will not be repaired.

Chapter 9. After sales service

9.1 Terms of after-sales service

1). After receiving the goods, please open them in front of the express, and sign after acceptance. If you find that the goods are less after signing, take photos in time and contact the seller's customer service to explain the situation within 15 days. If the feedback is lack of goods after 15 days, we will not reissue the goods. Other reasons notwithstanding).

2). 15 days -1 month: we are responsible for the return freight repair of product problems. Human factors damage expensive main chip or LCD screen, touch screen. The buyer needs to pay the cost and one time shipping fee, no maintenance fee.

3). 1-3 months: the problem of the product itself (non-human factors), we are responsible for the delivery of the past freight maintenance. If the main chip is burned out and the LCD screen and touch screen are damaged, the buyer needs to pay the cost, and the maintenance fee is not charged.

4) After 3 months: the buyer shall bear the return freight and the cost of chip, LCD screen and touch screen. No service charge.

9.2 After-sales Support

Technical support:

QQ group: ALIENTEK - Rockchip Communication group

ALIENTEK - RK3568 User Group (order number required)

Taobao shop: ALIENTEK flagship store

Forum: http://www.openedv.com/forum-277-1.html