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微信公众平台



让科技更简单,让生活更智能
Make technology more simple,Make life more intelligent

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公司简介 COMPANY PROFILE

Firefly是天启智能科技有限公司成立的开源团队，拥有超过10年科技产品的研发能力，我们专注于开源智能硬件，人工智能，物联网，数字音频产品的研发设计、生产和销售，同时提供了智能硬件产品的整体解决方案。

天启是福州瑞芯微电子(RockChip)正式授权的IDH（独立设计公司），同时也是瑞芯微Rockchip的战略合作伙伴，与瑞芯微电子有超过10年的紧密合作关系。

“让科技更简单，让生活更智能”是Firefly团队的理念，我们希望能通过Firefly的开源产品与技术服务，让各种科技产品的研发变得高效简单，让智能科技融入生活。

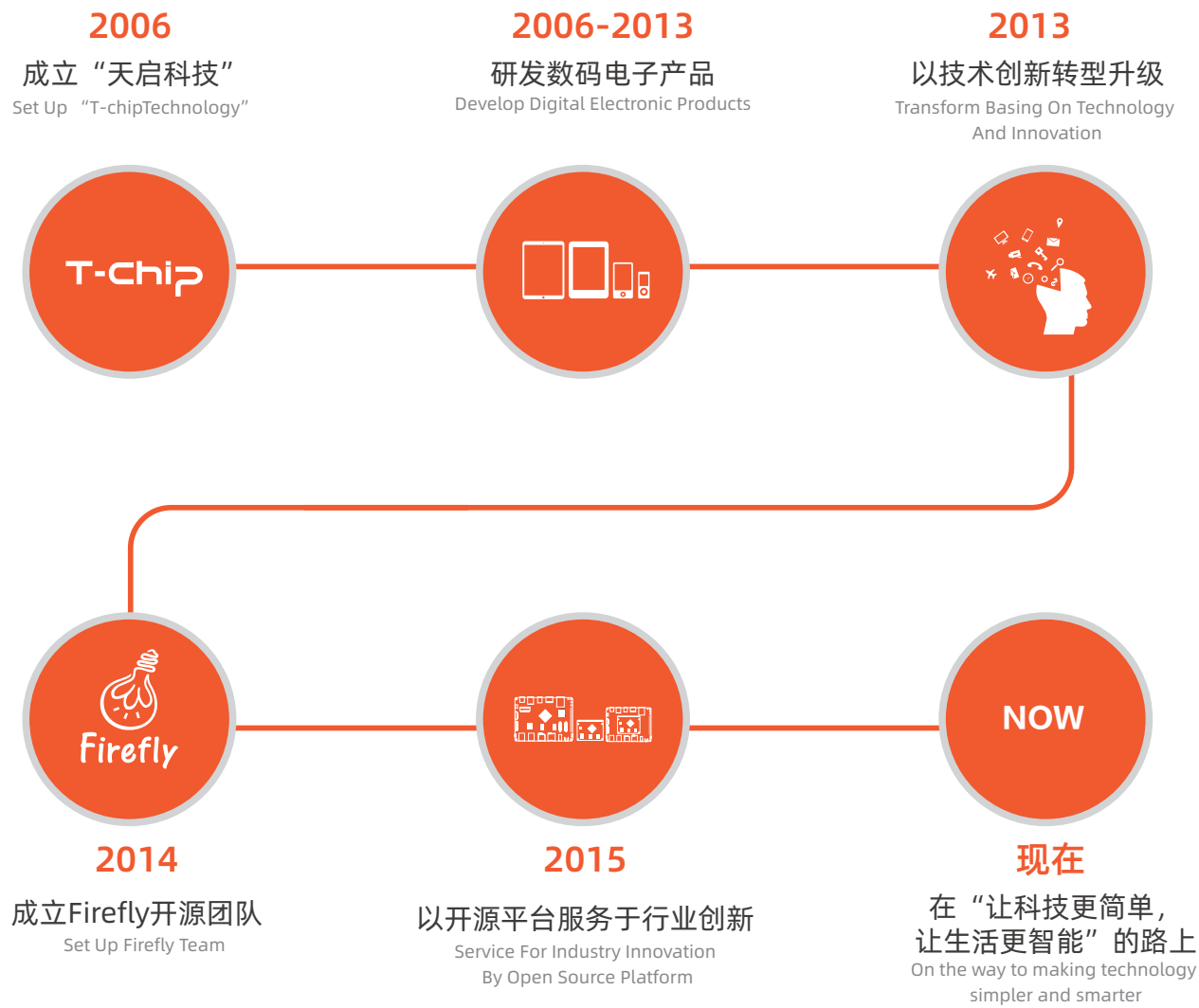
Firefly Open Source Team was set up by T-CHIP Intelligent Technology Co., LTD. ,has more than 10 years of technology research and development capabilities, we focus on open source intelligence hardware, Artificial Intelligence, IoT, digital audio product research and development , production and sales,provide whole solution of intelligent hardware products at the same time.

T-Chip is a IDH (Independent Design House) officially authorized by Rockchip and is also a strategic partner of Rockchip. T-Chip has been working closely with Rockchip for more than 10 years.

“Make technology more simple, Make life more intelligent” is the philosophy of Firefly.We hope to make products development become more efficient and simple through Firefly open source products and technical services, bring smart technology to our life.



发展历程 DEVELOPMENT HISTORY



企业资质 ENTERPRISE QUALIFICATION



技术团队 TECHNICAL TEAM

电路设计、PCB Layout、主板量产
Circuit design/PCB Layout/Mass production



嵌入式设计, Linux、Android 驱动调试
Embedded design/Linux、Android drive debug

Linux、Android等系统的移植调试
Transplant and debug Linux/Android system

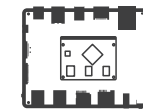


Android, Linux, IOS, WEB应用开发
Android/Linux/IOS/WEB application development

开源平台 OPEN SOURCE PLATFORM

Firefly以硬件为载体, 把十年累积的技术通过互联网的方式, 打造一个开放的开源平台。通过开源板、线上商城、技术开源、互联网社区的建设, 让开发者与科技企业汇聚一起, 提供一个充满科技创意的平台。

Hardware as a carrier, accumulate 10 years of technology, Firefly builds an open-source platform through the Internet. Open-source boards, online shop, technology open-source, and Internet community building to allow developers and technology companies communicated together, to provide them a platform full of technological innovation.



开源主板
Open Source Board



线上商城
Online Shop



技术开源
Technology Open Source



互联网社区
Internet Community



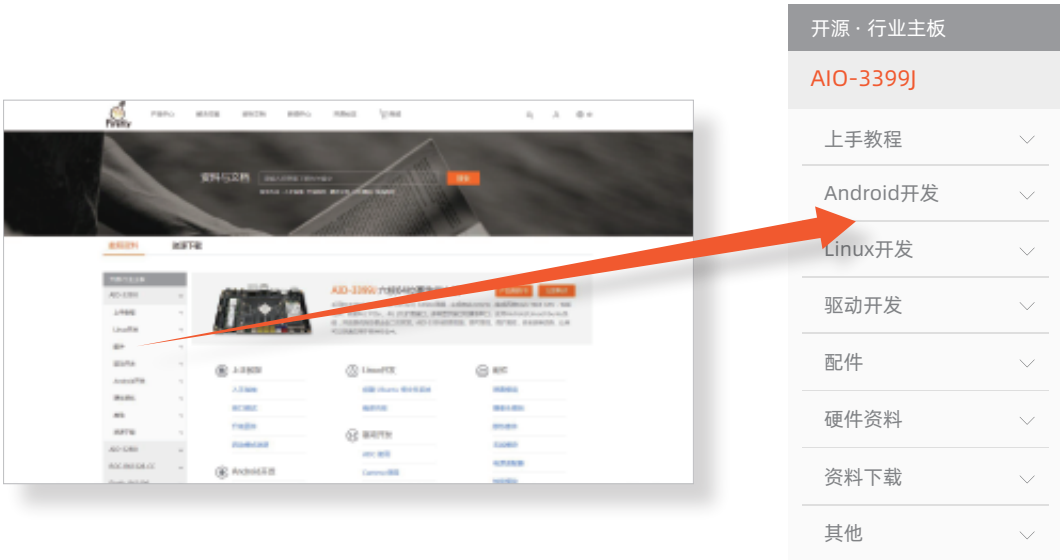
商品种类丰富, 保证原装品质
Variety of products, ensure quality



技术开源

Technology Open Source

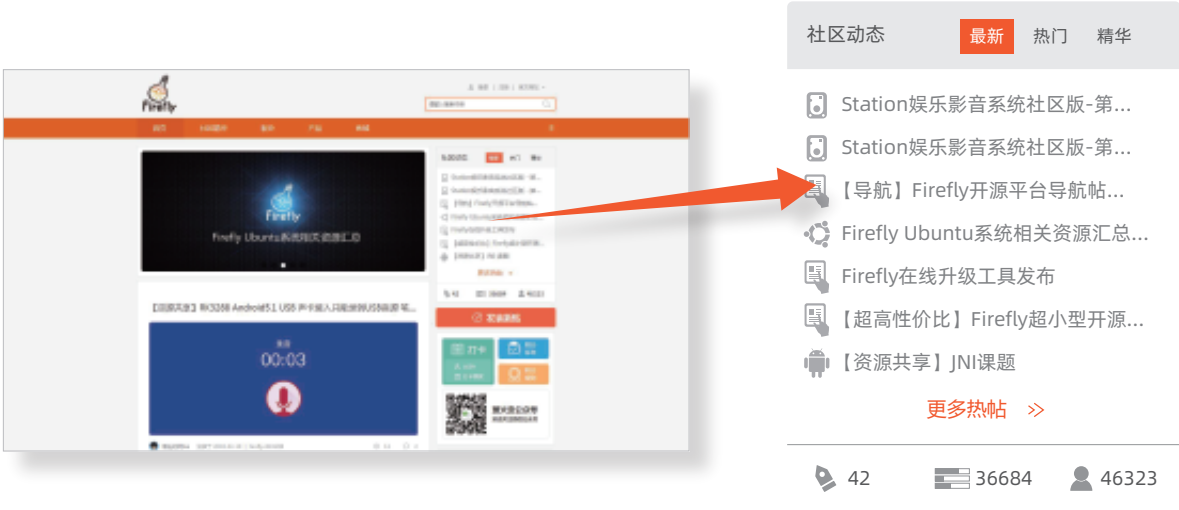
完整的SDK免费开放，配套完善的软硬件资料
Open SDK, complete software and hardware documents



互联网社区

Internet Community

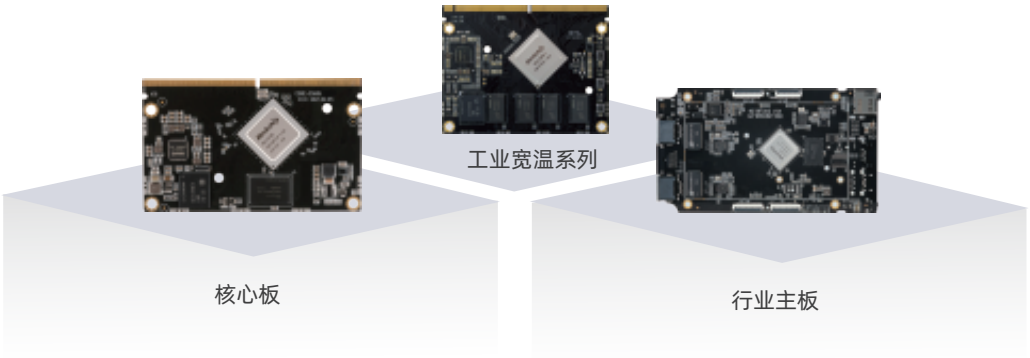
干货集市，学习成长，技术交流，行业动态
Technology exchange, industry trends



主板系列

Main Board Series

高性能，扩展丰富，稳定运行
High performance, rich expansion, stable running



整机系列

Embedded Computer

应用级产品，性能稳定可靠
Application-level products, with stable and reliable performance.



行业解决方案 INDUSTRY SOLUTION

Firefly提供了一站式智能硬件的解决方案。用最新的硬件与软件技术，提供各种灵活的产品定制方式，可极大限度的加速产品项目的进程，同时为研发产品降低开发成本。

Firefly provides one-stop smart hardware solutions. Using the latest hardware and software technologies to provide a variety of flexible product customization, which can greatly accelerate the progress of projects while reducing the development costs for products.



行业定制方式 Industry Customization

为你量身定做的定制方式
Customize for you specially

1.原型扩展
Prototype Expansion

以Firefly开源平台为原型，直接组合而成的产品开发
Firefly open source platform as a prototype, to assemble the product directly.

2.微定制
Micro Customization

以Firefly开源平台为原型，对硬件进行功能增减的产品开发
Firefly open source platform as a prototype, to increase or decrease the functionality of hardware.

3.核心定制
Core Customization

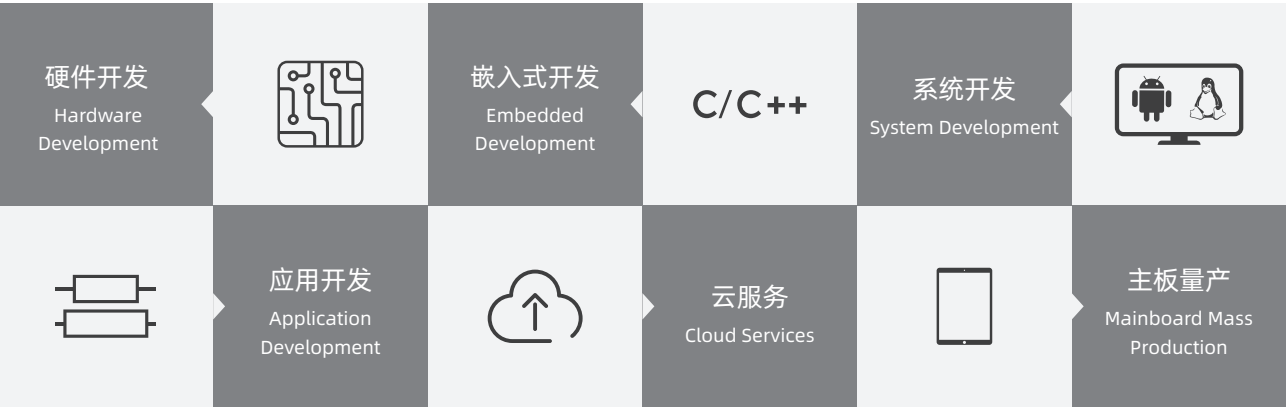
以Firefly核心板+底板为原型，二次开发底板的产品定制
Based on Firefly core board combined with the backplane, for the secondary development backplane.

4.深度定制
Depth Customization

以Firefly现有芯片方案为基础，进行项目合作，深度定制软硬件的开发。
Based on Firefly solutions, to project cooperation, deep customization of software and hardware.

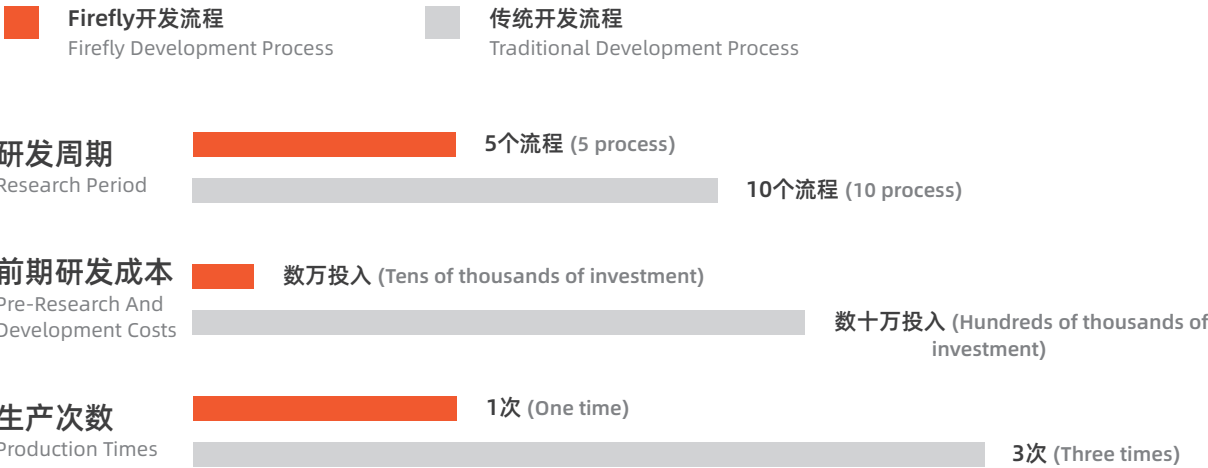
技术方案 Technical Solutions

为你提供软硬件一体化的技术方案
Provide hardware and software integrate solutions



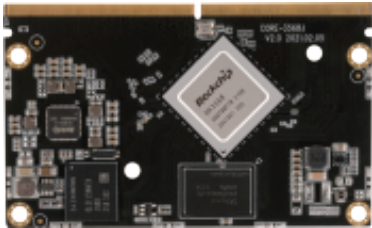
方案优势 Program Advantage

降低研发硬件成本，缩短应用产品研发周期
Reduce R&D hardware costs and shorten application product development cycles



Core-3568J

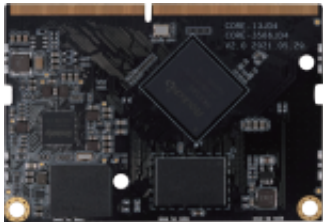
四核64位Cortex-A55 AI核心板 QUAD-CORE 64-BIT CORTEX -A55 AI CORE BOARD



SoC	RockChip RK3568
CPU	Quad-core 64-bit Cortex-A55, 22nm lithography process, frequency up to 2.0GHz
NPU	0.8Tops@INT8, integrated high-performance AI accelerator RKNN NPU Supports one-click switching of Caffe/TensorFlow/TFLite/ONNX/PyTorch/Keras/Darknet
GPU	ARM G52 2EE, Supports OpenGL ES 1.1/2.0/3.2, OpenCL 2.0, Vulkan 1.1 Embedded high-performance 2D acceleration hardware
VPU	Supports 4K 60fps H.265/H.264/VP9 video decoding Supports 1080P 100fps H.265/H.264 video encoding, Supports 8M ISP, supports HDR
RAM	2GB / 4GB / 8GB LPDDR4, 32Bit, frequency up to 1600MHz, supports all-data-link ECC
Storage	32GB / 64GB / 128GB eMMC, Supports M.2 PCIe 3.0 x 1 (Expand with 2242 / 2280 NVMe SSD) Supports SATA 3.0 x 1 (Expand with 2.5" SSD/HDD), Supports TF-Card Slot x1 (Expand with TF card)
OS	Supports Android 11.0, Ubuntu 18.04 OS
Ethernet	Supports dual Gigabit Ethernet ports(1000 Mbps) Among them, LAN (PoE) port supports POE+ (802.3 AT, output power 30W) power supply
Size	82.0 mm x 53.5mm
Type	Gold finger (SODIMM 314P standard interface), 0.5mm pitch, immersion gold technology

Core-3566J

四核64位高性能核心板 QUAD -CORE 64-BIT HIGH-PERFORMANCE CORE BOARD



Soc	RockChip RK3566
CPU	Quad-core 64-bit Cortex-A55, 22nm lithography process, frequency up to 1.8GHz
GPU	ARM G52 2EE Supports OpenGL ES 1.1/2.0/3.2. OpenCL 2.0. Vulkan 1.1 Embedded high-performance 2D acceleration hardware
VPU	Supports 4K 60fps H.265/H.264/VP9 video decoding Supports 1080P 100fps H.265/H.264 video encoding Supports 8M ISP
NPU	0.8Tops@INT8, integrated high-performance AI accelerator RKNN NPU Supports one-click switching of Caffe/TensorFlow/TFLite/ONNX/PyTorch/Keras/Darknet
Storage	32GB / 64GB / 128GB eMMC
RAM	2GB / 4GB / 8GB LPDDR4
OS	Supports Android 11.0, Ubuntu 18.04 OS
Ethernet	Integrated GMAC Ethernet controller Support 10/100/1000Mbps Ethernet(RJ45).
Size	69.6mmx 48mm
Type	Gold finger (SODIMM 260P standard interface), 0.5mm pitch

Core-1126JD4

高性能AI智能视觉核心板 HIGH-PERFORMANCE AI VISION CORE BOARD



高性能
High Performance



高扩展性
High Scalability





高可靠性
High Reliability



多操作系统
Support Multiple OS

SoC	RV1126
CPU	Quad-core ARM Cortex-A7 32-bit, integrates NEON and FPU Each core has a 32KB I-cache, 32KB D-cache and 512KB shared second-level cache Based on RISC-V MCU
NPU	2.0Tops, supports INT8/ INT16, It has strong network model compatibility, can realize the conversion of commonly used AI framework models, eg: Tensor Flow/MXNet/PyTorch/Caffe/...
RAM	1GB / 2GB DDR4
Storage	8GB / 16GB eMMC
Video Encoding	4K H.264/H.265 30fps video encoding, 3840 x 2160@30 fps+720p@30 fps encoding
Display	Supports MIPI-DSI interface, 1080P @ 60 FPS
Ethernet	Supports 10/100/1000M Ethernet,With TSO(TCP Segmentation Offload) network acceleration
WiFi	Via SDIO 3.0 interface
OS	Linux
Size	69.9mm × 33.96mm
Type	Gold Finger (SODIMM 260P standard interface, 0.5mm distance)

Core-3399Pro-JD4

六核高性能AI核心板 SIX-CORE HIGH-PERFORMANCE AI CORE BOARD



高性能
High Performance



高扩展性
High Scalability





高可靠性
High Reliability



多操作系统
Support Multiple OS

SoC	Rockchip RK3399Pro
CPU	Dual-core Cortex-A72+ Quad-core Cortex-A53 big.LITTLE core CPU architecture, frequency up to 1.8GHz
NPU	Support 8bit/16bit operation,Support TensorFlow, Caffe model
GPU	ARM® Mali-T860 MP4 Quad-core GPU, Support OpenGL ES1.1/2.0/3.0/3.1, OpenVG1.1, OpenCL, DX11 Support AFBC (frame buffer compression)
VPU	Support 4K VP9 and 4K 10bits H265/H264 video decoding, up to 60fps 1080P multi-format video decoding (WMV, MPEG-1/2/4, VP8) 1080P video coding, support H.264, VP8 format Video post processor, de-interlacing, de-noising, edge/detail/color optimization
RAM	LPDDR3 (3GB / 6GB)
Storage	High-speed eMMC 5.1 (8GB/16GB/32GB/64GB/128GB)
Ethernet	10 / 100 / 1000 MbpsEthernet interface (RJ45)
Camera	2x MIPI-CSL camera interface
OS	Android 、Linux
Size	69.6mm × 85 mm
Type	Gold finger (SODIMM 260P , 0.5mm pitch)

Core-3399-JD4

六核ARM®高性能核心板 SIX-CORE ARM® HIGH-PERFORMANCE CORE BOARD

	Soc	Rockchip RK3399 (28 nm HKMG manufacture procedure)
	CPU	ARM® Six-core 64-bit processor, frequency up to 1.8GHz Based on the big.LITTLE core architecture, dual-core Cortex-A72(big core)+quad core Cortex-A53(little core)
	GPU	ARM® Mali-T860 MP4 Quad-core GPU,Support OpenGL ES1.1/2.0/3.0/3.1, OpenVG1.1, OpenCL, DX11 Support AFBC(frame buffer compression)
	RAM	2GB LPDDR42GB/4GB
	Storage	8GB high-speed eMMC 5.1

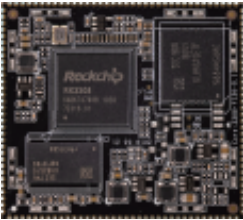
Core-3328-JD4

四核ARM® Cortex-A53 高性能核心板 QUAD-CORE ARM® CORTEX-A53 HIGH-PERFORMANCE CORE BOARD

	Soc	Rockchip RK3328
	CPU	Quad-core ARM® Cortex-A53 64-bit processor, frequency up to 1.5GHz
	GPU	ARM Mali-450 MP2 GPU Support OpenGL ES1.1/2.0, OpenVG1.1
	NPU	AI architecture, computing power 2.8Tops, 9.3Tops/W energy efficiency
	RAM	1GB/2GB/4GB DDR4
	Storage	High-SpeedeMMC5.1 (8GB/16GB/32GB/64GB/128GB) ,Support MicroSD (TF) Card Slot

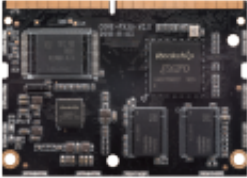
Core-3308Y

IoT四核64位核心板 IoT QUAD-CORE 64-BIT CORE BOARD

	Soc	RK3308 (28nm process)
	CPU	Quad-core 64-bit ARM Cortex-A35, frequency up to 1.3GHz
	RAM	256M DDR3 (128MB ~ 512MB)
	Storage	4GB eMMC : support 4G/8G/16G/32G/64G/128G NandFlash : support 128MB/256MB SPI Flash: 16MB ~ 512 MB Support MicroSD (TF) Card Slot extension

Core-PX30-JD4

四核ARM® Cortex-A35高性能核心板 QUAD-CORE ARM® CORTEX-A35 HIGH-PERFORMANCE CORE BOARD

	Soc	Rockchip PX30
	CPU	Quad-Core ARM® Cortex-A35 processor
	GPU	Mali-G31GPU, Support OpenGL ES3.2, Vulkan 1.0, OpenCL 2.0 Built-in embedded high-performance 2D acceleration hardware
	RAM	DDR3 (1GB/2GB)
	Storage	eMMC 5.1 (8GB/16GB/32GB/64GB/128GB) ,Support MLC NAND

Core-3399J

六核Cortex-A72高性能核心板 SIX-CORE CORTEX-A72 HIGH-PERFORMANCE CORE BOARD

	Soc	Rockchip RK3399 (28nm HKMG Process)
	CPU	Six-Core ARM 64-bit processor, up to 2.0GHz Based on Big.Little architecture, Dual-Core Cortex-A72 and Quad-Core Cortex-A53
	GPU	ARM Mali-T860 MP4 Quad-Core GPU Support OpenGL ES1.1/2.0/3.0/3.1, OpenCL and DirectX 11, Support AFBC
	RAM	Dual-Channel DDR3 - 1333MHz (1GB/2GB/4GB Optional)
	Storage	High-Speed eMMC 5.1 (8GB/16GB/32GB/128GB Optional)

Core-3288J

四核Cortex-A17高性能核心板 QUAD-CORE CORTEX-A17 HIGH-PERFORMANCE CORE BOARD

	Soc	Rockchip RK3288(28nm HKMG Process)
	CPU	ARM® Cortex™-A17 Quad-Core up to 1.8GHz
	GPU	Mali - T760 MP4 quad-core GPU, support AFBC Support OpenGL ES1.1/2.0/3.0/3.1 OpenVG1.1, OpenCL, DX11
	RAM	Dual-Channel DDR3 - 1333MHz (1GB/2GB/4GB Optional)
	Storage	High-Speed eMMC 5.1 (8GB/16GB/32GB/128GB Optional)

ROC-RK3568-PC

四核64位开源主板 QUAD-CORE 64-BIT MINI COMPUTER



丰富的扩展接口

Rich Peripheral Interface

- MIPI-CSI x2
- MIPI-DSI x2
- HDMI 2.0
- EDP

8GB大内存，支持全链路ECC
8GB large RAM, all-data-link ECC



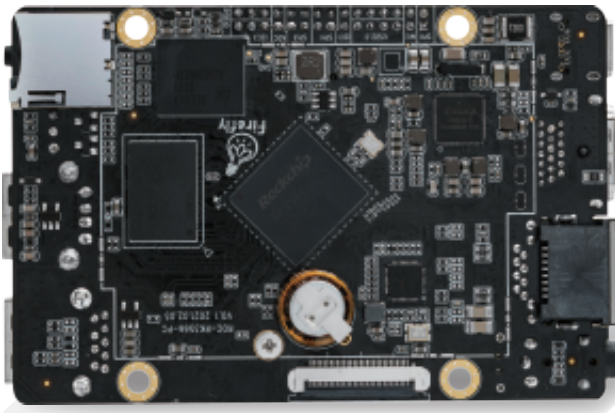
强大的无线网络通讯功能
Powerful wireless network

Wi Fi 6

160MHz 9.6Gbps

ROC-RK3566-PC

四核64位开源主板 QUAD-CORE 64-BIT MINI COMPUTER



丰富的扩展接口

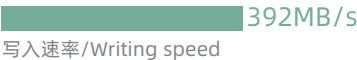
Rich Peripheral Interface

- HDMI2.0
- USB3.0
- MIPI DSI
- I2C
- UART
- PCIe

RK3566四核64位处理器
RK3566 quad-core 64-bit processor

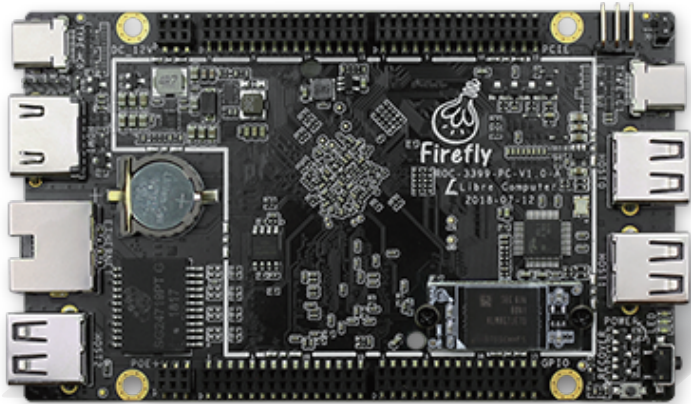


M.2接口扩展存储能力
M.2 interface to expand



ROC-RK3399-PC

六核64位高性能主板 SIX-CORE 64-BIT HIGHN-PERFORMANCE BOARD

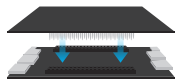


丰富的扩展接口

Rich Peripheral Interface

- MIPI/eDP
- MIPI CSI
- Type-C x 2
- USB 2.0 x 3
- HDMI 2.0
- GPIO

扩展板组合，功能强大
Expansion Board Combination

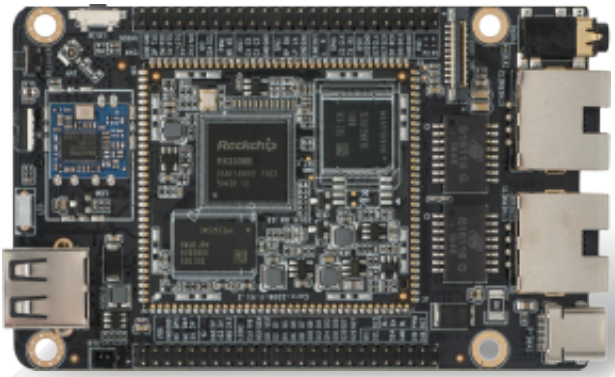


多种供电方式，应用灵活
Multiple Power Supply Modes



ROC-RK3308B-CC-Plus

四核64位AIOT主板 QUAD-CORE 64-BIT AIOT BOARD



丰富的扩展接口

Rich Peripheral Interface

- PWMx3
- I2Cx3
- UARTx3
- SPIx1
- I2Sx1t
- ADCx4
- LineOut

支持多种操作系统与服务
Support Operating Systems And Services

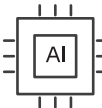
DUEROS AliOS
ROS Buildroot

配置远场麦克风阵列板
Configure Far-field Microphone Array Board



AIO-3568J

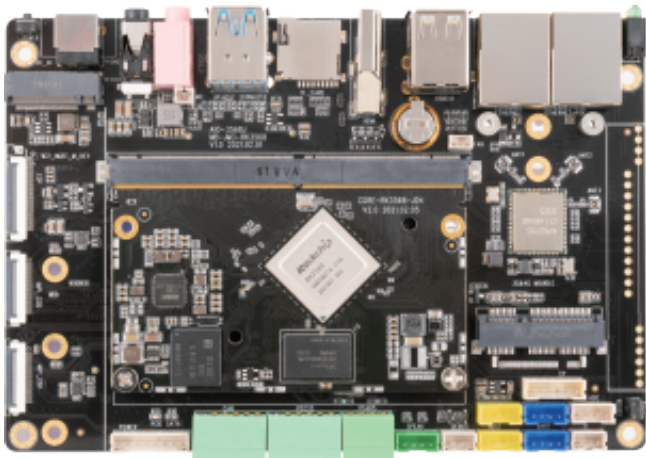
四核高性能主板 QUAD-CORE HIGH-PERFORMANCE MAIN BOARD



高性能
High Performance



高扩展性
High Scalability





双千兆以太网
Dual Gigabit Ethernet

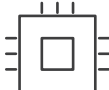


多操作系统
Support Multiple OS

Soc	RockChip RK3568
CPU	Quad-core 64-bit Cortex-A55, 22nm lithography process, frequency up to 2.0GHz
GPU	ARM G52 2EE Supports OpenGL ES 1.1/2.0/3.2, OpenCL 2.0, Vulkan 1.1 Embedded high-performance 2D acceleration hardware
NPU	0.8Tops@INT8, integrated high-performance AI accelerator RKNN NPU Supports one-click switching of Caffe/TensorFlow/TFLite/ONNX/PyTorch/Keras/Darknet
VPU	Supports 4K 60fps H.265/H.264/VP9 video decoding Supports 1080P 100fps H.265/H.264 video encoding Supports 8M ISP, supports HDR
Storage	32GB / 64GB / 128GB eMMC, M.2 PCIe 3.0 x 1, SATA 3.0 x 1, TF-Card Slot x1
RAM	2GB / 4GB / 8GB LPDDR4, 32Bit, frequency up to 1600MHz, supports all-data-link ECC
Interface	Support M.2 PCIe3.0 , SATA 3.0 , IM.2 Expand with 5G, RS232, UART,Mic, IR, TP
OS	Supports Android 11.0, Ubuntu 18.04 OS

AIO-3399ProC

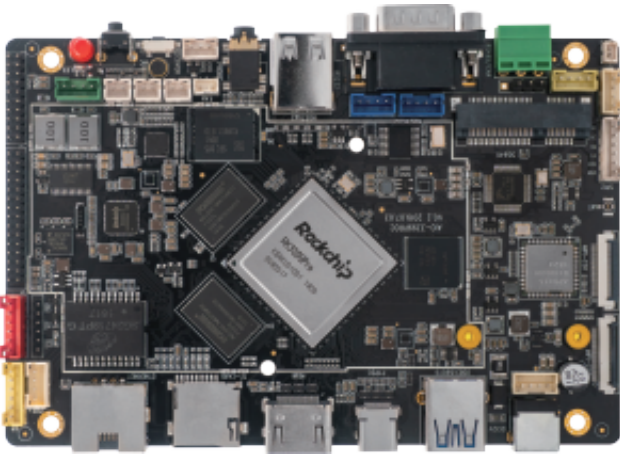
六核高性能主板 SIX-CORE HIGH-PERFORMANCE MAIN BOARD



高性能
High Performance



接口丰富
Rich Interface





高可靠性
High Reliability

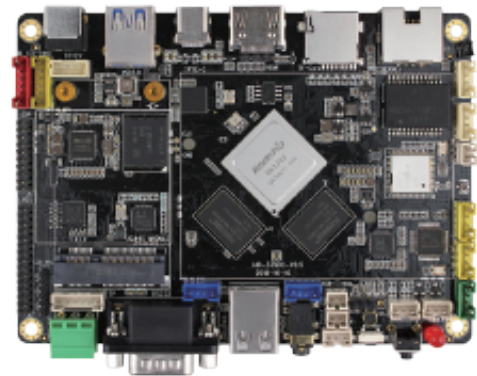


代码开源
Open Source

Soc	Rockchip RK3399Pro
CPU	Dual Cortex-A72+Quad Cortex-A53 CPU architecture, frequency up to 1.8GHz
GPU	ARM® Mali-T860 MP4 Quad-core GPU, Support OpenGL ES1.1/2.0/3.0/3.1, OpenVG1.1, OpenCL, DX11, Support AFBC (frame buffer compression)
NPU	SupporttaBuit-in neural network processor NPU,powerful computing performance: -Supprt 8bit/16bit operation,comuting performace up tp 3.0TOPS. -Compuard with using the traditional GPU as the large chip scheme of AI computing unit, the power consumption of NPU is merely 1% of that of GPU. -Load Caffe/Mxnet/TensorFlow models directly. -Provide AI development tools:Support model fast conversion,support end-to-side API, support TensorFlow/TF Lite/Caffe/ONNX/Darknet models -Provide AI application development interface:Support Android NN API,provide RKNN cross-platform API, Linux support for TensorFlow development. 4K VP9 and 4K 10bits H265/H264 video decoding, up to 60fps 1080P Multi-format video decoding (WMV, MPEG-1/2/4, VP8)1080P video encoding, support H.264, VP8 formats Video post processor: deinterlacing, denoising,edge/ detail/ color optimization
Storage	High-speed eMMC 5.1 (16GB/32GB/64GB128GB).Support TF card expansion
RAM	LPDDR3 3GB (NPU 1GB + CPU 2GB)、LPDDR3 6GB (NPU 2GB + CPU 4GB)
OS	Android 、Linux+QT、Ubuntu

AIO-3399C

六核高性能主板 SIX-CORE HIGH-PERFORMANCE MAIN BOARD



人工智能处理器NPU



强劲算力
2.8TOPS

超高效能
9.3TOPS/W

独特AI架构APiM



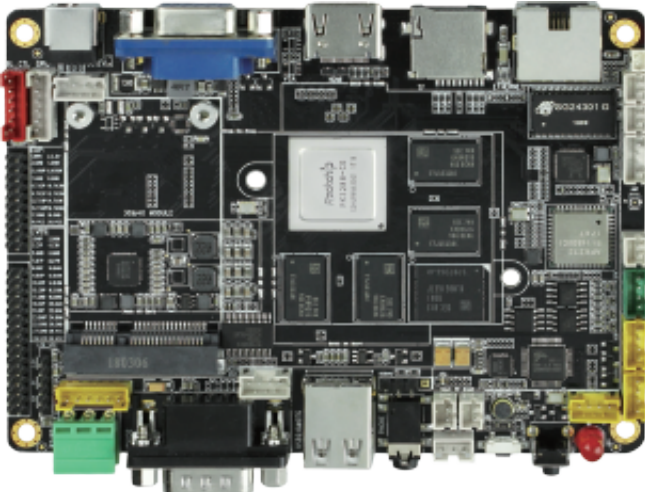
配套模型训练工具



CPU	Dual-core (Cortex-A72) + Quad-core (Cortex-A53) Frequency up to2.0 GHz
GPU	Quad-core ARM Mali-T860 Support OpenGL ES 1.1/2.0 /3.0, OpenVG1.1, OpenCL, Directx11
DDR	2GB / 4GB Dual-Channel LPDDR4
NPU AIO-3399C AI Version	SPR2801S, Adopt MPE and APiM unique AI architecture with computing power 2.8Tops, 9.3Tops/W energy efficiency
Network	RJ45interface Gigabit Ethernet; On-board WIFI/BT module, support 2.4GHz / 5GHz dual-band WiFi, 802.11a/b/g/n/ac protocol; Support Bluetooth 4.1 (Support BLE) ; Mini PCIe
Audio	Headset, LINE-IN, LINE-OUT, Microphone
USB	Type-C(OTG), USB3.0, 4 x USB2.0(Interface x 2, Socket x 2)
OS	Android, Linux, Ubuntu
Framework AIO-3399C AI Version	Support PyTorch , Caffe framework, follow-up support TensorFlow
Tools AIO-3399C AI Version	PLAI model training tool(Support for GNet1, GNet18 and GNetfc network models which based on VGG)
PCB Size	126 mm× 91.3mm

AIO-3288C

四核高性能主板 QUAD-CORE HIGH-PERFORMANCE MAIN BOARD



A17

高性能
High Performance

接口丰富
Rich Interface

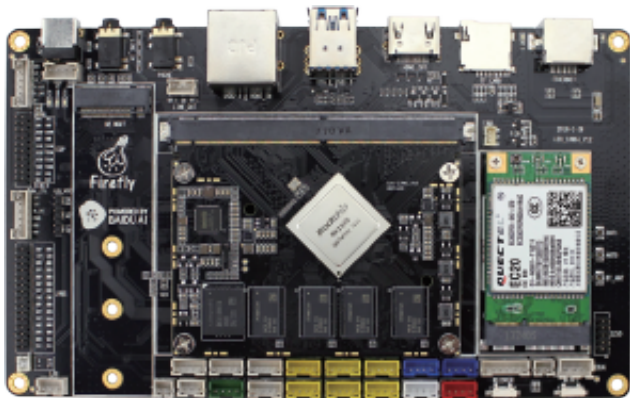
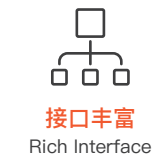
高可靠性
High Reliability

代码开源
Open Source

Soc	Rockchip RK3288		
CPU	Quad-core Cortex-A17, frequencyup to 1.8GHz	Multimedia	Support 4K 10bits VP9/H265/H264 video decoding, up to 60fps; 1080P multi-format video decoding; Support the encoding of 1080P videos with H.264 and VP8 formats; Video post processor: deinterlacing, denoising, edge/ detail/ color optimization
GPU	Mali-T764 GPU, Support AFBC (Frame Buffer Compression) Support OpenGL ES 1.1/2.0/3.1, OpenCL, DirectX9.3 Embedded high-performance 2D acceleration hardware		
DDR	2GB dual channel DDR3	Display	Dual LVDS, eDP1.1, HDMI 2.0 VGA Interface (extensible): Support 1080P@60Hz Output
Storage	8GB eMMC 5.1, Support MicroSD (TF) Card		
Network	10/100/1000Mbps Gigabit Ethernet (RJ45 interface) On-board WIFI/BT module, Support Single frequency WiFi 2.4GHz Support 802.11 b/g/n protocol	Interface	GPIO,eDP, LVDS, USB, ADC, I2C, Key, Voltage input and output interface
Mobile Network	Support WCDMA,EVDO,4G universal version	USB	USB_OTG, USB_HOST, 3xUSBsocket
Camera	2x MIPI-CSI Camera Port	OS	Android, Linux
Audio	HDMI, Headset, Double channel speaker (8Ω/2W)	Power	12V/2A
RTC	Built-in RTC real-time clock (timer switch supported)	PCB Size	126 mm× 91.3mm

AIO-3399J

六核64位高性能主板 SIX-CORE 64-BIT HIGH-PERFORMANCE MAIN BOARD



Soc	Rockchip RK3399
CPU	Six-Core ARM 64-bit processor, up to 1.8GHz Based on Big.Little architecture, Dual-Core Cortex-A72 and Quad-Core Cortex-A53 with separate NEON coprocessor
GPU	ARM Mali-T860 MP4 Quad-Core GPU Support OpenGL ES1.1/2.0/3.0/3.1, OpenCL and DirectX 11,Support AFBC
VPU	Support 4K VP9 and 4K 10bits H265/H264 video decoding, up to 60fps 1080P multi-format video decoding (MVC, mpeg-1/2/4, VP8) 1080P video encoding, which supports h.264, VP8 format Video post-processor: anti-cross, de-noising, edge/detail/color optimization
PMU	RK808 Power management unit
Storage	High-Speed eMMC 5.1 (8GB/16GB/32GB/128GB Optional),MicroSD (TF) Card Slot,PCIE M.2 NGFF , for extend NVMe SSD
RAM	Dual-Channel DDR3 - 1333MHz
Ethernet	10/100/1000Mbps Ethernet (Realtek RTL8211E)
OS	Android 7.1、Android 6.0、Ubuntu 16.04、u-boot

AIO-3288J

四核Cortex-A17高性能主板 QUAD-CORE CORTEX-A17 HIGH-PERFORMANCE MAIN BOARD

	Soc	Rockchip RK3288
	CPU	ARM® Cortex™-A17 Quad-Core up to 1.8GHz
	GPU	ARM® Mali - T760 MP4 quad-core GPU Support OpenGL ES1.1/2.0/3.0/3.1, OpenVG1.1, OpenCL, DX11, AFBC Built-in high-performance 2D acceleration hardware
	RAM	Dual-Channel DDR3 - 1333MHz (1GB/2GB/4GB Optional)
	Storage	High-Speed eMMC 5.1 (8GB/16GB/32GB/128GB Optional) , MicroSD (TF) Card Slot

Firefly-RK3399

六核开源主板 SIX-COER OPEN SOURCE BOARD

	Soc	Rockchip RK3399
	CPU	Six-Core ARM® 64-bit processor, up to 2.0GHz,Based on Big.Little architecture, Dual-Core Cortex-A72 and Quad-Core Cortex-A53 with,separate NEON coprocessor
	GPU	ARM Mali-T860 MP4 Quad-Core GPU Completely compatible with OpenGL ES1.1/2.0/3.0/3.1, OpenCL and DirectX 11.1,Support AFBC
	Memory	2GB/4GB Dual-Channel DDR3
	Storage	16GB/32GB/128GB High-Speed eMMC

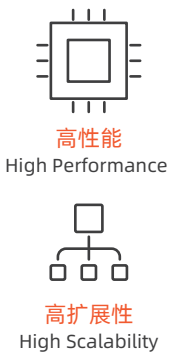
Firefly-RK3288

高性能开源主板 HIGH PERFORMANCE OPEN SOURCE BOARD

	Soc	Rockchip RK3288(28nm HKMG Process)
	CPU	ARM® Cortex™-A17 Quad-Core up to 1.8GHz
	GPU	ARM® Mali-T760 MP4 Support OpenGL ES1.1/2.0 /3.0, OpenVG1.1, OpenCL, Directx11 Embedded high performance 2D hardwareSupports H.264 10bits and H.265 4K videodecoding, 1080P multi format video decoding1080P video encoding, supports H.264, VP8 and MVC
	RAM	2GB/4GB Dual-Channel DDR3
	Storage	16GB/32GB eMMC, TF Card, SATA 2.0(Only Firefly-RK3288 Reload)

EC-A3568J

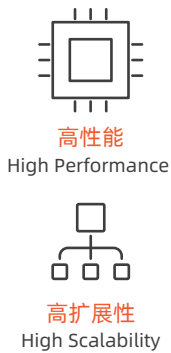
四核64位AI嵌入式主机 QUAD-CORE 64-BIT AI EMBEDDED COMPUTER



Soc	RockChip RK3568
CPU	Quad-core 64-bit Cortex-A55, 22nm lithography process, frequency up to 2.0GHz
GPU	ARM G52 2EE Supports OpenGL ES 1.1/2.0/3.2, OpenCL 2.0, Vulkan 1.1 Embedded high-performance 2D acceleration hardware
NPU	0.8Tops@INT8, integrated high-performance AI accelerator RKNN NPU Supports one-click switching of Caffee/TensorFlow/TFLite/ONNX/PyTorch/Keras/Darknet
VPU	Supports 4K 60fps H.265/H.264/VP9 video decoding Supports 1080P 100fps H.265/H.264 video encoding Supports 8M ISP, supports HDR
RAM	2GB / 4GB / 8GB LPDDR4 32Bit, frequency up to 1600MHz, supports all-data-link ECC
Storage	32GB / 64GB / 128GB eMMC M.2 PCIe 3.0 × 1 (Supports 2242 / 2280 NVMe SSD) SATA 3.0 × 1 (Supports 2.5" SSD/HDD) TF-Card Slot x1 (Supports TF card expansion)
OS	Supports Android 11.0, Ubuntu 18.04 OS
Size	179 mm x 105.2 mm x 41.5 mm

EC-R3566PC

四核64位嵌入式主机 QUAD-CORE 64-BIT EMBEDDED COMPUTER



Soc	RockChip RK3566
CPU	Quad-core 64-bit Cortex-A55, 22nm lithography process, frequency up to 1.8GHz
GPU	ARM G52 2EE Supports OpenGL ES 1.1/2.0/3.2, OpenCL 2.0, Vulkan 1.1 Embedded high-performance 2D acceleration hardware
NPU	0.8Tops@INT8, integrated high-performance AI accelerator RKNN NPU Supports one-click switching of Caffee/TensorFlow/TFLite/ONNX/PyTorch/Keras/Darknet
VPU	Supports 4K 60fps H.265/H.264/VP9 video decoding Supports 1080P 100fps H.265/H.264 video encoding Supports 8M ISP
RAM	1GB / 2GB / 4GB / 8GB LPDDR4 32Bit,supports all-data-link ECC
Storage	8GB / 16GB / 32GB / 64GB eMMC M.2 PCIe 2.0 × 1 (Supports 2242 NVMe SSD) TF-Card Slot x1 (Expand with TF card)
OS	Android 11.0, Ubuntu 18.04, Buildroot + QT, Station OS
Size	93.5mm × 82mm × 20mm

iHC-3308GW

工业4G智能网关 INDUSTRIAL 4G SMART GATEWAY

	Soc	RK3308B
	CPU	Quad-core 64-bit ARM Cortex-A35, frequency 1.3GHz
	RAM	256M DDR3 (128MB ~ 512MB optional)
	Storage	4GB eMMC: Supports 4G/8G/16G/32G/64G/128G SPI Flash: Supports 16MB ~512 MB Supports MicroSD (TF) Card Slot expansion

EC-A3399ProC

六核64位AI嵌入式主机 SIX-CORE 64-BIT AI EMBEDDED COMPUTER

	Soc	Rockchip RK3399Pro
	CPU	Rockchip RK3399Pro, Dual-core Cortex-A72+ Quad-core Cortex-A53 big. LITTLE core CPU architecture,frequency up to 1.8G Hz
	GPU	ARM® Mali-T860 MP4 Quad-core GPU Support OpenGL ES1.1/2.0/3.0/3.1, OpenVG1.1, OpenCL, DX11 Support AFBC (frame buffer compression)
	Storage	High-speed eMMC 5.1 (16GB/32GB/64GB/128GB) Support TF card expansion

EC-A3399C

六核小型嵌入式主机 SIX-CORE MINI EMBEDDED COMPUTER

	Soc	Rockchip RK3399
	CPU	Dual-core(Cortex-A72)+ Quad-core(Cortex-A53), frequency up to 1.8 GHz
	GPU	Quad-core ARM Mali-T860 Support OpenGL ES 1.1/2.0/3.0, OpenVG1.1, OpenCL, Directx11
	DDR	2GB/4GB LPDDR4
	Storage	High-Speed eMMC, TF Card Slot

EC-R3328PC

四核64位迷你一体机 QUAD-CORE 64-BIT MINI EMBEDDED COMPUTER

	Soc	Rockchip RK3328
	CPU	Quad-core ARM® Cortex-A53 64-bit processor, frequency up to 1.5GHz
	GPU	ARM Mali-450 MP2 GPU , Support OpenGL ES1.1/2.0, OpenVG1.1
	RAM	2GB DDR3 (1GB/2GB/4GB Option)
	Storage	8GB High-speed eMMC5.1 (8GB/16GB/32GB/64GB/128GB Option) Support MicroSD (TF) Card Slot

EC-A3288C

四核小型嵌入式主机 QUAD-CORE MINI EMBEDDED COMPUTER

	Soc	Rockchip RK3288
	CPU	Quad-core Cortex-A17 , frequency up to 1.8GHz
	GPU	Mali-T764 GPU,Support AFBC, OpenGL ES 1.1/2.0/3.1, OpenCL, DirectX9.3 Embedded high-performance 2D acceleration hardware
	DDR	2GB dual channel DDR3
	Storage	8GB eMMC 5.1, Support MicroSD (TF) Card

EC-R3308CC

迷你工控主机 MINI INDUSTRIAL PC

	Soc	RK3308B (28nm process)
	CPU	Quad-core 64-bit ARM Cortex-A35, frequency up to 1.3GHz
	RAM	512M DDR3 (128MB ~ 512MB)
	Ethernet	Dual RJ45 Ethernet ports (100M bps)
	Storage	4GB eMMC (4G/8G/16G/32G/64G/128G), Support MicroSD (TF) Card Slot expansion

IPC-M10R800-A3568J

10.1寸AI智能行业平板 AI INDUSTRIAL TABLET PC



双千兆以太网
Dual Gigabit Ethernet



10.1寸IPS高清LCD屏
10.1 inch IPS HD LCD screen



人脸识别，高准确率
Face recognition, high accuracy

200ms
识别速度
Recognition speed

99.77%
识别准确率
Recognition accuracy

Soc	RockChip RK3568
CPU	Quad-core 64-bit Cortex-A55, 22nm lithography process, frequency up to 2.0GHz
GPU	ARM G52 2EE, Supports OpenGL ES 1.1/2.0/3.2, OpenCL 2.0, Vulkan 1.1 Embedded high-performance 2D acceleration hardware
RAM	2GB / 4GB / 8GB LPDDR4, Supports all-data-link ECC
Storage	32GB/64GB/128GB eMMC Supports M.2 NVMe SSD (M.2 PCIe 3.0, 2242/2280 NVMe) Supports 2.5" SSD/HDD (7mm, SATA3.0) Supports TF-Card
OS	Supports Android 11.0, Ubuntu 18.04
Ethernet	Supports dual Gigabit Ethernet (1000 M bps) LAN (PoE) supports POE+ (802.3 AT, output power 30W) power supply



IPC-M10R800-A3399C

六核工业级行业平板
SIX-CORE INDUSTRY PANEL COMPUTER

六核64位强芯
Six-Core 64-Bit
Processor



IPS高端屏幕
IPS High-End Screen



电容10点触控
Capacitive 10-Point
Touch



Soc: Rockchip RK3399
CPU: Dual-core(Cortex-A72) + Quad-core(Cortex-A53),
frequency up to 1.8 GHz
GPU: Quad-core ARM Mali-T860
Support OpenGL ES 1.1/2.0 /3.0, OpenVG1.1, OpenCL,
Directx11
DDR: 2GB/4GB Dual-channel LP DDR4
NPU: AI architecture, computing power 2.8Tops,
with 9.3Tops/W energy efficiency
Storage: 8GB / 16GB High-Speed eMMC, TF Card
Network: Gigabit Ethernet (RJ45 interface)
On-board WIFI/BTmodule, support 2.4GHz/
GHzdual-band WiFi, 802.11a/b/g/n/ac protocol,
Bluetooth 4.1, Mini PCIe



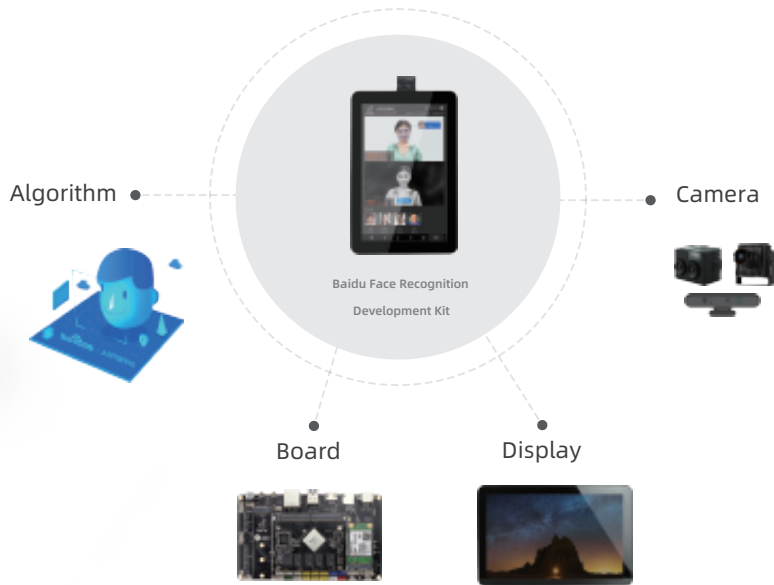
人脸识别套件

FACE RECOGNITION DEVELOPMENT KIT

一站式人脸识别开发
DEVELOPMENT FOR ONE-STOP FACE RECOGNITION

仅需一个套件，可一站式轻松解决人工智能算法、硬件、软件的开发，加速人工智能产品落地

It needs only one kit to easily solve the problems of artificial intelligence algorithm, hardware and software development, and accelerate the landing of artificial intelligence products.



智能IoT开发套件

INTELLIGENT IOT DEVELOPMENT KIT

微型IoT主板搭配高分辨率显示屏，组合成高性能智能IoT开发套件，支持多种IoT系统、语音系统和服务，以及Buildroot+Qt应用开发，拥有丰富的扩展接口，可快速应用于IoT智能物联网、智能语音识别、人机界面、工业控制、智能机器人等领域。

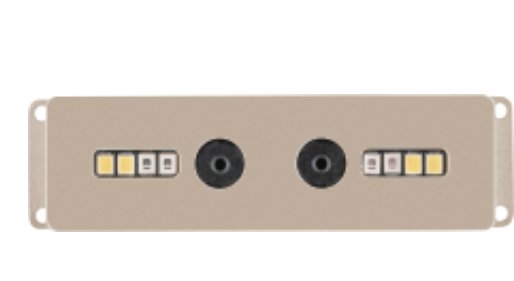
The micro IoT main board with a high-resolution display is combined into a high-performance intelligent IoT development kit that supports various IoT systems, audio systems and services, and Buildroot+Qt application development. With rich expansion interfaces, it can be quickly applied to intelligent IoT, intelligent Automatic Speech Recognition (ASR), Human Machine Interaction(HMI), industrial control, intelligent robot, etc.



Soc	RK3308B (28nm process)
CPU	Quad-core 64-bit ARM Cortex-A35, frequency up to 1.3GHz
RAM	256M DDR3(128MB ~ 512MB)
Storage	4GB eMMC : support 4G/8G/16G/32G/64G/128G NandFlash : support 128MB/256MB SPI Flash : support 16MB ~512 MB Support MicroSD (TF) Card Slot extension
Internet	10M/100M bps Ethernet (RJ45 interface)
Screen	Support 4-inch IPS full view screen/7-inch IPS full view screen
Size	95.15mm × 60.00 mm

CAM-C1126S2U智能双目摄像模组

CAM-C1126S2U INTELLIGENT DUAL-LENS CAMERA MODULE



配置四核高性能AI智能视觉处理器，算力高达2.0Tops，支持4K视频编解码，多种AI框架以及活体检测，识别准确率高，可适用于人脸识别、闸机门禁、手势识别、表情识别、人脸属性分析等场景；开放配套资料，便于二次开发，助力项目快速落地

Equipped with high-performance quad-core AI intelligent vision processor with computing power up to 2.0Tops, the module supports 4K video coding and decoding, various AI frameworks and human detection with high recognition accuracy — it is suitable for face recognition, gate access control, gesture recognition, expression recognition, face attribute analysis, etc. Abundant resources facilitate secondary development and help the project to be implemented quickly.

强大的AI运算能力

Various AI frameworks



高效识别，高准确率

Efficient recognition, high accuracy



99.7%

识别准确率/Recognition accuracy

<200ms

识别速度/Recognition speed

AI视觉大脑，主从一体

Master & slave integration



Soc	RV1126
CPU	Quad-core ARM Cortex-A7 32-bit, frequency 1.5GHz, integrate NEON and FPU Each core has a 32KB I-cache, 32KB D-cache and 512KB shared second-level cache Based on RISC-V MCU
RAM	1GB / 2GB DDR4
Storage	8GB / 16GB eMMC
NPU	Computing power up to 2.0Tops, supports INT8/ INT16, It has strong network model compatibility and provides RKNN tool, which can realize the conversion of commonly used AI framework models Eg: (caffe, darknet, mxnet, onnx, pytorch, tensorflow, tf lite) and algorithm support
OS	Linux
Size	84.0mm × 22.45mm × 19.35mm

C40PL开源AI智能摄像机

C40PL OPEN SOURCE AI CAMERA



采用AI视觉处理器RV1126，算力高达2.0Tops，支持H.265多路编解码；配置400w像素镜头，支持高动态HDR和红外夜视，高灵敏度成像；可应用于智能安防、智能人脸、人脸抓拍、车牌识别、客流量监控等场景

AI vision processor RV1126 is equipped, whose computing power is up to 2.0 Tops and supports H.265 multi-channel video encoding and decoding. And the installed 4M pixel camera supports HDR and infrared night vision, providing high-sensitivity imaging. It can be widely used in smart security, smart face recognition, face capture, license plate recognition, human flow monitoring, etc.

智能安防

Smart security



车牌识别

License Plate Recognition



人面识别

Face capture



Type	C40PL Open Source AI Camera
Resolution	1520P (2688×1520, 4M pixel)
Focal Length	5.2mm (Range: 1.18m ~ 6.38m)
CPU	RV1126 quad-core ARM Cortex-A7 32-bit kernel, integrated with NEON and FPU
NPU	2.0Tops, supports INT8/ INT16 Strong network model compatibility, easy conversion of framework like Tensor Flow/MXNet/PyTorch/Caffe
RAM	2GB DDR4
Storage	16GB eMMC
Intelligent Alarming	Motion detection, intrusion detection, covering detection
Mode	Supports Day/Night mode switching, Fill Light mode
Protocol	Supports RTSP/RTMP

Cluster Server R1

标准1U机架式服务器，以多块核心板组合方式搭载AI加速集群平台，可选择1~11片的不同数量、性能和配置的核心板进行集群运算，支持多种操作系统，提供标准的软硬件接口。

Standard 1U rack-mounted server, the AI acceleration cluster platform by means of multi-core board combination, 1 to 11 core boards with different numbers, performance and configuration can be for cluster computing, support multiple operating systems, and with standard interfaces.



超低功耗
Low power

高性价比
Low cost

Cluster Server R2

标准2U机架式服务器，全热插拔高密度设计，可选择不同数量、性能和配置的核心板，最高可配72块RK3399计算模块，高达432核1.8GHz的计算能力，稳定运行Android、Ubuntu、Linux系统，并支持二次开发。

Standard 2U rack-mounted server, support hot-swapping, different numbers, performance and configuration of core boards are optional, up to 72pcs RK3399 computing modules with up to 432 core 1.8GHz computing power, stable operation of Android, Ubuntu Linux system, and support secondary development.



高密度
High-density

支持热插拔
Hot Swap

多核心处理器 Multi-core processor



多系统支持 Multiple OS



BMC管理控制器 BMC Management System



应用领域 Application



桌面虚拟化
Desktop virtualization



云手机
Cloud mobile phone



区块链
Block Chain



在线视频服务器
Online video server



合作伙伴 PARTNERS

应用案例 APPLICATIONS



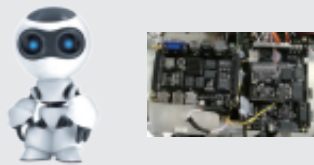
新零售设备
New Retail Equipment



工业主机
Industrial Host



互动广告机
Advertising Machine



人工智能
Artificial Intelligence



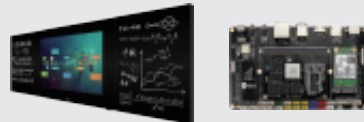
双屏POS机
POS Machine



人脸识别闸机
Face Recognition Device



自助设备
Self-Service Equipment



智能数字班牌
Smart Digital Class Card



更多领域
More Areas

ARM

Google

Baidu 百度

Rockchip
瑞芯微电子

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