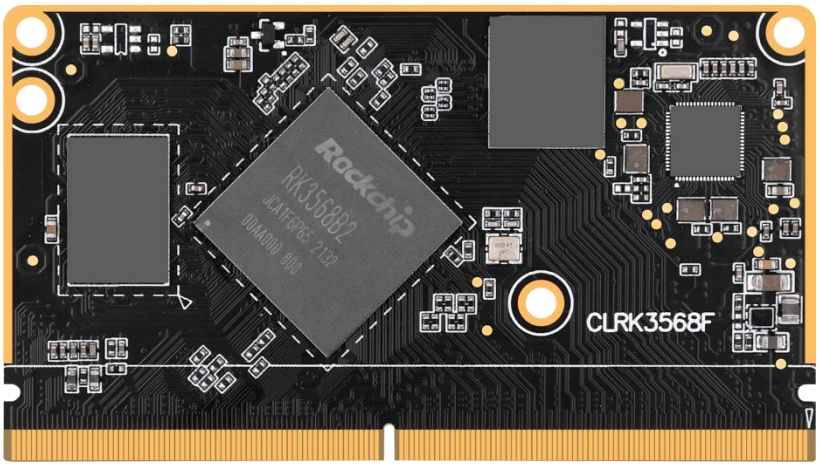
ATK-CLRK3568F

Core Board Specification

V1.5



ALIENTEK

1. Shopping:

TMALL: https://zhengdianyuanzi.tmall.com

TAOBAO: https://openedv.taobao.com

2. Download

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Website : www.alientek.com

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

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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	2023.08.01
V1.1	Add accessory products	ALIENTEK Linux Team	ALIENTEK Linux Team	2023.08.05
V1.2	Modify document configuration parameters	ALIENTEK Linux Team	ALIENTEK Linux Team	2023.08.10
V1.3	Add industrial-grade parameters and certification reports	ALIENTEK Linux Team	ALIENTEK Linux Team	2023.08.18
V1.4	Correct error messages	ALIENTEK Linux Team	ALIENTEK Linux Team	2024.01.31
V1.5	Delete descriptions related to CAN	ALIENTEK Linux Team	ALIENTEK Linux Team	2024.04.10

Catalogue

Chapter 1. Core board overview

1.1 Core board introduction

The ATK-CLRK3568F core board is a product developed by ALIENTEK based on Rockchip's RK3568 chip, designed for embedded Android, Linux, and OpenHarmony operating systems. It is mainly targeted at customized markets in industries such as IoT gateways, NVR storage, industrial control tablets, industrial inspection, industrial control boxes, karaoke, cloud terminals, and in-vehicle infotainment systems.

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

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

The 314P gold finger interface form is used for the ATK-CLRK3568F core board and baseboard by SparkFun. A total of 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 power supply pins from the core board PMIC, excluding GND) are provided. The core board offers rich development documents and software resources, and all software resources are freely available. To improve the development efficiency of enterprise users and shorten the development cycle, ALIENTEK specially compiled a series of materials that will be used in the 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 the development of enterprise users.

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

Download Data

ALIENTEK 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	82mm*46mm	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 devices.
Operating temperature	Commercial grade: 0℃ ~ +70℃ Industrial grade: -40℃ ~ +85℃	RK3568B2 is for commercial use, while RK3568J is for industrial use. Both are compatible and are collectively referred to as RK3568.
Number of pins	314Pin	
Pin spacing	0.5mm	Center spacing of the pins on the core board
Core board connection method	Goldfinger	Connector: AS0B826-S78B-7H，forward direction
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.

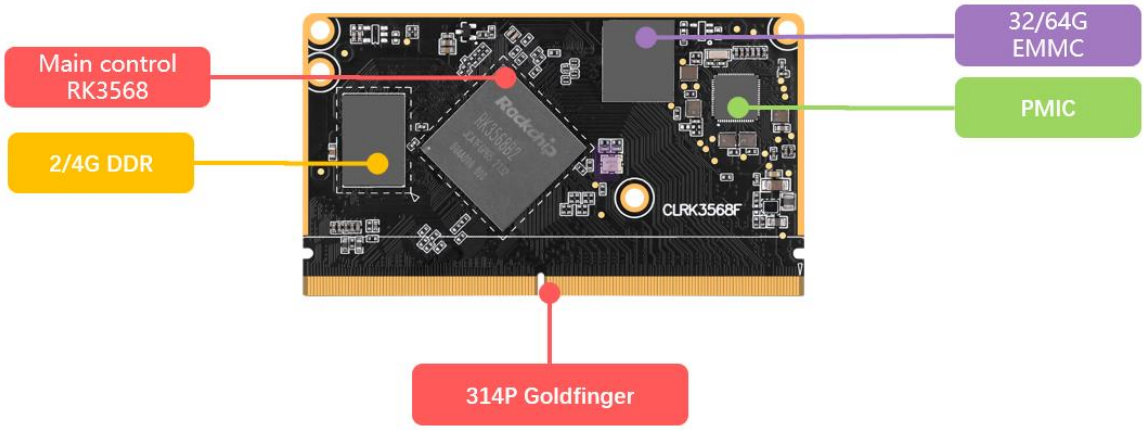

Figure 2-1 Core board resources

2.2 Parameters of RK3568 Chip

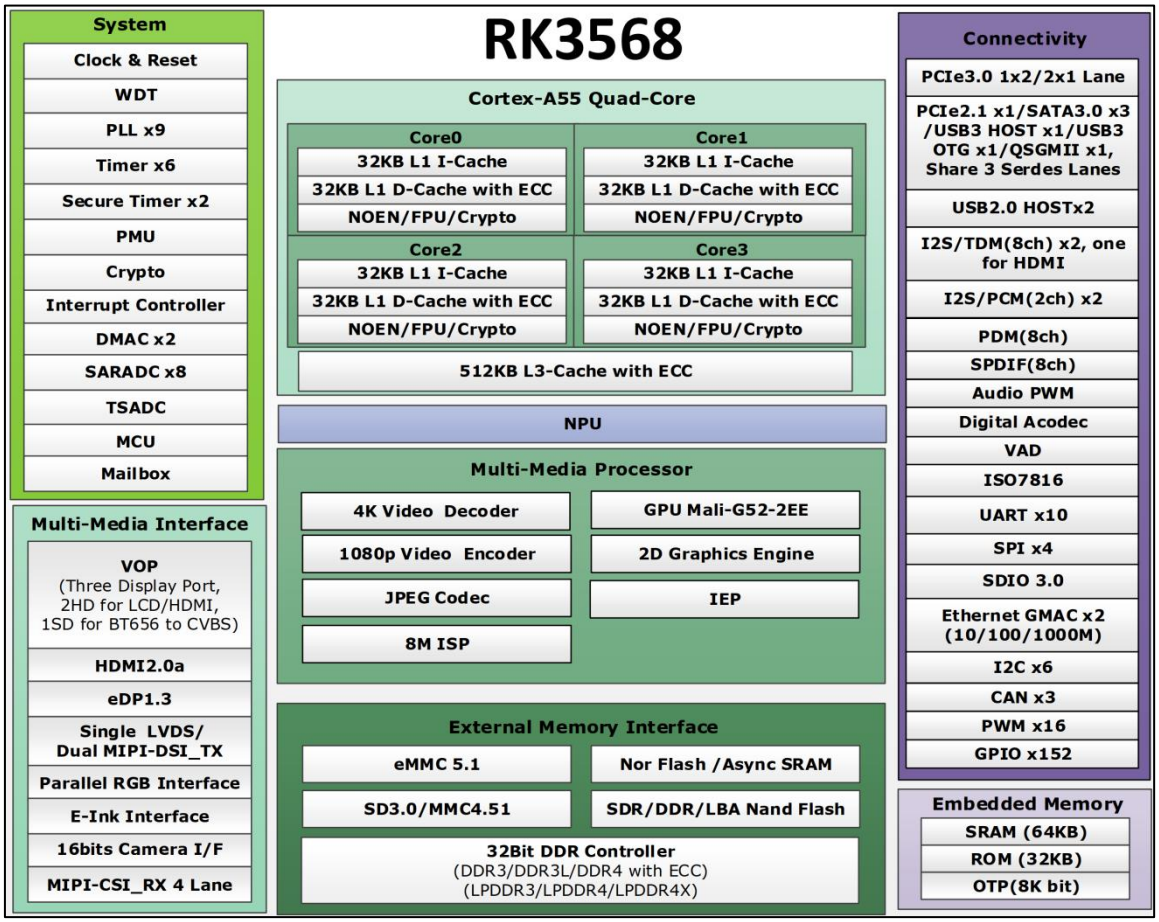

Figure 2-2 Chip resources

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	× 1,	SDIO3.0	4-bit data bus width

.5	The data bus width is 4 bits.		
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

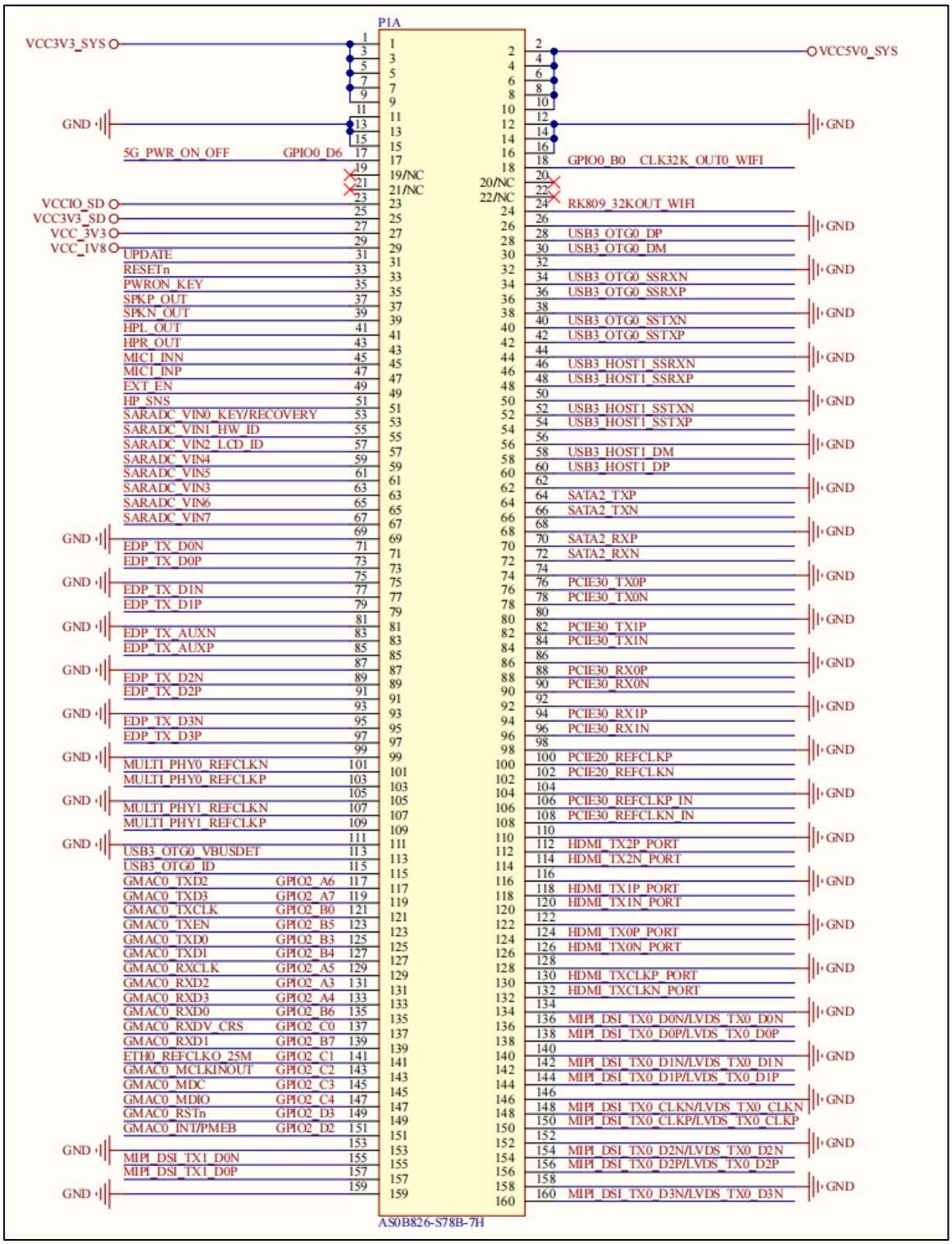

Figure 2-3 Core board schematic diagram

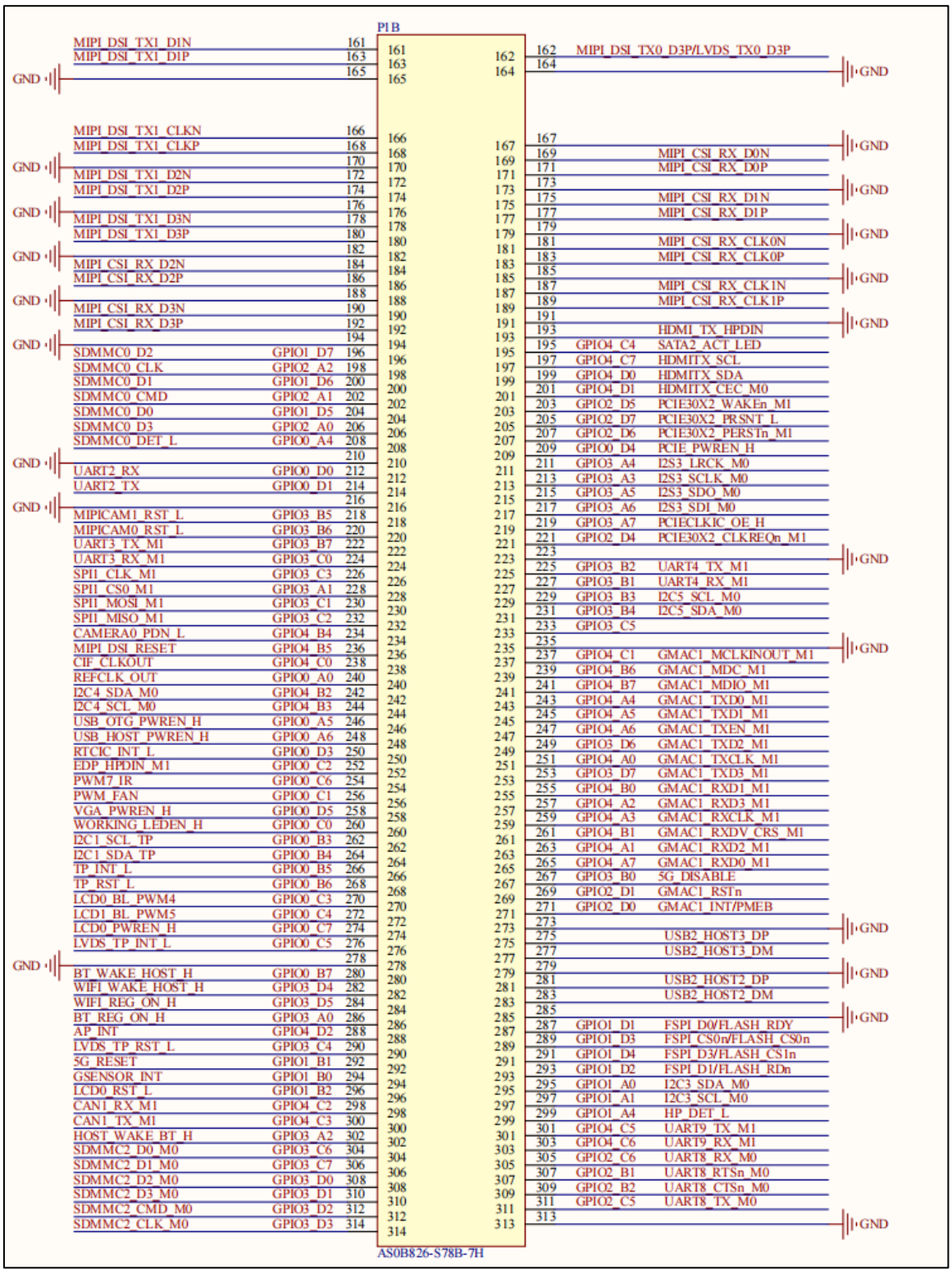

Figure 2-4 Core board schematic diagram

Because the 314P gold finger socket is too long, it has been divided into two parts in the schematic diagram: J5A and J5B, totaling 314 pins. When using it, simply insert the main board into the gold finger socket.

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.

Based on the peripheral functions, the following lists the maximum number of resources that each peripheral component that can be reused by the ATK-CLRK3568F core board. The specific selection can be combined with the data sheet of the chip. The following references are from the data sheet of the RK3568 chip (The maximum number of resources for each peripheral component refers to the maximum number of a certain peripheral component 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-DLRK3568 development board and the ATK-CLRK3568F core board only support the modules and accessories sold by the official store of ALIENTEK. For other items, users

need 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	Provide the source code
Buildroot	Version: 2018.02	Provide the source code
Qt5	Version: 5.15.2	Provide the source code
Cross compiler	aarch64-buildroot-linux-gnu	Used for compiling the root file system and upper-layer applications
	gcc-linaro-6.3.1-2017.05-x86_64_aarch64-linux-gnu	Used for compiling U-Boot and Linux Kernel
System Flashing Method	Upper computer programming	Provides usage tutorials
MIPI LCD driver	MIPI DSI driver	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	Provide source code
Android	Provide the source code of Android 11 and Android 12	Provide source code
System burning method	Upper computer programming	Provide usage instructions
MIPI LCD driver Touch	MIPI DSI driver	Provide source code
	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

That's all about the software resources of the ALIENTEK ATK-DLRK3568 development board. We will continue to update the software resources.

Chapter 4. Core board certification instructions

4.1 FCC certification

FCC Part 15 SDOC
Supplier's Declaration of Conformity

This Certificate of Conformity is hereby issued to the product designated below:

Certificate No. :	23EP07231F01
Report No. :	EP2307231F01
Date Issue. :	2023-08-11
Applicant's name :	Guangzhou Xingyi Electronic Technology Co., Ltd.
Address :	8th Floor, Baiyun Torch Building, No.1 Kesheng Road, Taihe Town, Baiyun District, Guangzhou City, Guangdong Province, China
Manufacturer's name :	Same as applicant
Address :	Same as applicant
Product Description :	Core-board
Model(s)/Type References :	ATK-CLRK3568F
Parameters :	Input: DC 5V 1A and DC 3.3V 1A
Standard(s) :	FCC Part 15 Subpart B ANSI C63.4:2014

The device bearing the trade name and model specified above 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. (Refer to Test Report if any modifications were made for compliance).
This certificate 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 whole production have to be observed.

Approved By

Eric Liu
Director of engineering department

Dongguan Pubiao Testing Technology Co., Ltd
No. 3, 1/F., Building A, No.30, Minghua Road, Juzhou, Shijie, Dongguan, Guangdong, China
Tel: +86 769 81813516 E-mail: service@pubiaotest.com Web: www.pubiaotest.com

Figure 4-1 FCC Certification

4.2 CE certification

CE

CERTIFICATE OF CONFORMITY

Low Voltage Directive 2014/35/EU

This Certificate of Conformity is hereby issued to the product designated below:

Certificate No. :	23SP07231L01
Report No. :	SP2307231L01
Date Issue. :	2023-08-14
Applicant's name :	Guangzhou Xingyi Electronic Technology Co., Ltd.
Address :	8th Floor, Baiyun Torch Building, No.1 Kesheng Road, Taihe Town, Baiyun District, Guangzhou City, Guangdong Province, China
Manufacturer's name :	Guangzhou Xingyi Electronic Technology Co., Ltd.
Address :	8th Floor, Baiyun Torch Building, No.1 Kesheng Road, Taihe Town, Baiyun District, Guangzhou City, Guangdong Province, China
Product Description :	Core-board
Model(s)/Type References :	ATK-CLRK3568F
Parameters :	Input: DC 5V 1A, DC 3.3V 1A
Standard(s) :	EN 62368-1:2014+A11:2017

On the basis of the referenced test report(s), sample(s) tested of the above product have been found to comply with the standards harmonized with the directives listed on this verification at the time the tests were carried out. Other standards and Directives may be relevant to the product. This verification is part of the full test report(s) and should be read in conjunction with it(them).

Once compliance with all product relevant CE mark directives are verified, including any relevant e.g. risk assessment and production control, the manufacturer may indicate compliance by signing a Declaration of Conformity themselves and applying the mark to products identical to the tested sample(s).

Approved By

Eric Liu
Director of engineering department

Dongguan Pubiao Testing Technology Co., Ltd.
No. 3, 1/F., Building A, No.30, Minghua Road, Juzhou, Shijie, Dongguan, Guangdong, China.
Tel: +86 769 81813516 E-mail: service@pubiaotest.com Web: www.pubiaotest.com

Figure 4-2CE Certification

4.3 RoHS certification

Password:PW4736

Test Report UTLR2308026 Date: Aug.11, 2023 Page: 1 of 7

Applicant: Guangzhou Xingyi Electronic Technology Co., Ltd.
Address: 8th Floor, Baiyun Torch Building, No.1 Kesheng Road, Taihe Town, Baiyun District, Guangzhou City, Guangdong Province, China

The following samples were submitted and identified on behalf of the clients as

Sample Name:	Core-board
Model No.:	ATK-CLRK3568F
Brand:	正点原子
Factory name:	Guangzhou Xingyi Electronic Technology Co., Ltd.
Address:	8th Floor, Baiyun Torch Building, No.1 Kesheng Road, Taihe Town, Baiyun District, Guangzhou City, Guangdong Province, China
Sample Received Date:	Aug.7, 2023
Test Period:	Aug.7, 2023 to Aug.11, 2023
Test Method:	Please refer to next page(s).
Test Result:	Please refer to next page(s).

CONCLUSION :
According to client's request to conduct below tests in the selected parts of the submitted sample:

TEST ITEM	RESULT
1.RoHS Directive 2011/65/EU Annex II amending Annex(EU)2015/863 and amending Annex (EU)2017/2102	
-Lead, Cadmium, Mercury, Hexavalent Chromium, PBBs and PBDEs Content	PASS
-Di-(2-ethylhexyl) phthalate(DEHP), Benzylbutyl phthalate(BBP), Dibutyl phthalate(DBP), Diisobutyl phthalate(DIBP) Content	PASS

Authorized Signatory
Title: Lab Manager

For and on behalf of
Dongguan Universal Testing Technology Co., Ltd.

Figure 4.3-4-3 RoHS Certification

4.4 Reliability Test Report - Commercial Grade

测试报告总结

产品信息	产品名称	ATK-DLRK3568 开发板		
	产品型号	ATK-DLRK3568		
	额定参数	输入电压：12V，输入电流：2.5A(电源可提供最大电流)		
	产品编号	——		
	制造单位	广州市星翼电子科技有限公司		
	检前产品描述	完好	样品数量	2PCS
试验信息	试验日期	2023/06/28		
	测试项目	低温工作、低温储存、冷热冲击、恒定湿热、温度循环		
	检验依据	1. GB/T 2423.1-2008 电工电子产品环境试验 第 2 部分：试验方法 试验 A：低温 2. GB/T 2423.3-2006 电工电子产品环境试验 第 2 部分 试验方法 试验 Cab：恒定湿热试验 3. GB/T 2423.22-2012 环境试验 第 2 部分 试验方法 试验 N：温度循环变化		
	试验环境条件	0℃ ～ +70℃，85%RH		
	测试场地	广州市星翼电子科技有限公司测试实验室		
结论	根据检验依据所列标准及要求，受检样品所试验的项目全部符合要求。			
备注				

Figure 4-4 Reliability Test Report - Commercial Grade

4.5 Reliability Test Report - Industrial Grade

测试报告总结

产品信息	产品名称	CLRK3568F 核心板（工业级）		
	产品型号	CLRK3568F		
	额定参数	输入电压：12V，输入电流：100mA		
	产品编号	——		
	制造单位	广州市星翼电子科技有限公司		
	检前产品描述	完好	样品数量	4PCS
试验信息	试验日期	2023/08/18		
	测试项目	低温工作、低温储存、冷热冲击、恒定湿热、温度循环		
	检验依据	1. GB/T 2423.1-2008 电工电子产品环境试验 第 2 部分：试验方法 试验 A：低温 2. GB/T 2423.3-2006 电工电子产品环境试验 第 2 部分 试验方法 试验 Cab：恒定湿热试验 3. GB/T 2423.22-2012 环境试验 第 2 部分 试验方法 试验 N：温度循环变化		
	试验环境条件	-40℃ ～ +85℃；85%RH		
	测试场地	广州市星翼电子科技有限公司测试实验室		
结论	根据检验依据所列标准及要求，受检样品所试验的项目全部符合要求。			
备注				

Figure 4-5 Reliability Test Report - Industrial Grade

4.6 EMMC Certification

CE

CERTIFICATE OF CONFORMITY

Electromagnetic Compatibility (EMC) Directive 2014/30/EU

This Certificate of Conformity is hereby issued to the product designated below:

Certificate No. :	23EP07231E01
Report No. :	EP2307231E01
Date Issue. :	2023-08-11
Applicant's name :	Guangzhou Xingyi Electronic Technology Co., Ltd.
Address :	8th Floor, Baiyun Torch Building, No.1 Kesheng Road, Taihe Town, Baiyun District, Guangzhou City, Guangdong Province, China
Manufacturer's name :	Same as applicant
Address :	Same as applicant
Product Description :	Core-board
Model(s)/Type References :	ATK-CLRK3568F
Parameters :	Input: DC 5V 1A and DC 3.3V 1A
Standard(s) :	EN 55032:2015+A11:2020+A1:2020 EN 55035:2017+A11:2020 EN IEC 61000-3-2:2019+A1:2021 EN 61000-3-3:2013+A1:2019+A2:2021

On the basis of the referenced test report(s), sample(s) tested of the above product have been found to comply with the standards harmonized with the directives listed on this verification at the time the tests were carried out. Other standards and Directives may be relevant to the product. This verification is part of the full test report(s) and should be read in conjunction with it(them).

Once compliance with all product relevant CE mark directives are verified, including any relevant e.g. risk assessment and production control, the manufacturer may indicate compliance by signing a Declaration of Conformity themselves and applying the mark to products identical to the tested sample(s).

Approved By

Eric Liu
Director of engineering department

Dongguan Pubiao Testing Technology Co., Ltd
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Figure 4-6 EMMC Certification Report

Chapter 5. Core Board Structural Dimensions

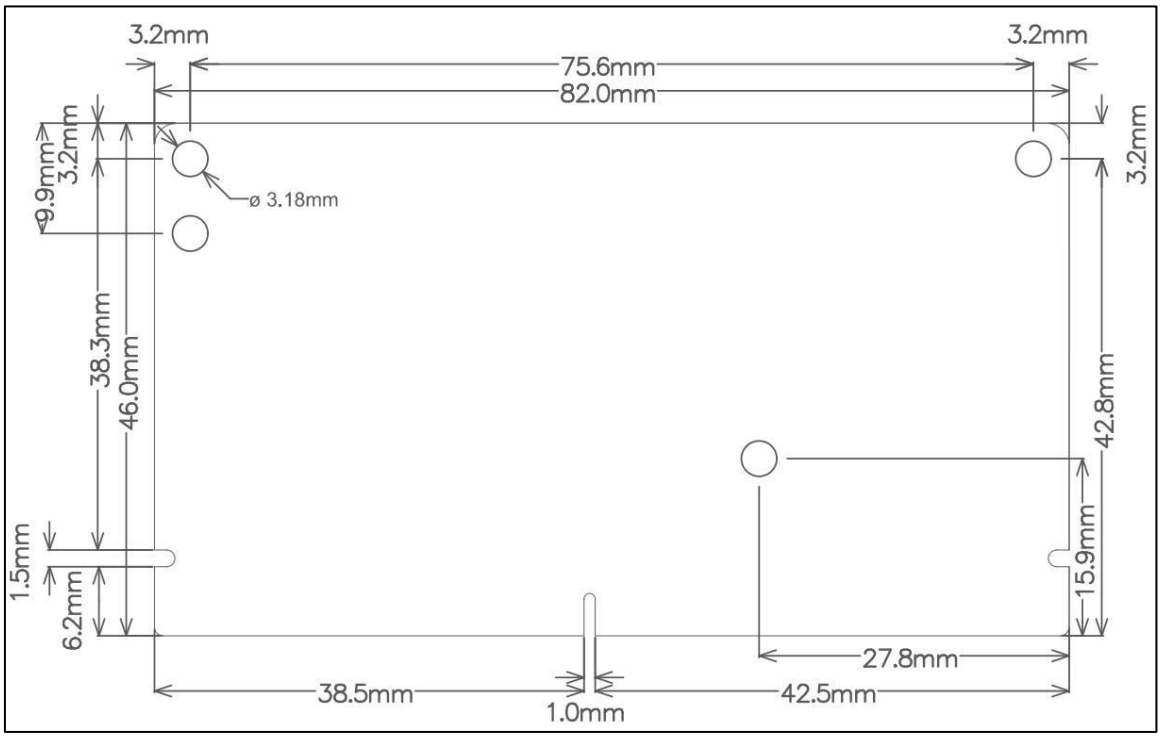

Figure 5-1 Core board structure size diagram

Chapter 6. Development materials

Download development materials:

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

The development materials are written based on the ATK-DLRK3568 development board. Please use the development board for project research and testing.

Development board material directory:

Figure 6-1 Development Board Data Catalogue

The core board information is based on the ATK-CLRK3568F core board and extracted from the ATK-DLRK3568 development board information. It is designed to be easily downloadable and used independently by users.

Core board information directory:

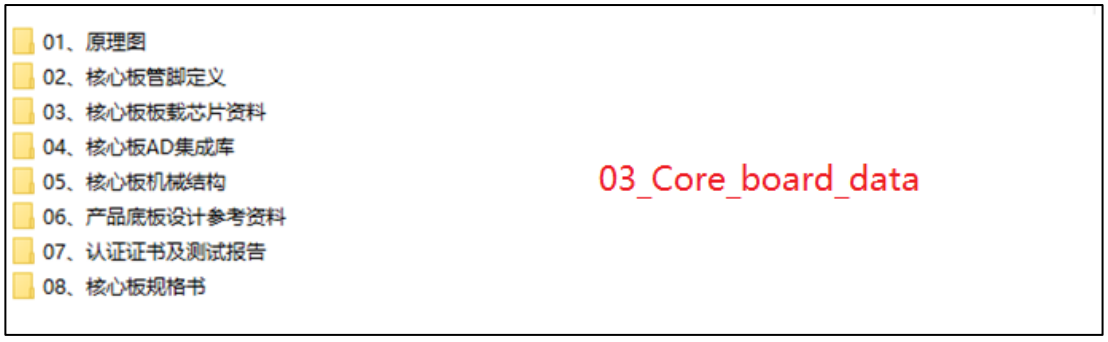

Figure 6-2 Core Board Information List

Chapter 7. Optional accessories

7.1 ATK-DLRK3568 development board

Purchase link:

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

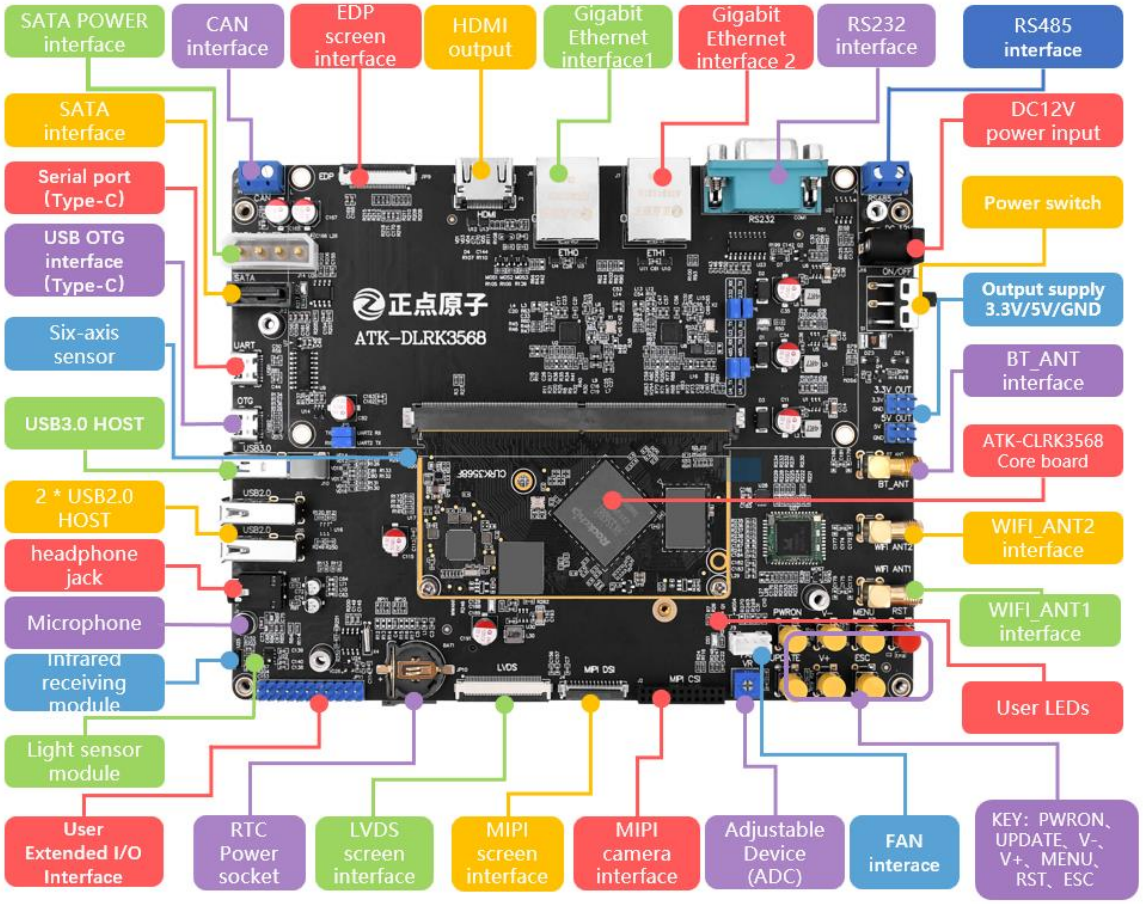

Figure 7-1 The front of the ATK-DLRK3568 development board

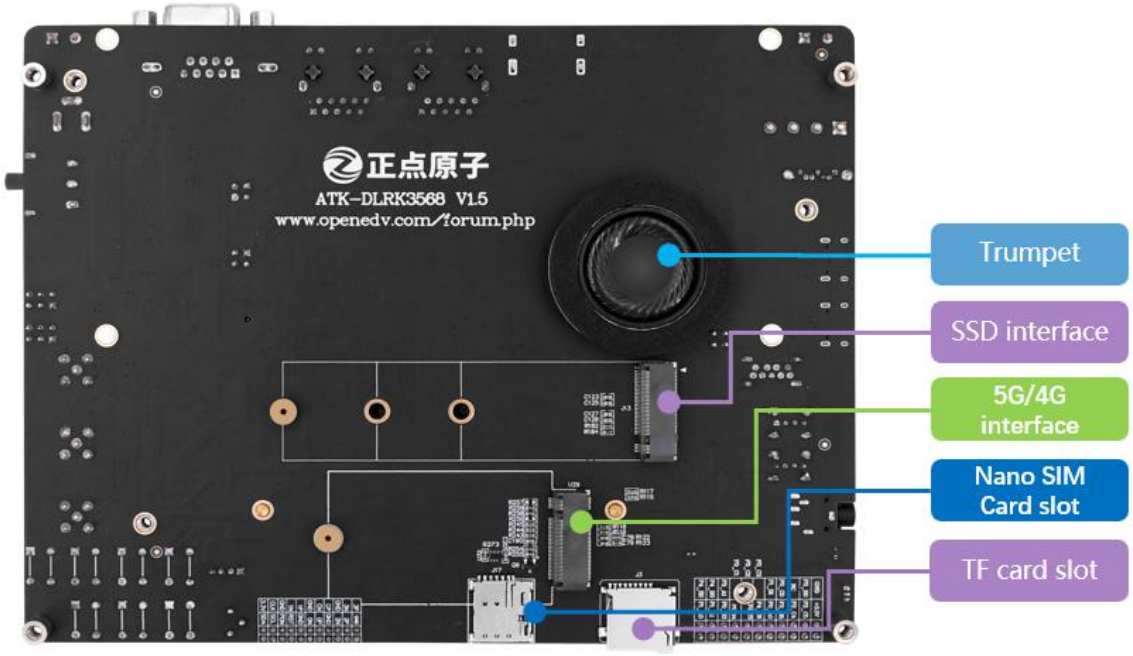

Figure 7-2 The back of the ATK-DLRK3568 development board

7.2 Module Accessories

[MIPI Screen]ALIENTEK 5.5-inch MIPI LCD module with capacitive touch and liquid crystal display, resolution 720*1280

Purchase Link:

https://detail.tmall.com/item.htm?id=691859000787&spm=a8919.3000000002019401.0.1

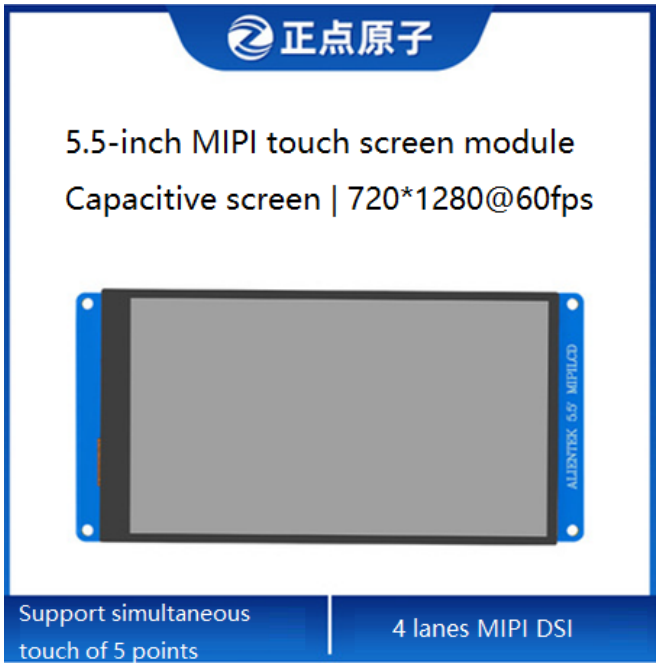

Figure 7-3 ATK-MD0550-720*1280 screen

[MIPI Screen] ALIENTEK 5.5-inch MIPI LCD module with capacitive touch and liquid crystal display, resolution 1080*1920

Purchase Link:

https://detail.tmall.com/item.htm?abbucket=13&id=695359786795&rn=34493d97372125c81b029624161ac168&spm=a1z10.5-b-s.w4011-24686329149.111.5a4248f5mk6CdZ

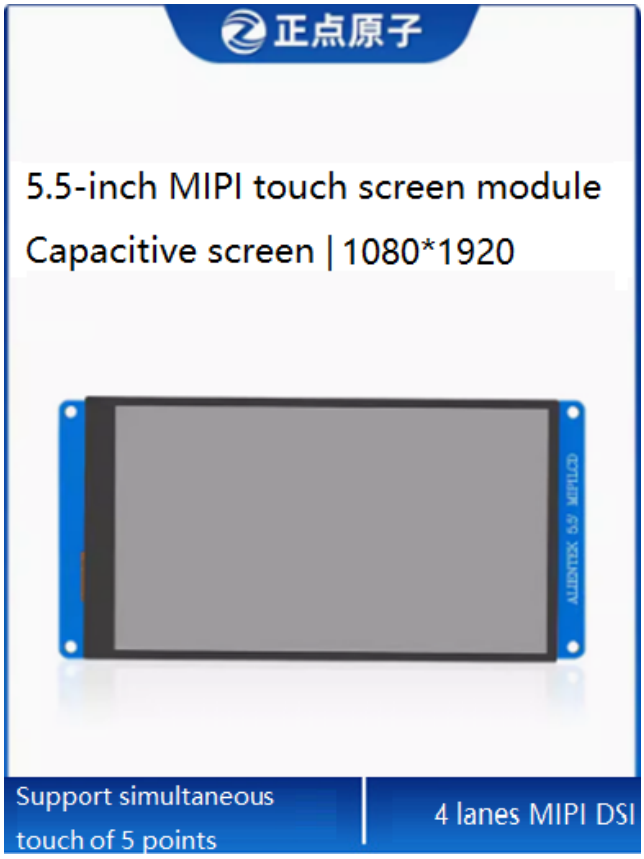

Figure 7-4 ATK-MD0550-1080*1920 screen

[MIPI camera module] ALIENTEK ATK-MCIMX335 with 500W pixels and 2K resolution of 2592*1944.

Purchase Link:

https://detail.tmall.com/item.htm?id=692717223426&spm=a8919.3000000002019401.0.1

Figure 7-5 ATK-MCIMX335 camera

[MIPI camera module] ALIENTEK ATK-MCIMX415 has a resolution of 4K at 3840*2160 with a pixel count of 800.

Purchase Link:

https://detail.tmall.com/item.htm?id=691858740586&spm=a8919.3000000002019401.0.1

Figure 7-6 MCIMX415 camera

ALIENTEK USB Serial Port Converter Tri-Functional Industrial Grade Module 232 485 TTL RS232 RS485

Purchase Link:

https://detail.tmall.com/item.htm?id=609294825344&spm=a8919.3000000002019401.0.1

Figure 7-7 USB serial port converter

ALIENTEK RK3568 core board soldering and fixing kit (7.8H socket, copper posts X2, screws X2)

Purchase Link:

https://detail.tmall.com/item.htm?id=732353699122&spm=a8919.3000000002019401.0.1

Figure 7-8 Core board mounting kit

ALIENTEK RK3568 Development Board Cooling Kit

Purchase Link:

https://detail.tmall.com/item.htm?id=731870580610&spm=a8919.3000000002019401.0.1

Figure 7-9 RK3568 cooling 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