



Make Technology More Simple
Make life More Intelligent

T-CHIP INTELLIGENT TECHNOLOGY CO.,LTD.

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>> All Made in China

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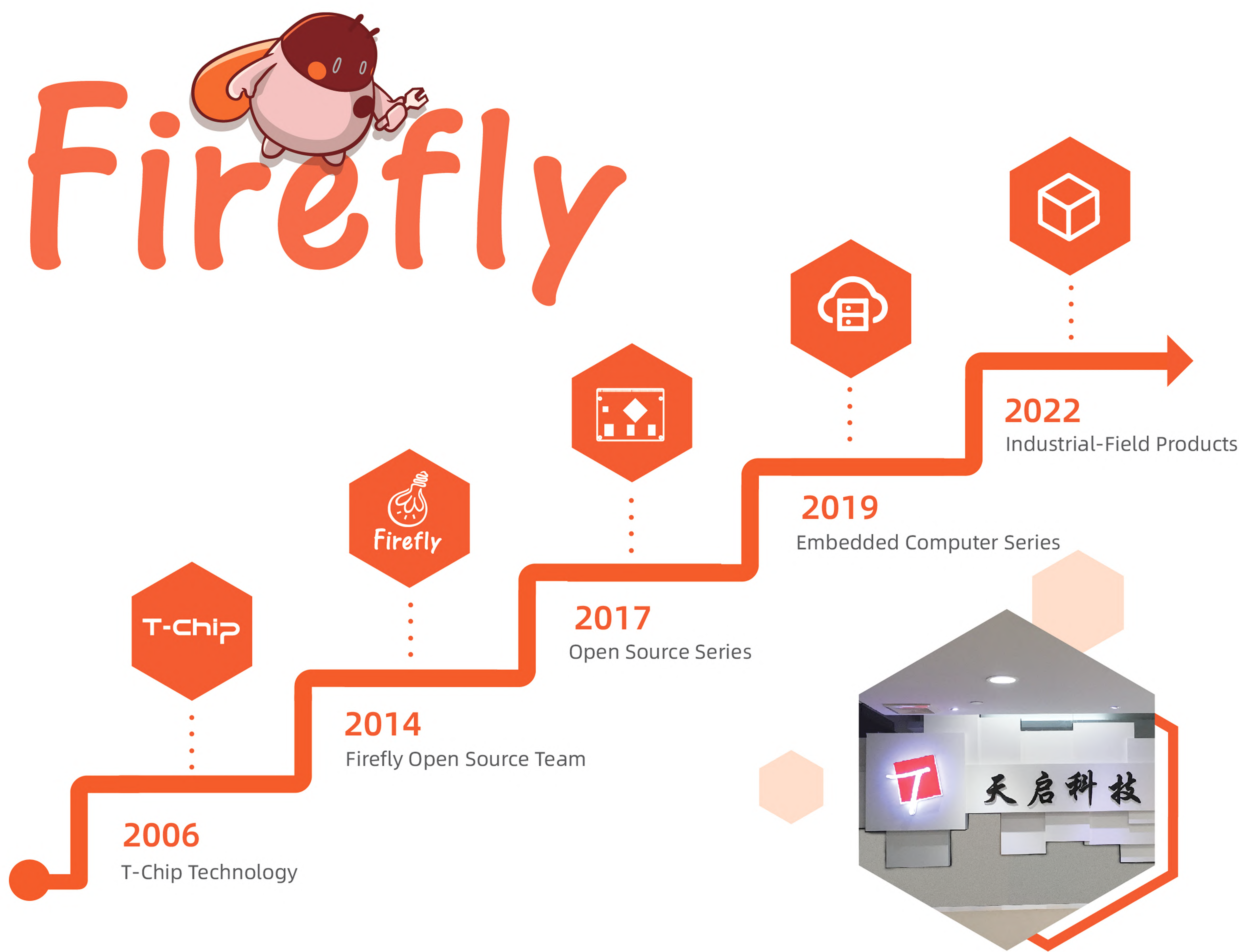
COMPANY PROFILE



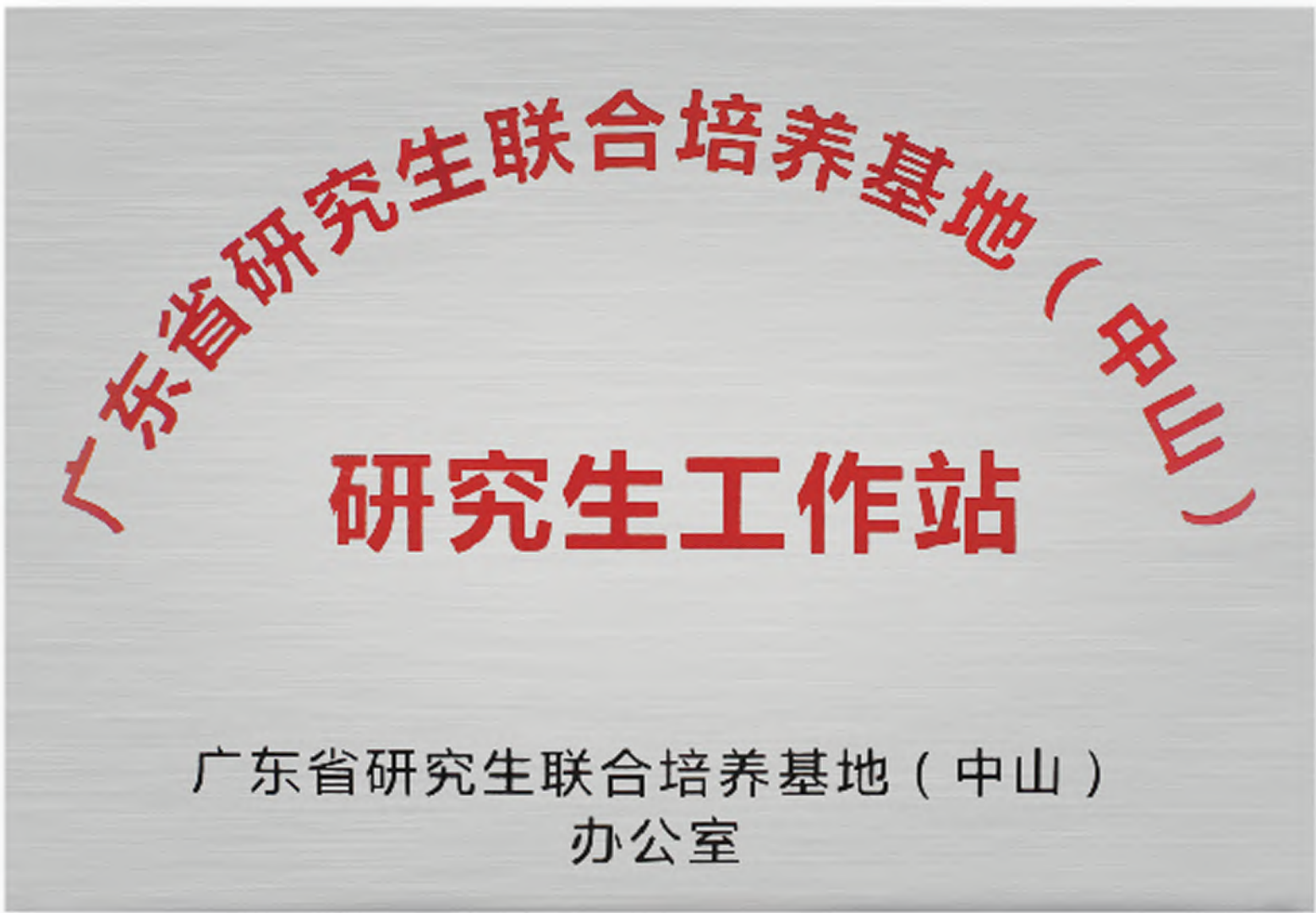
Firefly is an open source brand launched by T-Chip Intelligent Technology Co.,Ltd. with more than 15 years’ R&D experience for technology products. We focus on R&D, design, production and sale of intelligent hardware, AI, IoT and audio products and provide the whole solution of intelligent hardware products. We have a wide range of products, providing intelligent devices such as professional servers, industrial tablets, and embedded computers. Standardized embedded PCBs including core boards, embedded mainboards, industrial mainboards, automotive-grade mainboards, and more are available. Our products can be widely applied to AIoT, Artificial Intelligence, intelligent industry, edge computing, and more.

T-CHIP is an Independent Design House officially authorized by RockChip and its strategic partner. We have been working closely with RockChip for over 15 years. “Make technology more simple, Make life more intelligent” is Firefly’ s philosophy. We hope that technology products will become efficient and simple and will be integrated into everyday life through Firefly's open source products and technical services.

DEVELOPMENT HISTORY

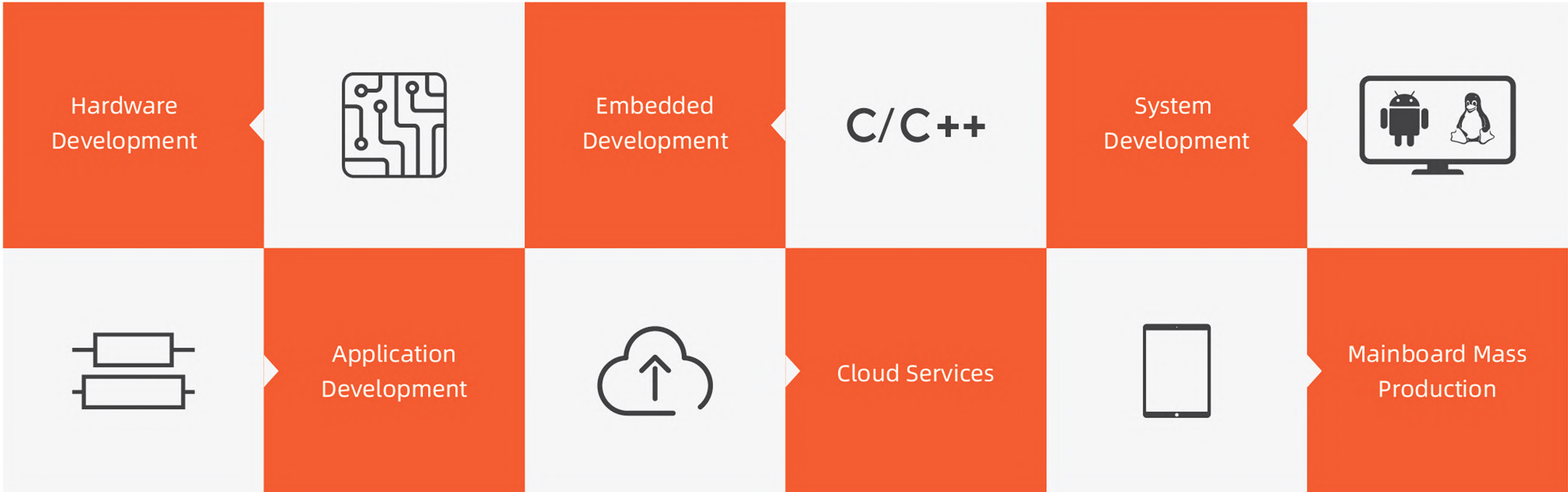


ENTERPRISE QUALIFICATION



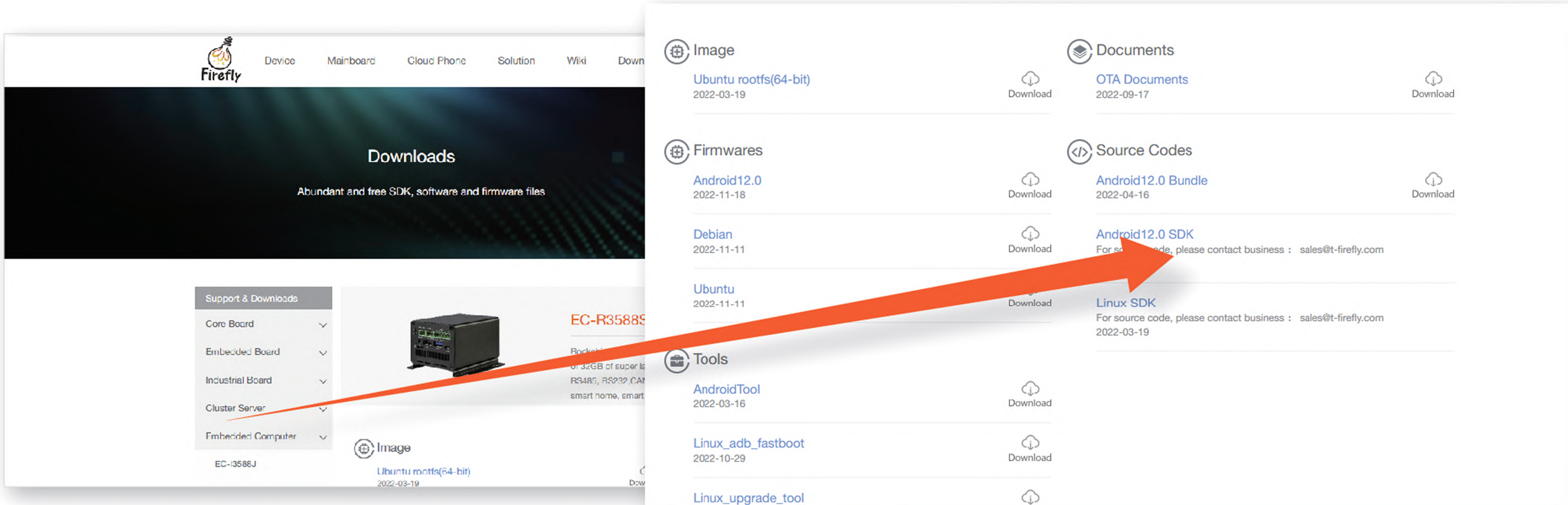
Research And Development

T-Chip has more than 100 employees, of which technical personnel account for up to 80%. They are proficient in hardware development, embedded development, system development, application development, cloud services, mass production of mainboard and product design. With a decade of experience in the electronics industry, we can provide strong technical support for each product and make it full of innovation.



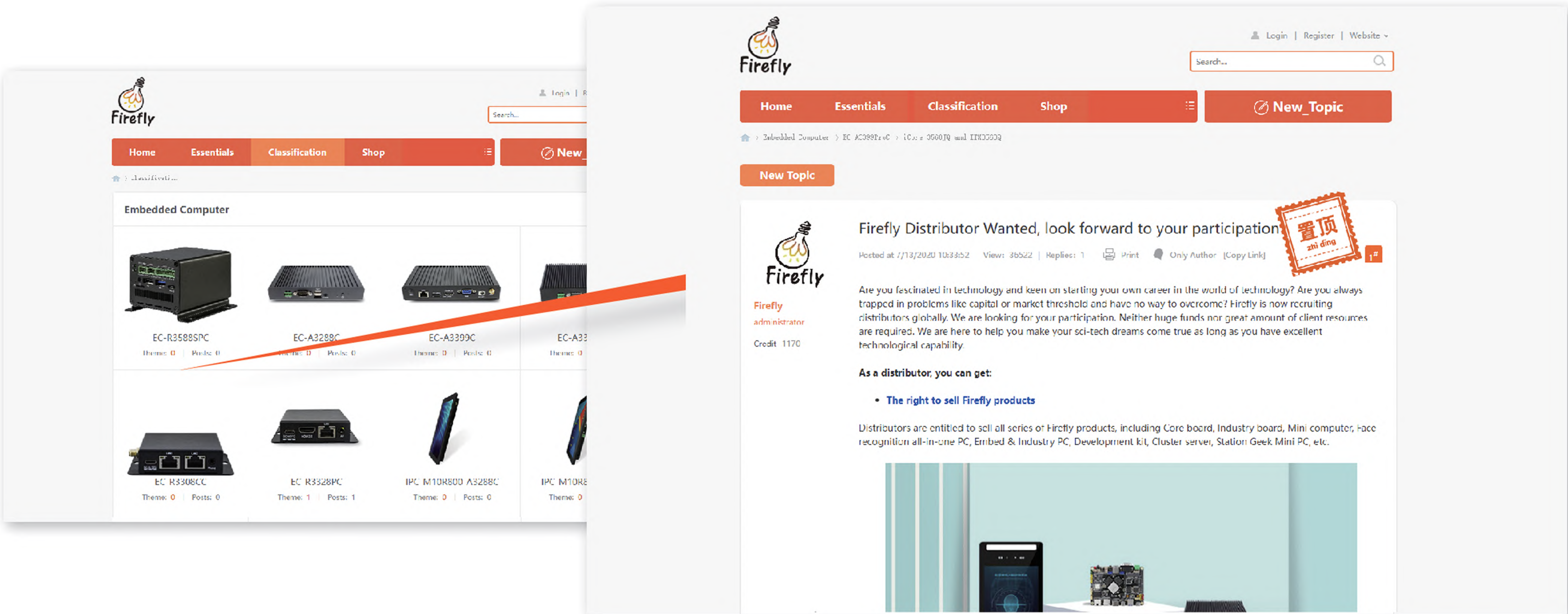
Technology Open Source

Open SDK, complete software and hardware documents



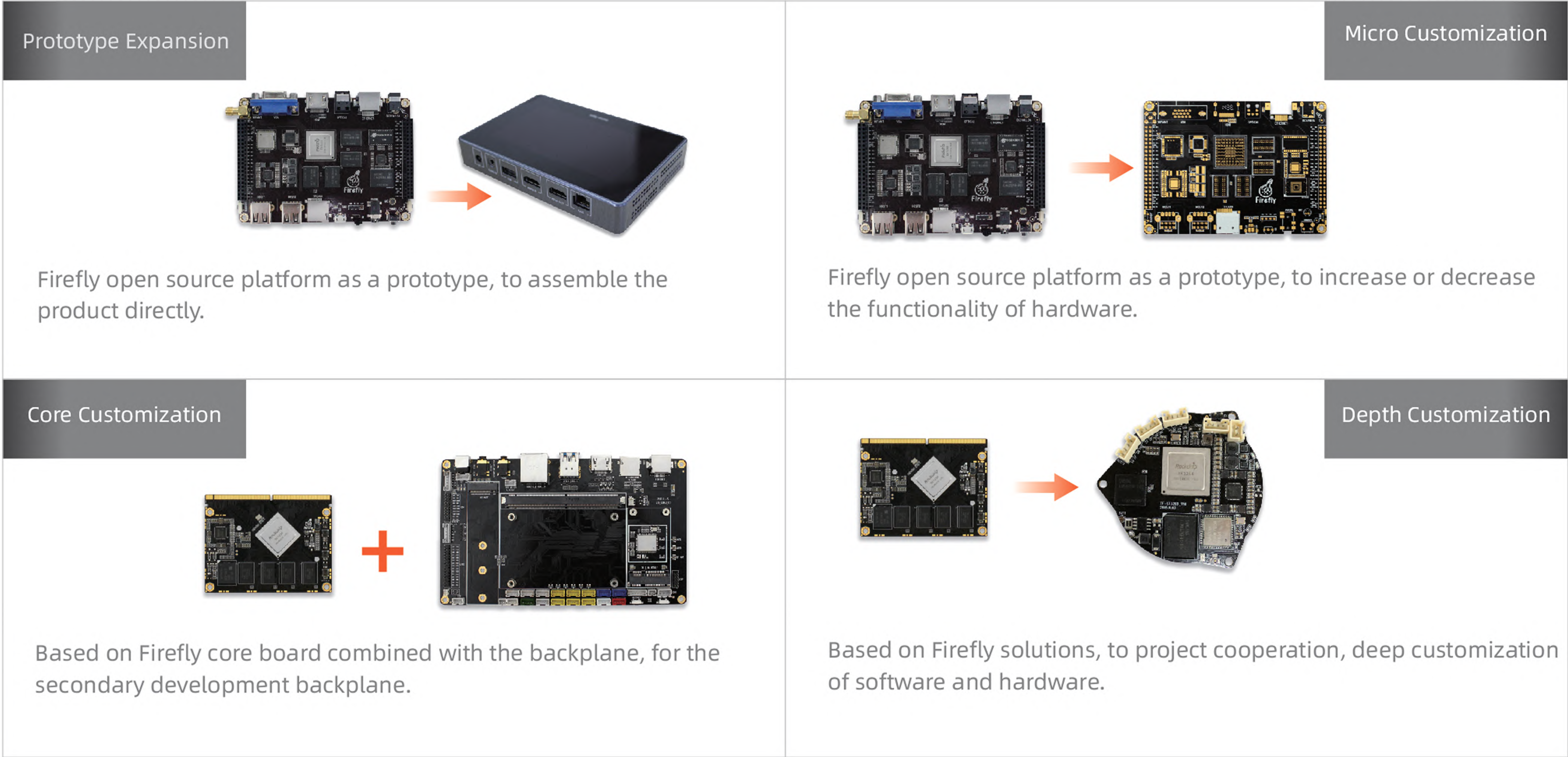
Internet Community

Technology exchange, industry trends



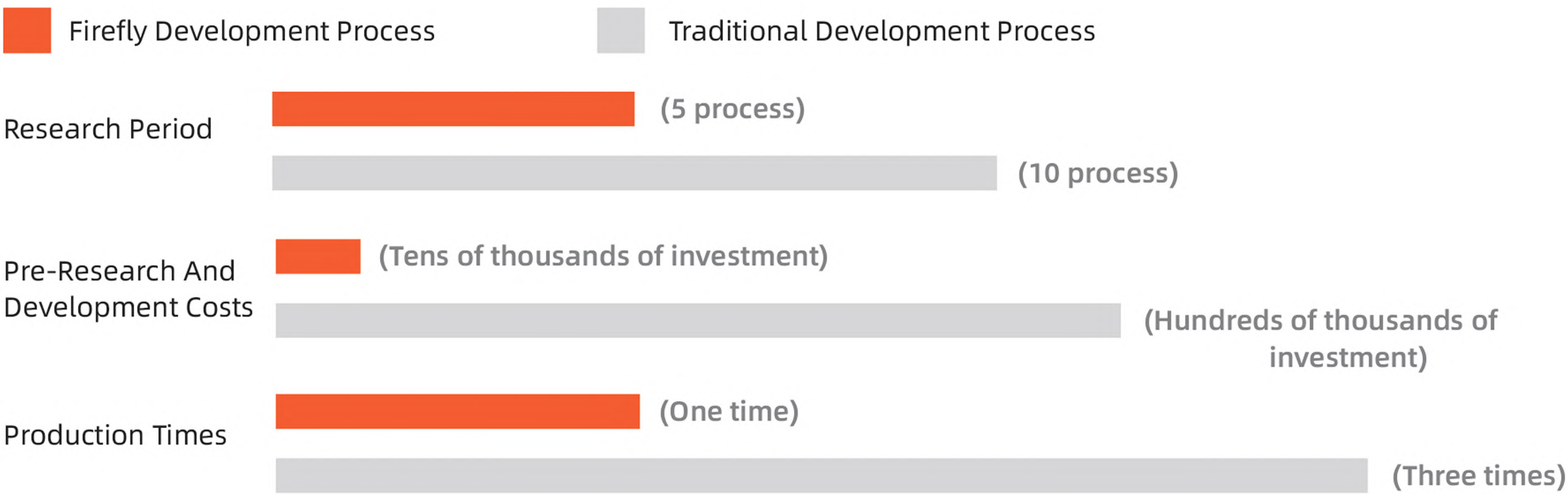
Industry Customization

Customize for you specially



Program Advantage

Reduce R&D hardware costs and shorten application product development cycles



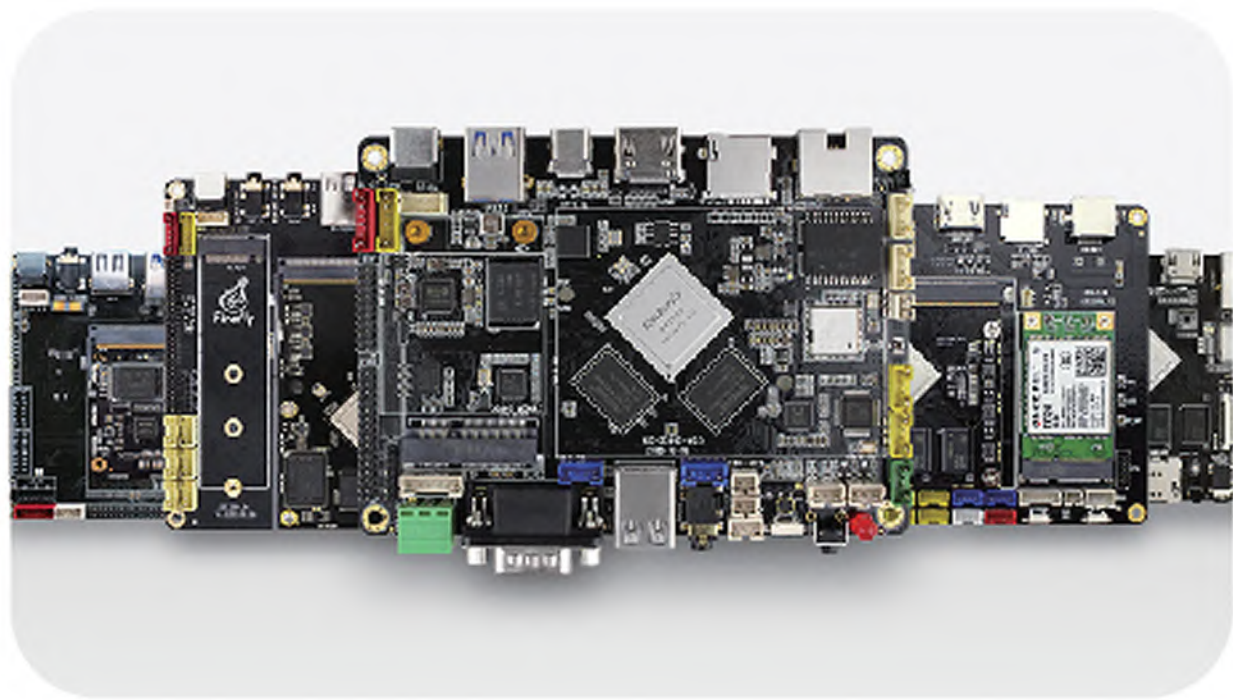
Embedded Computer Series

For application scenarios in various industries, we provide products such as AI, embedded computer and industrial tablet PC to enhance the adaptability. So they can be easily implanted into different projects.



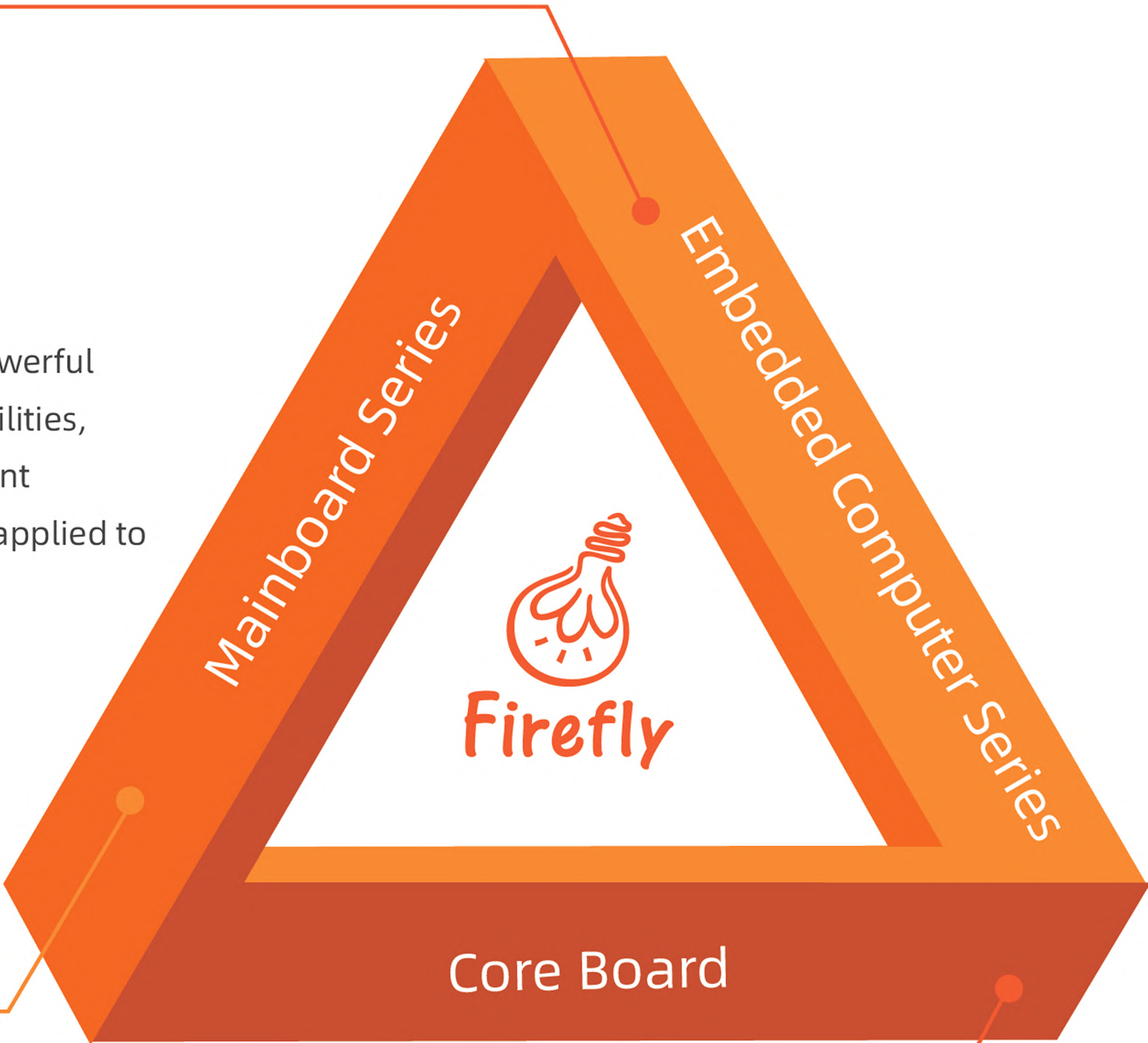
Mainboard Series

With high-performance configuration, powerful computing and graphics decoding capabilities, various interfaces, open SDK and abundant development resources, it can be widely applied to different industries.



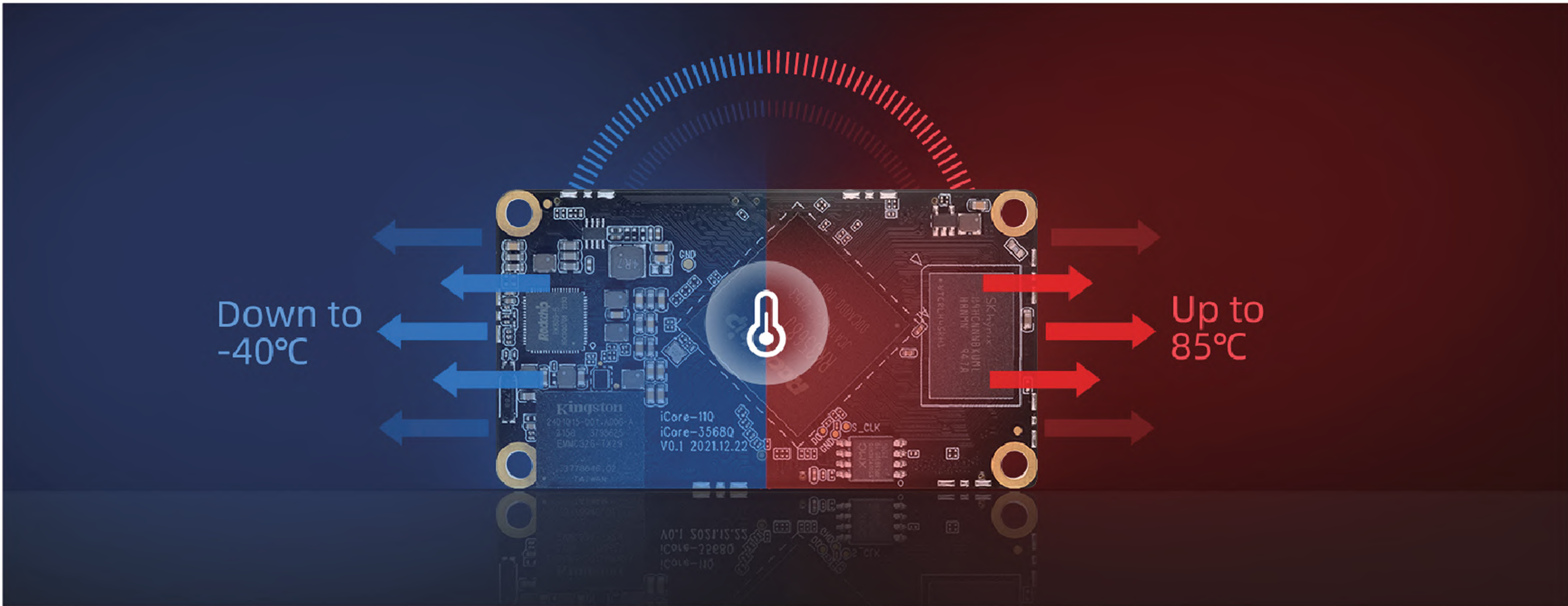
Core Board Series

Core board is a small module that remains the core software and hardware functions. It can be combined with a backplane to form a complete industrial mainboard, which can be applied to various products.



Industrial Products

Ultra Wide Temperature



 Each industrial product is equipped with chips that can withstand extreme cold and heat.

 Operating temperature range from -40°C to 85°C. Easily cope with a variety of harsh operating environments.

Industrial-Grade Materials



Every product is made of strictly selected high-quality components.



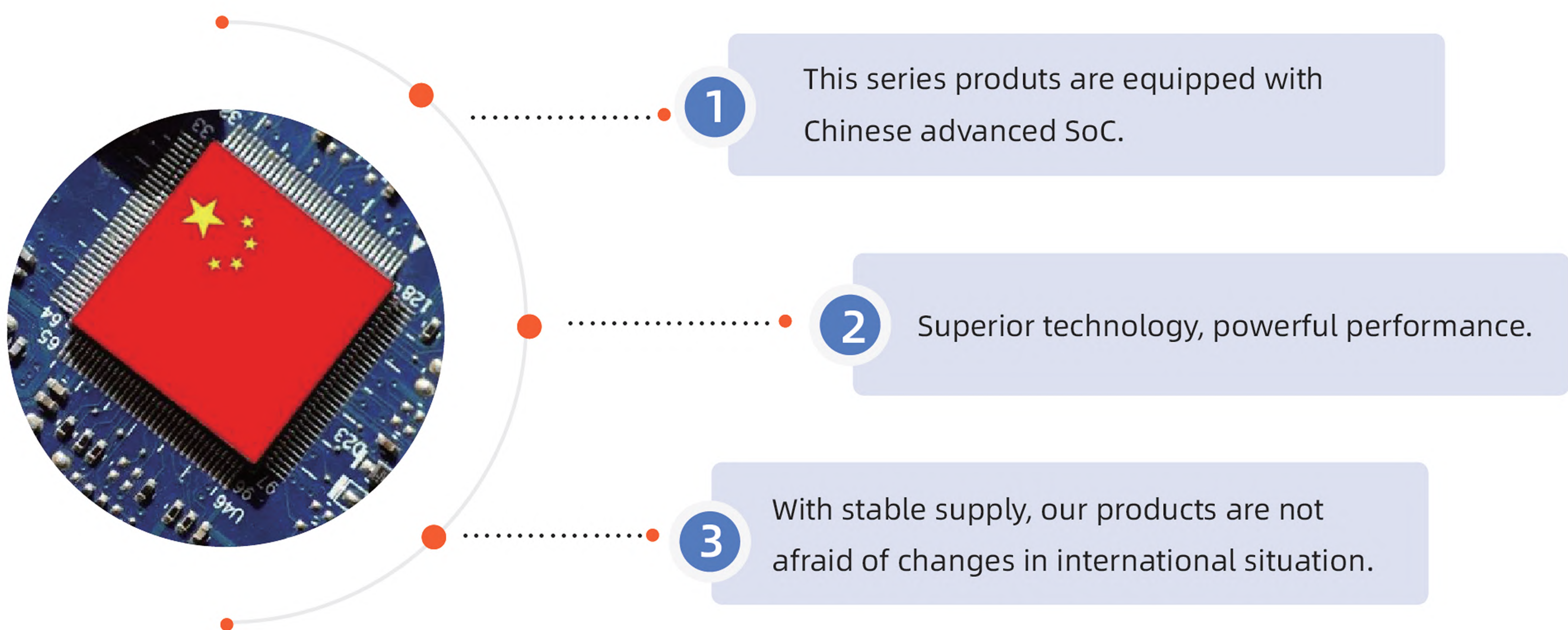
Strictly control each material to make the overall quality of products reach industrial grade.



Enable the product to have a longer life cycle and stable operation.

All Made in China

China's SoC



Superior Quality

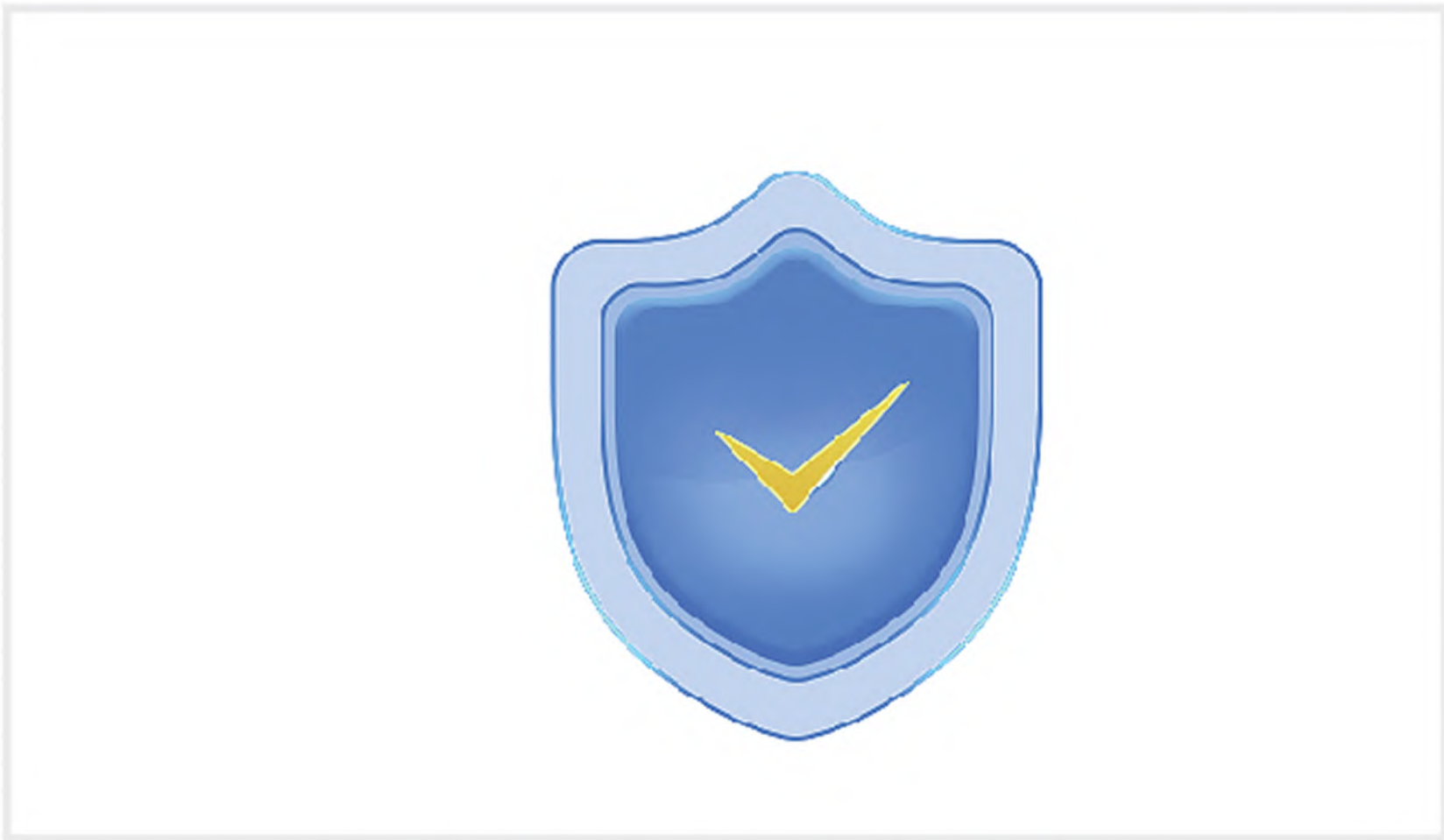
Materials are strictly selected from China's leading brand manufacturers, featuring high quality. All of them are reliable after strict and long -term selection.



Leading Manufacturers



Genuine and Quality



Highly Reliable

CSA1-N8S1684

Powered by the third-generation TPU BM1684, this server is equipped with up to 8 BM1684 computing modules. It supports up to 140.8TOPS of INT8 peak computing power or 17.6TOPS of FP32 high-precision computing power, with the power of multi-channel video encoding and decoding. It provides multiple algorithm migration and a one-stop deep learning development toolkit. With the BMC management system, it supports secondary development.



Product Name	Computing Power Cluster Server
Product Model	CSA1-N8S1684
AI Computing Power	140T@INT8 peak computing power, 17.6TFLOPS@FP32 high-precision computing power
VPU	Video decoding: H.264 & H.265: 1080P @11520fps Video decoding resolution: 8192 * 8192 / 8K / 4K / 1080P / 720P / D1 / CIF Video encoding: H.264 & H.265: 1080P @600fps Video encoding resolution: 4K / 1080P / 720P / D1 / CIF JPEG decoding: JPEG: 4800 images per second @1080P
Nodes	8 compute nodes (up to 64 ARM cores) + 1 control node
CPU	Compute node: BM1684 octa-core (A53*8) 64-bit processor, frequency up to 2.3GHz Control node: RK3588S octa-core (4×Cortex-A76+4×Cortex-A55) 64-bit processor, frequency up to 2.4GHz
RAM	12GB LPDDR4 × 8 (compute nodes)
Storage	32GB eMMC × 8 (compute nodes) 3.5-inch SATA3.0 hard disk × 1
Network	GE RJ45 Gigabit Ethernet port×2 (a control node port and a common Ethernet port) SFP 10GE × 2 4G/LTE/5G network (optional)
Display	HDMI 2.0, 4K@60Hz (main processor core board display)
OS	Linux
BMC	Integrated BMC management system provides management interface based on Web. This system supports secondary development.

CSR2-N72R3588S

Cloud Phone Server



The server can be configured with up to 72 RK3588S computing units and virtualizes 720 mobile phones

CSR1-N10R3588S

Cloud Phone Server

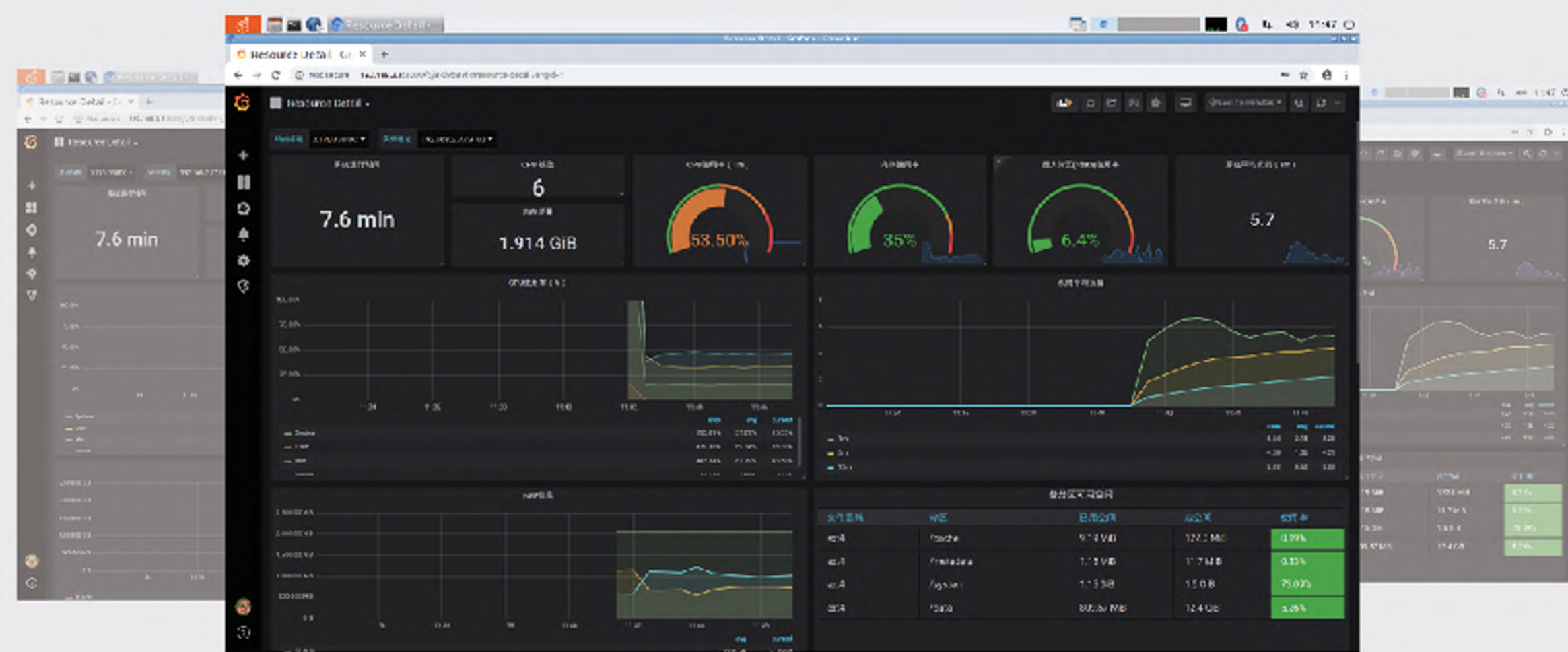


The server can be configured with up to 10 RK3588S computing units and virtualizes 100 mobile phones

Multiple OS



BMC Management System



Application



Desktop virtualization



Cloud mobile phone



Block Chain



Online video server

CSR2-N72R3399

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.

	Type	2U rack cluster server
	Number	Up to 72 pcs of core boards (432 pcs of ARM cores in total)
	OS	Supports Android, Ubuntu, Linux
	Display	1×Mini HDMI 2.0, 4K@60Hz (Master board)
	USB	1 × USB3.0 HOST
	Power	Dual-channel redundant power design: AC 100~240V 50/60Hz, 1300W / 800W optional
	Size	Standard 2U rack chassis: 580mm x 434mm x 88.8mm

CSR1-N10R3399

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.

	Type	1U rack-mounted cluster server
	Number	Supporting up to 11pcs core boards(A total of 66 cores)
	OS	Support Android, Linux operating system
	Video	HDMI 2.0, up to 4K@60Hz(Main core board display)
	Weight	Server host : 5.8kg Package : 7.2kg
	Power	300W AC power(Input: 100V AC ~ 240V AC)
	Fan	5 high-speed cooling fans
	Size	Standard 1U rack-mounted server :490mm x 390mm x 44.4mm

EC-I3588J

EC-I Series

New-Gen AIoT SoC RK3588



New-Gen AIoT SoC RK3588



Powerful network communication



Multiple hard disks, Massive capacity



Soc	RockChip RK3588
CPU	8-core 64-bit (4×Cortex-A76+4×Cortex-A55), 8nm lithography process, frequency up to 2.4GHz
GPU	ARM Mali-G610 MP4 quad-core GPU Support OpenGL ES3.2 / OpenCL 2.2 / Vulkan1.1, 450 GFLOPS
NPU	NPU computing power up to 6 TOPS, Support INT4/INT8/INT16 mixed operation, Support framework switching of TensorFlow / MXNet / PyTorch / Caffe
RAM	4GB/8GB/16GB 64bit LPDDR4/LPDDR4x/LPDDR5 (Up to 32GB optional)
Storage	16GB/32GB/64GB/128GB eMMC
OS	Android: Android 12.0 Linux: Ubuntu Desktop, Ubuntu Server, Debian11, Buildroot, RTLinux Kylin Linux, UOS, etc. Supports UEFI Boot

EC-A3588Q

EC-A Series

Octa-Core 8K AI Embedded Computer

	Soc	RockChip RK3588
	CPU	Octa-core 64-bit (4*Cortex-A76+4*Cortex-A55), 8nm lithography process, frequency up to 2.4GHz
	GPU	ARM Mali-G610 MP4 quad-core GPU, Support OpenGL ES3.2 / OpenCL 2.2 / Vulkan1.1, 450 GFLOPS
	NPU	NPU computing power up to 6 TOPS, support INT4/INT8/INT16 mixed operation, support framework switching of TensorFlow / MXNet / PyTorch / Caffe
	VPU	Video decoding:8K@60fps H.265/VP9/AVS2, 8K@30fps H.264 AVC/MVC, 4K@60fps AV1 1080P@60fps MPEG-2/-1/VC-1/VP8 Video encoding:8K@30fps encoding, support H.265 / H.264
	RAM	4GB/8GB/16GB (Up to 32GB optional) 64bit LPDDR4/LPDDR4x/LPDDR5
	Storage	16GB/32GB/64GB/128GB/256GB eMMC 1 * M.2 SATA3.0 SSD (2242) or 1 * M.2 PCIe NVMe SSD (2242), 1*TF Card Slot

EC-A3588JQ

EC-A Series

Octa-Core 8K AI Industrial Computer

	Soc	RockChip RK3588J
	CPU	Octa-core 64-bit (4*Cortex-A76+4*Cortex-A55), 8nm lithography process, frequency up to 2.2GHz
	GPU	ARM Mali-G610 MP4 quad-core GPU, Support OpenGL ES3.2 / OpenCL 2.2 / Vulkan1.1, 450 GFLOPS
	VPU	Video decoding: 8K@60fps H.265/VP9/AVS2, 8K@30fps H.264 AVC/MVC 4K@60fps AV1, 1080P@60fps MPEG-2/-1/VC-1/VP8 Video encoding: 8K@30fps encoding, support H.265 / H.264
	RAM	4GB/8GB/16GB (Up to 32GB optional) 64bit LPDDR4/LPDDR4x/LPDDR5
	Storage	16GB/32GB/64GB/128GB/256GB eMMC 1 * M.2 SATA3.0 SSD (2242) or 1 * M.2 PCIe NVMe SSD (2242), 1*TF Card Slot

EC-A1684XJD4 FD

EC-A Series

Octa-core 32T high computing power AI embedded computer

	Soc	SOPHON BM1684X
	CPU	High-performance octa-core ARM A53, 12nm lithography process, frequency up to 2.3GHz
	TPU	Built-in tensor computing module TPU, computing power up to: 32TOPS (INT8), 16TFLOPS (FP16/BF16), 2TFLOPS (FP32) Support mainstream programming frameworks: TensorFlow / Caffe / PyTorch / Paddle / ONNX / MXNet / Tengine / DarkNet
	VPU	32-channel H.265/H.264 1080p@25fps video decoding 32-channel 1080P@25fps HD video processing (decoding + AI analysis) Support 12-channel H.265/H.264 1080p@25fps video encoding
	RAM	6GB/12GB/16GB LPDDR4/LPDDR4X
	OS	Linux
	Storage	32GB/64GB/128GB eMMC, 128MB SPI Flash, 1*M.2 SATA3.0 (Inside the computer. Capable of 2242 SSD expansion), 1*TF card slot

EC-A1684JD4 FD

EC-A Series

Octa-core high computing power AI embedded computer

	Soc	SOPHON BM1684
	CPU	High-performance octa-core ARM A53, 12nm lithography process, frequency up to 2.3GHz
	TPU	Built-in tensor computing module TPU, computing power up to: 17.6T (INT8)/ 2.2T (FP32)/ 35.2 T (INT8, enable winograd)TPU contains 64 NPU arithmetic units. Each NPU contains 16 EU arithmetic units, 1024 EU in total Support mainstream programming frameworks: TensorFlow / Caffe / PyTorch / Paddle / ONNX / MXNet / Tengine / DarkNet
	VPU	Up to 32-channel H.265/H.264 1080p@30fps video decoding 1080p@50fps video encoding MJPEG image encoding and decoding up to 1080P@480fps
	RAM	6GB/12GB/16GB LPDDR4/LPDDR4X
	OS	Linux
	Storage	32GB/64GB/128GB eMMC, 128MB SPI Flash, 1*M.2 SATA3.0 (Inside the computer. Capable of 2242 SSD expansion), 1*TF card slot

EC-A3568J

EC-A Series

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	1Tops@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 60fps 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

EC-A3399ProC

EC-A Series

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)
	VPU	Support 4K VP9 and 4K 10bits H265/H264 video decoding, up to 60fps 1080P multi-format video decoding (VC-1, 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 (NPU 1GB + CPU 2GB), LPDDR3 6GB (NPU 2GB + CPU 4GB)
	Storage	High-speed eMMC 5.1 (16GB/32GB/64GB/128GB) Support TF card expansion

EC-A1648JD4

EC-A Series

8-Core High Computing Power AI Computer

	Soc	SOPHON BM1684
	CPU	Integrated high-performance octa-core ARM A53, 12nm lithography process, clock speed up to 2.3GHz
	VPU	Up to 32-channel H.265/H.264 1080p@30fps video decoding 1080p@50fps video encoding MJPEG image encoding and decoding up to 1080P@480fps
	RAM	6GB/12GB LPDDR4/LPDDR4X
	Storage	32GB/64GB/128GB eMMC

EC-A3399C

EC-A Series

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-A3288C

EC-A Series

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-R3588SPC

EC-R Series

Octa-Core AI Industrial Computer

	Soc	RockChip RK3588S
	CPU	Octa-core 64-bit (4×Cortex-A76+4×Cortex-A55), 8nm lithography process, frequency up to 2.4GHz
	GPU	ARM Mali-G610 MP4 quad-core GPU Support OpenGL ES3.2 / OpenCL 2.2 / Vulkan1.1, 450 GFLOPS
	RAM	4GB/8GB/16GB 64bit LPDDR4/LPDDR4x/LPDDR5 (Up to 32GB optional)
	Storage	16GB/32GB/64GB/128GB eMMC

EC-R3568PC

EC-R Series

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
	RAM	2GB/4GB/8GB LPDDR4
	Storage	16GB/32GB/64GB/128GB eMMC, 16MB SPI Flash

EC-R3399PC

EC-R Series

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-R3566PC

EC-R Series

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 GPU; Supports OpenGL ES 1.1/2.0/3.2. OpenCL 2.0. Vulkan 1.1 Embedded high-performance 2D acceleration hardware
	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)

EC-R3328PC

EC-R Series

Quad-core 64-bit Mini PC

	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-R3308CC

EC-R Series

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

iHC-3308GW

iHC Series

Industrial 4G Smart Gateway

	Soc	RK3308B
	CPU	Quad-core 64-bit ARM Cortex-A35, frequency 1.3GHz
	RAM	256M DDR3 (128MB ~ 512MB optional)
	Ethernet	Dual RJ45 Ethernet ports (100M bps)
	Interface	PSAM × 1 CAN × 1 SIM 4G × 1 RJ45 100M Ethernet port × 2 RS232 × 1 RS485 × 3 DC IN (12V) × 1 Type-C (OTG) × 1 DIN× 1 DOUT× 1 Phone × 1 TF-Card × 1 USB 2.0 × 1
	Storage	4GB eMMC: Supports 4G/8G/16G/32G/64G/128G SPI Flash: Supports 16MB ~512 MB Supports MicroSD (TF) Card Slot expansion

EC-3559AV100JD4

Other

8K AI Computer

	Soc	Hi3559AV100
	CPU	Dual-core ARM Cortex A73@1.6GHz + Dual-core ARM Cortex A53@1.2GHz + Single-core ARM Cortex A53@1.2GHz, Supports Neon acceleration, integrated FPU
	GPU	Dual-core ARM Mali G71@900MHz, 256KB cache, Supports OpenCL 1.1/1.2/2.0, OpenGL ES 3.0/3.1/3.2
	RAM	4GB / 8GB LPDDR4 , Supports 2 x 32bit LPDDR4
	Storage	32GB eMMC(8GB / 16GB / 32GB / 64GB / 128GB optional) 2 × MicroSD (TF card) expansion

IPC-M10R800-A3568J

AI Industrial Tablet PC



Dual Gigabit Ethernet



10.1 inch IPS HD LCD screen



Face recognition, high accuracy

200_{ms} 99.77%
Recognition speed Recognition accuracy

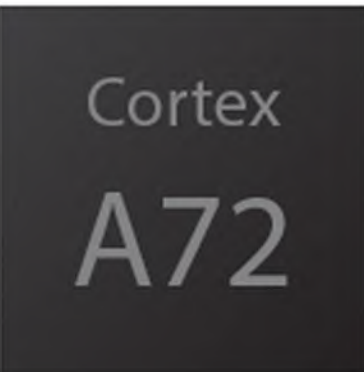
Soc	RockChip RK3568
CPU	Quad-core 64-bit Cortex-A55, 22nm lithography process, frequency up to 2.0GHz
GPU	ARM G52 2EE, Supports OpenGL ES 1.1/2.0/3.2, OpenCL 2.0, Vulkan 1.1 Embedded high-performance 2D acceleration hardware
RAM	2GB / 4GB / 8GB LPDDR4, Supports all-data-link ECC
Storage	32GB/64GB/128GB 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

SIX-CORE INDUSTRY PANEL COMPUTER

Six-Core 64-Bit Processor



IPS High-End Screen



Capacitive 10-Point Touch



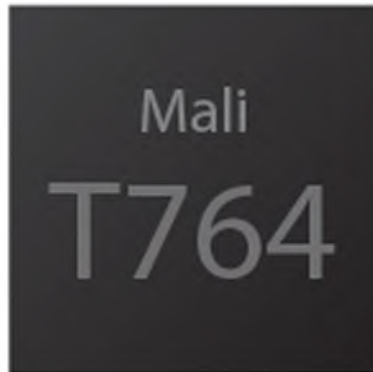
- Soc: Rockchip RK3399
- CPU: Dual-core(Cortex-A72) + Quad-core(Cortex-A53), frequency up to 1.8 GHz
- GPU: Quad-core ARM Mali-T860
- Support OpenGL ES 1.1/2.0 /3.0, OpenVG1.1, OpenCL, Directx11
- DDR: 2GB/4GB Dual-channel LP DDR4
- NPU: AI architecture, computing power 2.8Tops, with 9.3Tops/W energy efficiency
- Storage: 8GB / 16GB High-Speed eMMC, TF Card
- Network: Gigabit Ethernet (RJ45 interface)
- On-board WIFI/BTmodule, support 2.4GHz/5GHz dual-band WiFi, 802.11a/b/g/n/ac protocol, Bluetooth 4.1, Mini PCIe



IPC-M10R800-A3288C

QUAD-CORE INDUSTRY PANEL COMPUTER

Quad-Core High-
Performance Processor



10.1-Inch IPS HD
Display



Capacitive 10-Point
Touch



- Soc: Rockchip RK3288
- CPU: Quad-core Cortex-A17, frequency up to 1.8GHz
- 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
- Storage: 8GB eMMC 5.1、 Support MicroSD (TF) Card
- Network: Support Gigabit Ethernet (RJ45)
On-board WIFI/BT module, support single frequency
WiFi 2.4GHz, 802.11 b/g/n protocol
On-board MINI PCIE (3G/4G) socket and SIM slot
Support WCDMA, EVDO, 4G full Netcom, Bluetooth 4.2

Face X2 FACE RECOGNITION All-In-One PC

With high-performance hardware configurations and efficient face recognition algorithms, it supports fast recognition of ID card, IC card, QR code and bar code. Coupled with the inbuilt dual-track speaker, it can achieve voice broadcast and voice reminder. It supports quick non-contact temperature measurement and thus reduces the contact infection at close range. Equipped with a complete backstage management system, it can be applied in various intelligent scenes of face recognition.



Efficient identification And high accuracy



Non-contact Infrared Thermometry



Equipped with Management System



FACE RECOGNITION DEVELOPMENT KIT

DEVELOPMENT FOR ONE-STOP FACE RECOGNITION

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.



INTELLIGENT IOT DEVELOPMENT KIT

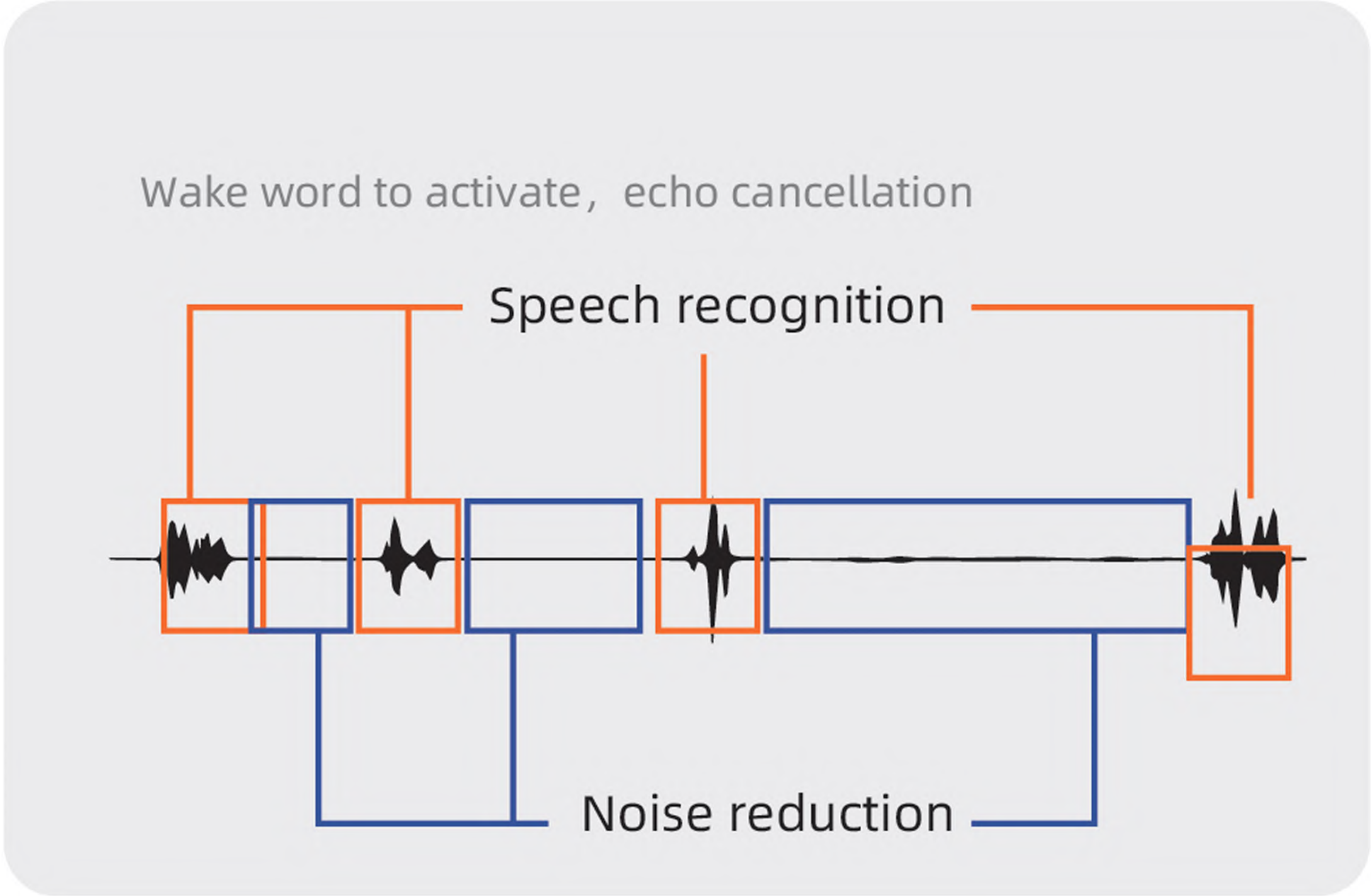
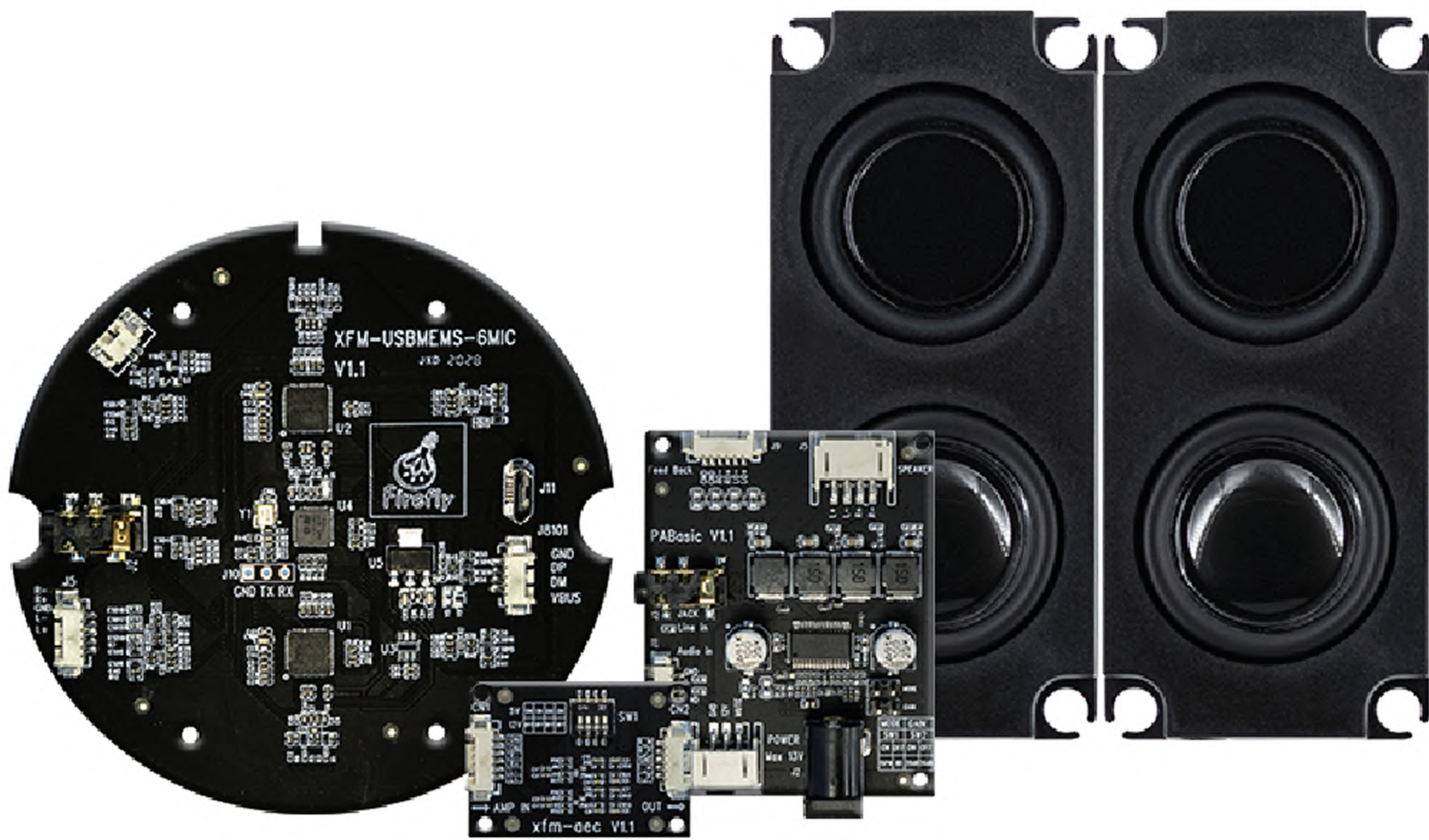
The micro IoT main board with a high-resolution display is combined into a high-performance intelligent IoT development kit that supports various IoT systems, audio systems and services, and Buildroot+Qt application development. With rich expansion interfaces, it can be quickly applied to intelligent 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

INTELLIGENT VOICE CONTROL KIT

Supporting iFLYTEK AIUI Open Platform, the kit is capable of wake word activation, noise reduction, echo cancellation, sound localization, man-machine interaction and so on. With features of far-field voice pickup and accurate speech recognition, it can be used on robot, industrial dev board, intelligent service terminal, business display device, etc.



Features	Supports iFLYTEK AIUI Open Platform, capable of wake word activation, noise reduction, echo cancellation, sound localization, man-machine interaction and so on with features of far-field voice pickup and accurate speech recognition.
Hardware	Consists of Microphone array board, XFM-AEC module, PA amplifier and two Dual channel speakers; provides basic integrated voice control hardware — only an additional SoC is needed for the development of a smart voice control product.
Compatibility	Adapts to any hardware platform based on Android system, and perfectly fits Firefly hardware platforms such as RK3328, RK3399Pro, RK3399, RK3128.
Applications	Robots, industrial development boards, intelligent service terminals, business display devices, etc.

C40PL OPEN SOURCE AI CAMERA

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.



Smart security



License Plate Recognition



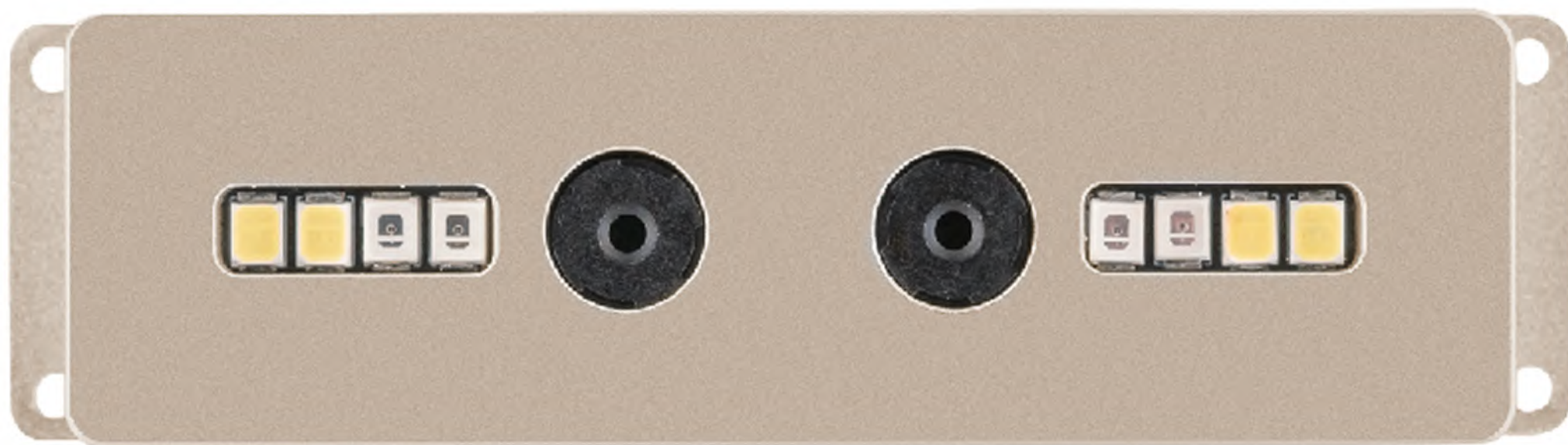
Face capture



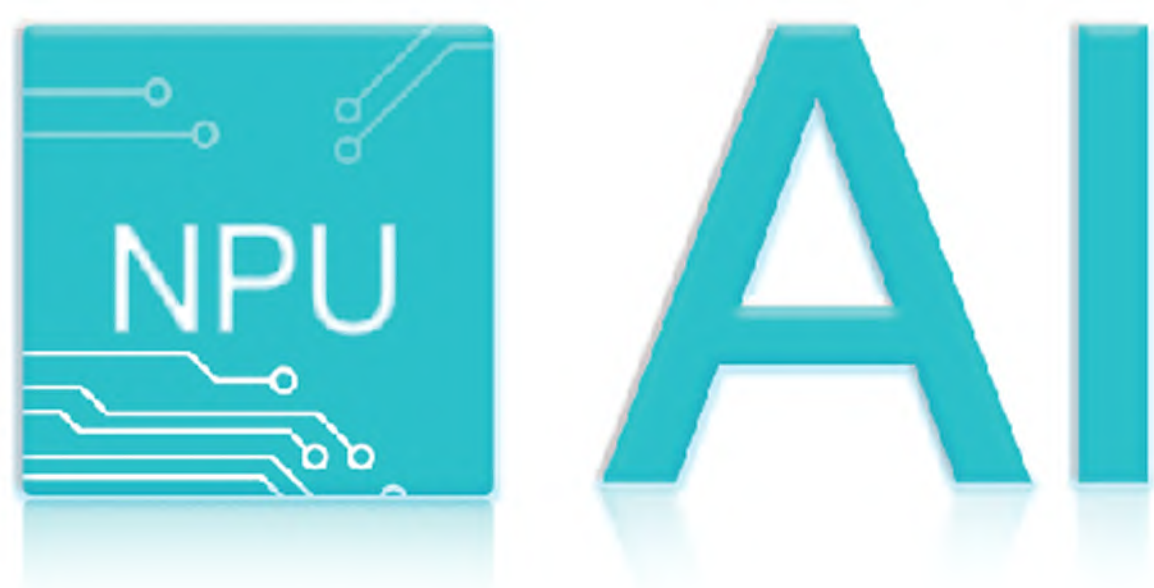
Type	C40PL Open Source AI Camera
Resolution	1520P (2688×1520, 4M pixel)
Focal Length	5.2mm (Range: 1.18m ~ 6.38m)
CPU	RV1126 quad-core ARM Cortex-A7 32-bit kernel, integrated with NEON and FPU
NPU	2.0Tops, supports INT8/ INT16 Strong network model compatibility, easy conversion of framework like Tensor 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

CAM-C1126S2U INTELLIGENT DUAL-LENS CAMERA MODULE

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.



Various AI frameworks



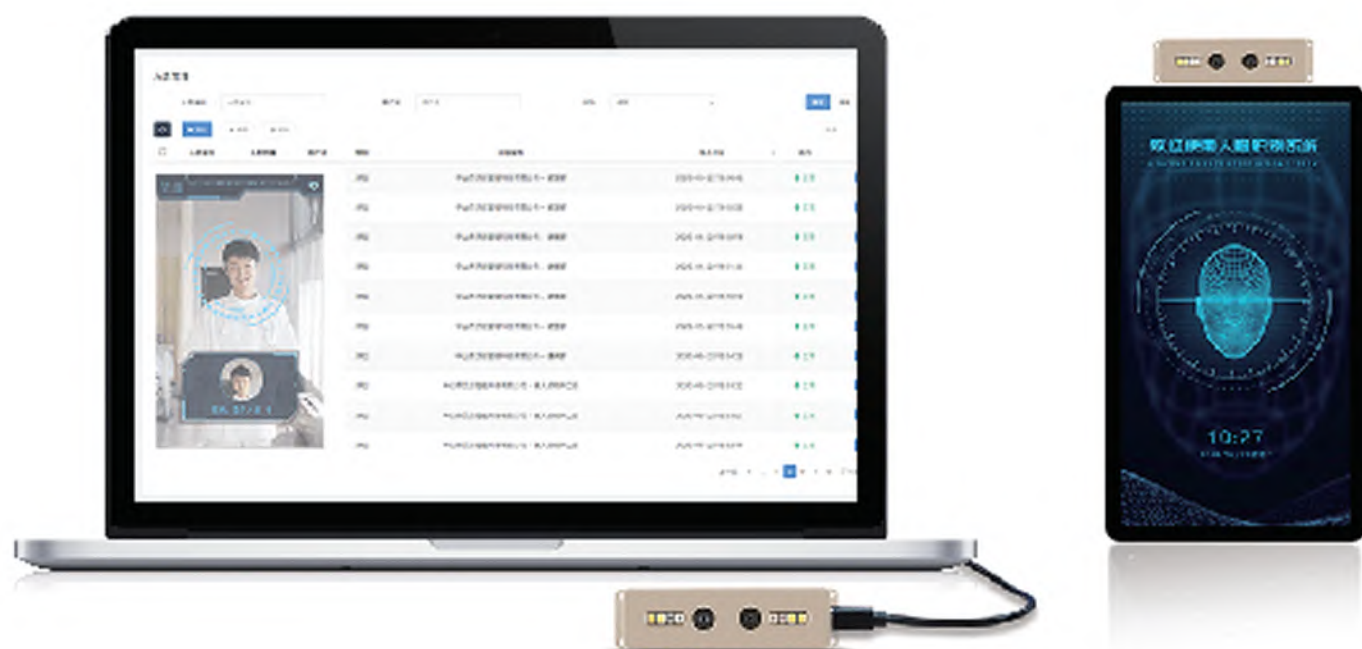
Efficient recognition, high accuracy



99.7%
Recognition accuracy

<200ms
Recognition speed

Master & slave integration

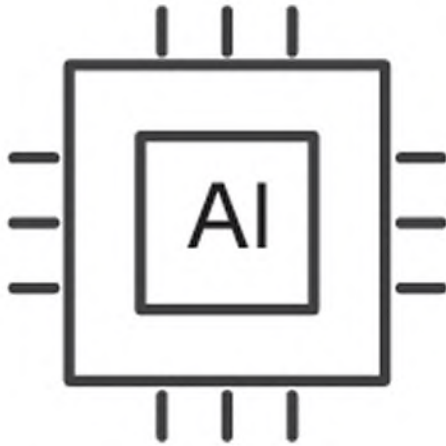


Soc	RV1126
CPU	Quad-core ARM Cortex-A7 32-bit, frequency 1.5GHz, integrate NEON and FPU Each core has a 32KB I-cache, 32KB D-cache and 512KB shared second-level cache Based on RISC-V MCU
RAM	1GB / 2GB DDR4
Storage	8GB / 16GB eMMC
NPU	Computing power up to 2.0Tops, supports INT8/ INT16, It has strong 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, tflite) and algorithm support
OS	Linux
Size	84.0mm × 22.45mm × 19.35mm

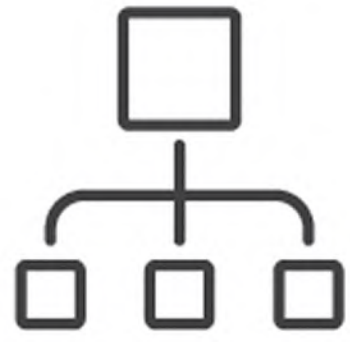
Core-3588SG

G Series

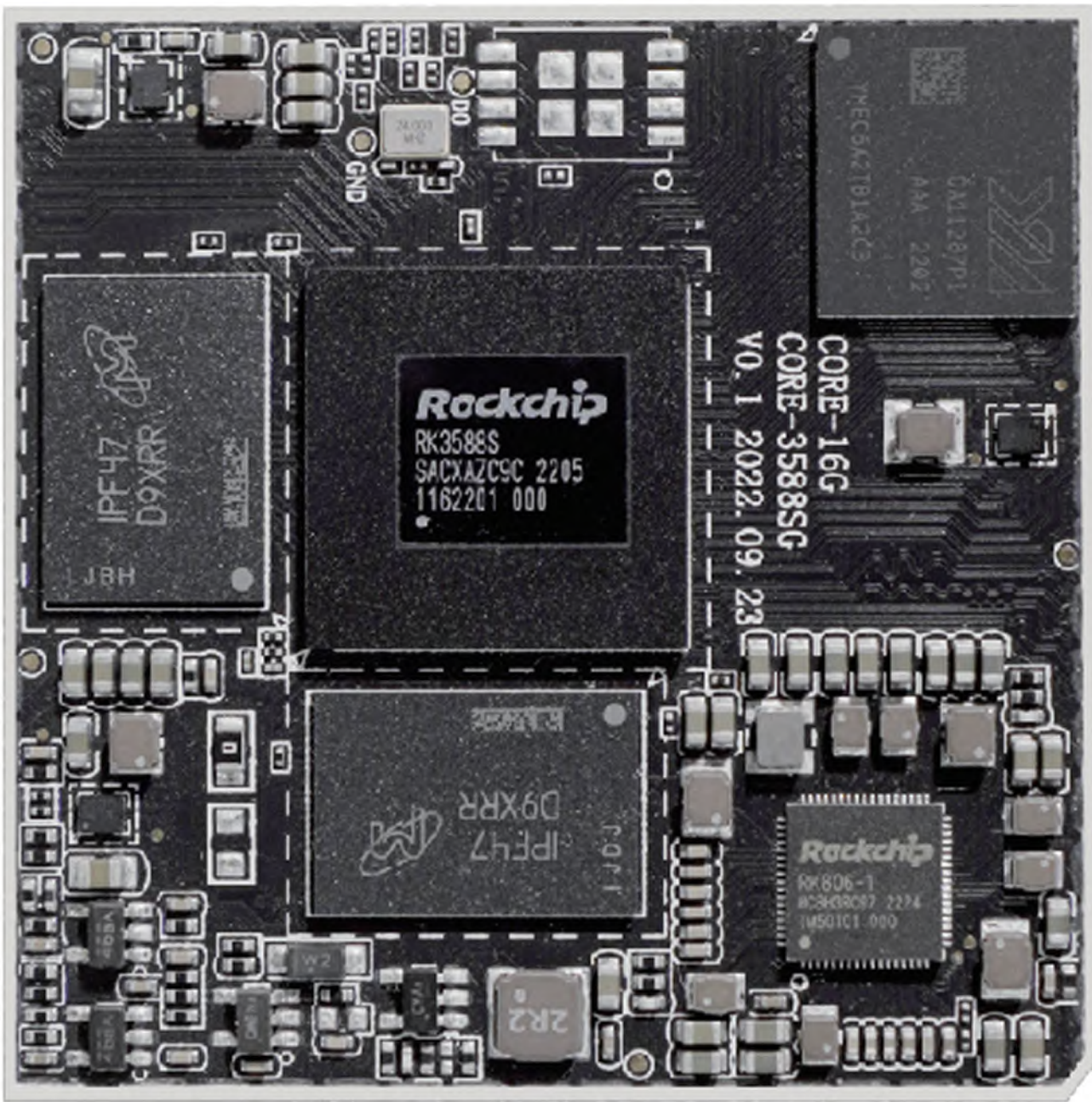
8K AI Core Board



High Performance



High Scalability





Dual Gigabit Ethernet



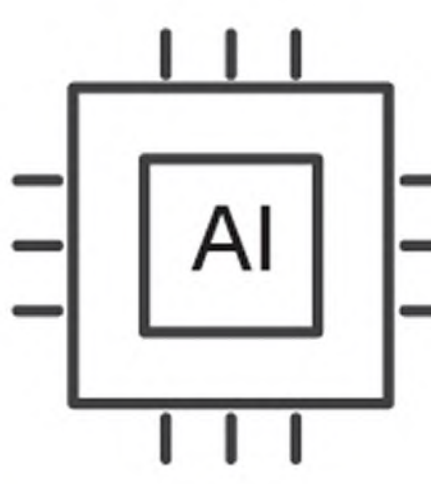
Support Multiple OS

SoC	RockChip RK3588S
CPU	Octa-core 64-bit (4*Cortex-A76+4*Cortex-A55), 8nm lithography process, frequency up to 2.4GHz
NPU	6 TOPS, Support INT4/INT8/INT16 mixed operation, Support framework switching of TensorFlow / MXNet / PyTorch / Caffe
GPU	ARM Mali-G610 MP4 quad-core GPU Support OpenGL ES3.2 / OpenCL 2.2 / Vulkan1.1, 450 GFLOPS
VPU	Video decoding: 8K@60fps H.265/VP9/AVS2, 8K@30fps H.264 AVC/MVC 4K@60fps AV1, 1080P@60fps MPEG-2/-1/VC-1/VP8 Video encoding: 8K@30fps encoding, support H.265 / H.264
RAM	4GB/8GB/16GB (Up to 32GB optional) 64bit LPDDR4/LPDDR4x/LPDDR5
Storage	16GB/32GB/64GB/128GB/256GB eMMC
OS	Android 12.0, Ubuntu, Debian11, Buildroot, RTLinux, Kylin Linux
Size	50mm * 50mm

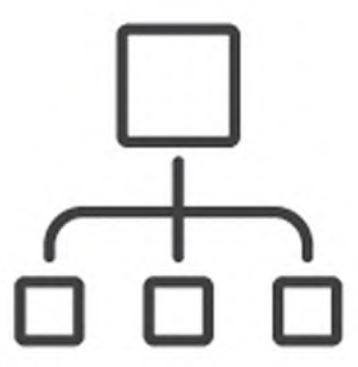
iCore-1684XQ

Q Series

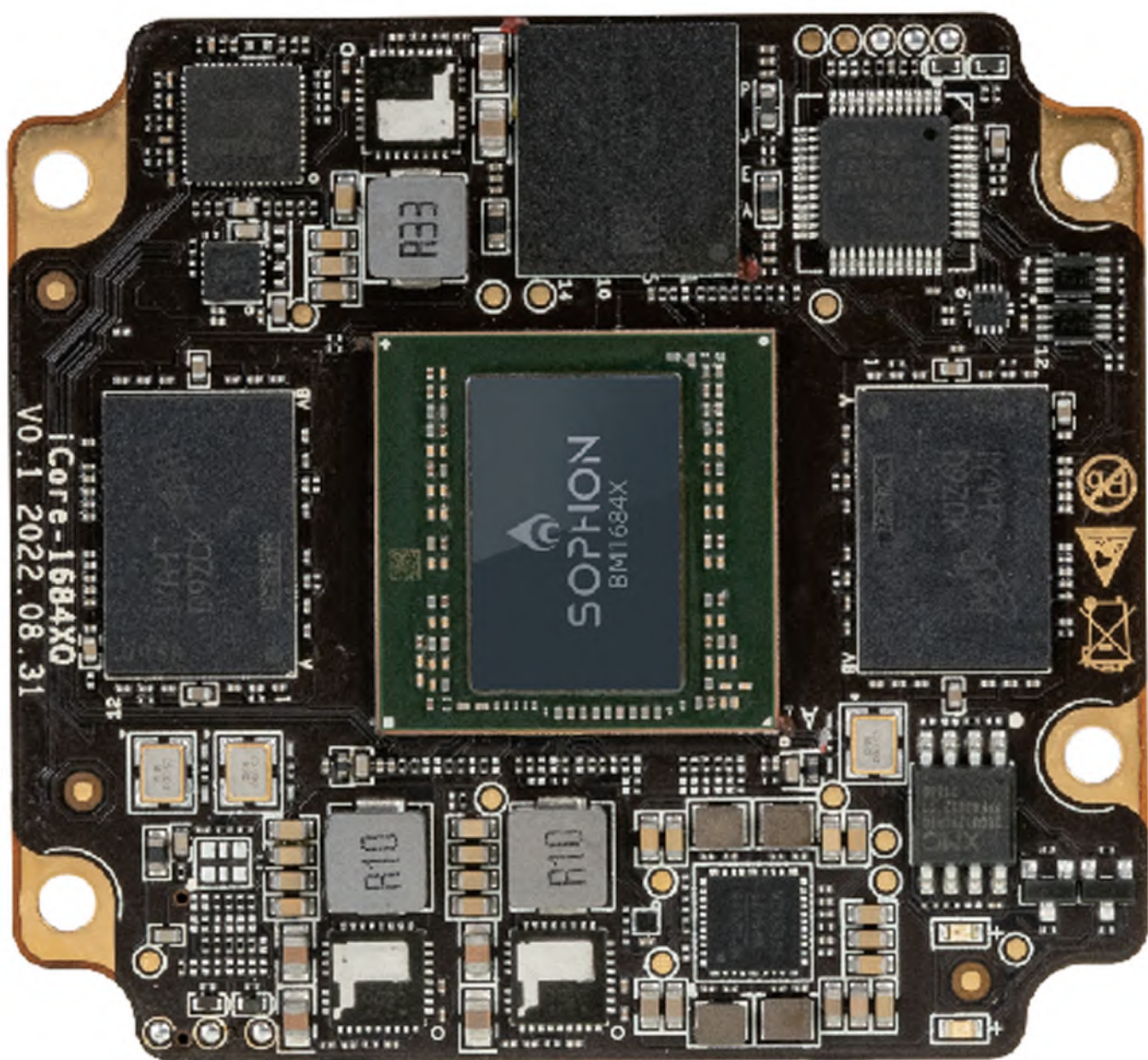
Octa-core high computing power AI core board



High Performance



High Scalability





Dual Gigabit Ethernet



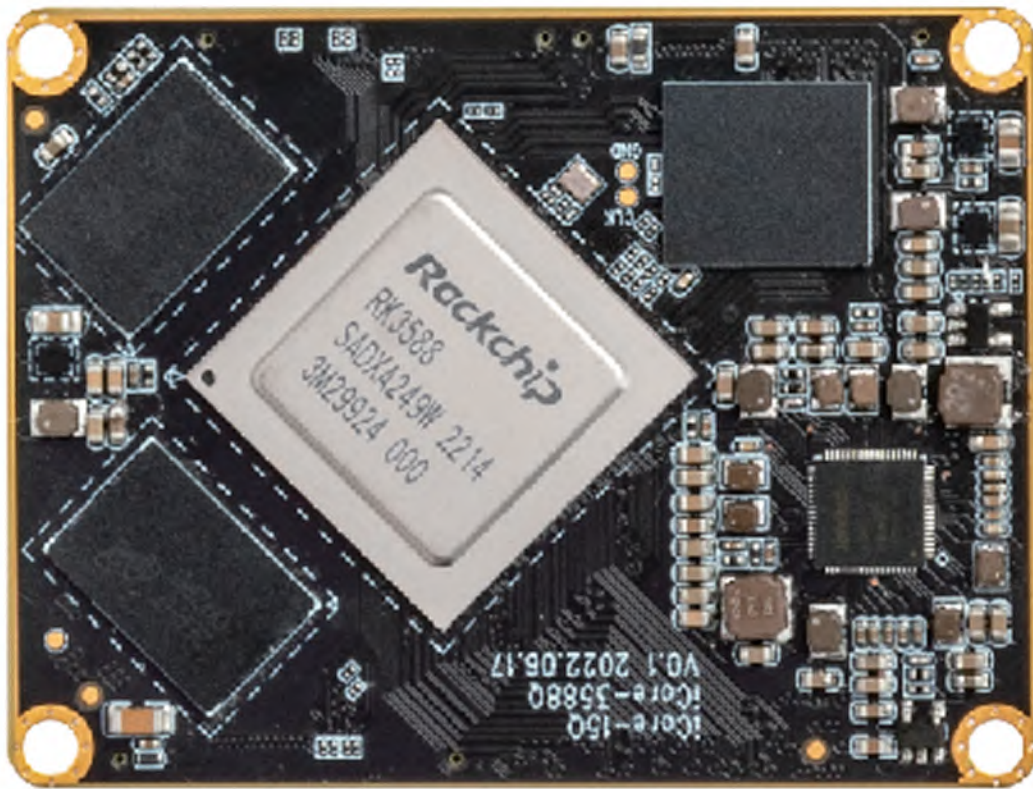
Support Linux

SoC	SOPHON BM1684X
CPU	High-performance octa-core ARM A53, 12nm lithography process, frequency up to 2.3GHz
TPU	Built-in tensor computing module TPU Computing power up to: 32TOPS (INT8), 16TFLOPS (FP16/BF16), 2TFLOPS (FP32) Support mainstream programming frameworks: TensorFlow / Caffe / PyTorch / Paddle / ONNX / MXNet / Tengine / DarkNet
VPU	Video decoding: H.265/H.264 1080p@800fps Video encoding: H.265/H.264 1080p@800fps Image encoding and decoding: MJPEG 1080P@600fps
RAM	16GB LPDDR4x
Storage	64GB eMMC/128MB SPI flash
Network	Integrated with PCIe3.0/GMAC
PCIe	2*PCIe3.0 PHY (x8 RC only)
Other interfaces	2*I2C, 2*UART, 1*PWM, 1*SDMMC, GPIO
OS	Support Linux
Size	55mm*59.8mm

iCore-3588Q

Q Series

8K AI Core Board

	Soc	RockChip RK3588
	CPU	Octa-core 64-bit (4×Cortex-A76+4×Cortex-A55), 8nm lithography process, frequency up to 2.4GHz
	GPU	ARM Mali-G610 MP4 quad-core GPU Support OpenGL ES3.2 / OpenCL 2.2 / Vulkan1.1, 450 GFLOPS
	RAM	4GB/8GB/16GB 64bit LPDDR4/LPDDR4x/LPDDR5 (Up to 32GB optional)
	Storage	16GB/32GB/64GB/128GB eMMC

iCore-3588JQ

Q Series

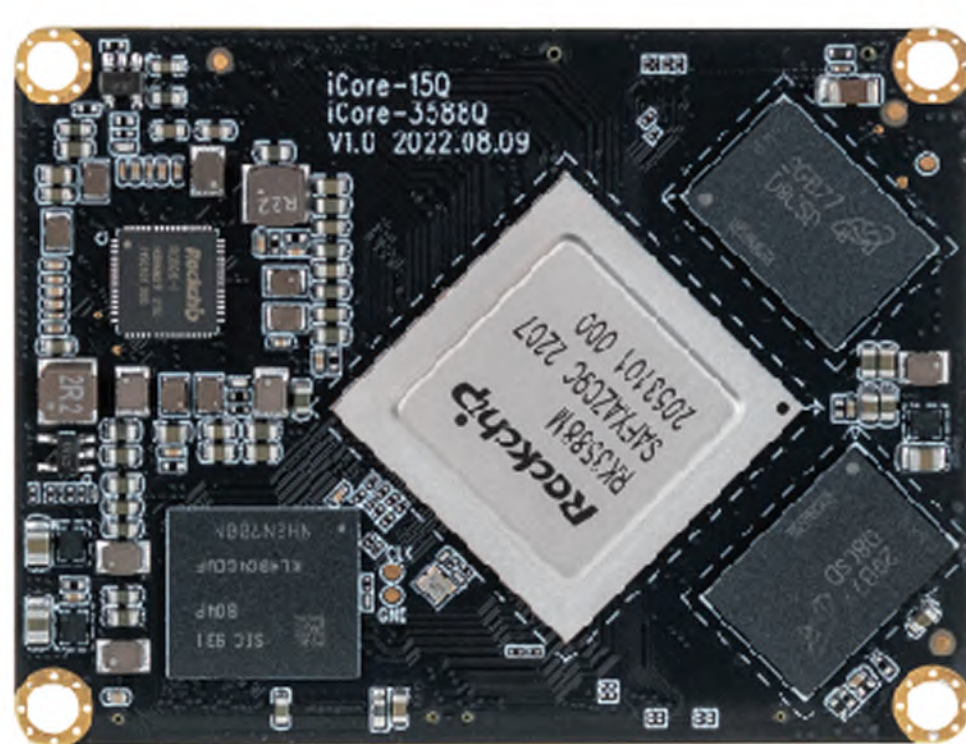
8K Industrial AI Core Board

	Soc	RockChip RK3588J
	CPU	Octa-core 64-bit (4×Cortex-A76+4×Cortex-A55), 8nm lithography process, clock speed up to 2.2GHz
	GPU	ARM Mali-G610 MP4 quad-core GPU Support OpenGL ES3.2 / OpenCL 2.2 / Vulkan1.1, 450 GFLOPS
	RAM	4GB/8GB/16GB (Up to 32GB optional) 64bit LPDDR4/LPDDR4x LPDDR5 (industrial grade)
	Storage	16GB/32GB/64GB/128GB eMMC (industrial grade)

iCore-3588MQ

QSeries

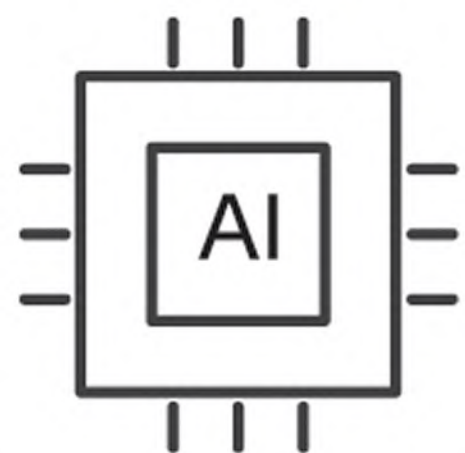
Automotive-Grade AI Core Board

	Soc	RockChip RK3588M
	CPU	Octa-core 64-bit (4×Cortex-A76+4×Cortex-A55), 8nm lithography process, frequency up to 2.1GHz
	GPU	ARM Mali-G610 MP4 quad-core GPU Support OpenGL ES3.2 / OpenCL 2.2 / Vulkan1.1, 450 GFLOPS
	RAM	4GB/8GB/16GB (Up to 32GB optional) 64bit LPDDR4/LPDDR4x/LPDDR5
	Storage	16GB/32GB/64GB/128GB eMMC

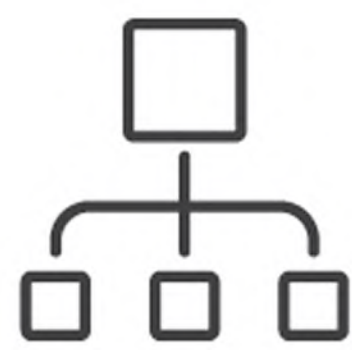
iCore-3568JQ

JQ Series

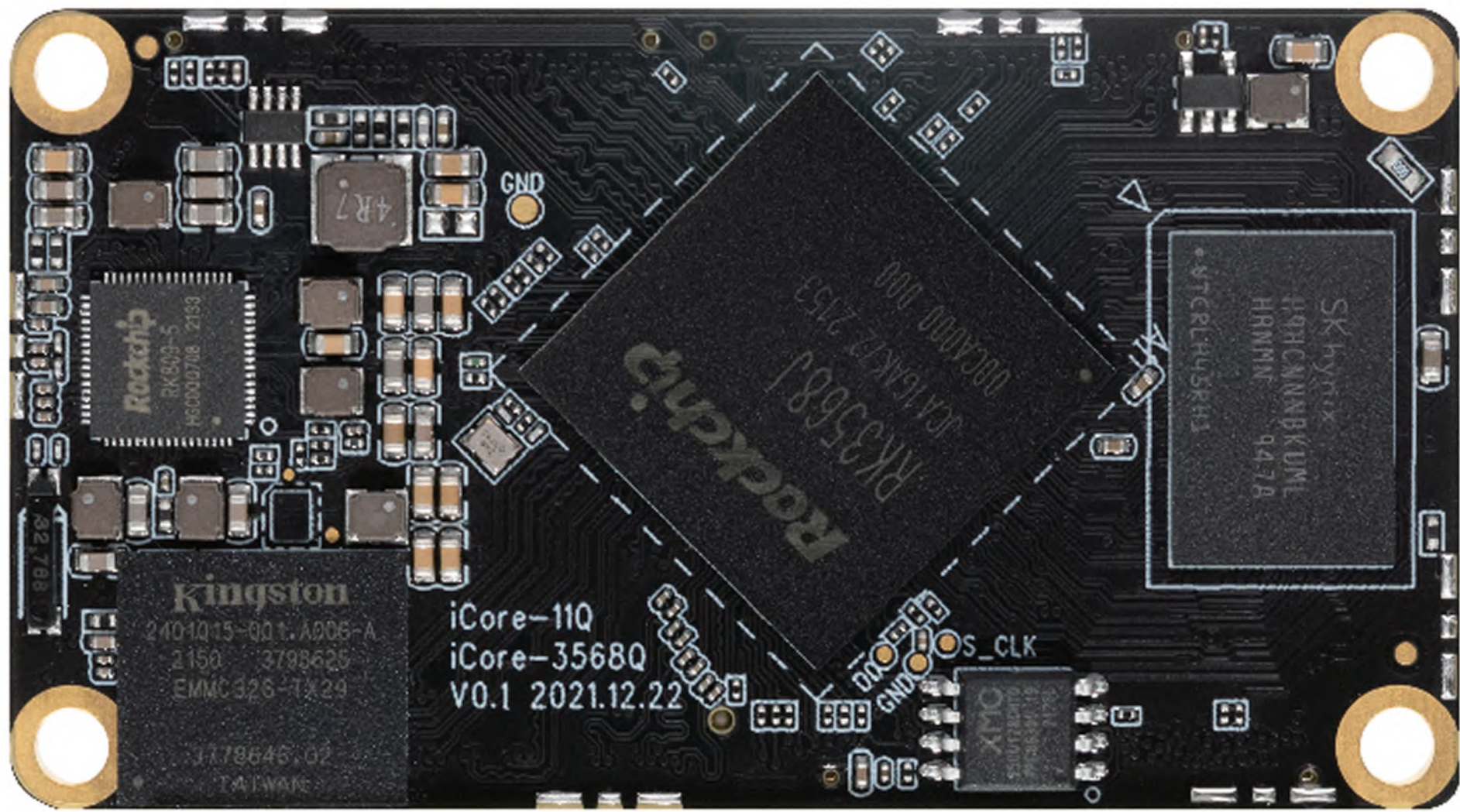
Quad-Core Industrial Core Board



High Performance



High Scalability



Dual Gigabit Ethernet



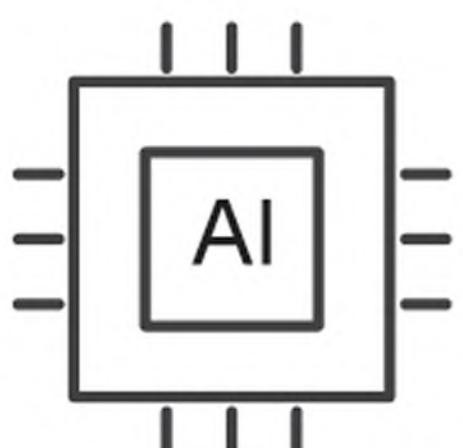
Support Multiple OS

SoC	RockChip RK3568J
CPU	Quad-core 64-bit Cortex-A55, 22nm lithography process, frequency up to 2.0GHz
NPU	Integrated high-performance AI accelerator RKNN NPU, 0.8Tops@INT8 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 60fps H.265/H.264 video encoding Supports 8M ISP, supports HDR
RAM	1GB / 2GB / 4GB / 8GB LPDDR4
Storage	8GB / 16GB / 32GB / 64GB / 128GB eMMC 16 MB SPI Flash
OS	Supports Android 11.0 , Ubuntu 18.04, RTLinux
Size	66 mm × 36.5mm

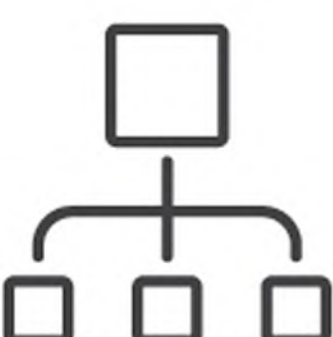
Core-1684XJD4

JD4 Series

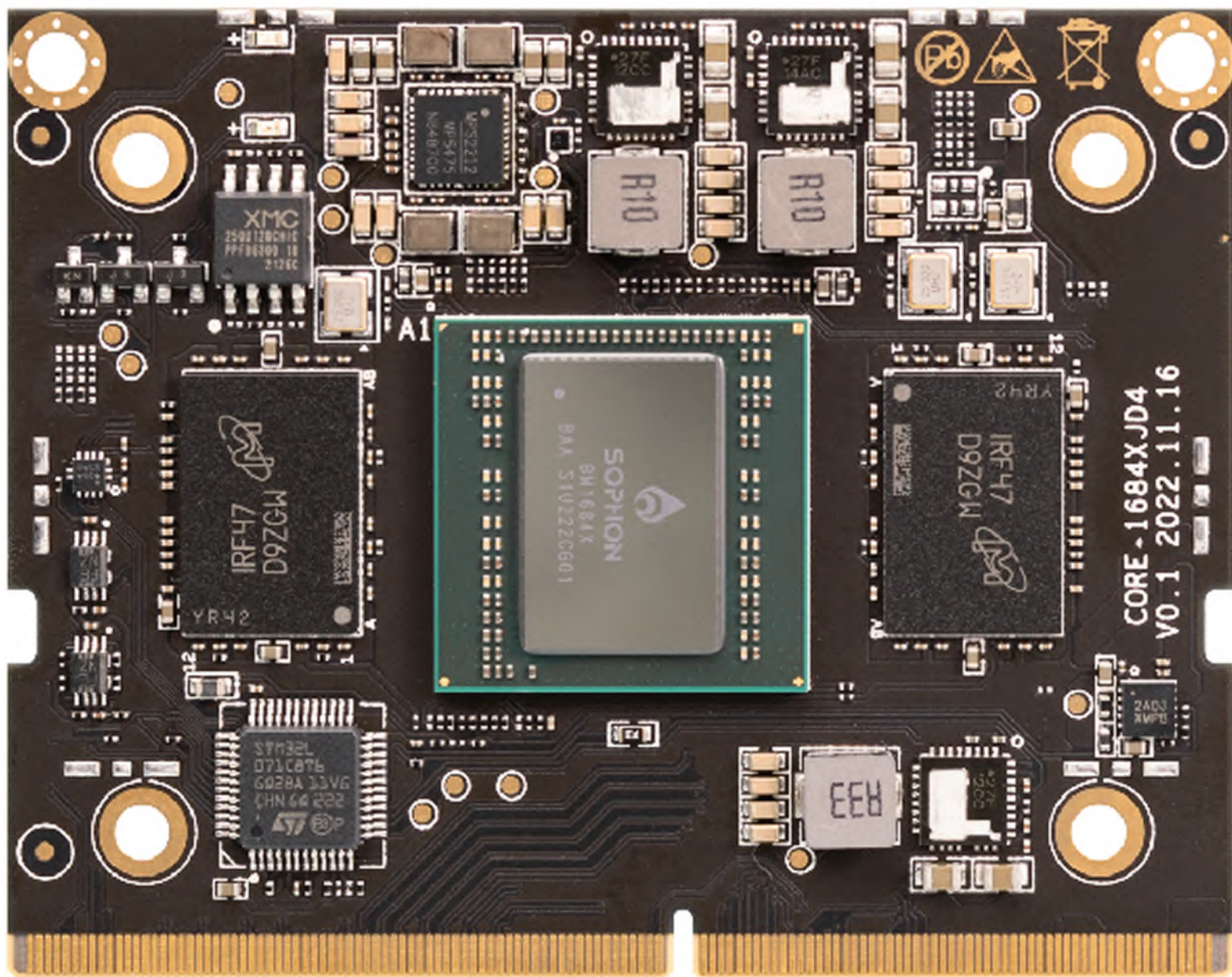
Octa-core high computing power AI core board



High Performance



High Scalability





Dual Gigabit Ethernet



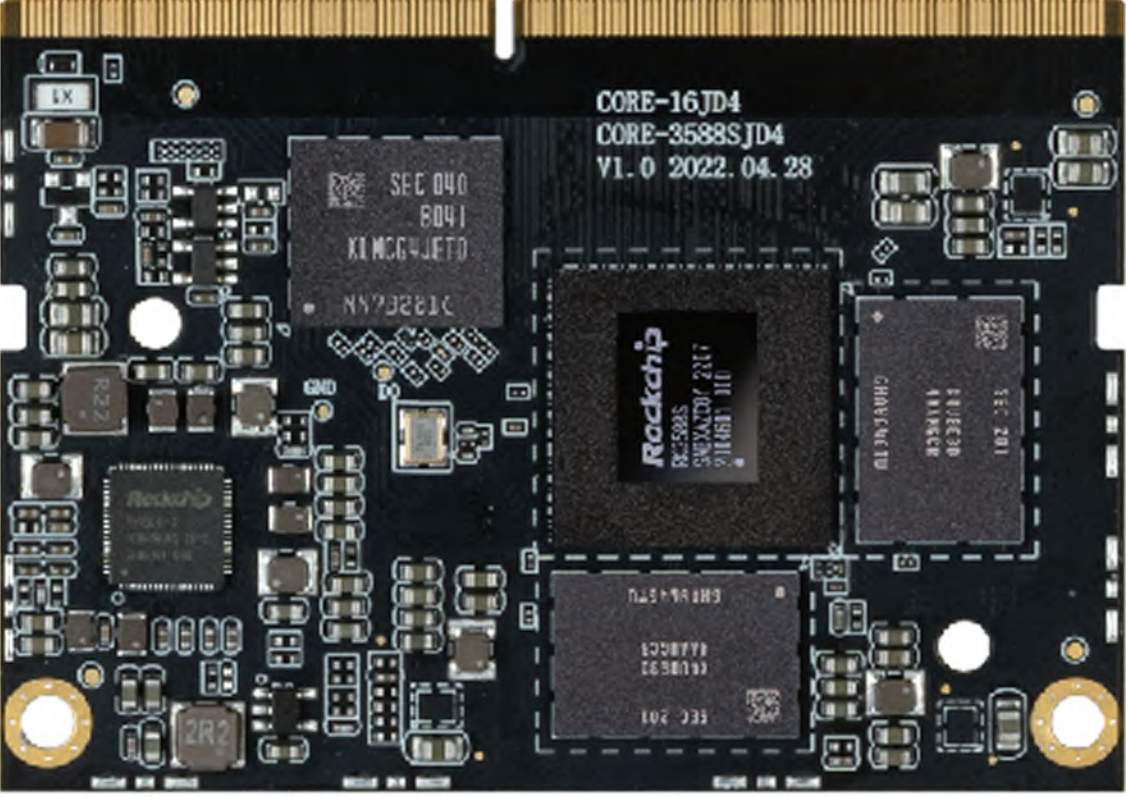
Support Linux

SoC	SOPHON BM1684X
CPU	High-performance octa-core ARM A53, 12nm lithography process, frequency up to 2.3GHz
TPU	Built-in tensor computing module TPU, computing power up to: 32TOPS (INT8), 16TFLOPS (FP16/BF16), 2TFLOPS (FP32) Support mainstream programming frameworks: TensorFlow / Caffe / PyTorch / Paddle / ONNX / MXNet / Tengine / DarkNet
VPU	32-channel H.265/H.264 1080p@25fps video decoding, 32-channel 1080P@25fps HD video processing(decoding + AI analysis) Support 12-channel H.265/H.264 1080p@25fps video encoding
RAM	6GB/12GB/16GB LPDDR4/LPDDR4X
Storage	32GB/64GB/128GB eMMC, 128MB SPI Flash
Ethernet	Dual 1000Mbps Ethernet can be extended through GMAC
Interfaces	PCIe3.0, GMAC, SDIO3.0, I2C, PWM, UART and GPIO
Power	DC 12V/5A
OS	Linux
Size	69.9mm * 55mm

Core-3588SJD4

JD4 Series

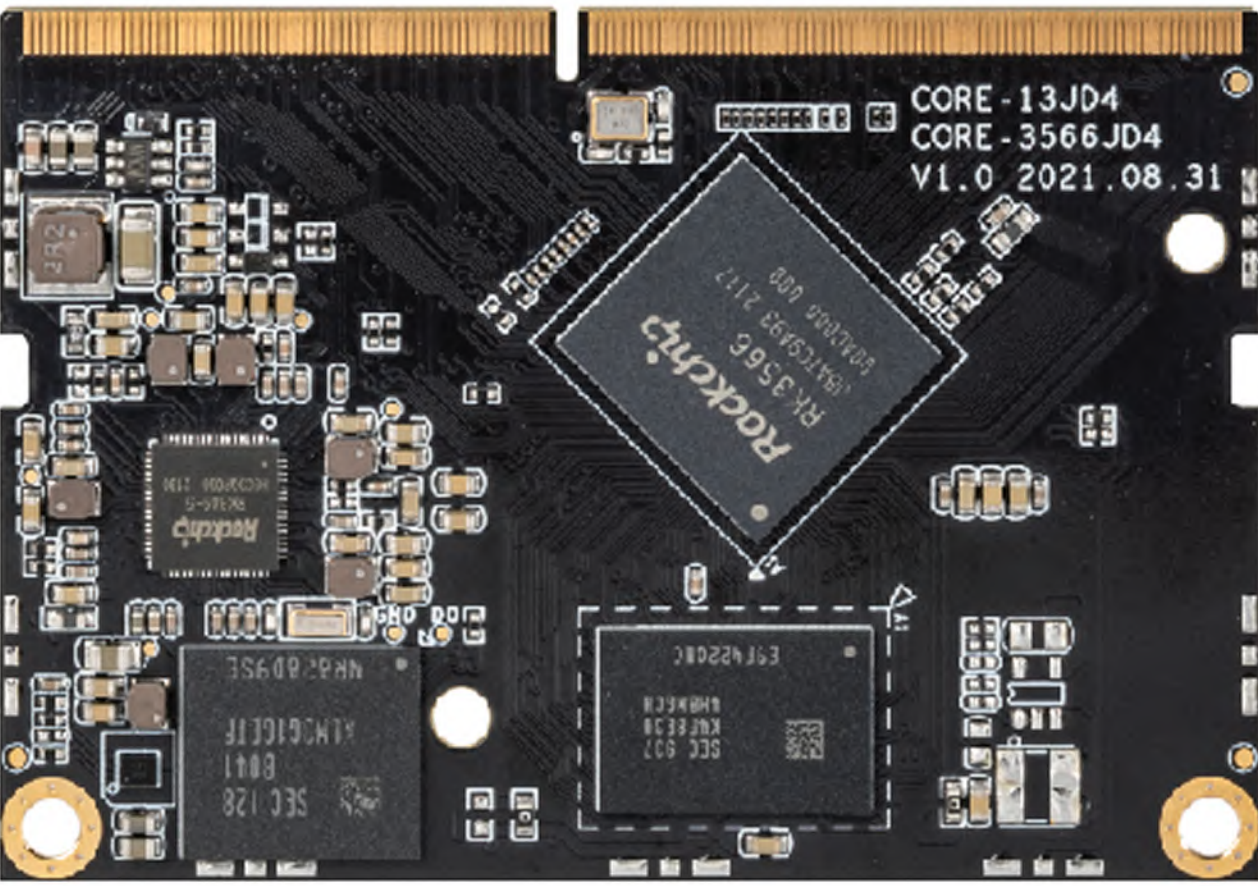
8-Core 8K AI Core Board

	Soc	RockChip RK3588S
	CPU	8-core 64-bit (4×Cortex-A76+4×Cortex-A55), 8nm lithography process, frequency up to 2.4GHz
	GPU	ARM Mali-G610 MP4 quad-core GPU Support OpenGL ES3.2 / OpenCL 2.2 / Vulkan1.1, 450 GFLOPS
	RAM	4GB/8GB/16GB 64bit LPDDR4/LPDDR4x/LPDDR5 (Up to 32GB optional)
	Storage	16GB/32GB/64GB/128GB eMMC

Core-3566JD4

JD4 Series

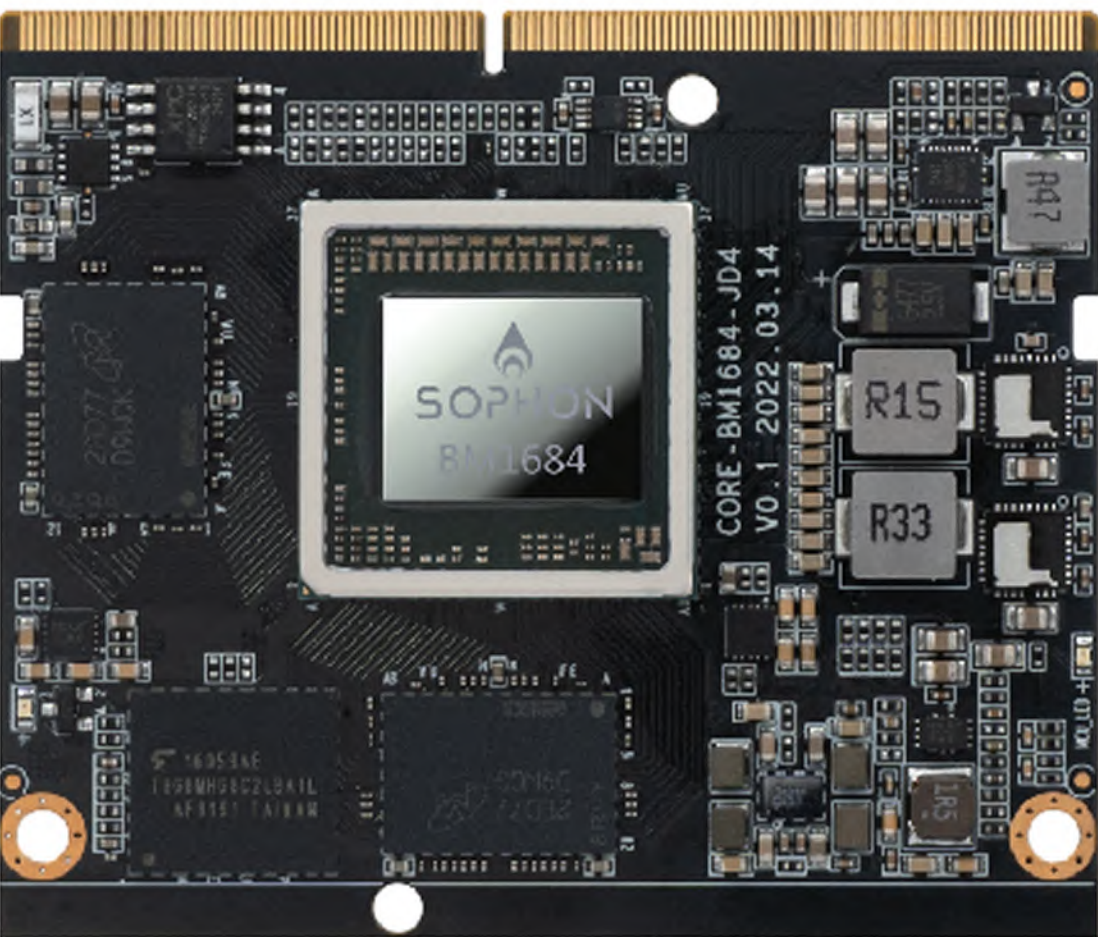
Quad-Core 64-Bit AI Core Board

	Soc	RockChip RK3566
	CPU	Quad-core 64-bit Cortex-A55, 22nm lithography process, frequency up to 1.8GHz
	GPU	ARM G52 2EE GPU; Supports OpenGL ES 1.1/2.0/3.2. OpenCL 2.0. Vulkan 1.1 Embedded high-performance 2D acceleration hardware
	RAM	1GB/2GB/4GB/8GB LPDDR4
	Storage	8GB/16GB/32GB/64GB/128GB eMMC

Core-1684JD4

JD4 Series

8-Core High Computing Power AI Core Board

	Soc	SOPHON BM1684
	CPU	Integrated high-performance octa-core ARM A53, 12nm lithography process, clock speed up to 2.3GHz
	VPU	Up to 32-channel H.265/H.264 1080p@30fps video decoding 1080p@50fps video encoding MJPEG image encoding and decoding up to 1080P@480fps
	RAM	6GB/12GB LPDDR4/LPDDR4X
	Storage	32GB/64GB/128GB eMMC

Core-3399Pro-JD4

JD4 Series

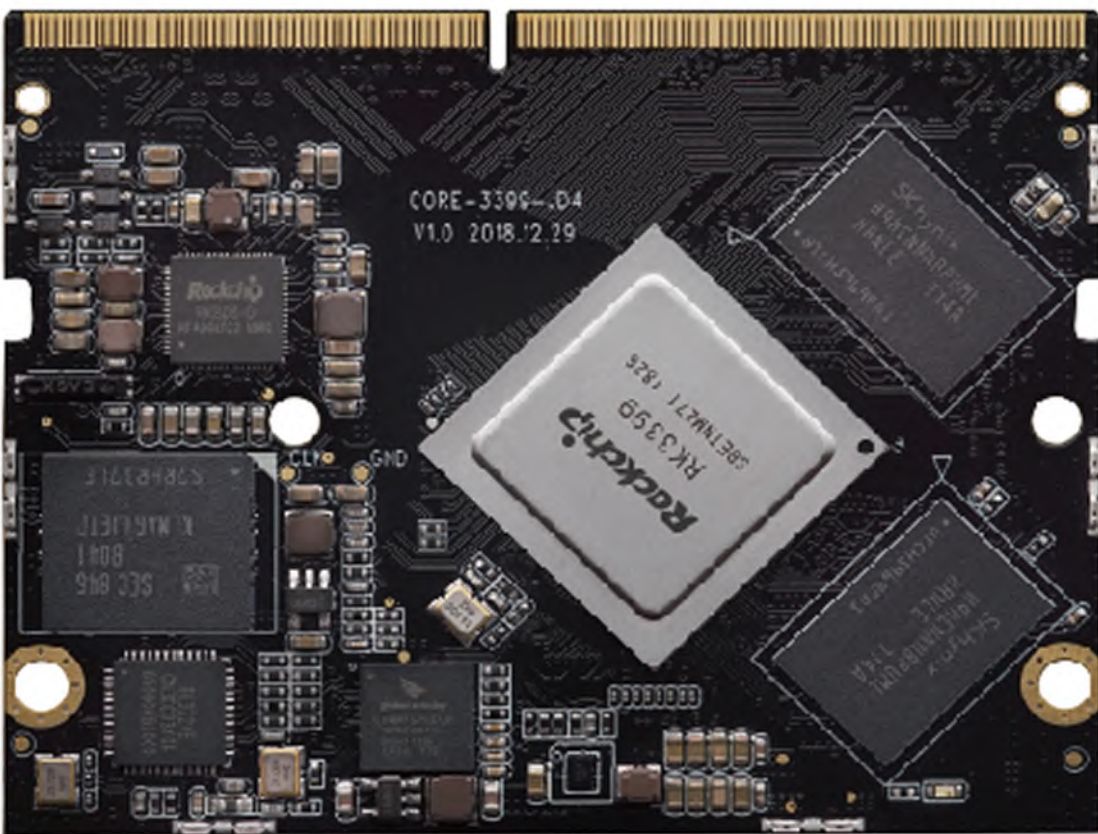
Six-core high-performance AI Core Board

	Soc	Rockchip RK3399Pro
	CPU	Dual-core Cortex-A72+ Quad-core Cortex-A53 big.LITTLE core 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)
	RAM	LPDDR3 (3GB / 6GB)
	Storage	High-speed eMMC 5.1 (8GB/16GB/32GB/64GB/128GB)

Core-3399-JD4

JD4 Series

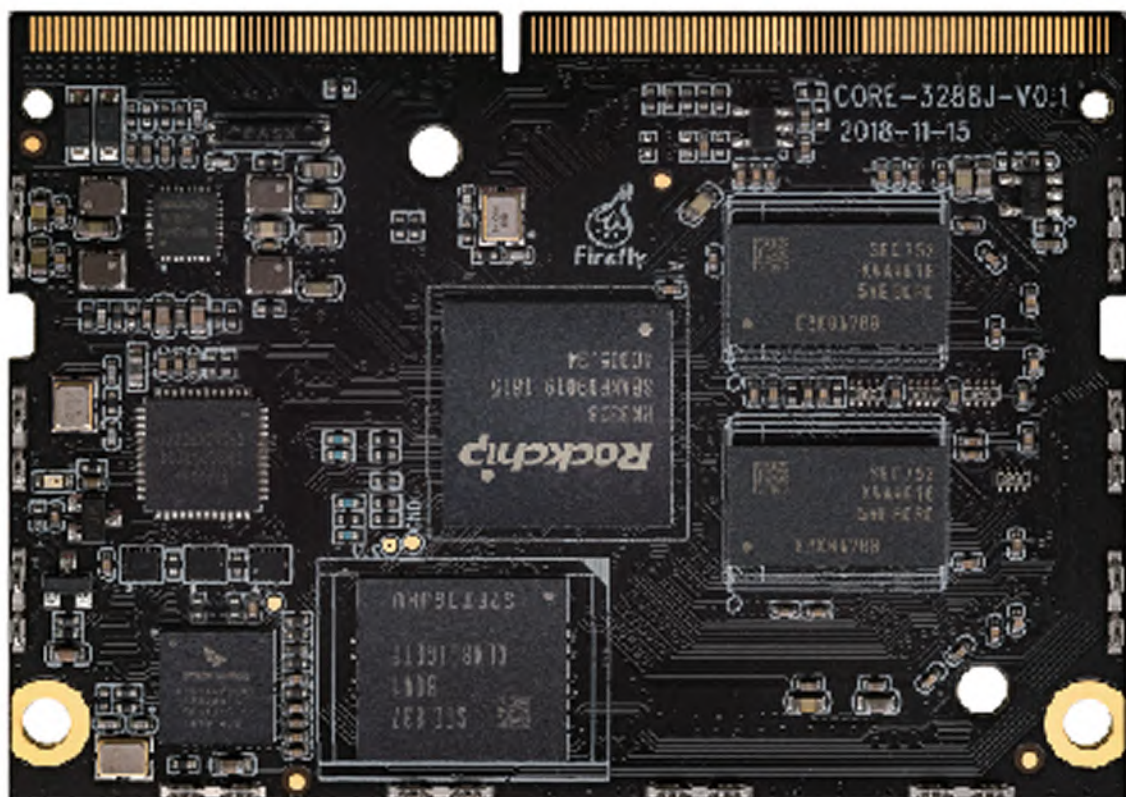
Six-core High-performance AI Core Boar

	Soc	Rockchip RK3399
	CPU	ARM® Six-core 64-bit processor, frequency up to 1.8GHz Based on the big.LITTLEcore architecture, dual-core Cortex-A72+quad core Cortex-A53
	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/4GB LPDDR4
	Storage	8GB high-speed eMMC 5.1 (8GB/16GB/32GB/128GB)

Core-3328-JD4

JD4 Series

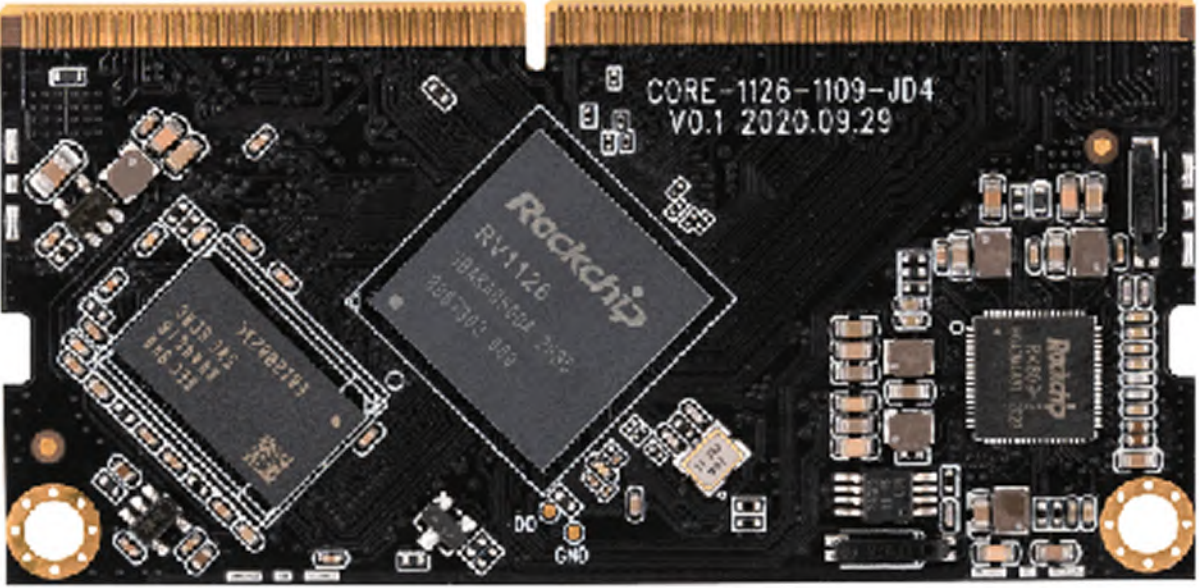
Quad-core 64-bit Core Board

	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
	Ethernet	10/100/1000MbpsEthernet
	RAM	1GB/2GB/4GBDDR3
	Storage	High-SpeedeMMC5.1 (8GB/16GB/32GB/64GB/128GB) , Support MicroSD (TF) Card Slot

Core-1126-JD4

JD4 Series

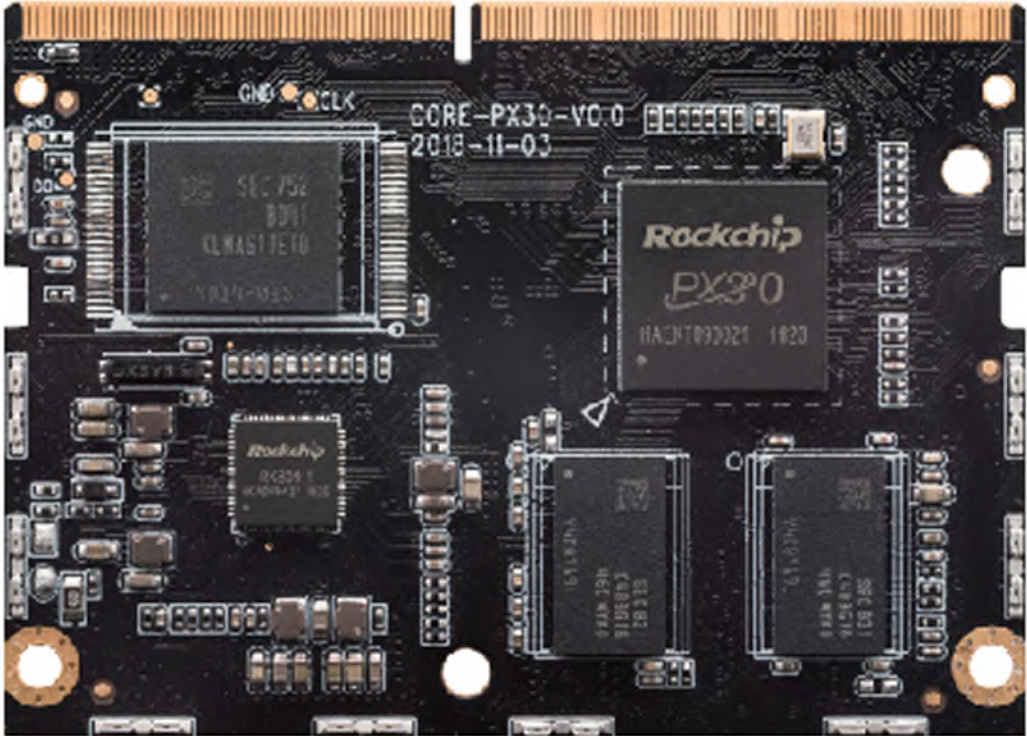
High-Performance AI Vision Core Board

	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

Core-PX30-JD4

JD4 Series

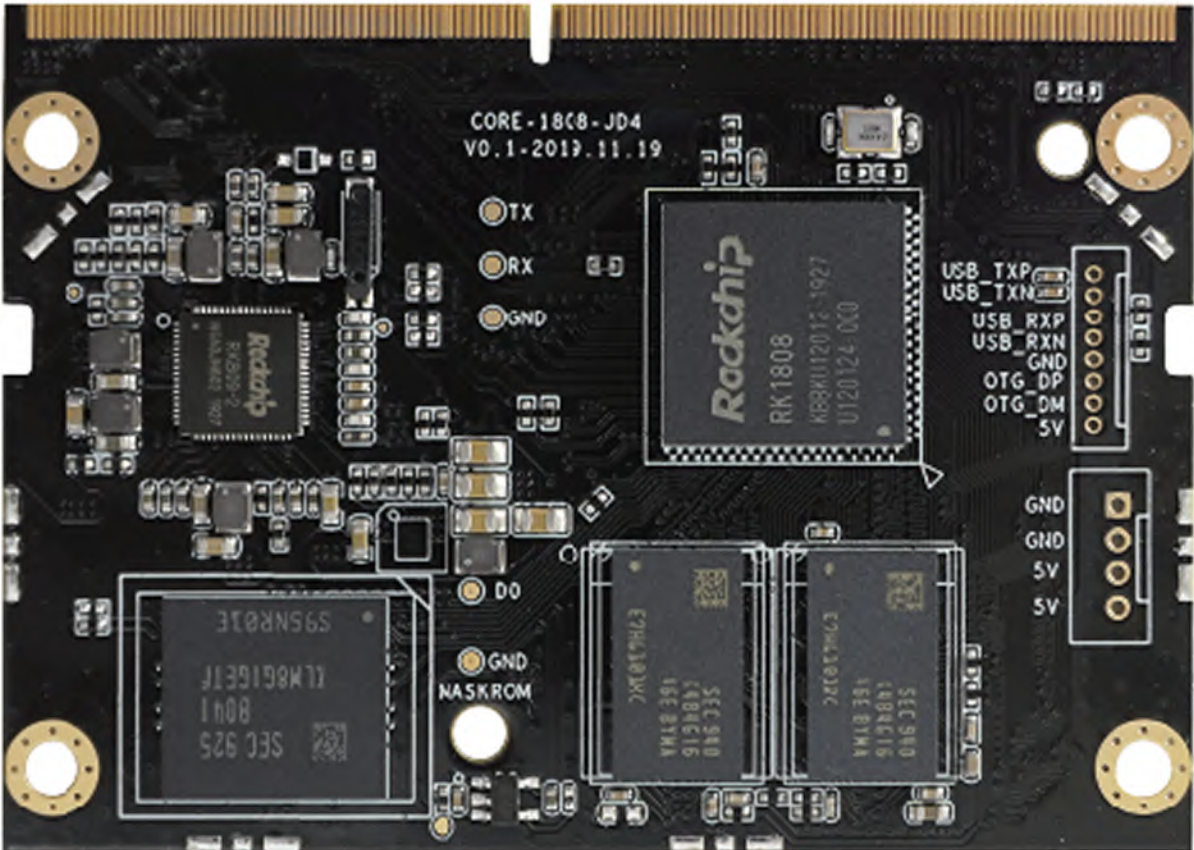
Quad-core 64-bit Core Board

	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-1808-JD4

JD4 Series

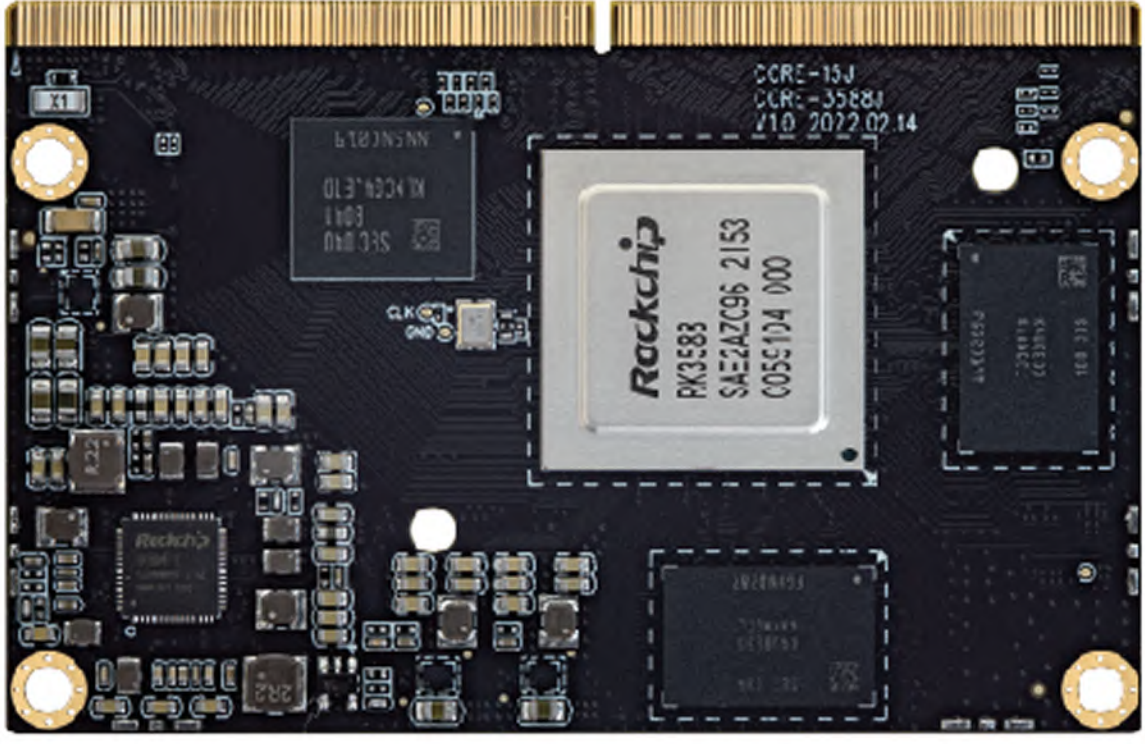
AI Core Board

	Soc	Rockchip RK1808
	CPU	Dual-Core Cortex-A35, up to 1.6GHz
	GPU	Support 2MP, AE/AWB/AF
	NPU	Up to 3.0TOPs, support OpenCL/OpenVX, support INT8/INT16/FP16 support TensorFlow、Caffe、ONNX、Darknet
	RAM	1GB DDR3 (2GB Optional)
	Storage	8GB high-speed eMMC 4.51 (16GB/32GB/128GB Optional) Support TF card expansion, support PCIe 2.1

Core-3588J

J Series

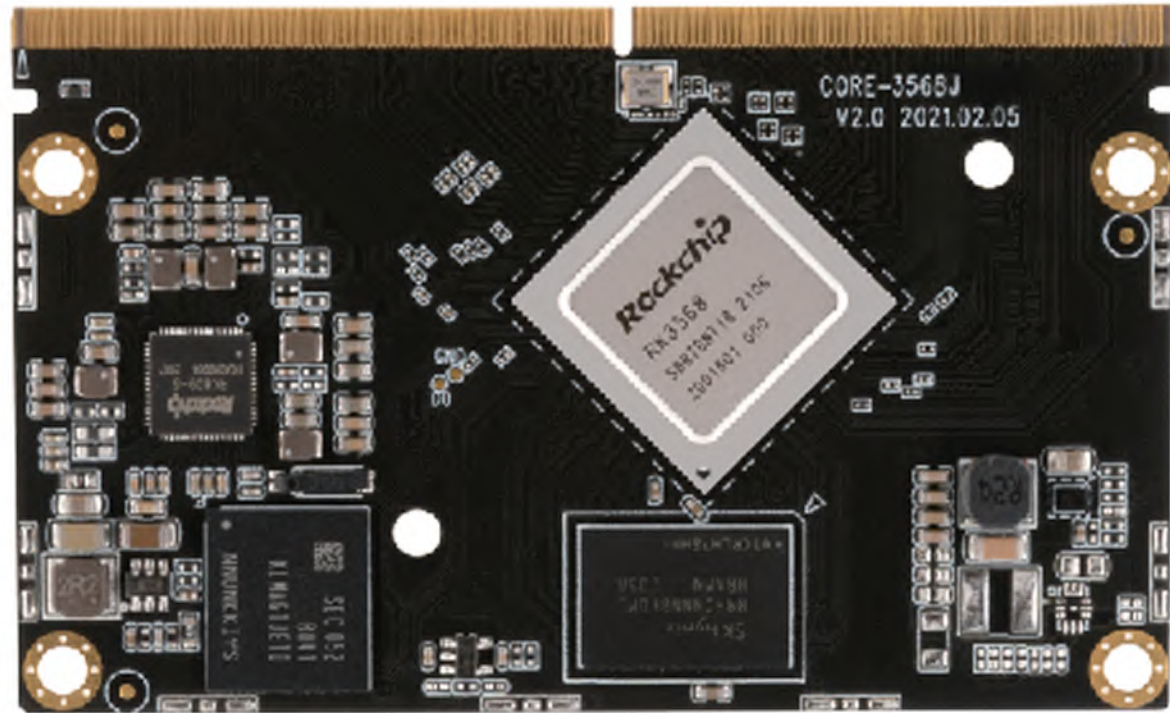
8K AI Core Board

	Soc	RockChip RK3588
	CPU	8-core 64-bit (4×Cortex-A76+4×Cortex-A55) , 8nm lithography process, frequency up to 2.4GHz
	GPU	ARM Mali-G610 MP4 quad-core GPU Supports OpenGL ES3.2 / OpenCL 2.2 / Vulkan1.1, 450 GFLOPS
	RAM	4GB/8GB/16GB 64bit LPDDR4/LPDDR4x/LPDDR5
	Storage	16GB/32GB/64GB/128GB eMMC

Core-3568J

J Series

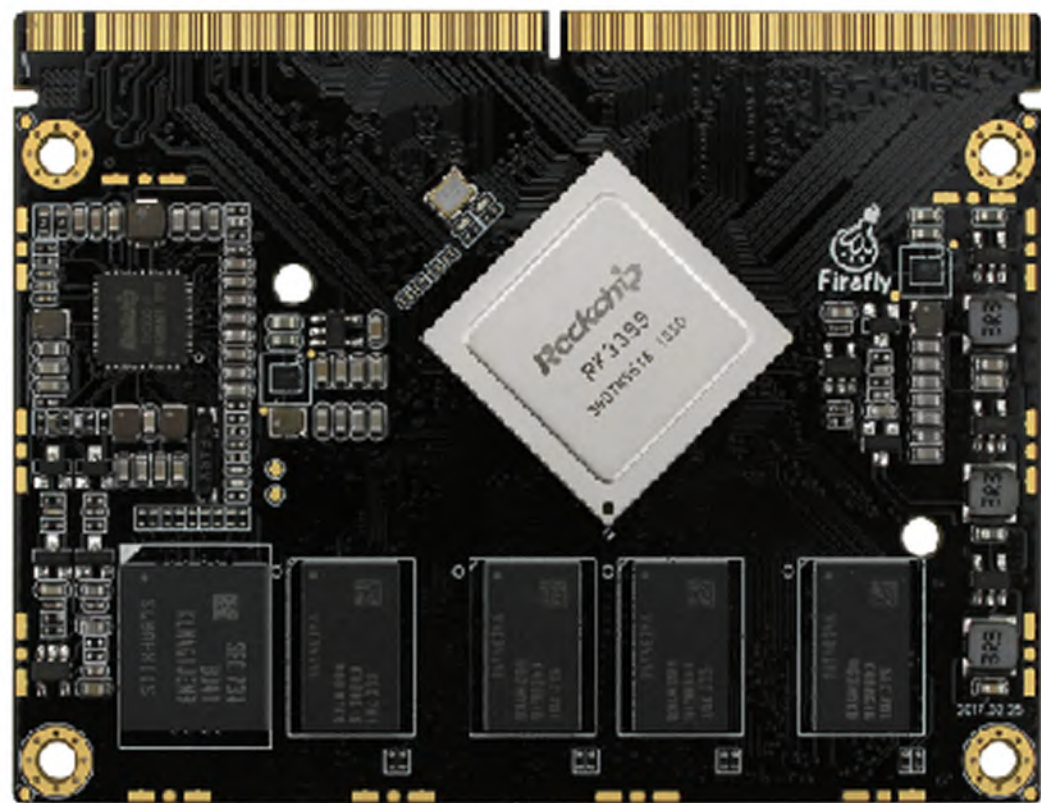
AI Core Board

	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 32Bit, frequency up to 1600MHz, supports all-data-link ECC
	Storage	32GB / 64GB / 128GB eMMC

Core-3399KJ

J Series

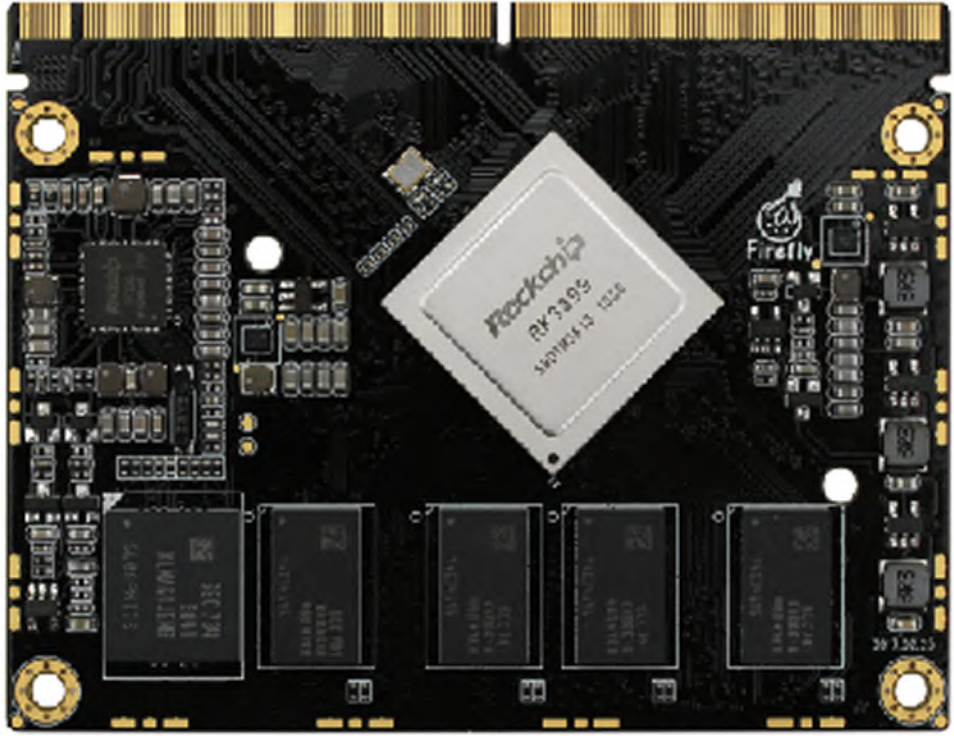
Six-Core 64-Bit High-Performance Core Board

	Soc	RK3399K
	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-3399J

J Series

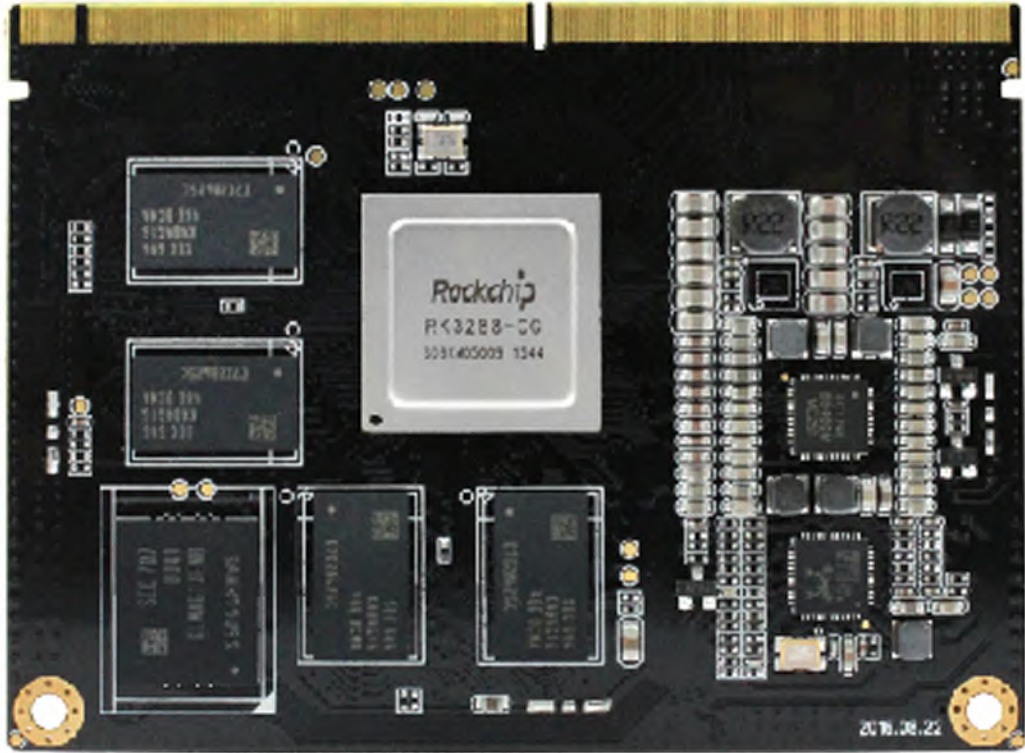
Six-Core 64-Bit High-Performance Core Board

	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

J Series

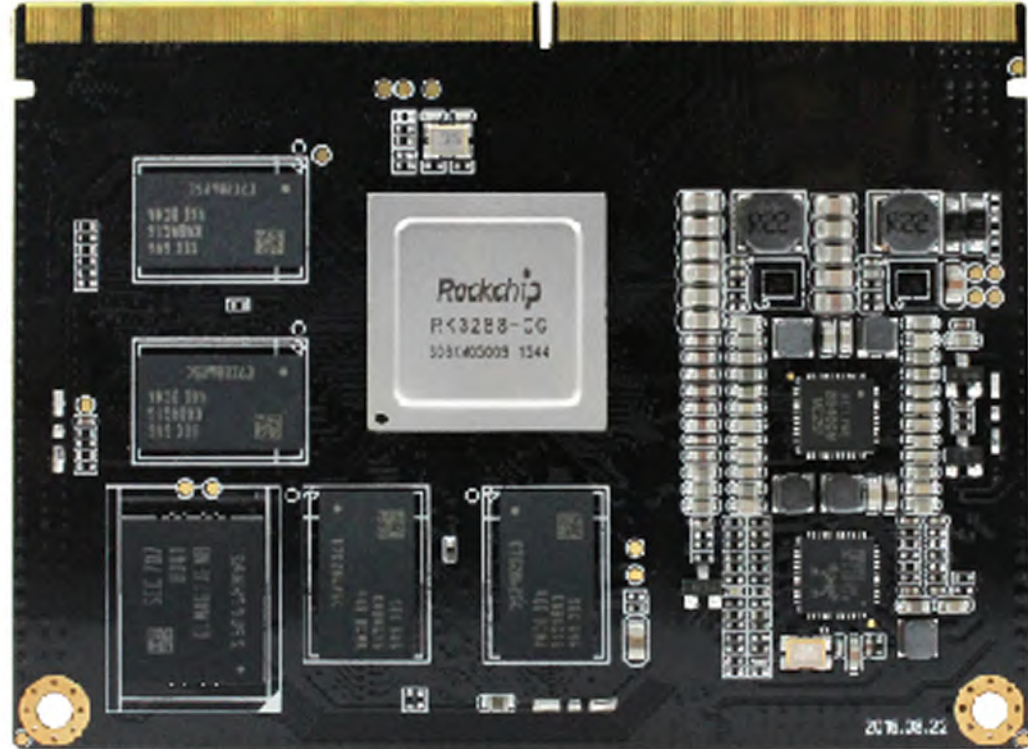
Quad-Core A17 High-Performance Core Board

	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)

Core-3128J

J Series

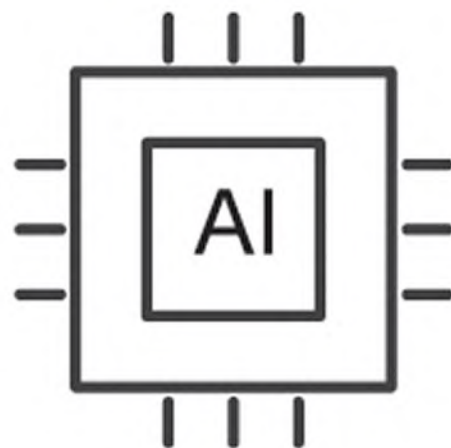
Quad-Core A7 High-Performance Core Board

	Soc	Rockchip RK3128
	CPU	ARM® Cortex™-A7 Quad-Core up to 1.3GHz
	GPU	ARM ® Mali - 400 MP2 Dual-core GPU,Support OpenGL ES1.1/2.0 Built-in high-performance 2D acceleration hardware
	NPU	The 1080P multi-format video decoding contains 1080P h.265 hardware decoding 1080P video encoding, which supports h.264 format
	RAM	Dual-Channel DDR3 (512mb/1GB/2GB Optional)
	Storage	High-Speed eMMC (4GB/8GB/16GB/32GB Optional)

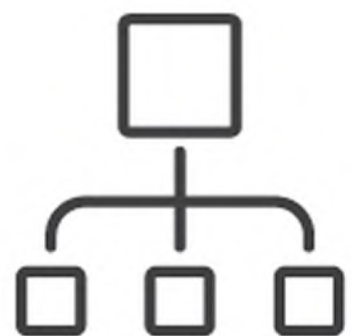
Core-3308Y

Y Series

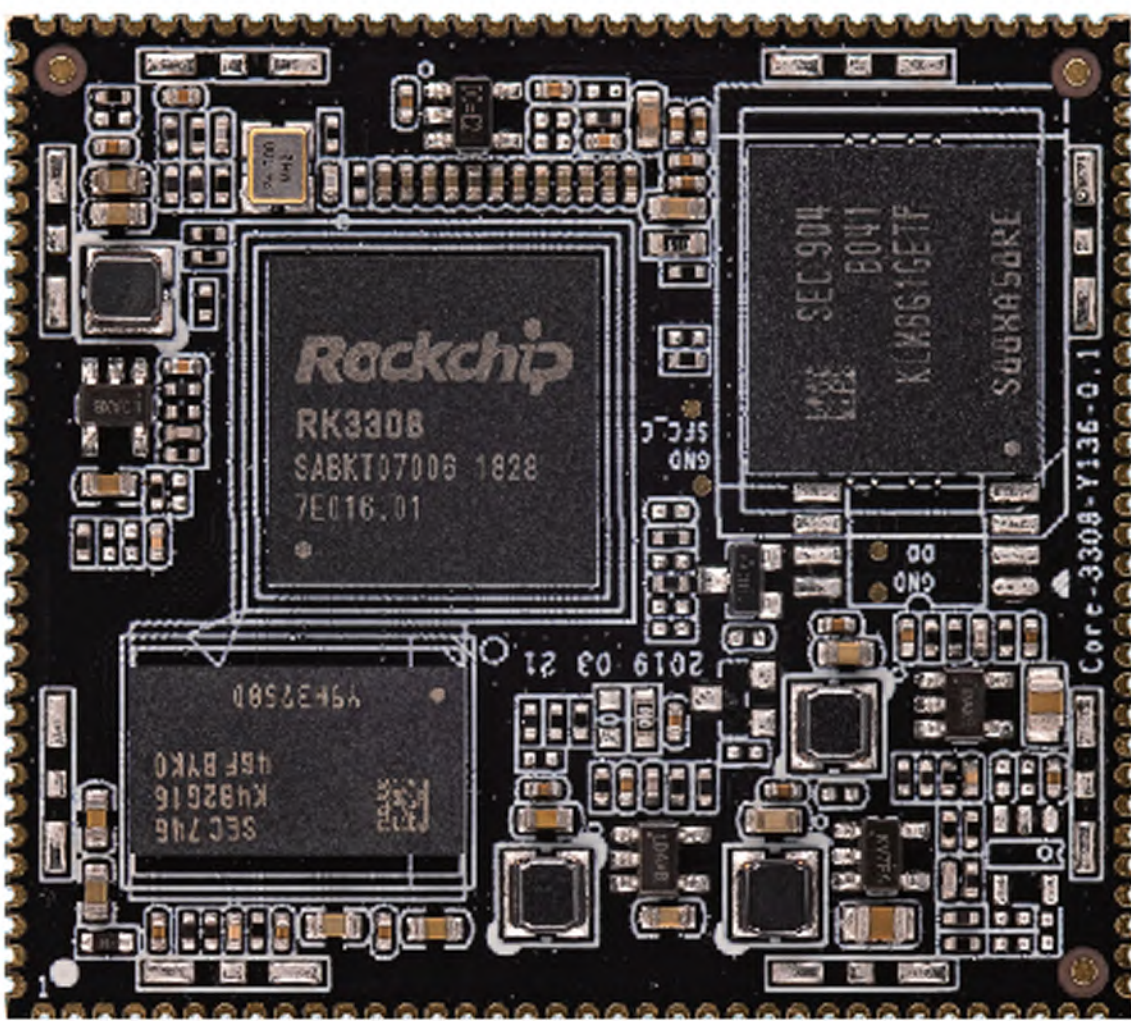
IoT Quad-Core 64-bit Core Board



High Performance



High Scalability





Dual Gigabit Ethernet



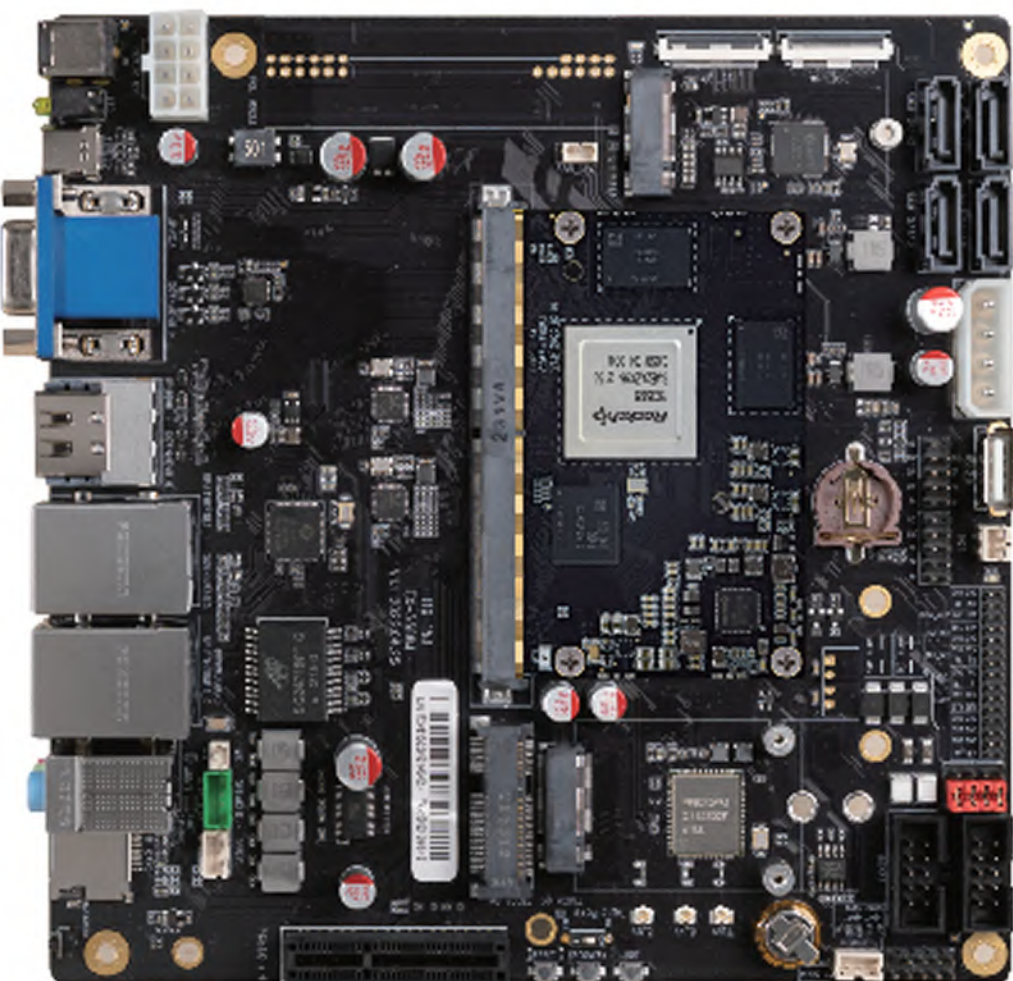
Support Multiple OS

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
Ethernet	10M/100M bps Ethernet (RJ45 interface)
WiFi	Provide SDIO 3.0 signal, support 2.4GHz WiFi, support 802.11/b/g/n protocol Support Bluetooth 4.2
Display	Support RGB / MCU display (up to 720P)
Audio	With built-in audio CODEC, including ADC x 6 Integrated high-performance Codec and Hardware VAD, supporting up to 8-channel MIC array Support digital audio interface(8CH I2S/TDM x 2, 8CH PDM, 2CH I2S/PCM)
OS	Support multiple operating systems, such as Buildroot, Linux + MiniGUI/QT, ROS(Robot Operating System) Support multiple speech systems and services, such as Baidu DuerOS, AISpeech, iFLYTEK, and Amazon Alexa
Size	45mm x 40.2 mm

ITX-3588J

ITX Series

8K AI Mini-ITX Mainboard

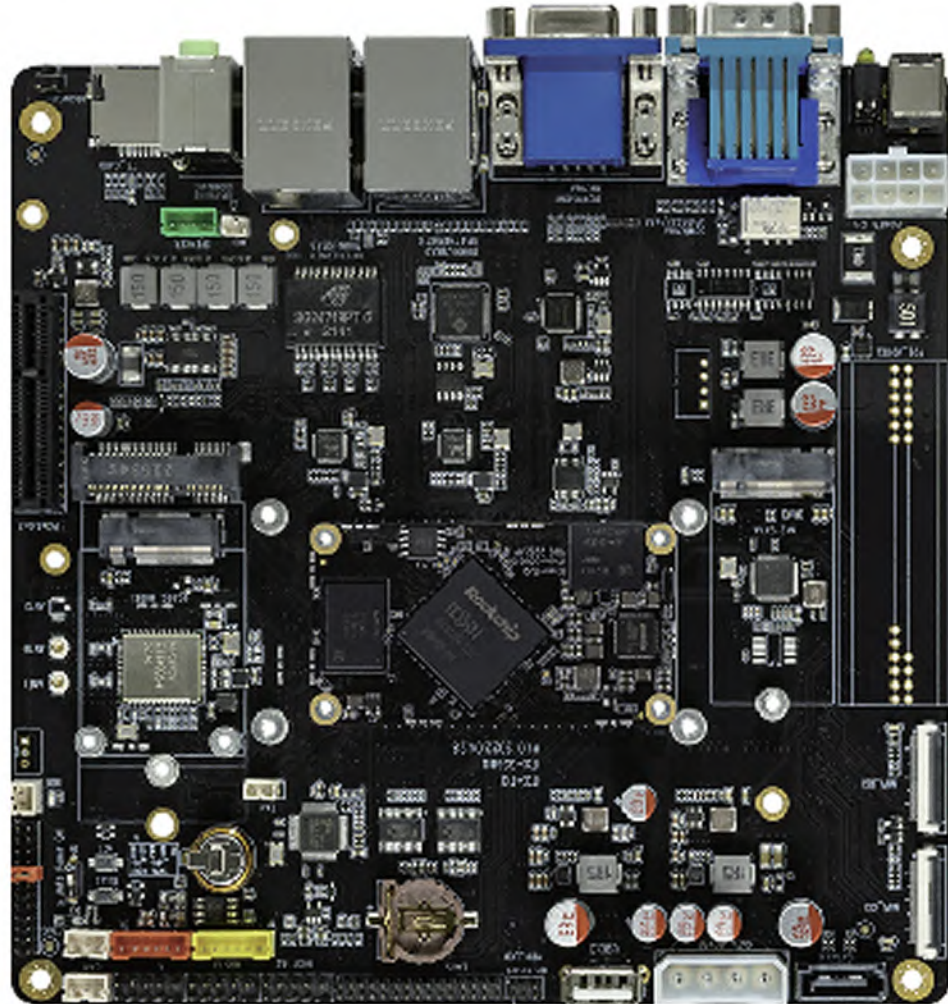


Soc	Rockchip RK3328
CPU	8-core 64-bit (4×Cortex-A76+4×Cortex-A55) , 8nm lithography process, frequency up to 2.4GHz
GPU	ARM Mali-G610 MP4 quad-core GPU, Supports OpenGL ES3.2 / OpenCL 2.2 / Vulkan1.1, 450 GFLOPS
ISP	Integrated 48MP ISP with HDR&3DNR
VPU	Video decoding: 8K@60fps H.265/VP9/AVS2 8K@30fps H.264 AVC/MVC 4K@60fps AV1 1080P@60fps MPEG-2/-1/VC-1/VP8 Video encoding: 8K@30fps encoding, Supports H.265 / H.264 * Achieves up to 32-channel 1080P@30fps decoding and 16-channel 1080P@30fps encoding
RAM	4GB/8GB/16GB 64bit LPDDR4/LPDDR4x/LPDDR5 (Up to 32GB optional)
Storage	16GB/32GB/64GB/128GB eMMC

ITX-3568JQ

ITX Series

Quad-core ITX Mainboard

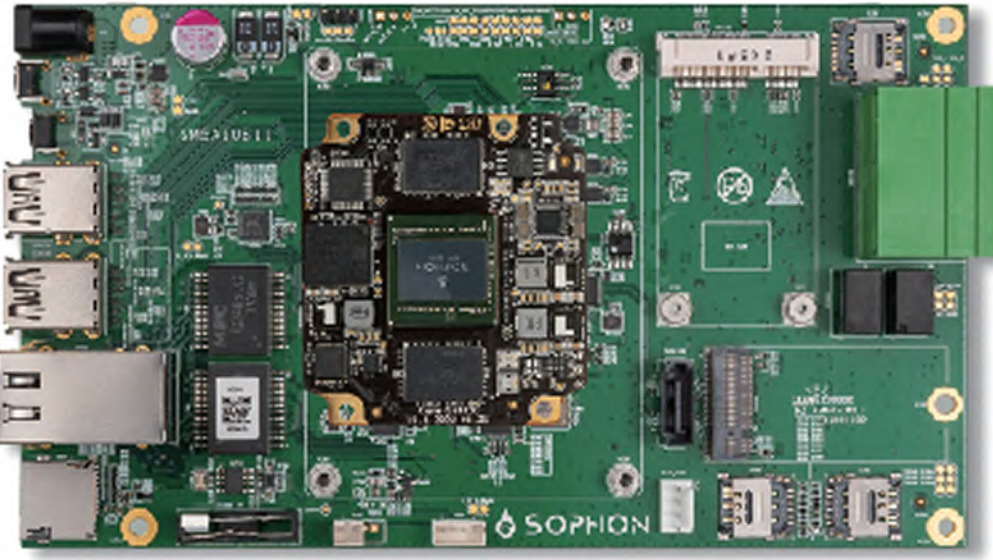


Soc	RockChip RK3568J
CPU	Quad-core 64-bit Cortex-A55 processor, 22nm lithography process, clock speed up to 2.0GHz
GPU	ARM G52 2EE, Support OpenGL ES 1.1/2.0/3.2, OpenCL 2.0, Vulkan 1.1 Embedded high-performance 2D acceleration hardware
NPU	Integrated high-performance AI accelerator RKNN NPU, 1.0Tops@INT8 Support one-click switching of Caffe/TensorFlow/TFLite/ONNX/PyTorch/Keras/Darknet
RAM	1GB / 2GB / 4GB / 8GB LPDDR4
VPU	Support 4K 60fps H.265/H.264/VP9 video decoding Support 1080P 60fps H.265/H.264 video encoding Support 8M ISP, HDR
Wireless	Support 2.4GHz / 5GHz dual-band WiFi, WiFi6, 802.11a/b/g/n/ac/ax protocol Support Bluetooth 5.0 Support extended 5G / 4G LTE wireless communication
Storage	8GB / 16GB / 32GB / 64GB / 128GB eMMC, 16 MB SPI Flash

AIO-1684XQ

AIO Series

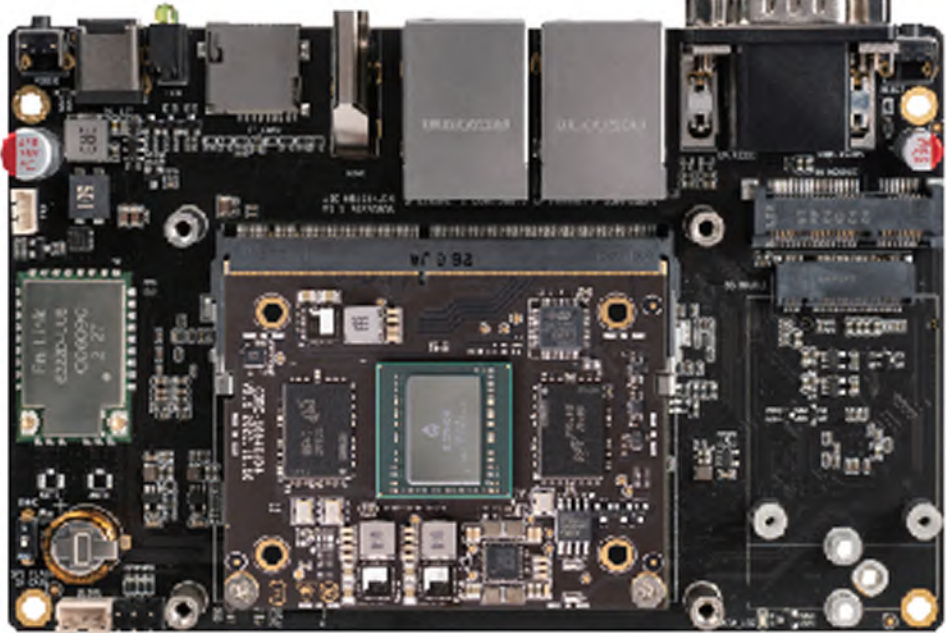
Octa-Core High Computing Power AI Mainboard

	Soc	SOPHON BM1684X
	CPU	High-performance octa-core ARM A53, 12nm lithography process, frequency up to 2.3GHz
	TPU	Built-in tensor computing module TPU Computing power up to: 32TOPS (INT8), 16TFLOPS (FP16/BF16), 2TFLOPS (FP32) Support mainstream programming frameworks: TensorFlow / Caffe / PyTorch / Paddle / ONNX / MXNet / Tengine / DarkNet
	RAM	16GB LPDDR4x
	Storage	64GB eMMC, 128MB SPI Flash

AIO-1684XJD4

AIO Series

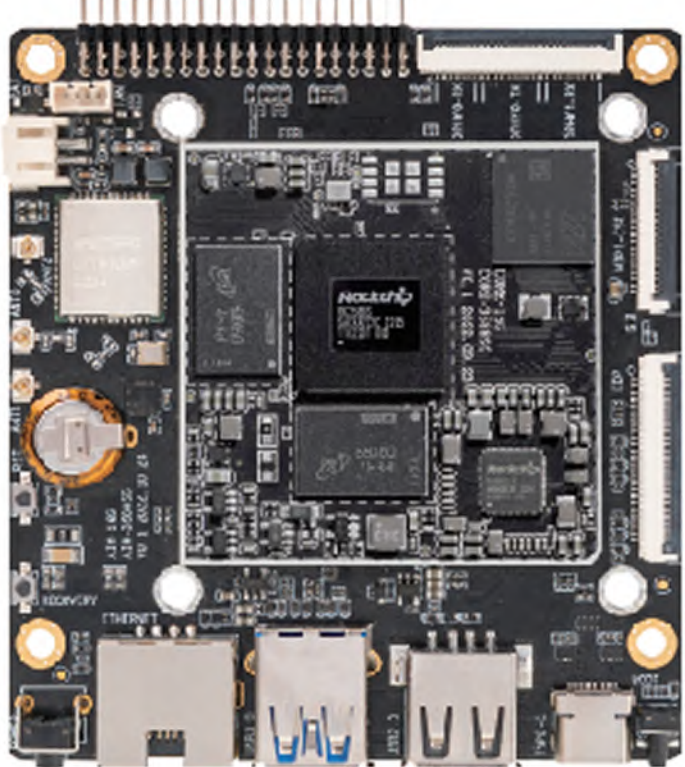
Octa-Core High Computing Power AI Mainboard

	Soc	SOPHON BM1684X
	CPU	High-performance octa-core ARM A53, 12nm lithography process, frequency up to 2.3GHz
	TPU	Built-in tensor computing module TPU, computing power up to: 32TOPS (INT8), 16TFLOPS (FP16/BF16), 2TFLOPS (FP32) Support mainstream programming frameworks: TensorFlow / Caffe / PyTorch / Paddle / ONNX / MXNet / Tengine / DarkNet
	RAM	6GB/12GB/16GB LPDDR4/LPDDR4X
	Storage	32GB/64GB/128GB eMMC, 128MB SPI Flash, 1*M.2 SATA3.0 SSD (2242), 1*TF card slot

AIO-3588SG

AIO Series

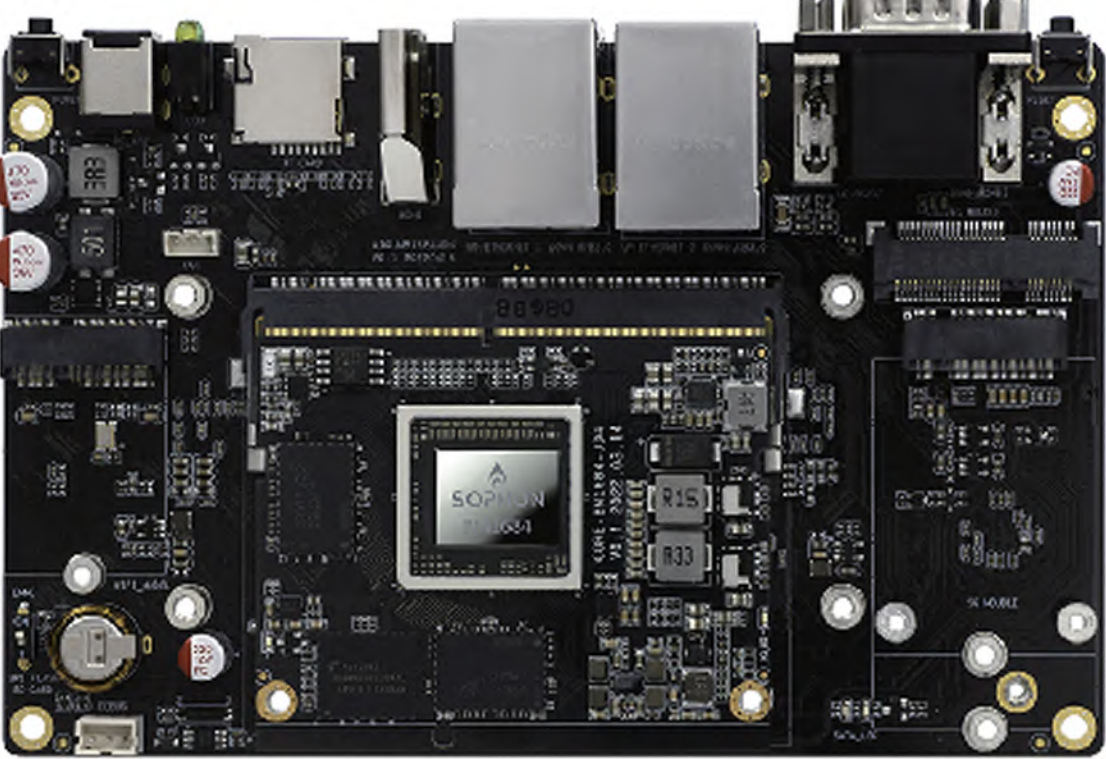
Octa-Core 8K AI Mainboard

	Soc	RockChip RK3588S
	CPU	Octa-core 64-bit (4*Cortex-A76+4*Cortex-A55), 8nm lithography process, frequency up to 2.4GHz
	GPU	ARM Mali-G610 MP4 quad-core GPU, support OpenGL ES3.2 / OpenCL 2.2 / Vulkan1.1, 450 GFLOPS
	NPU	6 TOPS, support INT4/INT8/INT16 mixed operation, support framework switching of TensorFlow / MXNet / PyTorch / Caffe
	RAM	4GB/8GB/16GB (Up to 32GB optional) 64bit LPDDR4/LPDDR4x/LPDDR5
	Storage	16GB/32GB/64GB/128GB/256GB eMMC

AIO-1648JD4

AIO Series

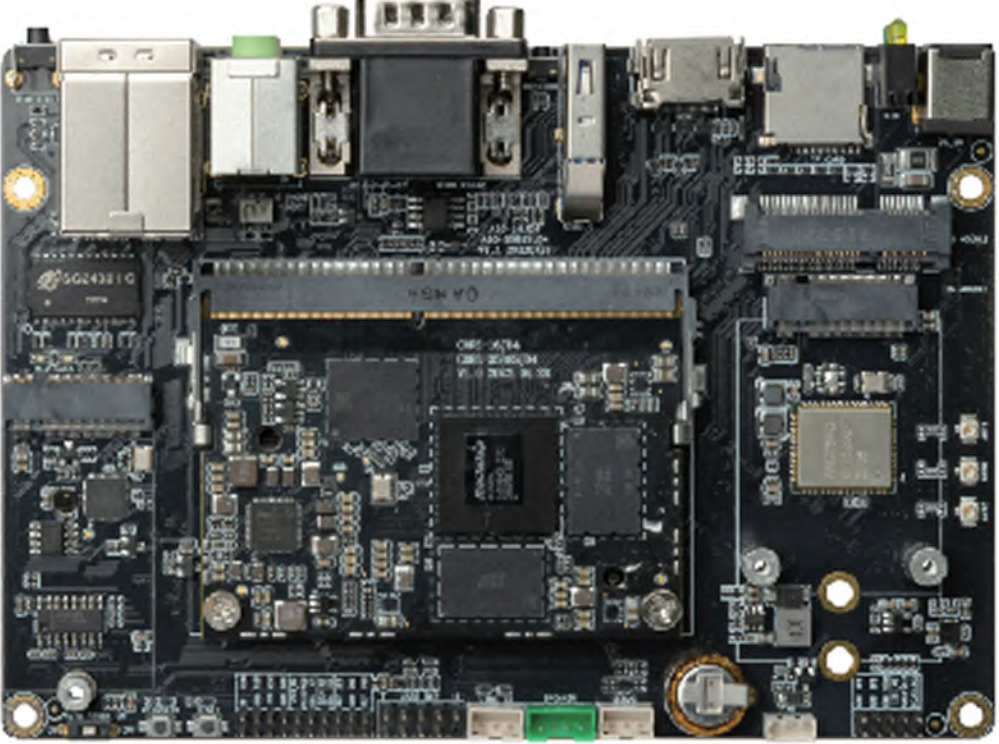
Octa-Core High Computing Power AI Mainboard

	Soc	SOPHON BM1684
	CPU	Integrated high-performance octa-core ARM A53, 12nm lithography process, clock speed up to 2.3GHz
	VPU	Up to 32-channel H.265/H.264 1080p@30fps video decoding 1080p@50fps video encoding MJPEG image encoding and decoding up to 1080P@480fps
	TPU	Built-in tensor computing module TPU, computing power up to: 17.6T (INT8) / 2.2T(FP32) / 35.2 T(INT8, enable winograd) TPU contains 64 NPU arithmetic units. Each NPU contains 16 EU arithmetic units, 1024 EU in total. Support mainstream programming frameworks, such as TensorFlow / Caffe / PyTorch / Paddle / ONNX / MXNet / Tengine / DarkNet
	RAM	12GB LPDDR4/LPDDR4X
	Storage	16GB/32GB/64GB/128GB eMMC

AIO-3588SJD4

AIO Series

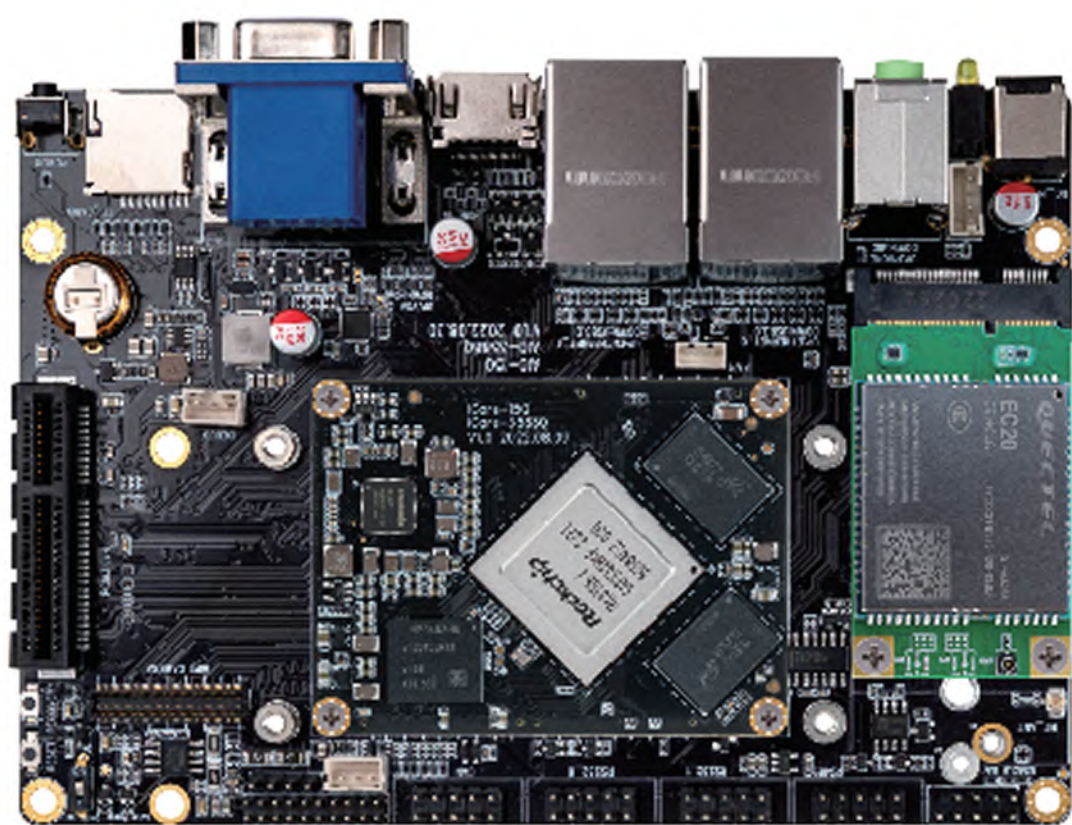
8-Core 8K AI Mainboard

	Soc	RockChip RK3588S
	CPU	8-core 64-bit (4xCortex-A76+4xCortex-A55), 8nm lithography process, frequency up to 2.4GHz
	GPU	ARM Mali-G610 MP4 quad-core GPU Support OpenGL ES3.2 / OpenCL 2.2 / Vulkan1.1, 450 GFLOPS
	NPU	NPU computing power up to 6 TOPS, Support INT4/INT8/INT16 mixed operation, Support framework switching of TensorFlow / MXNet / PyTorch / Caffe
	VPU	Video decoding:8K@60fps H.265/VP9/AVS2, 8K@30fps H.264 AVC/MVC 4K@60fps AV1, 1080P@60fps MPEG-2/-1/VC-1/VP8 Video encoding: 8K@30fps encoding, support H.265 / H.264 *Achieve up to 32-channel 1080P@30fps decoding and 16-channel 1080P@30fps encoding
	RAM	4GB/8GB/16GB 64bit LPDDR4/LPDDR4x/LPDDR5 (Up to 32GB optional)
	Storage	16GB/32GB/64GB/128GB eMMC

AIO-3588JQ

AIO Series

8K AI Industrial Mainboard

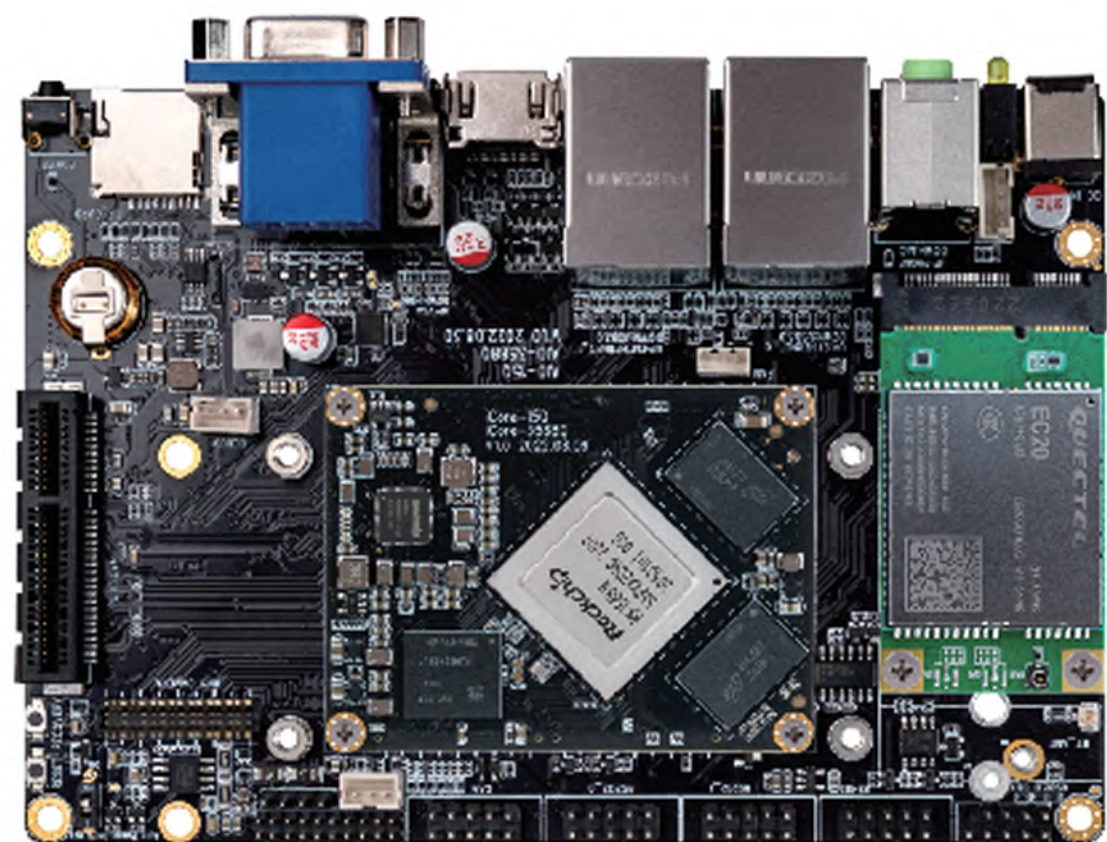


Soc	RockChip RK3588J
CPU	Octa-core 64-bit (4xCortex-A76+4xCortex-A55), 8nm lithography process, frequency up to 2.2GHz
GPU	ARM Mali-G610 MP4 quad-core GPU Support OpenGL ES3.2 / OpenCL 2.2 / Vulkan1.1, 450 GFLOPS
NPU	NPU computing power up to 6 TOPS Support INT4/INT8/INT16 mixed operation Support framework switching of TensorFlow / MXNet / PyTorch / Caffe
VPU	Video decoding:8K@60fps H.265/VP9/AVS2, 8K@30fps H.264 AVC/MVC, 4K@60fps AV1 1080P@60fps MPEG-2/-1/VC-1/VP8, Video encoding:8K@30fps encoding, support H.265 / H.264*Up to 32-channel 1080P@30fps decoding and 16-channel 1080P@30fps encoding can be achieved.
RAM	4GB/8GB/16GB (Up to 32GB optional) 64bit LPDDR4/LPDDR4x/LPDDR5 (industrial grade)
Storage	16GB/32GB/64GB/128GB eMMC (industrial grade)

AIO-3588MQ

AIO Series

Automotive-Grade AI Mainboard

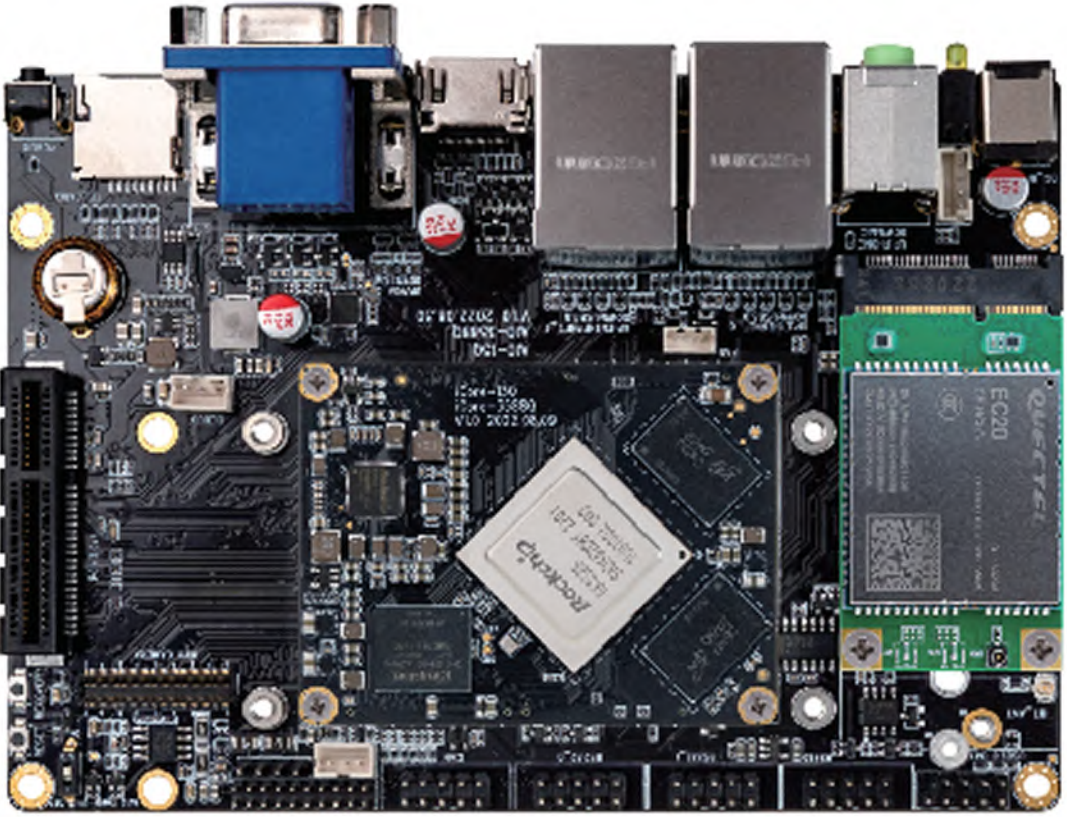


Soc	RockChip RK3588M
CPU	Octa-core 64-bit (4xCortex-A76+4xCortex-A55), 8nm lithography process, frequency up to 2.1GHz
GPU	ARM Mali-G610 MP4 quad-core GPU Support OpenGL ES3.2 / OpenCL 2.2 / Vulkan1.1, 450 GFLOPS
NPU	NPU computing power up to 6 TOPS Support INT4/INT8/INT16 mixed operation Support framework switching of TensorFlow / MXNet / PyTorch / Caffe
VPU	Video decoding:8K@60fps H.265/VP9/AVS2, 8K@30fps H.264 AVC/MVC, 4K@60fps AV1 1080P@60fps MPEG-2/-1/VC-1/VP8, Video encoding:8K@30fps encoding, support H.265 / H.264 *Up to 32-channel 1080P@30fps decoding and 16-channel 1080P@30fps encoding can be achieved.
RAM	4GB/8GB/16GB (Up to 32GB optional) 64bit LPDDR4/LPDDR4x/LPDDR5
Storage	16GB/32GB/64GB/128GB eMMC

AIO-3588Q

AIO Series

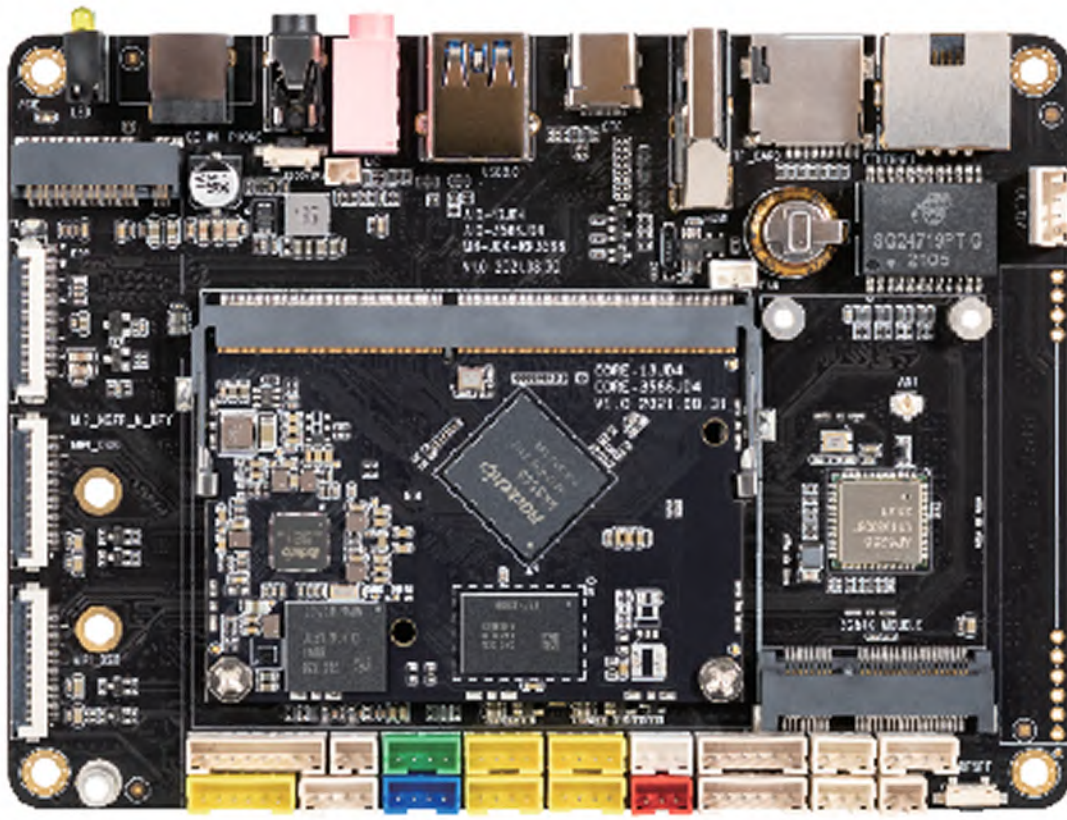
8K AI Mainboard

	Soc	RockChip RK3588
	CPU	Octa-core 64-bit (4×Cortex-A76+4×Cortex-A55), 8nm lithography process, frequency up to 2.4GHz
	GPU	ARM Mali-G610 MP4 quad-core GPU Support OpenGL ES3.2 / OpenCL 2.2 / Vulkan1.1, 450 GFLOPS
	RAM	4GB/8GB/16GB (Up to 32GB optional) 64bit LPDDR4/LPDDR4x/LPDDR5
	Storage	16GB/32GB/64GB/128GB eMMC

AIO-3566JD4

AIO Series

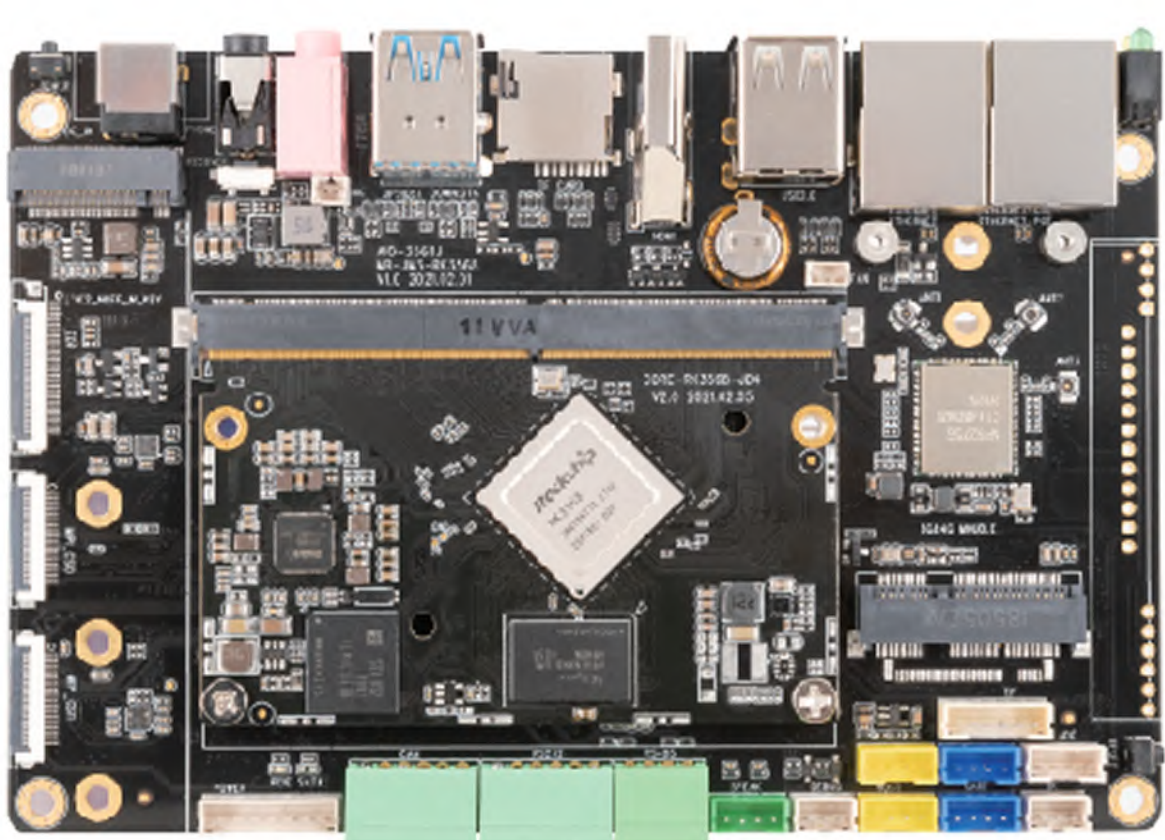
Quad-Core 64-Bit AI Mainboard

	Soc	RockChip RK3566
	CPU	Quad-core 64-bit Cortex-A55, 22nm lithography process, frequency up to 1.8GHz
	GPU	ARM G52 2EE GPU, Supports OpenGL ES 1.1/2.0/3.2. OpenCL 2.0. Vulkan 1.1 Embedded high-performance 2D acceleration hardware
	NPU	Integrated RKNN NPU AI accelerator, 1Tops@INT8 Supports one-click switching of Caffe/TensorFlow/TFLite/ONNX/PyTorch/Keras/Darknet
	RAM	1GB/2GB/4GB/8GB LPDDR4/LPDDR4X
	Storage	6GB/32GB/64GB/128GB eMMC

AIO-3568J

AIO Series

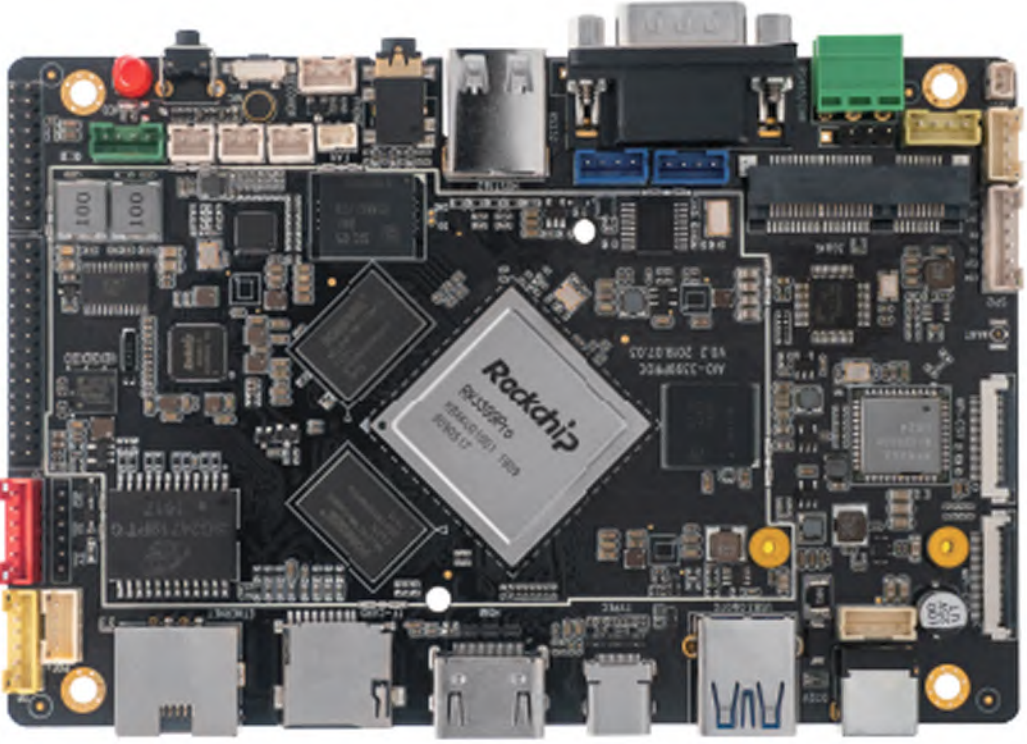
Quad-Core High-Performance AI Mainboard

	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	1Tops@INT8, integrated high-performance AI accelerator RKNN NPU Supports one-click switching of Caffe/TensorFlow/TFLite/ONNX/PyTorch/Keras/Darknet
	RAM	2GB / 4GB / 8GB LPDDR4, 32Bit, frequency up to 1600MHz, supports all-data-link ECC
	Storage	32GB / 64GB / 128GB eMMC

AIO-3399ProC

AIO Series

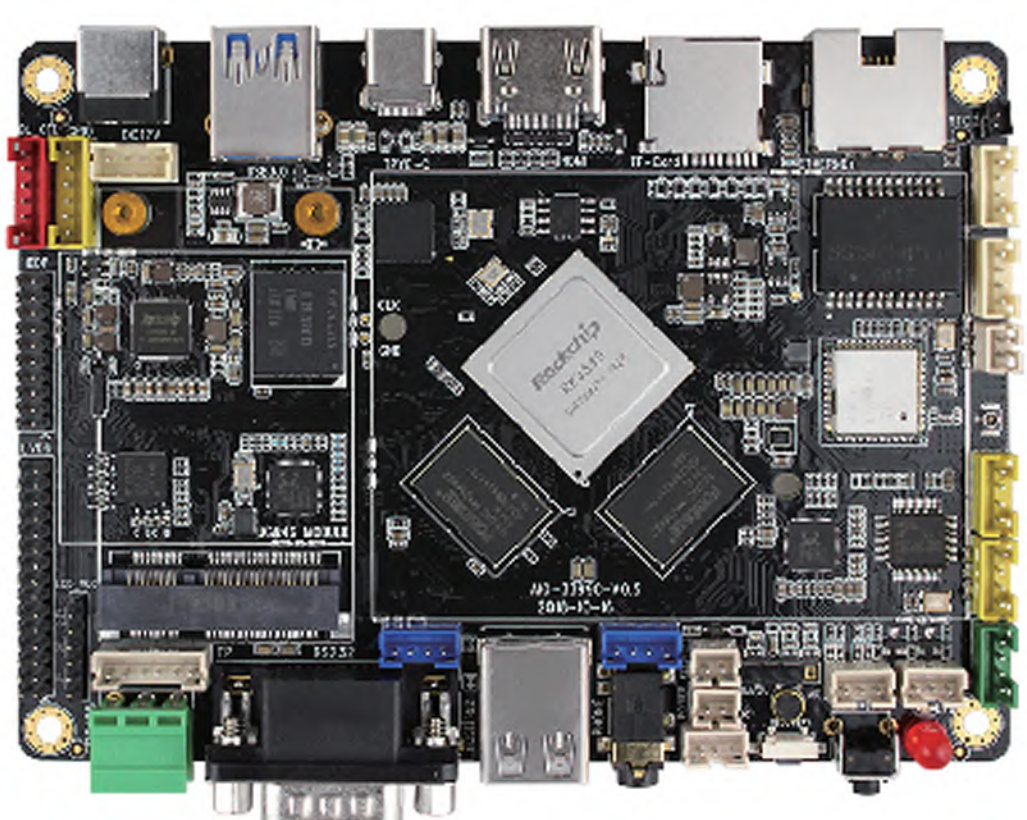
Six-core High-proformance AI Main Board

	Soc	Rockchip RK3399Pro
	CPU	Dual-core Cortex-A72+ Quad-core Cortex-A53 big.LITTLE core CPU architecture,frequency up tp 1.8GHZ
	GPU	ARM Mali-T860 MP4 Quad-core GPU Support OpenGL ES 1.1/2.0 /3.0/3.1, OpenVG1.1, OpenCL, DX11 Support AFBC (frame buffer compression)
	RAM	LPDDR3 3GB (NPU 1GB + CPU 2GB)、 LPDDR3 6GB (NPU 2GB + CPU 4GB)
	Storage	High-speed eMMC 5.1 (16GB/32GB/64GB128GB).Support TF card expansion

AIO-3399C

AIO Series

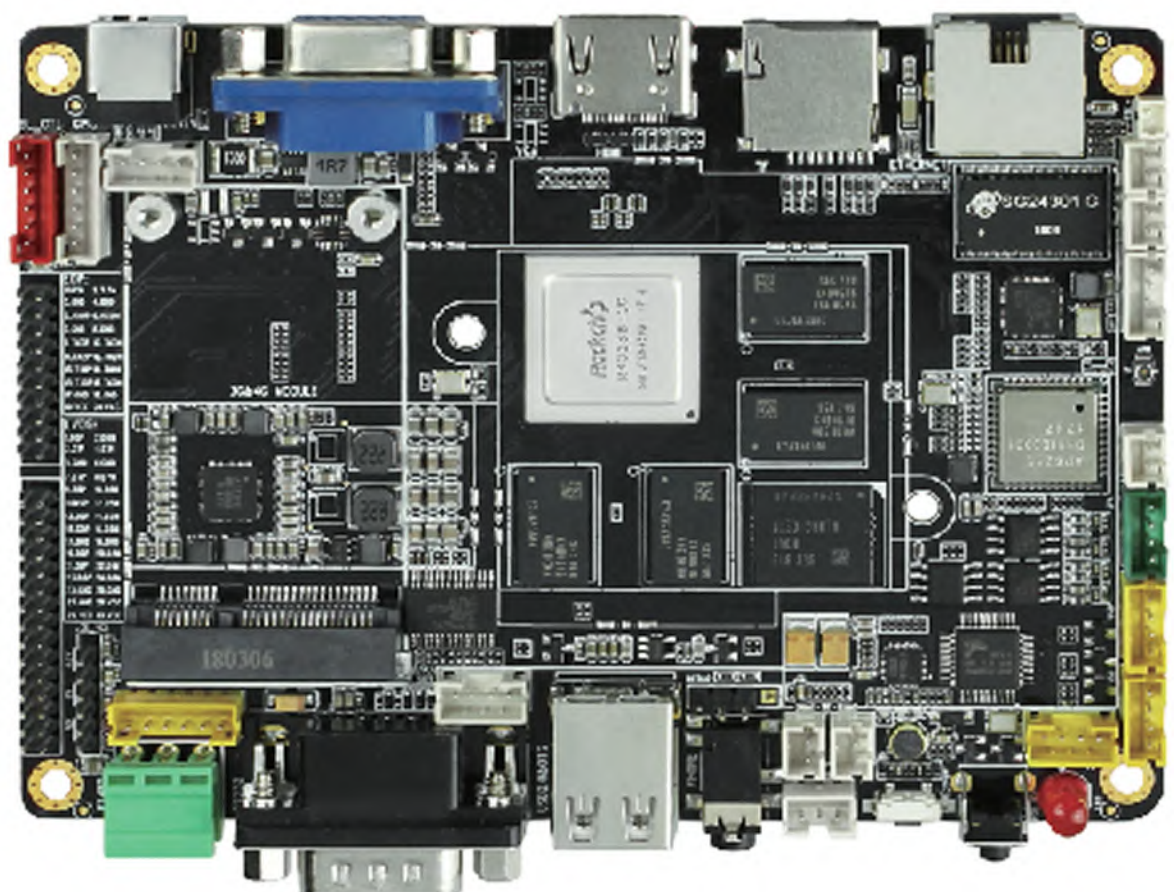
Six-Core High-performance Main Board

	Soc	Rockchip RK3399
	CPU	Dual-core (Cortex-A72) +Quad-core (Cortex-A53) , frequency up to1.8 GHz
	GPU	Quad-core ARM Mali-T860, Support OpenGL ES 1.1/2.0 /3.0, OpenVG1.1, OpenCL, Directx11
	OS	Support Android\Linux\Ubuntu system
	RAM	2GB / 4GB Dual-Channel LP DDR4
	Storage	8GB -128GB High-SpeedeMMC、 TFCard Slot

AIO-3288C

AIO Series

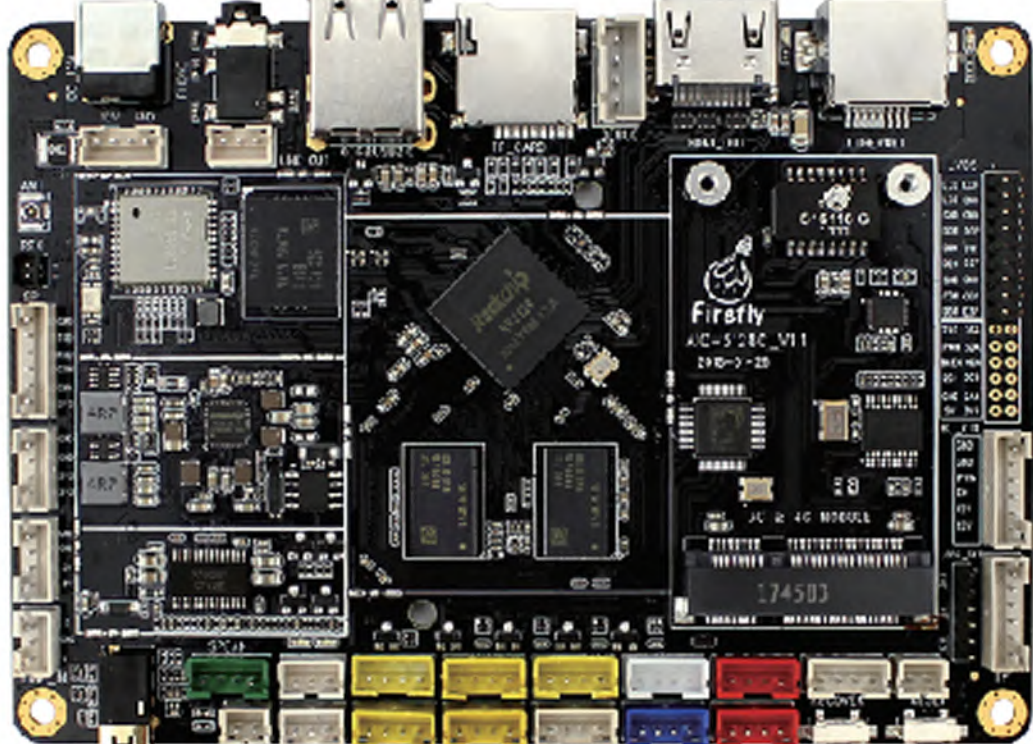
Quad-Core High-Performance Board

	Soc	Rockchip RK3328
	CPU	Quad-core Cortex-A17, frequencyup to 1.8GHz
	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
	RAM	2GB dual channel DDR3
	Storage	8GB eMMC 5.1、 Support MicroSD (TF) Card

AIO-3128C

AIO Series

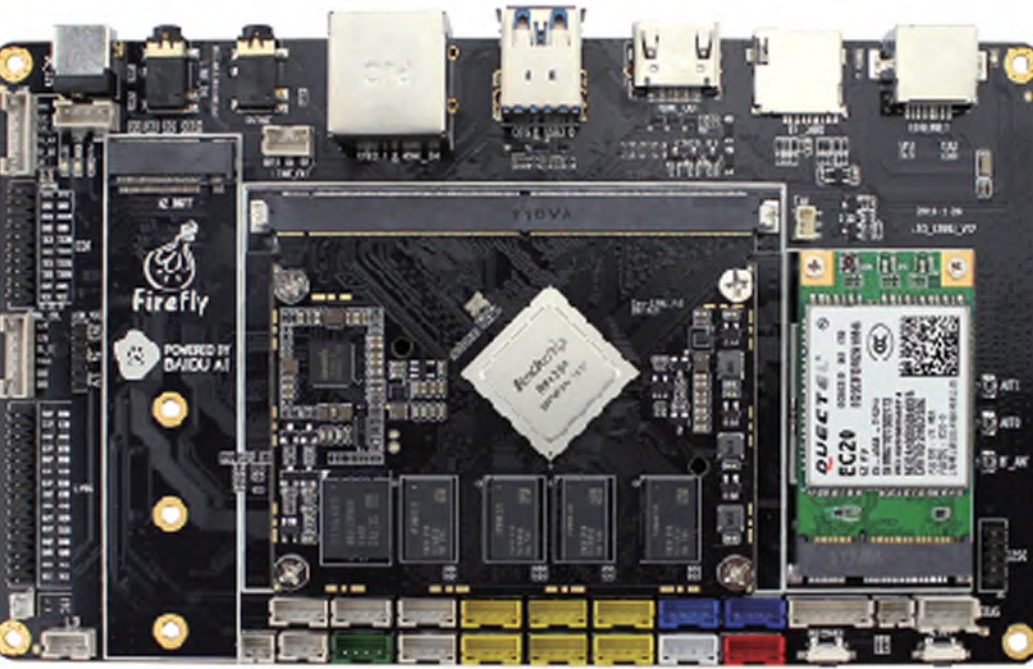
Quad-core High-performance Board

	Soc	Rockchip RK3128
	CPU	ARM® Cortex™-A7 Quad-Core up to 1.3GHZ
	GPU	ARM ® Mali-400MP2 GPU, support AFBC (Frame Buffer Compress) Support OpenGL ES1.1/2.0, Built-in high-performance 2D acceleration hardware
	PMU	RK816-1 Power management unit
	RAM	32Bit 1GB/2GB DDR3-1066Mbps(533MHZ)
	Storage	High-Speed eMMC 4.5 8GB, MicroSD2.0(TF) Card Slot

AIO-3399J

AIO Series

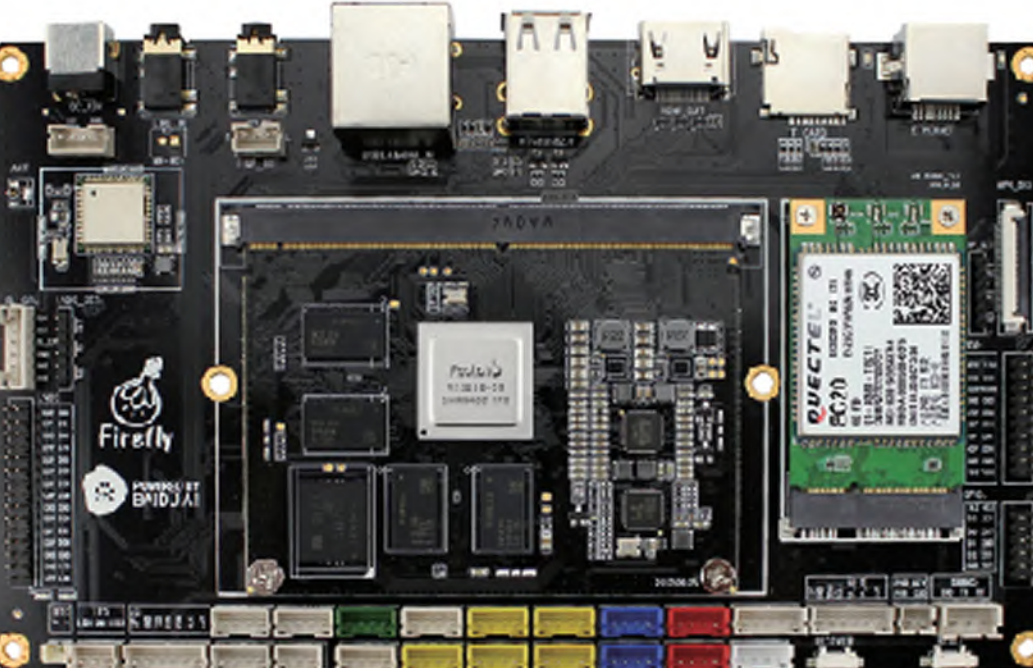
Six-Core 64-Bit all in one industrial main board

	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
	RAM	Dual-Channel DDR3 - 1333MHz (1GB/2GB/4GB Optional)
	Storage	High-Speed eMMC 5.1 (8GB/16GB/32GB/128GB Optional) MicroSD (TF) Card Slot, PCIE M.2 NGFF (M-KEY) , for extend NVMe SSD

AIO-3288J

AIO Series

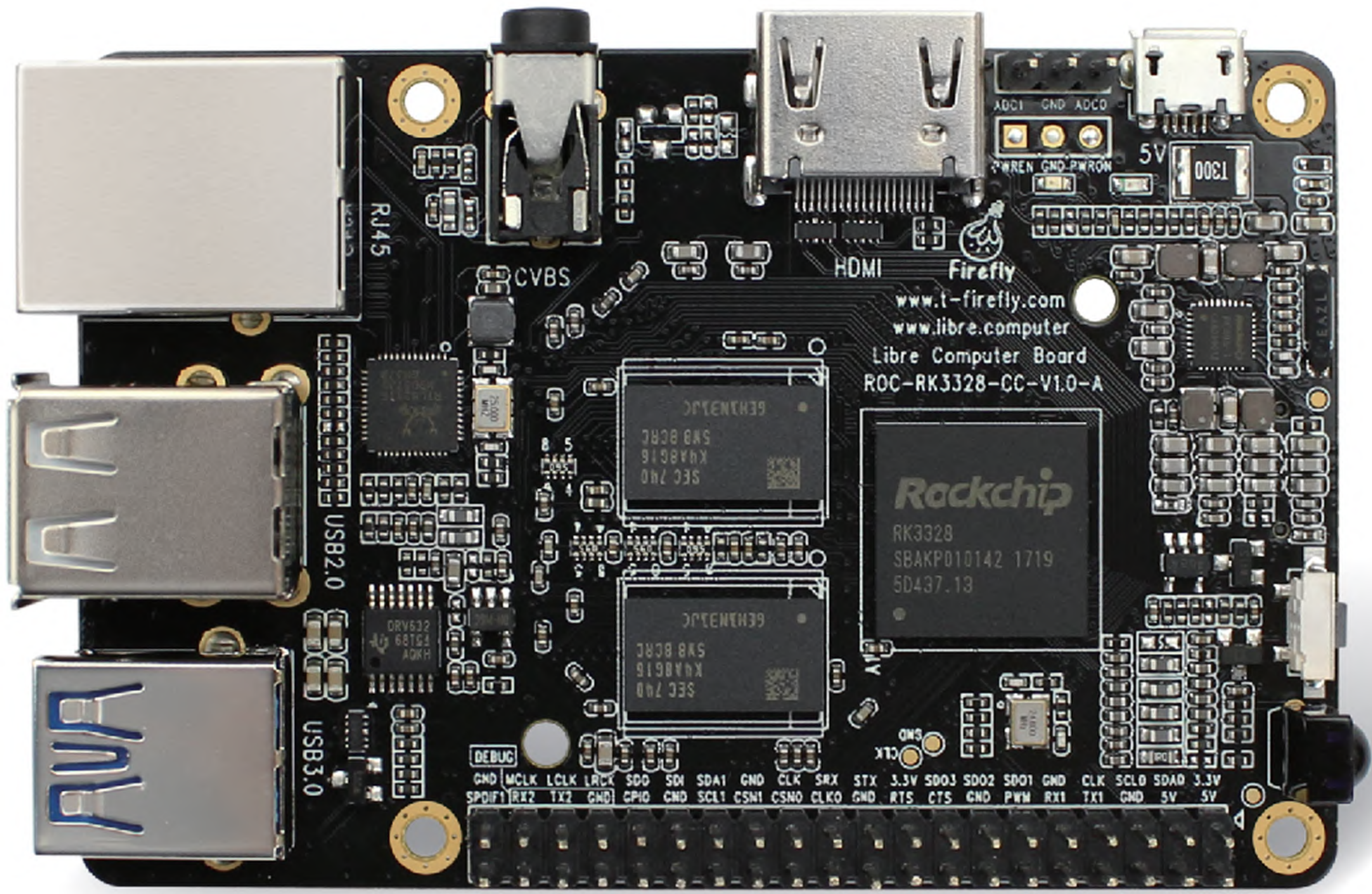
Quad-Core Cortex-A17 all in one board

	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

ROC-RK3328-CC

ROC Series

Quad-Core 64-BitOpen Source Main Board



DDR4 High-Performance Memory



High-Speed Data Channel USB3.0



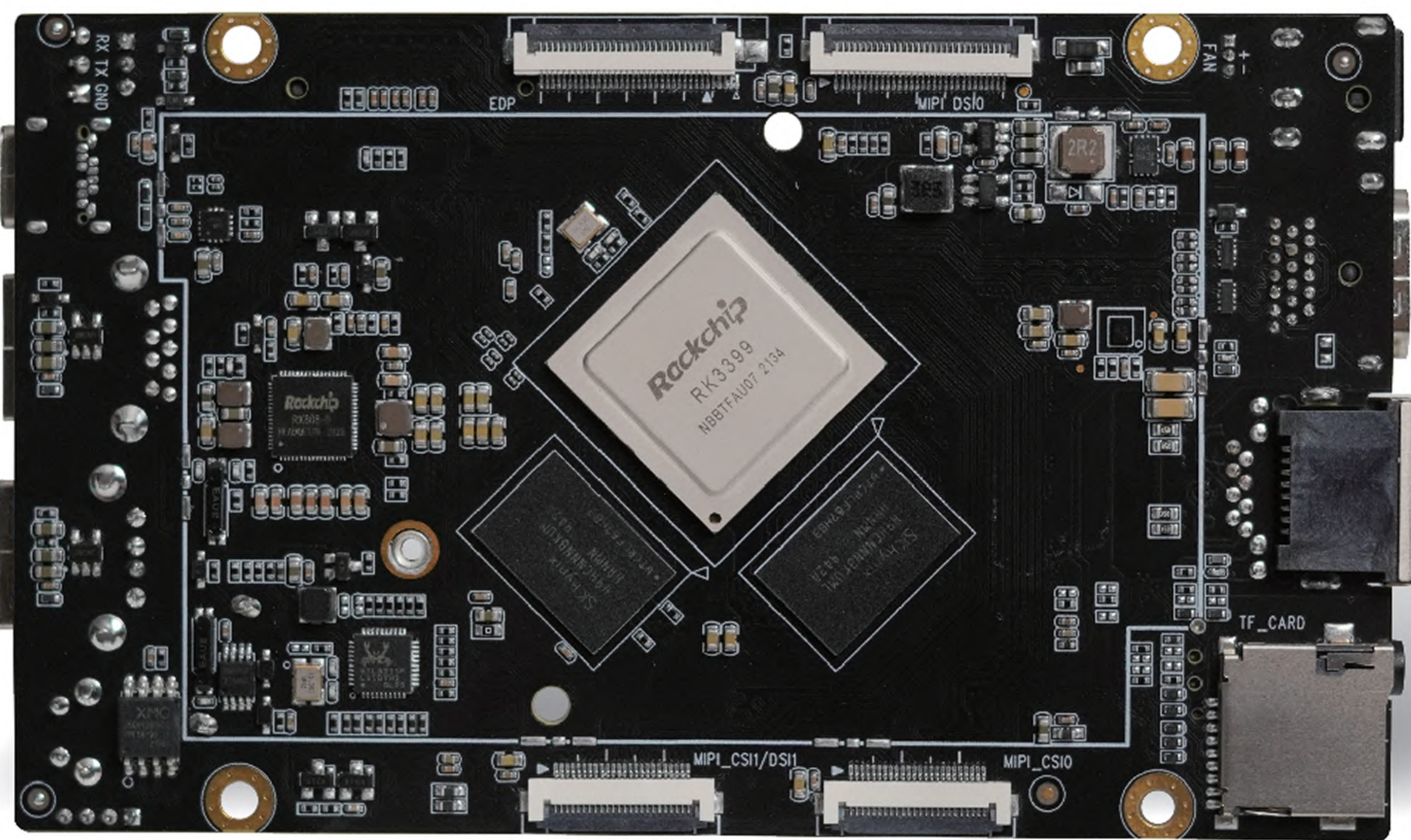
Rich Peripheral Interface

- GPIO
- I2S
- SPI
- I2C
- UART
- PWM SPDIF

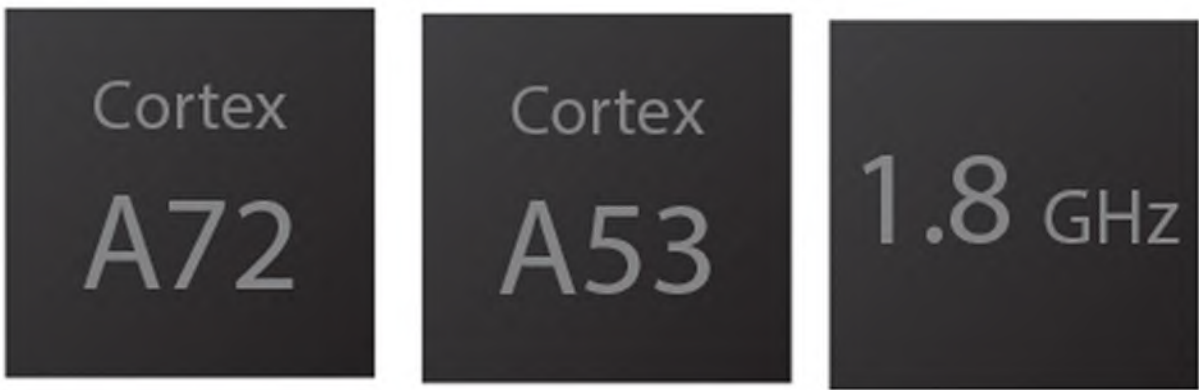
ROC-RK3399-PC Pro

ROC Series

Six-Core 64-Bit High-Performance Main Board



High-performance Core Processor



Strong Network Capability



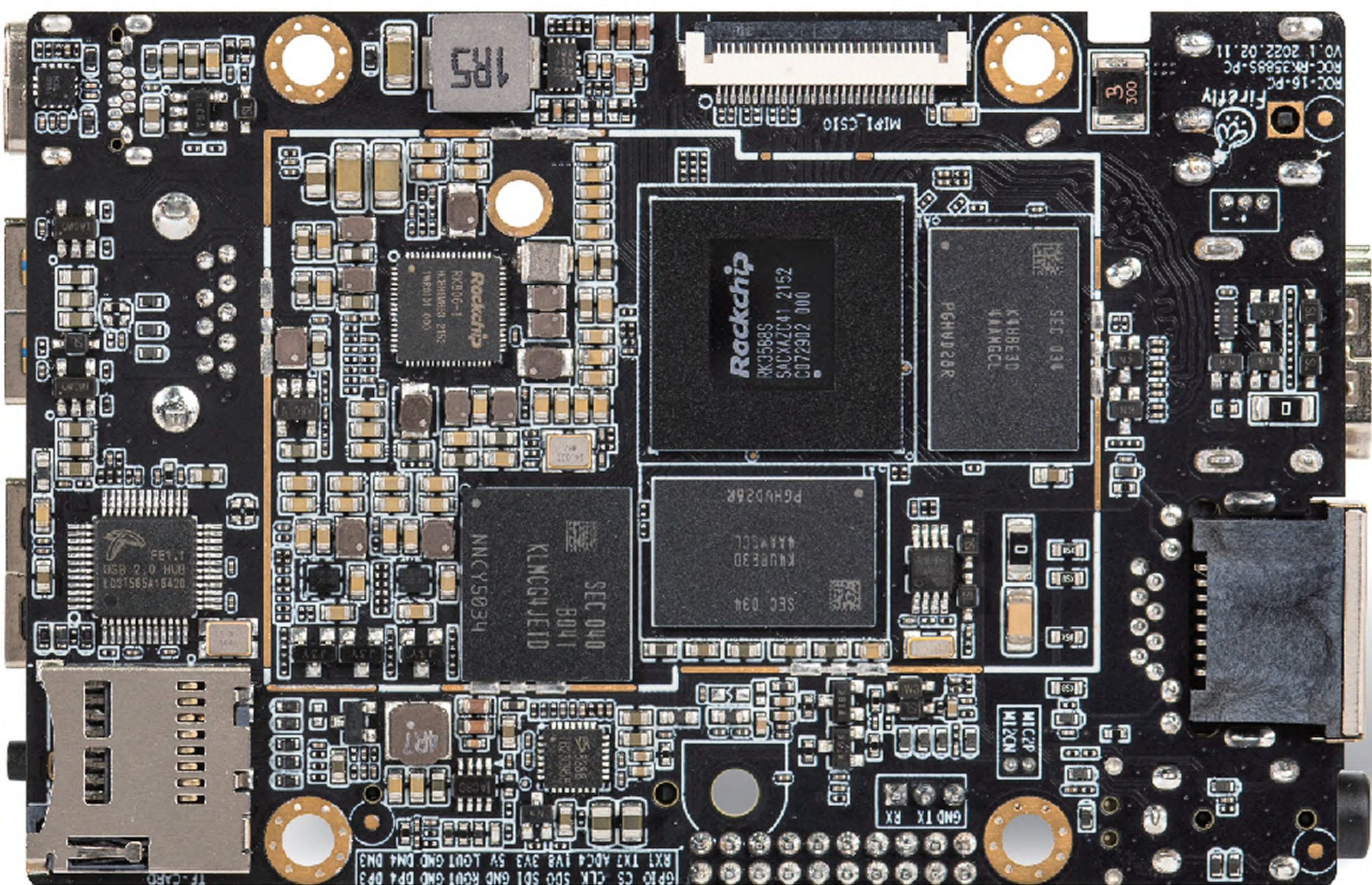
Rich Peripheral Interface

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

ROC-RK3588S-PC

ROC Series

8-Core 8K AI Mainboard



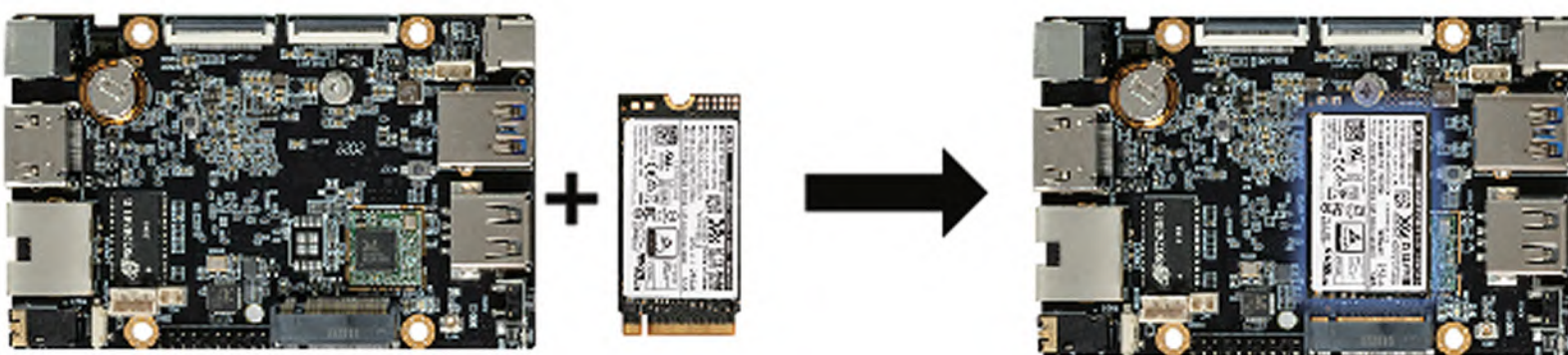
RK3588 8-core 64-bit processor

Cortex A76

Cortex A55

2.4 GHz

NVMe SSD, Massive capacity



Rich Peripheral Interface

MIPI-DSI

MIPI-DSIO

HDMI2.1

USB3.0

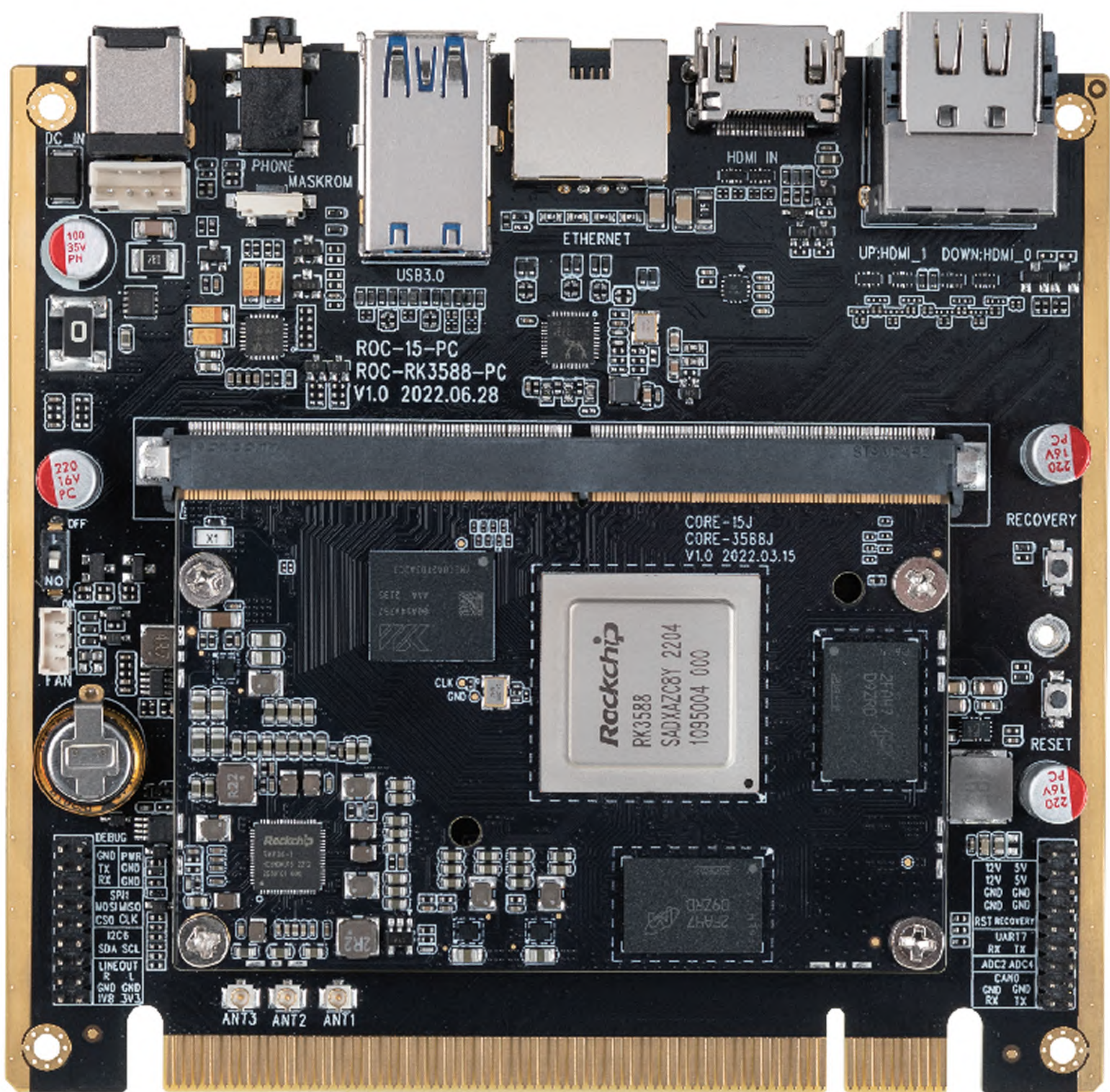
MIPI-DSI

M.2 PCIe2.0

ROC-RK3588-PC

ROC Series

Octa-Core 8K AI Mini Computer



Super-large 32GB RAM

32GB

Strong network communication capability

WiFi 6

Bluetooth 5.0

1000Mbps

Rich Peripheral Interface

MIPI-DSI

MIPI-DSI

VGA

USB3.0

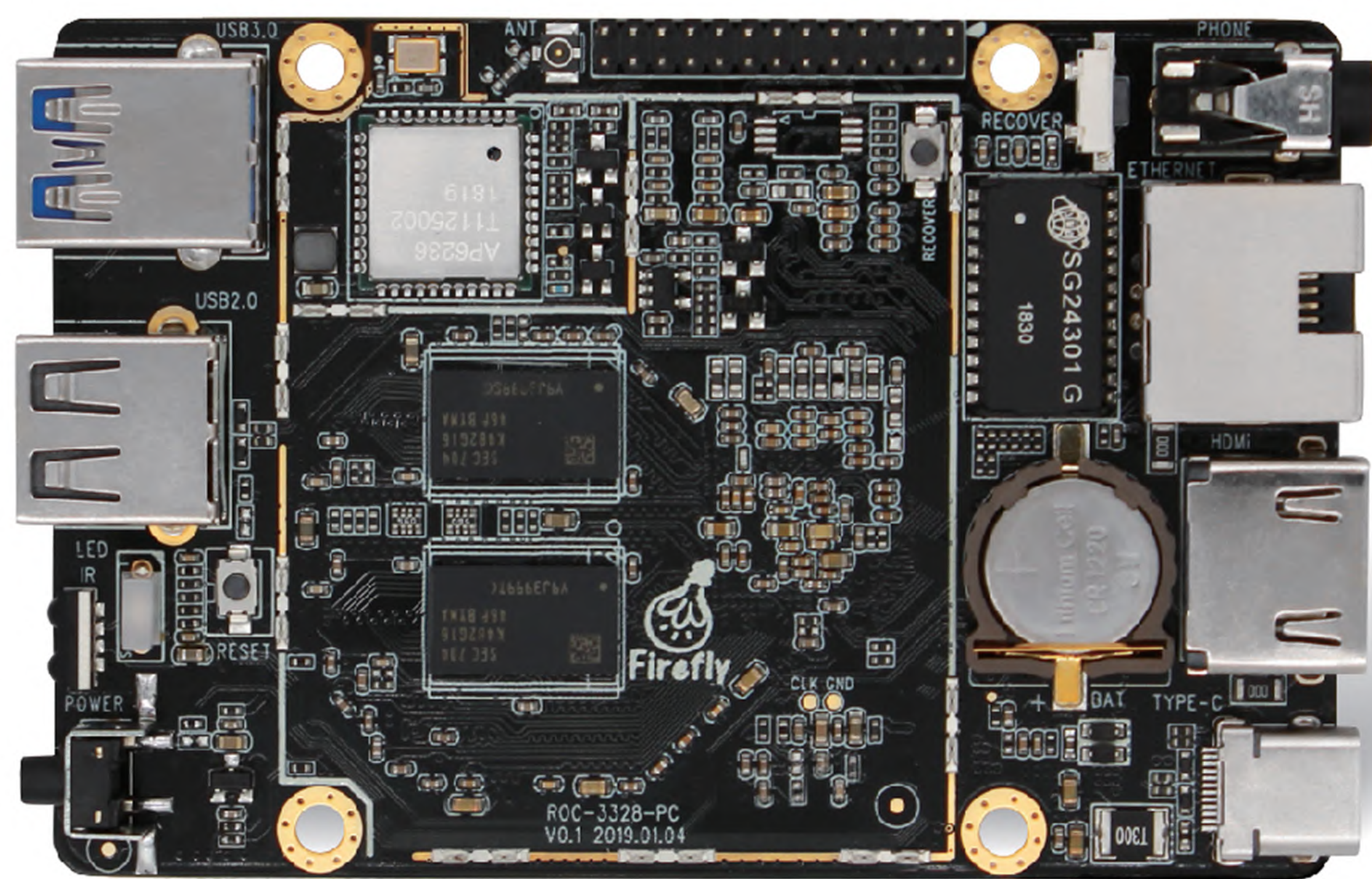
CAN

PCIe2.0

ROC-RK3328-PC

ROC Series

QUAD-CORE 64-BIT OPEN SOURCE BOARD



Quad-core 64-bit A53 architecture processor

Cortex
A53

1.5 GHz

Support HDMI2.0 and USB3.0


HDMI2.0


USB3.0

Rich Peripheral Interface

Type-C

USB 3.0

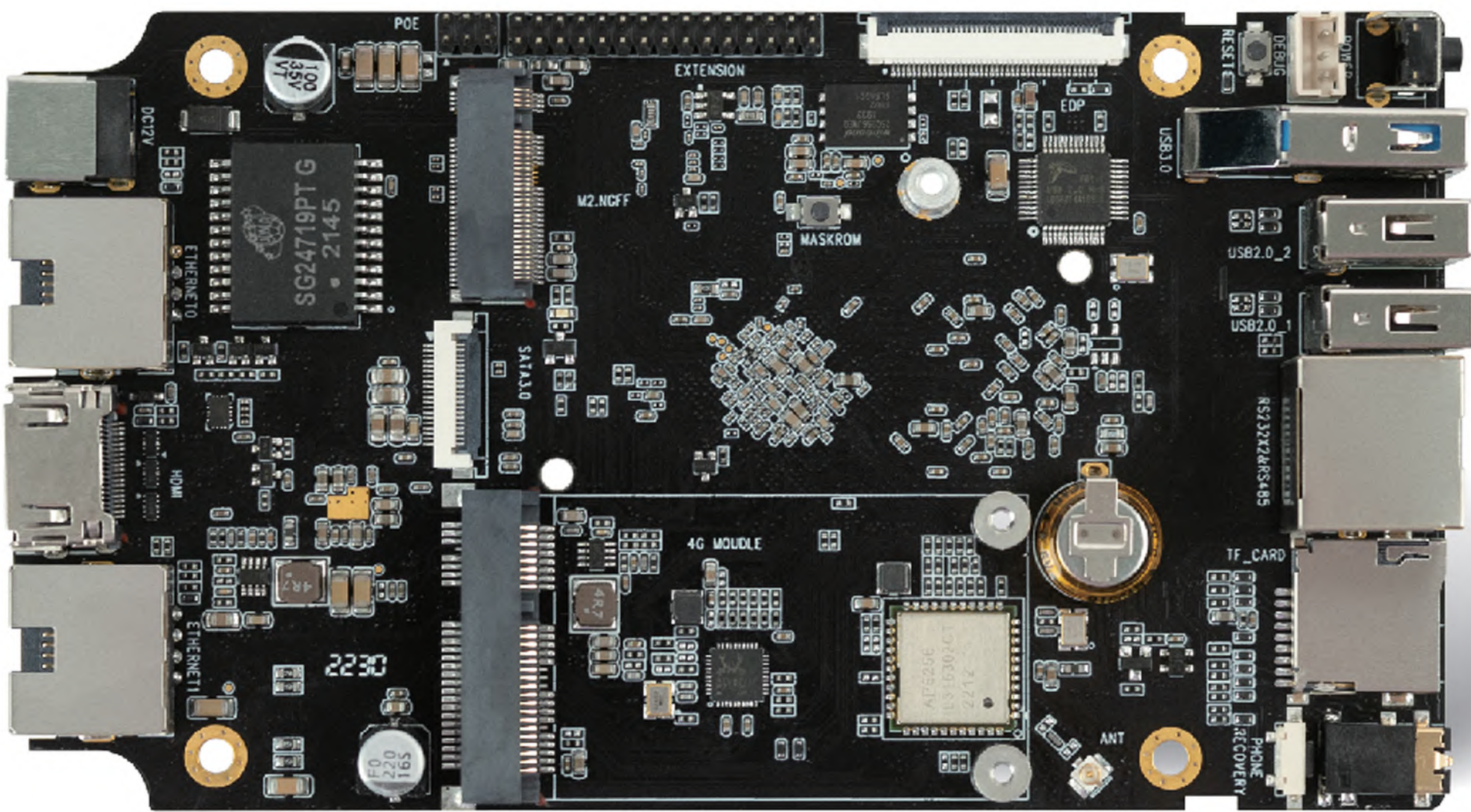
HDMI 2.0

GPIO

ROC-RK3568-PC-SE

ROC Series

Quad-Core 64-Bit Mini Computer



8GB large RAM, all-data-link ECC

8GB



ECC

Powerful wireless network

Wi Fi 6

160MHz 9.6Gbps

Rich Peripheral Interface

MIPI-CSI x2

MIPI-DSI x2

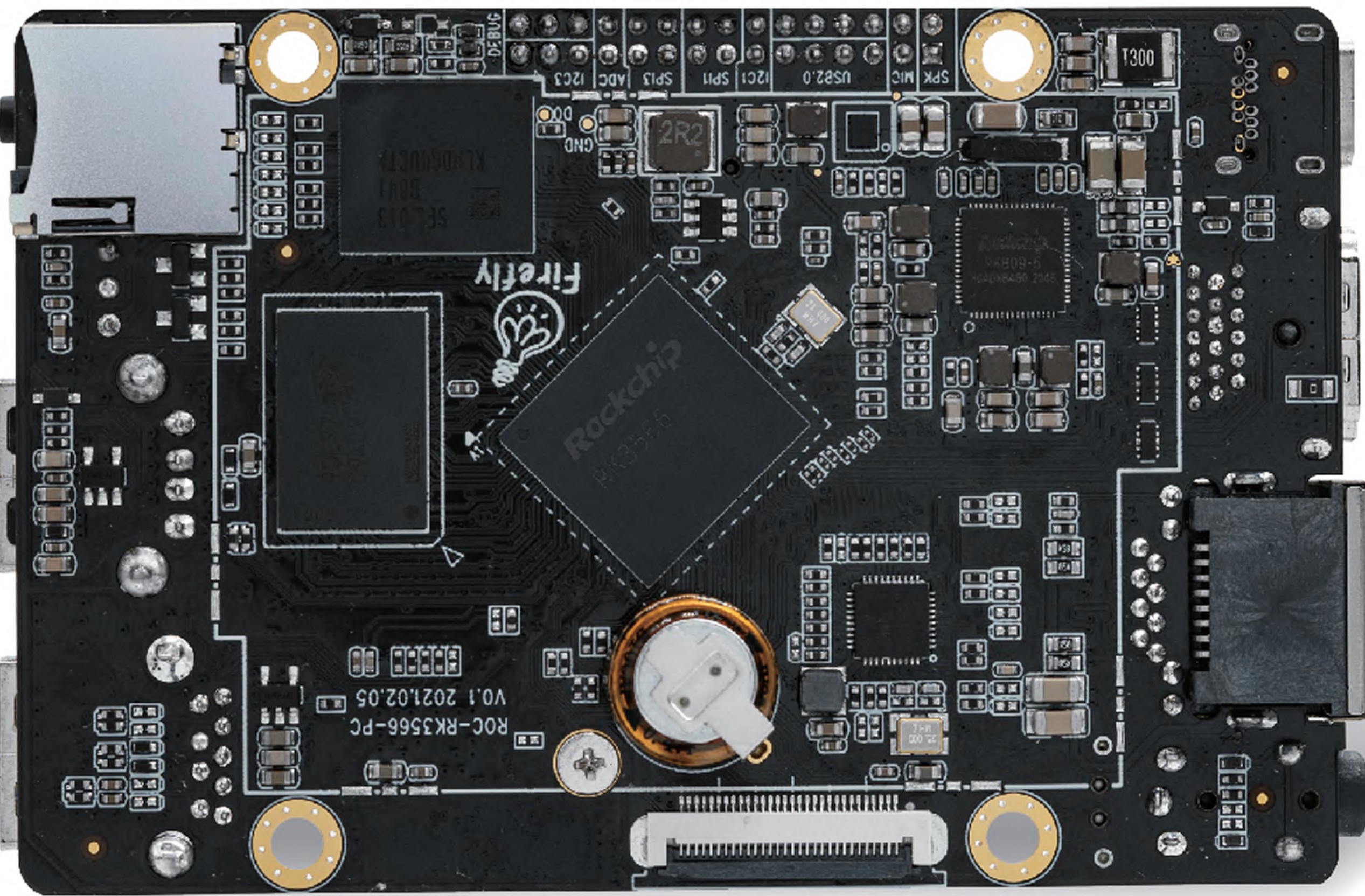
HDMI 2.0

EDP

ROC-RK3566-PC

ROC Series

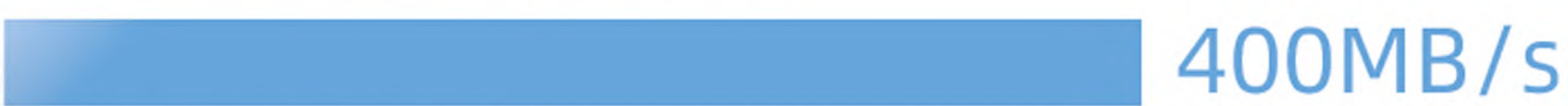
Quad-Core 64-Bit Mini Computer



RK3566 quad-core 64-bit processor



M.2 interface to expand



Reading speed



Writing speed

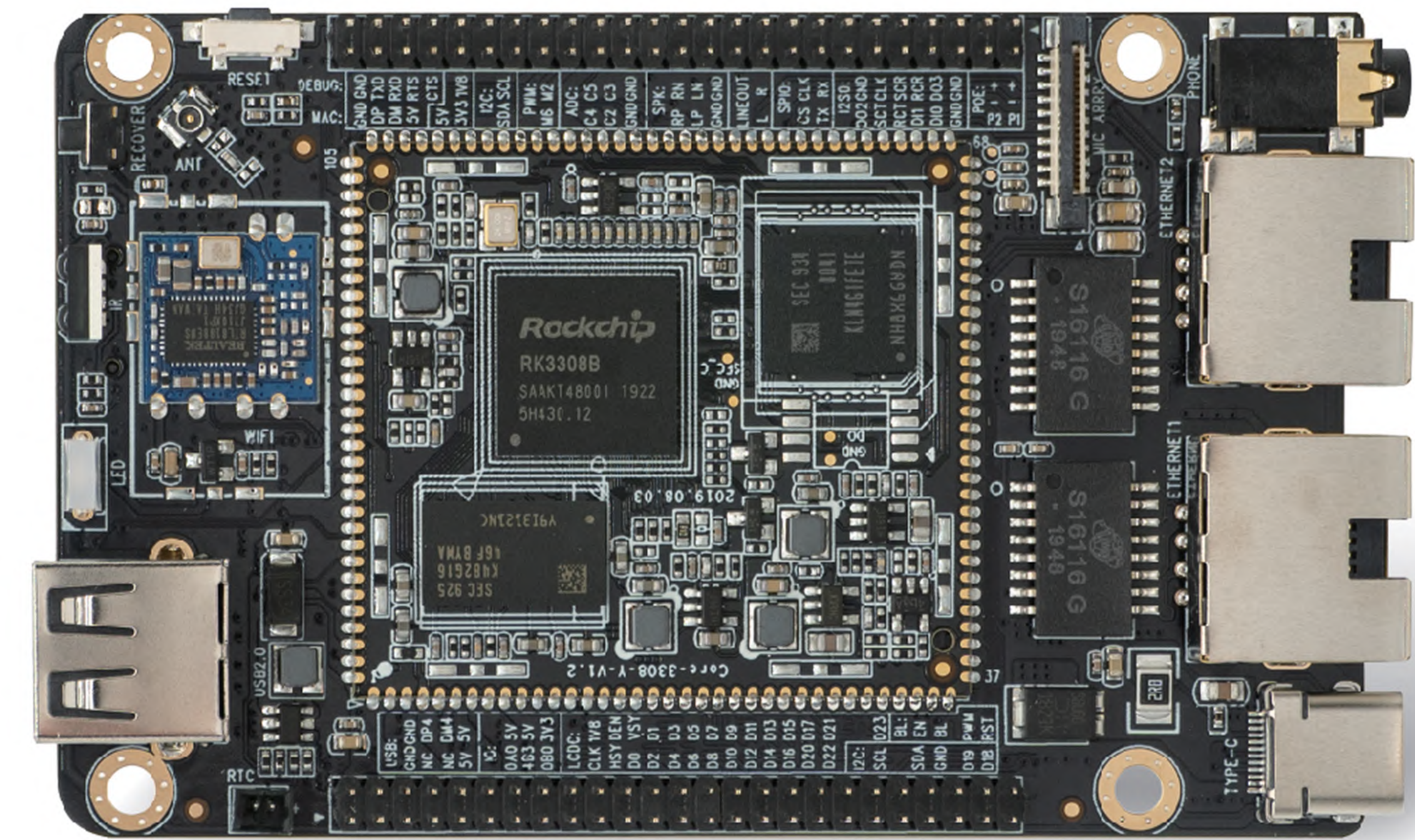
Rich Peripheral Interface

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

ROC-RK3308B-CC-Plus

ROC Series

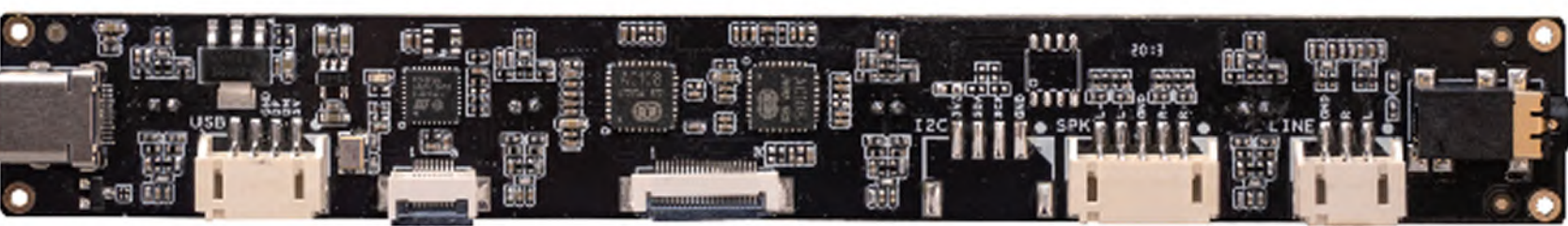
IoT Quad-core 64-bit Main Board



Support Operating Systems And Services

DUEROS AliOS
ROS Buildroot

Configure Far-field Microphone Array Board



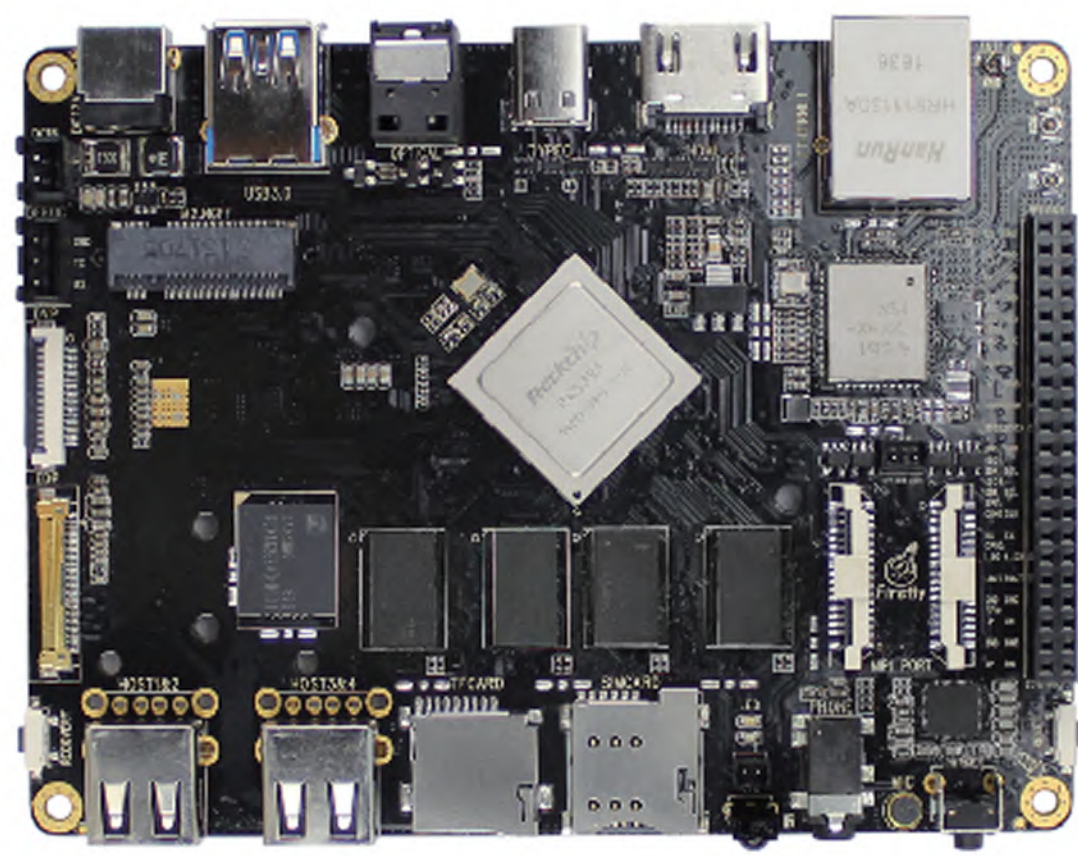
Rich Peripheral Interface

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

Firefly-RK3399

Firefly Series

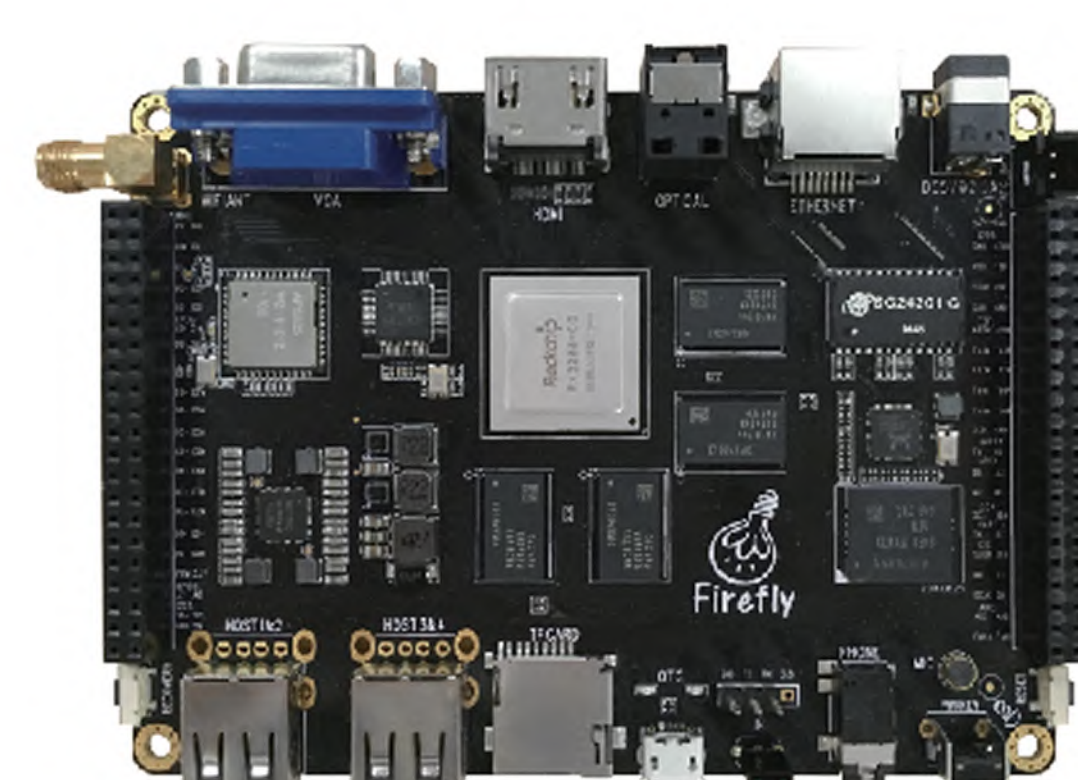
Six-core Open Source Board

	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

Firefly Series

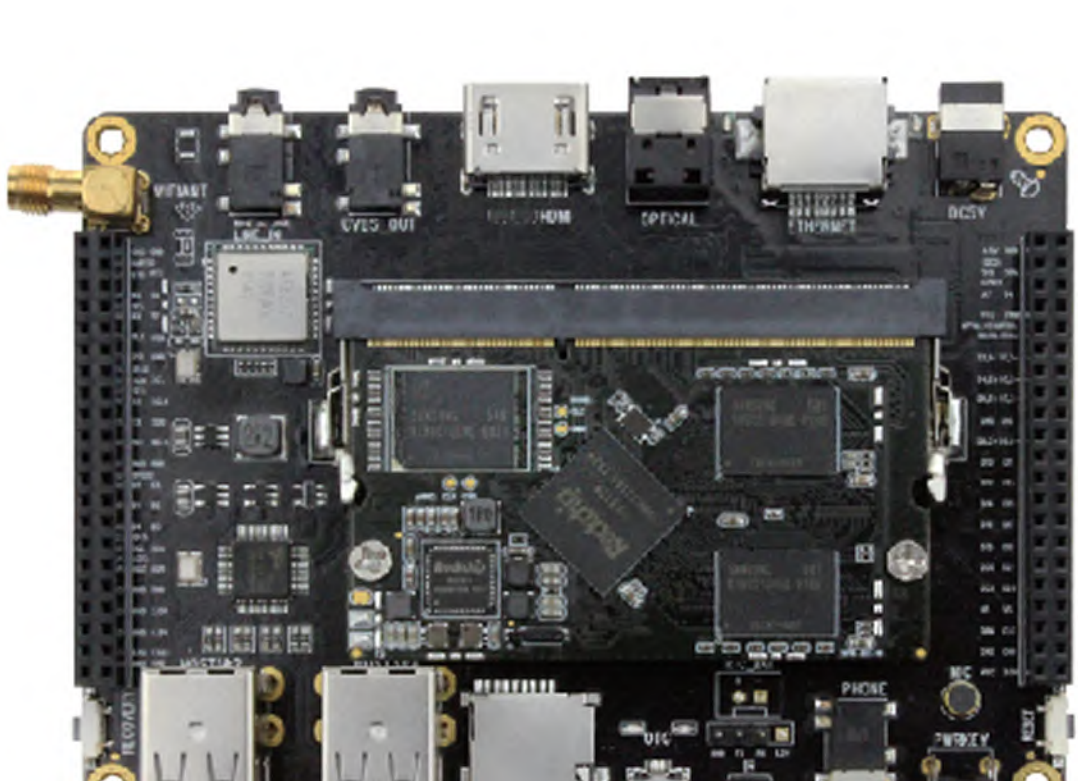
High-Performance Open Source Board

	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)

Firefly-RK3128

Firefly Series

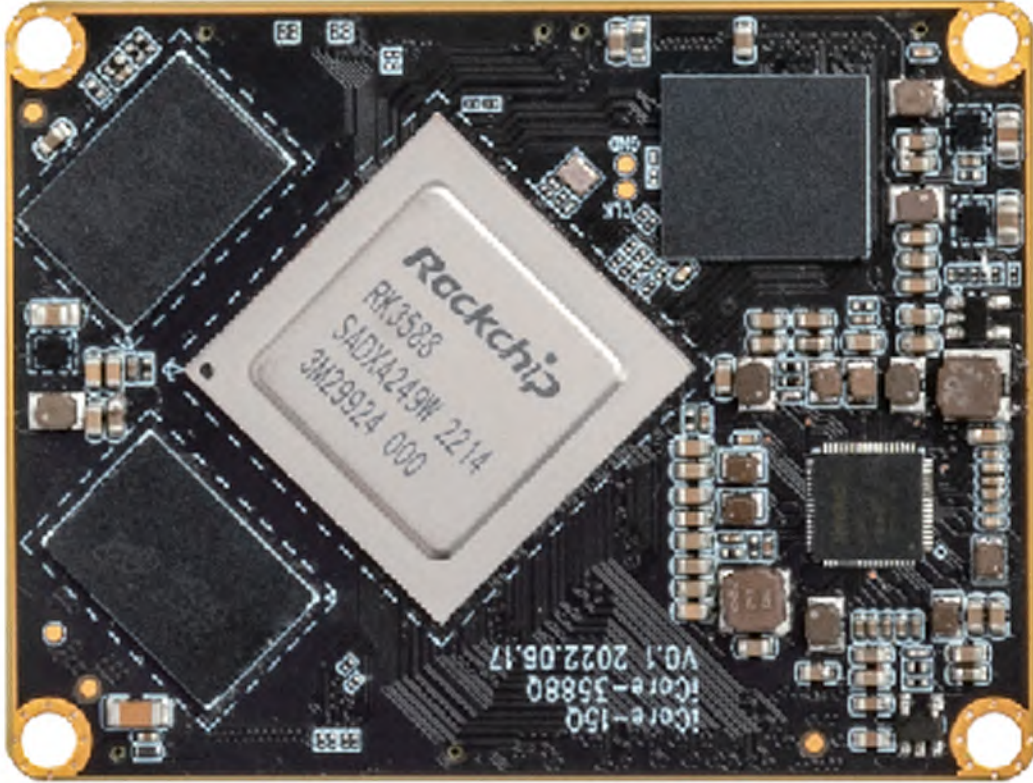
Quad-Core MiniPC Platform

	Soc	Rockchip RK3128
	CPU	ARM® Cortex™-A7 四核 1.3GHz
	GPU	ARM Mali-400MP2 GPU , Support OpenGL ES1.1/2.0, Embedded high-performance 2D hardware 1080P multi-format video decoding, including H.265 1080P hardware decoding 1080P video encoding, support H.264
	RAM	1GB、2GB DDR3
	Storage	8GB eMMC, MicroSD (TF) Card Slot

iCore-3588Q

Q Series

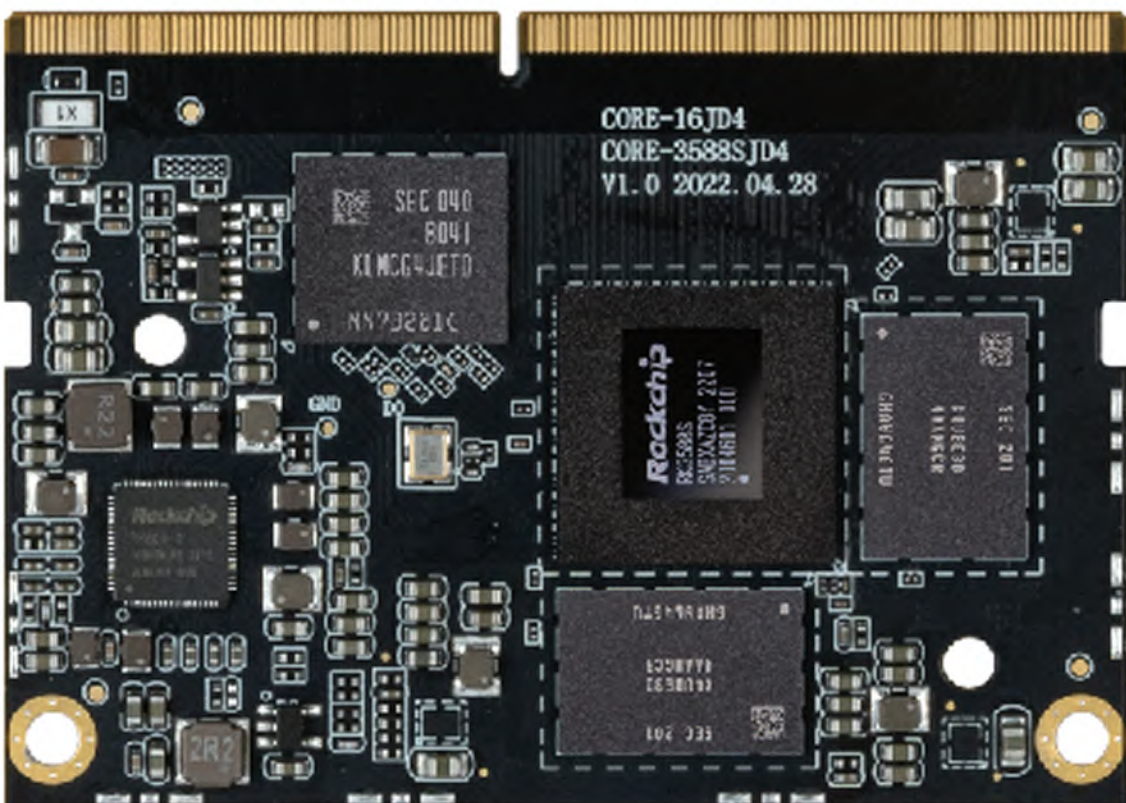
8K AI Core Board

	Soc	RockChip RK3588
	CPU	Octa-core 64-bit (4×Cortex-A76+4×Cortex-A55), 8nm lithography process, frequency up to 2.4GHz
	GPU	ARM Mali-G610 MP4 quad-core GPU Support OpenGL ES3.2 / OpenCL 2.2 / Vulkan1.1, 450 GFLOPS
	RAM	4GB/8GB/16GB 64bit LPDDR4/LPDDR4x/LPDDR5 (Up to 32GB optional)
	Storage	16GB/32GB/64GB/128GB eMMC

Core-3588SJD4

JD4 Series

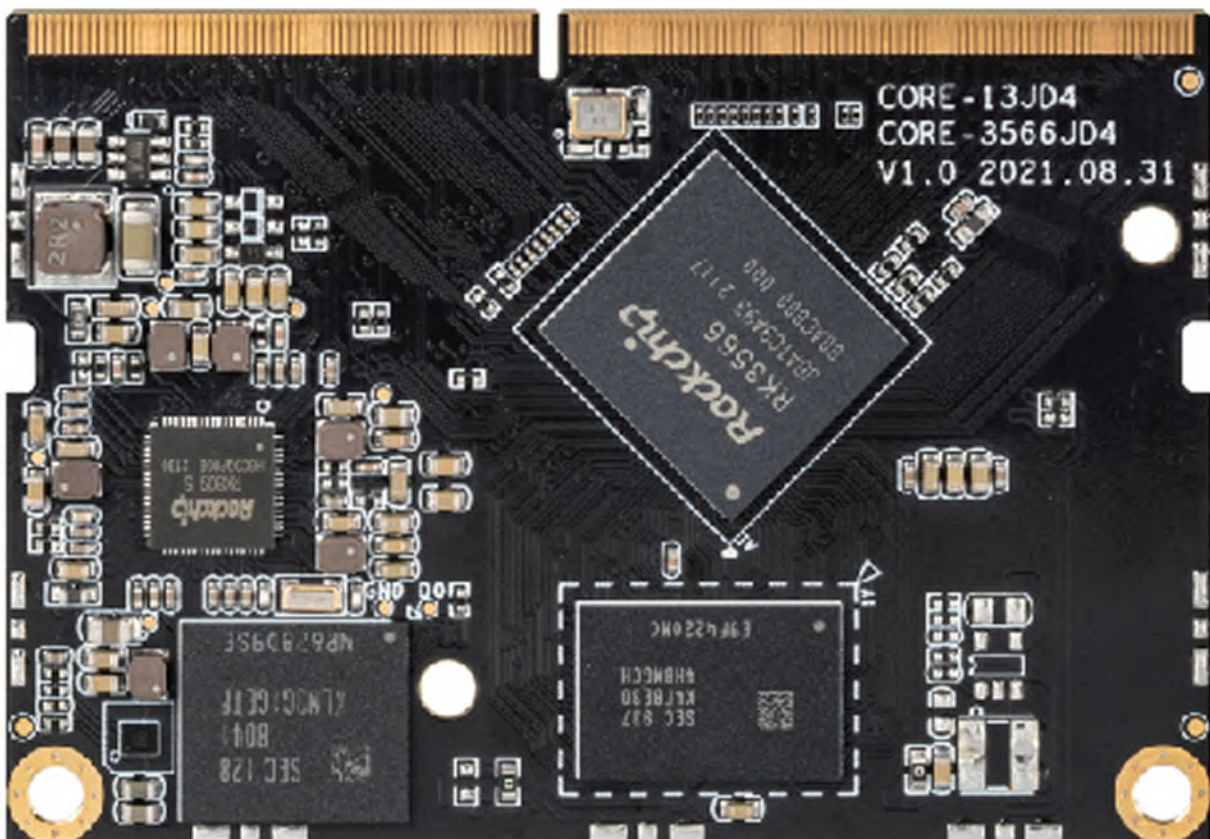
8-Core 8K AI Core Board

	Soc	RockChip RK3588S
	CPU	8-core 64-bit (4×Cortex-A76+4×Cortex-A55), 8nm lithography process, frequency up to 2.4GHz
	GPU	ARM Mali-G610 MP4 quad-core GPU Support OpenGL ES3.2 / OpenCL 2.2 / Vulkan1.1, 450 GFLOPS
	RAM	4GB/8GB/16GB 64bit LPDDR4/LPDDR4x/LPDDR5 (Up to 32GB optional)
	Storage	16GB/32GB/64GB/128GB eMMC

Core-3566JD4

JD4 Series

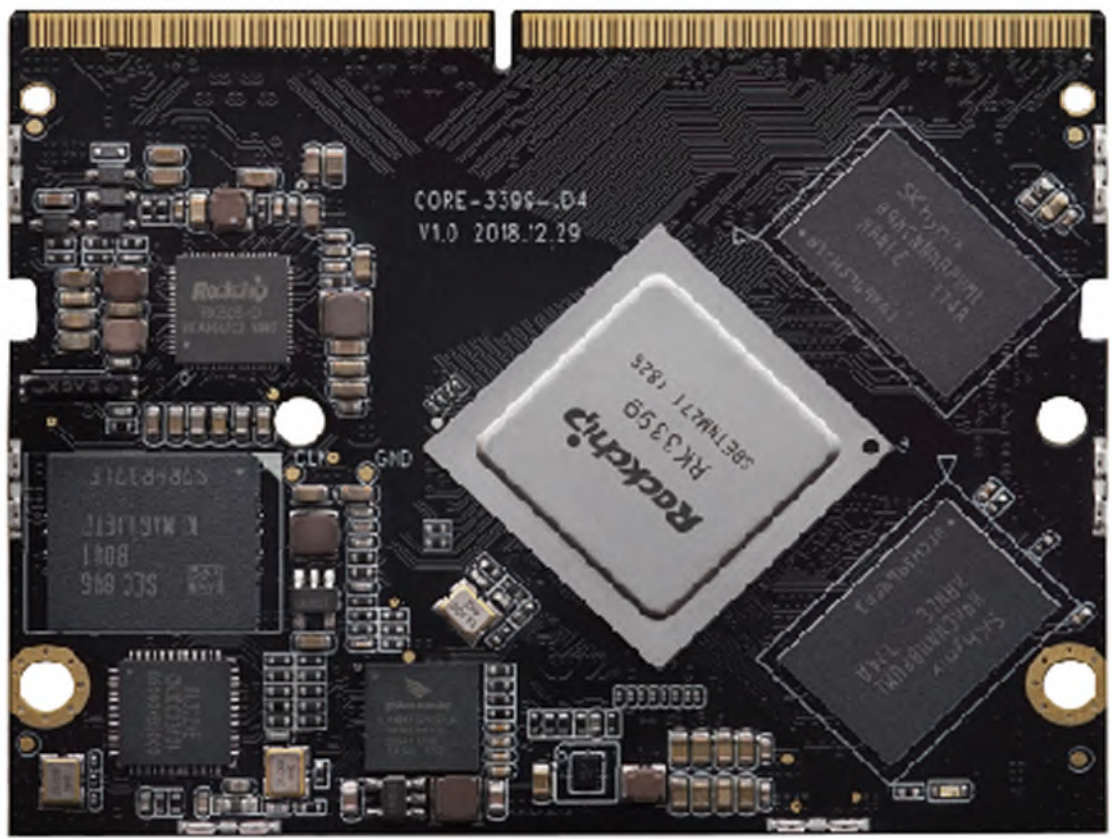
Quad-Core 64-Bit AI Core Board

	Soc	RockChip RK3566
	CPU	Quad-core 64-bit Cortex-A55, 22nm lithography process, frequency up to 1.8GHz
	GPU	ARM G52 2EE GPU; Supports OpenGL ES 1.1/2.0/3.2. OpenCL 2.0. Vulkan 1.1 Embedded high-performance 2D acceleration hardware
	RAM	1GB/2GB/4GB/8GB LPDDR4
	Storage	8GB/16GB/32GB/64GB/128GB eMMC

Core-3399-JD4

JD4 Series

Six-core High-performance AI Core Boar

	Soc	Rockchip RK3399
	CPU	ARM® Six-core 64-bit processor, frequency up to 1.8GHz Based on the big.LITTLEcore architecture, dual-core Cortex-A72+quad core Cortex-A53
	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/4GB LPDDR4
	Storage	8GB high-speed eMMC 5.1 （8GB/16GB/32GB/128GB）

Core-1126-JD4

JD4 Series

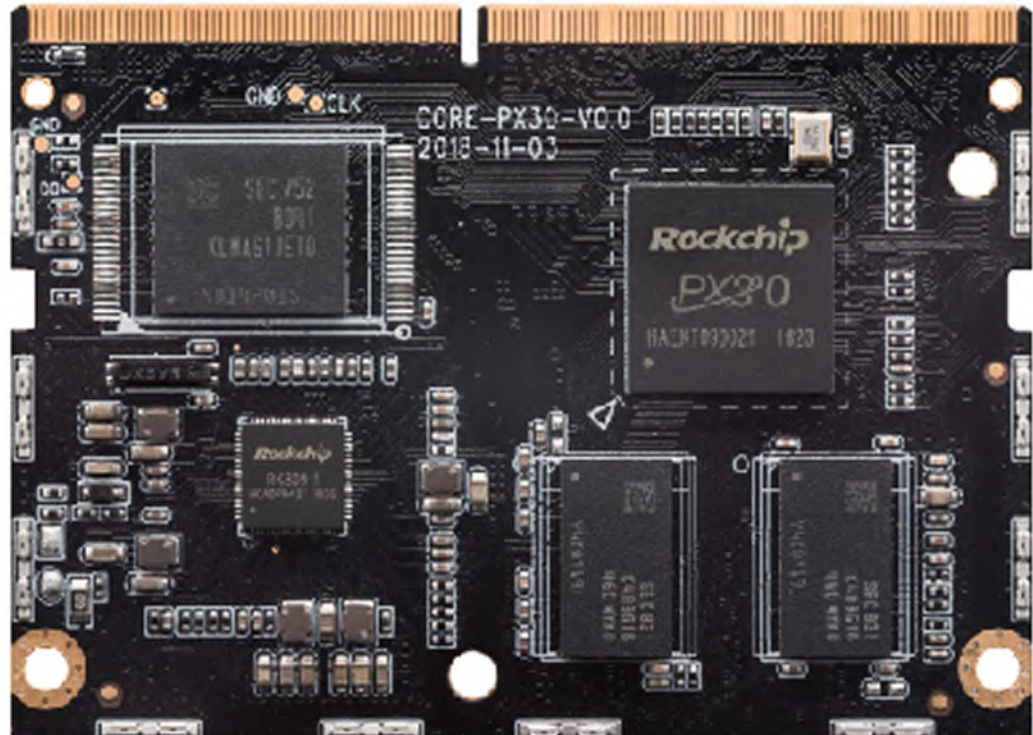
High-Performance AI Vision Core Board

	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

Core-PX30-JD4

JD4 Series

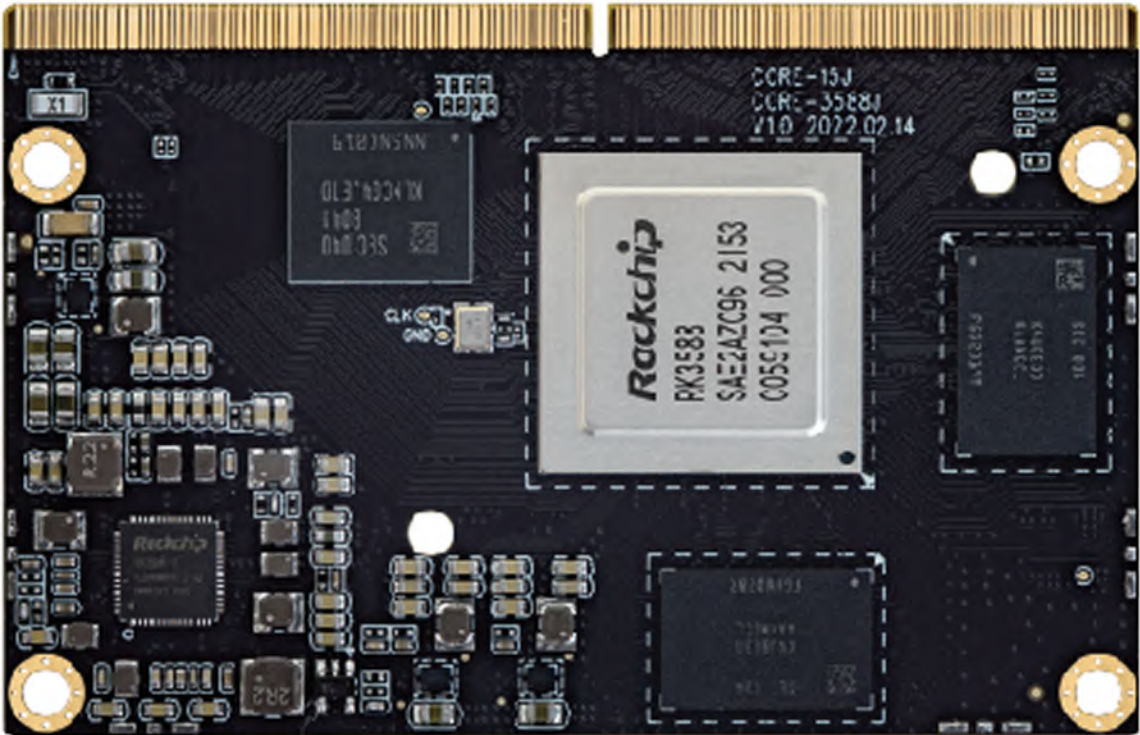
Quad-core 64-bit Core Board

	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-3588J

J Series

8K AI Core Board

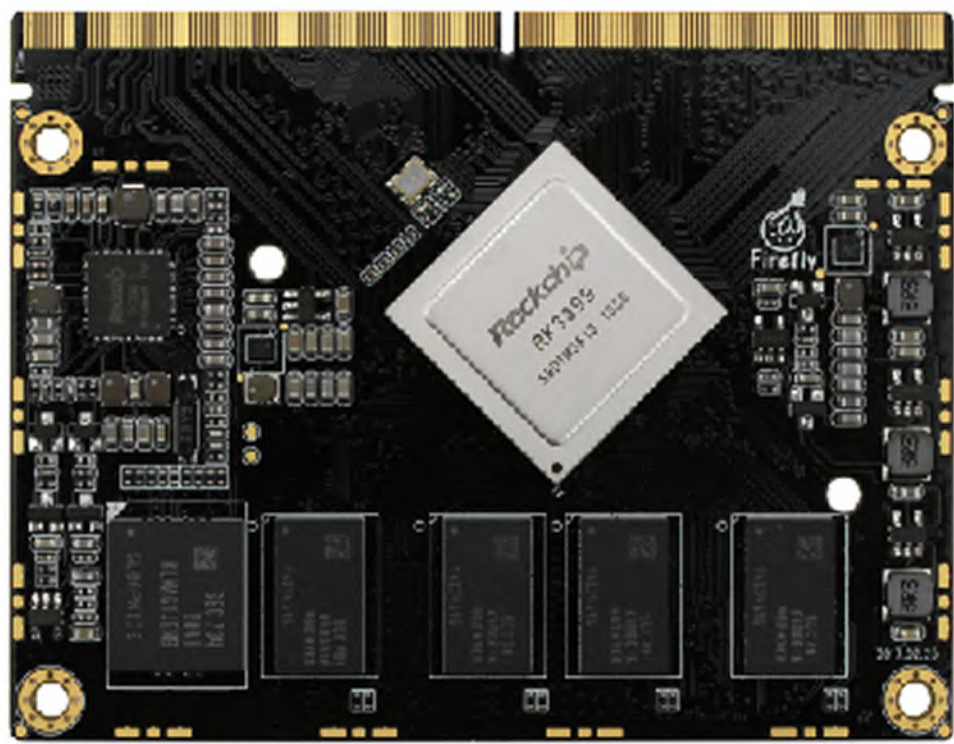


Soc	RockChip RK3588
CPU	8-core 64-bit (4×Cortex-A76+4×Cortex-A55) , 8nm lithography process, frequency up to 2.4GHz
GPU	ARM Mali-G610 MP4 quad-core GPU Supports OpenGL ES3.2 / OpenCL 2.2 / Vulkan1.1, 450 GFLOPS
RAM	4GB/8GB/16GB 64bit LPDDR4/LPDDR4x/LPDDR5
Storage	16GB/32GB/64GB/128GB eMMC

Core-3399J

J Series

Six-Core 64-Bit High-Performance Core Board

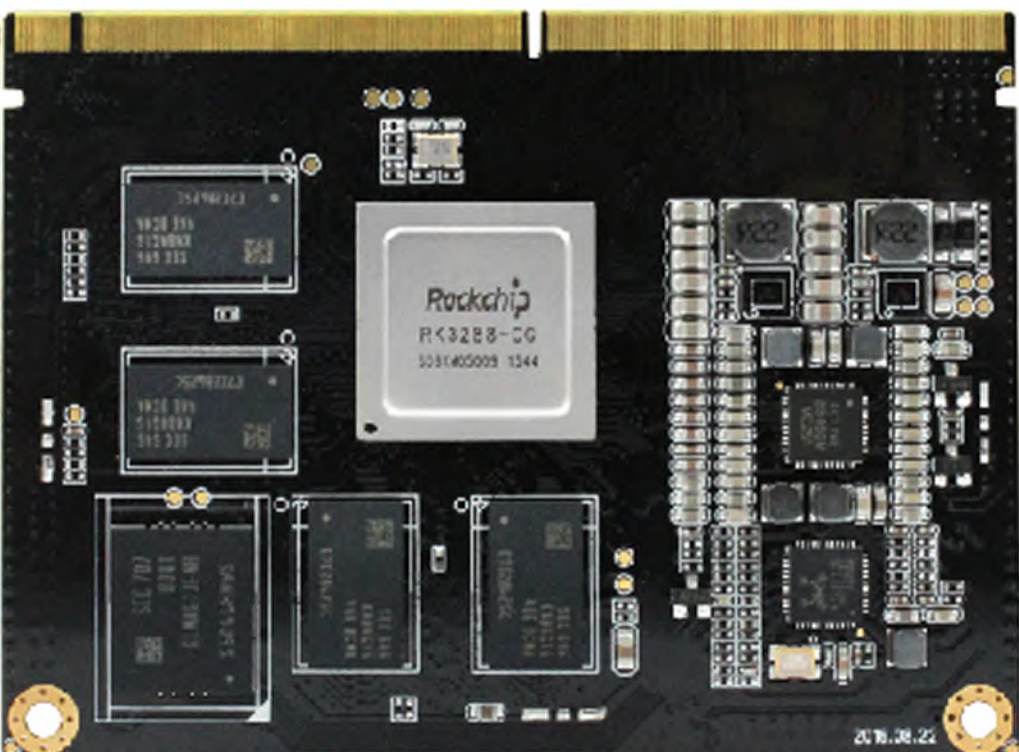


Soc	Rockchip RK3399 (28nm HKMG Process)
CPU	Six-Core ARM 64-bit processor, up to 2.0GHz Based on Big.Little architecture, Dual-Core Cortex-A72 and Quad-Core Cortex-A53
GPU	ARM Mali-T860 MP4 Quad-Core GPU Support OpenGL ES1.1/2.0/3.0/3.1, OpenCL and DirectX 11, Support AFBC
RAM	Dual-Channel DDR3 - 1333MHz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

Core-3288J

J Series

Quad-Core A17 High-Performance Core Board

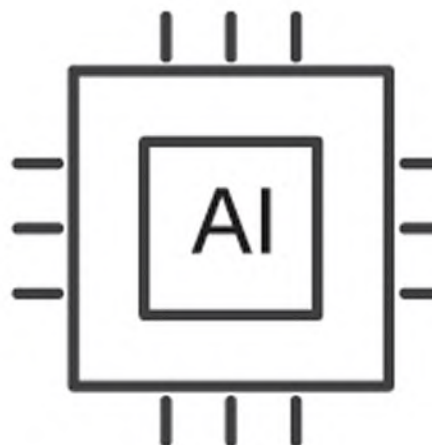


Soc	Rockchip RK3288(28nm HKMG Process)
CPU	ARM® Cortex™-A17 Quad-Core up to 1.8GHz
GPU	Mali - T760 MP4 quad-core GPU, support AFBC Support OpenGL ES1.1/2.0/3.0/3.1 OpenVG1.1, OpenCL, DX11
RAM	Dual-Channel DDR3 - 1333MHz (1GB/2GB/4GB Optional)
Storage	High-Speed eMMC 5.1 (8GB/16GB/32GB/128GB Optional)

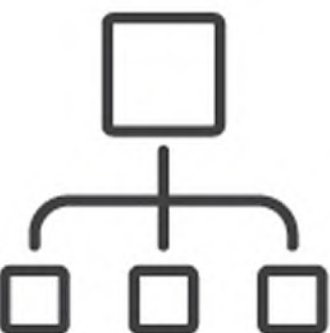
Core-3568J

J Series

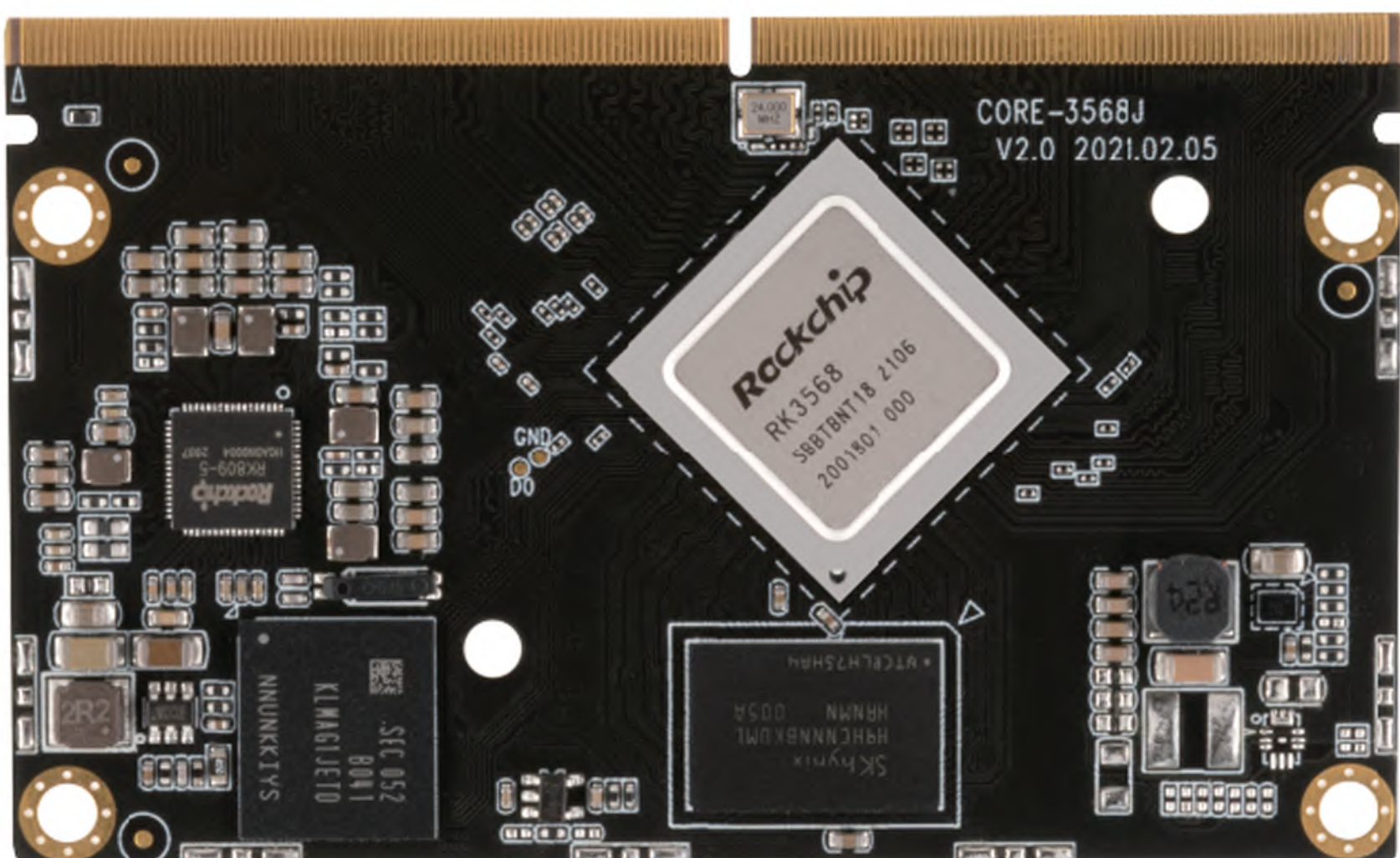
QUAD-CORE 64-BIT CORTEX -A55 AI CORE BOARD



High Performance



High Scalability





Dual Gigabit Ethernet



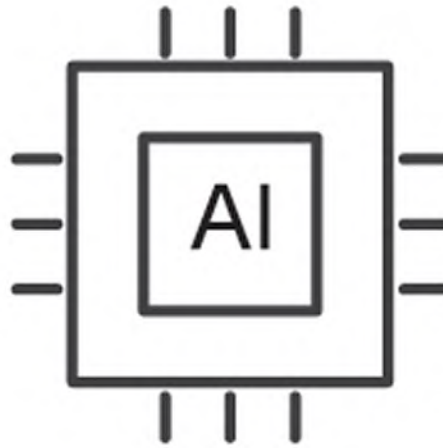
Support Multiple OS

SoC	RockChip RK3568
CPU	Quad-core 64-bit Cortex-A55, 22nm lithography process, frequency up to 2.0GHz
NPU	1Tops@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 × 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 × 53.5mm
Type	Gold finger (SODIMM 314P standard interface), 0.5mm pitch, immersion gold technology

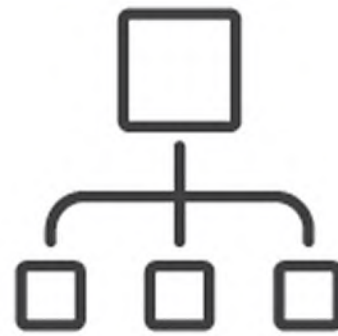
iCore-3588JQ

Q Series

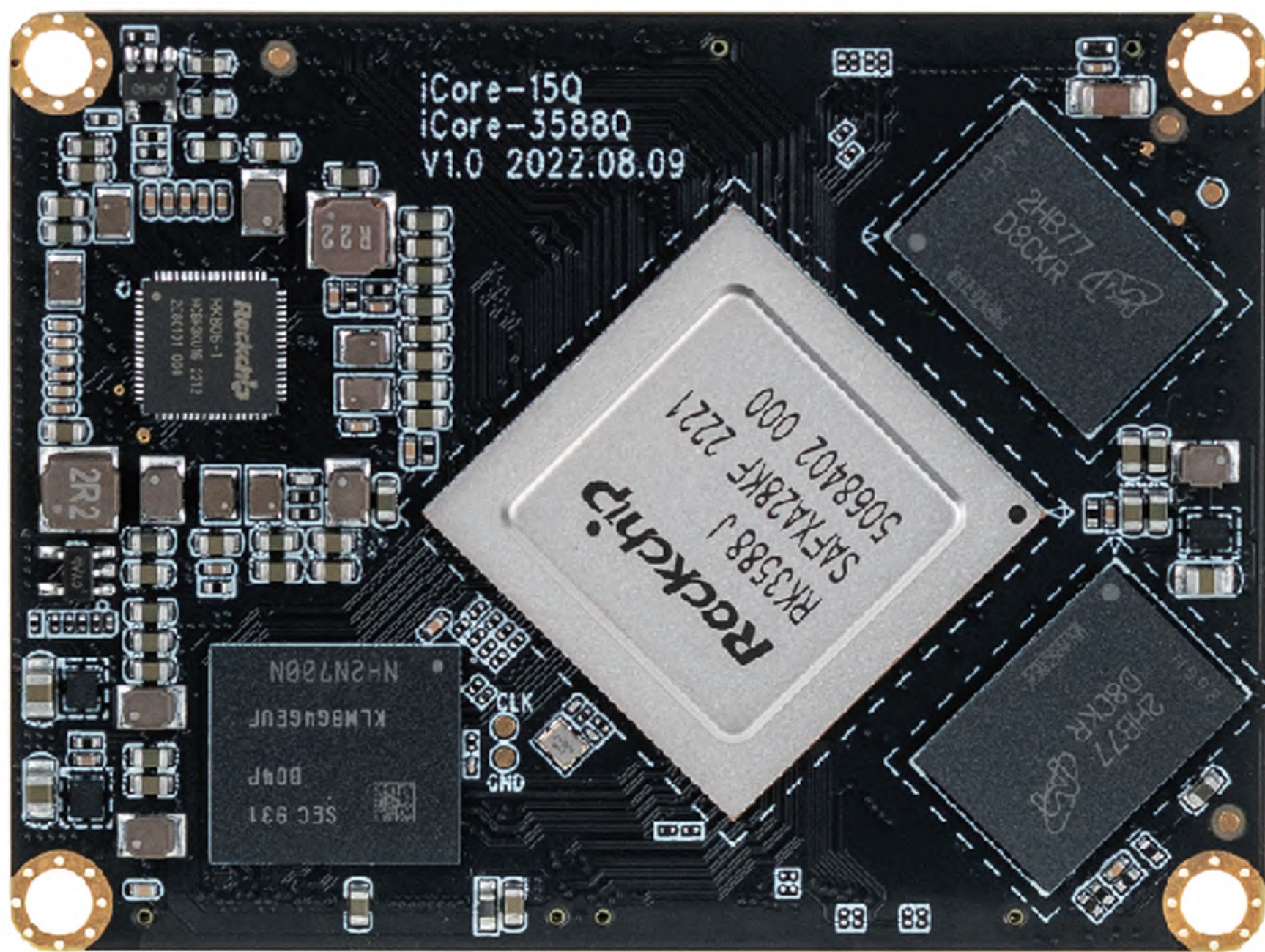
QUAD-CORE 64-BIT CORTEX -A55 AI CORE BOARD



High Performance



High Scalability





Dual Gigabit Ethernet



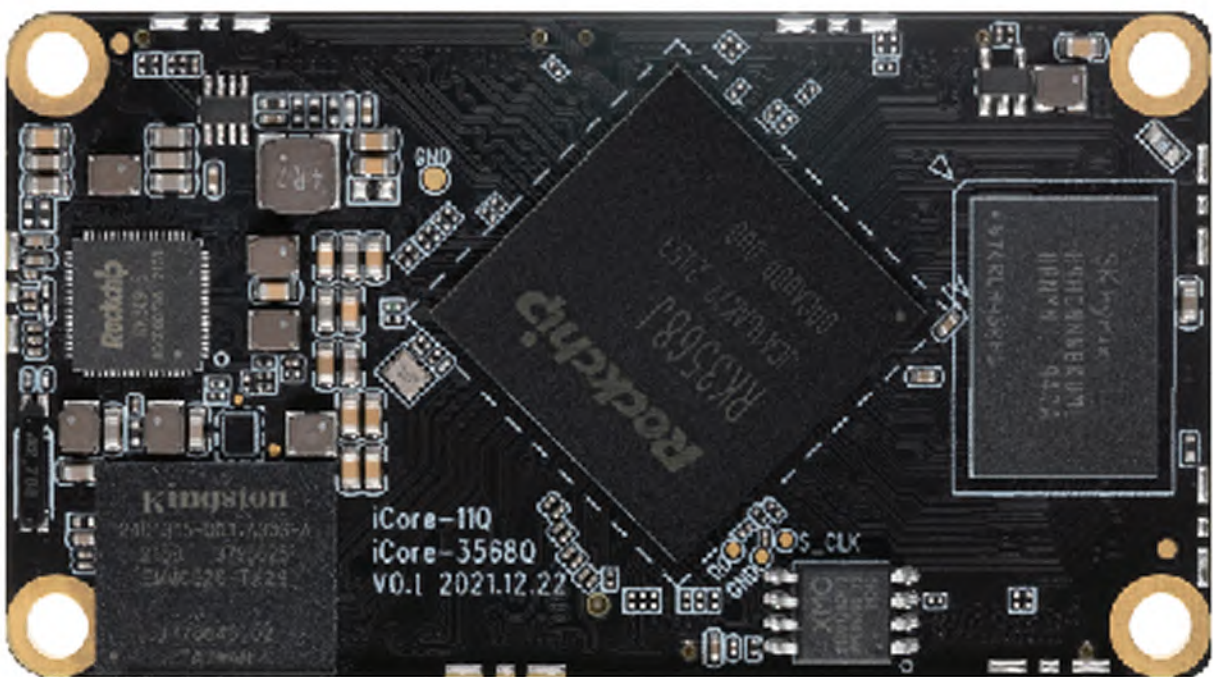
Support Multiple OS

SoC	RockChip RK3588J
CPU	Octa-core 64-bit (4xCortex-A76+4xCortex-A55), 8nm lithography process, clock speed up to 2.2GHz
NPU	NPU computing power up to 6 TOPS, Support INT4/INT8/INT16 mixed operation Support framework switching of TensorFlow / MXNet / PyTorch / Caffe
GPU	ARM Mali-G610 MP4 quad-core GPU Support OpenGL ES3.2 / OpenCL 2.2 / Vulkan1.1, 450 GFLOPS
VPU	Video decoding: 8K@60fps H.265/VP9/AVS2 8K@30fps H.264 AVC/MVC 4K@60fps AV1 1080P@60fps MPEG-2/-1/VC-1/VP8 Video encoding: 8K@30fps encoding, support H.265 / H.264 *Up to 32-channel 1080P@30fps decoding and 16-channel 1080P@30fps encoding can be achieved.
RAM	4GB/8GB/16GB (Up to 32GB optional) 64bit LPDDR4/LPDDR4x LPDDR5 (industrial grade)
Storage	16GB/32GB/64GB/128GB eMMC (industrial grade)
OS	Android 12.0, Ubuntu Desktop and Server, Debian11 and Buildroot RTLinux (delivering excellent real-time performance)
Size	66 mm × 50 mm

iCore-3568JQ

JQ Series

Quad-Core Industrial Core Board

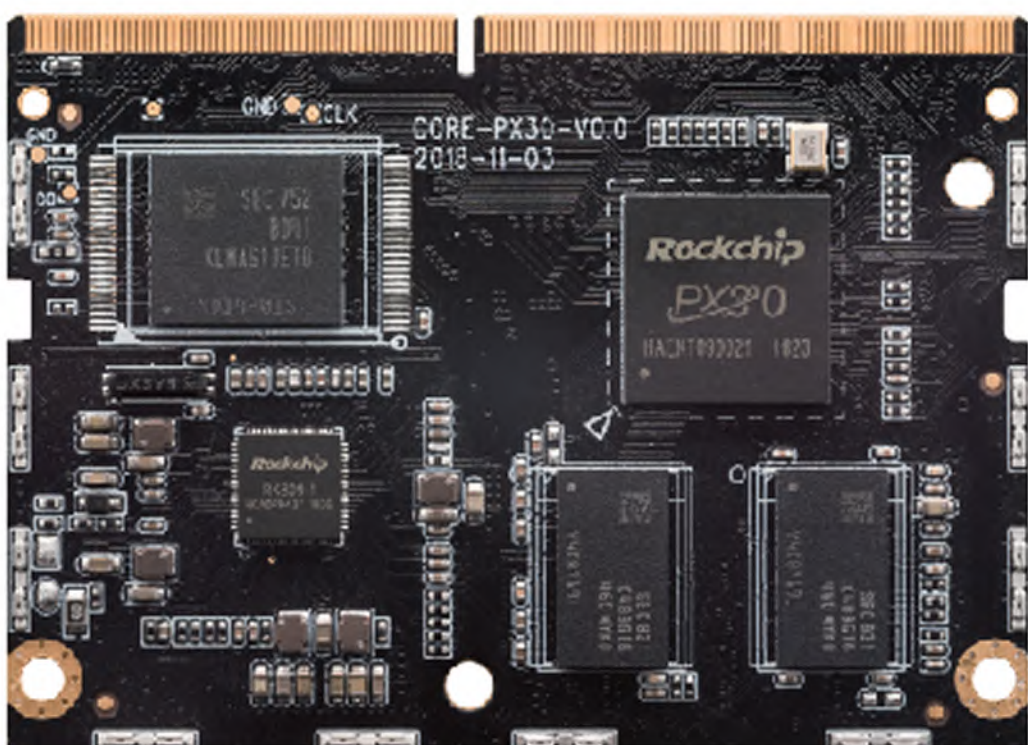


Soc	RockChip RK3568J
CPU	Quad-core 64-bit Cortex-A55, 22nm lithography process, frequency up to 2.0GHz
GPU	ARM G52 2EE Supports OpenGL ES 1.1/2.0/3.2, OpenCL 2.0, Vulkan 1.1 Embedded high-performance 2D acceleration hardware
RAM	1GB / 2GB / 4GB / 8GB LPDDR4
Storage	8GB / 16GB / 32GB / 64GB / 128GB eMMC, 16 MB SPI Flash

Core-PX30-JD4

JD4 Series

Quad-core 64-bit Core Board

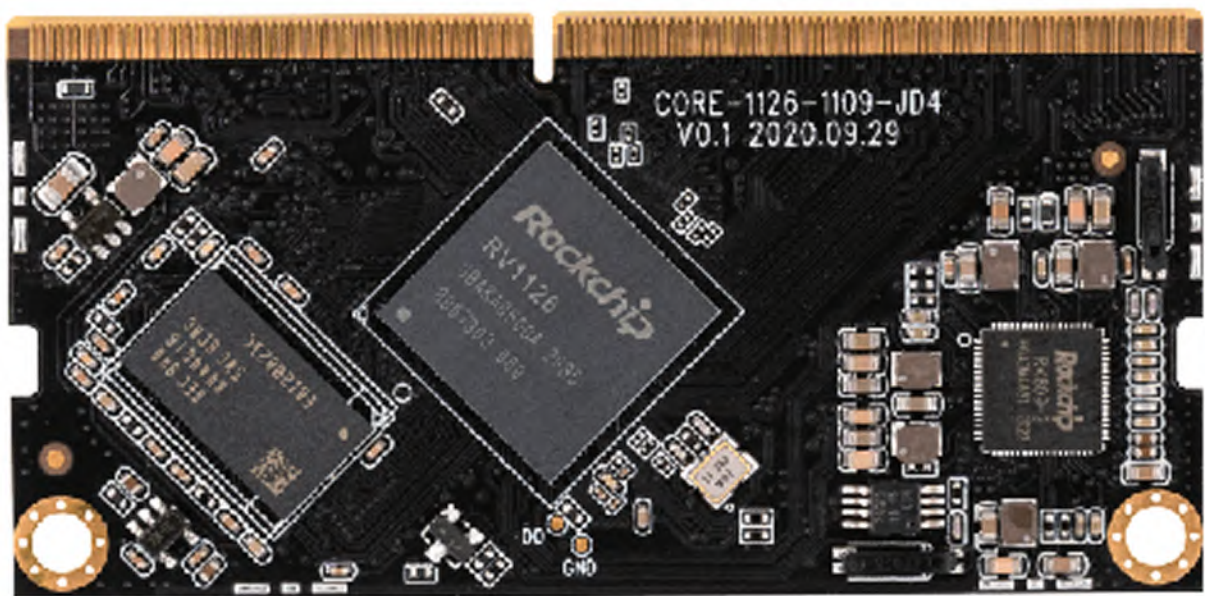


Soc	Rockchip PX30
CPU	Quad-Core ARM® Cortex-A35 processor
GPU	Mali-G31GPU, Support OpenGL ES3.2, Vulkan 1.0, OpenCL 2.0 Built-in embedded high-performance 2D acceleration hardware
RAM	DDR3 (1GB/2GB)
Storage	eMMC 5.1 (8GB/16GB/32GB/64GB/128GB) ,Support MLC NAND

Core-1126-JD4

JD4 Series

High-Performance AI Vision Core Board

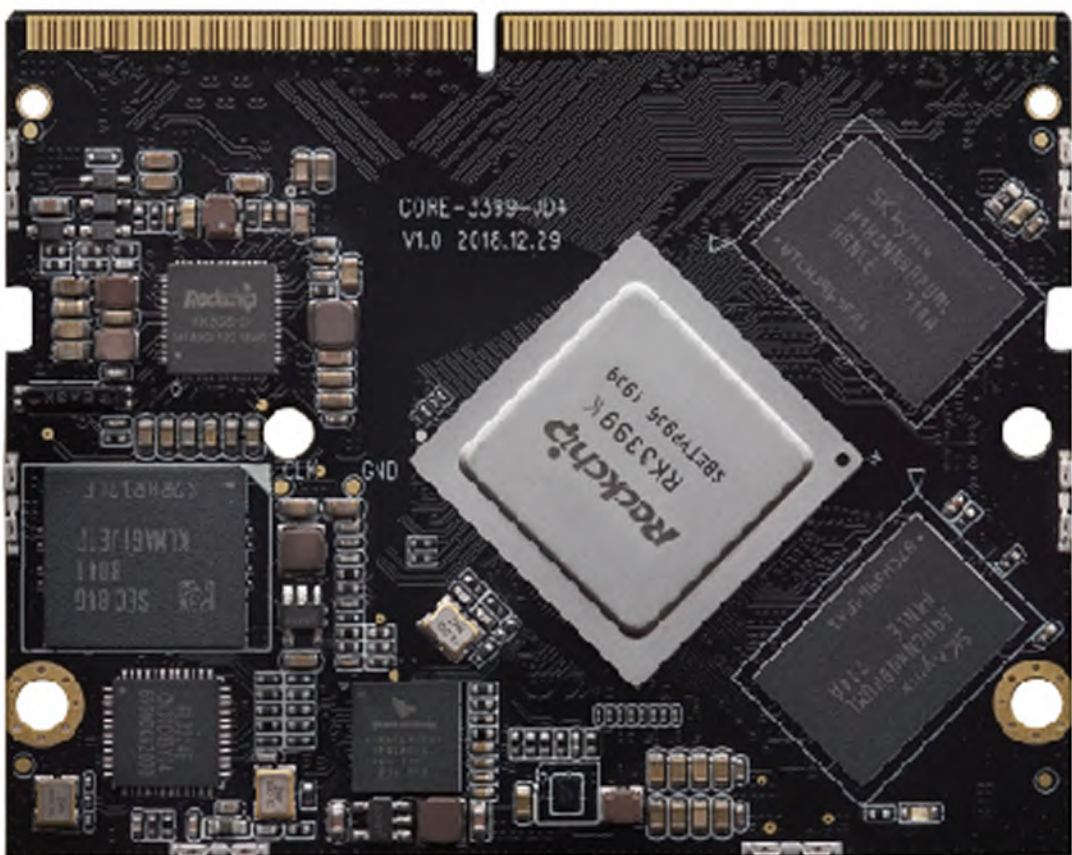


Soc	RV1126
CPU	Quad-core ARM Cortex-A7 32-bit, integrates NEON and FPU Each core has a 32KB I-cache, 32KB D-cache and 512KB shared second-level cache Based on RISC-V MCU
NPU	2.0Tops, supports INT8/ INT16, It has strong network model compatibility, can realize the conversion of commonly used AI framework models, eg: Tensor Flow/MXNet/PyTorch/Caffe/
RAM	1GB / 2GB DDR4
Storage	8GB / 16GB eMMC

Core-3399K-JD4

JD4 Series

Six-core High-performance AI Core Board

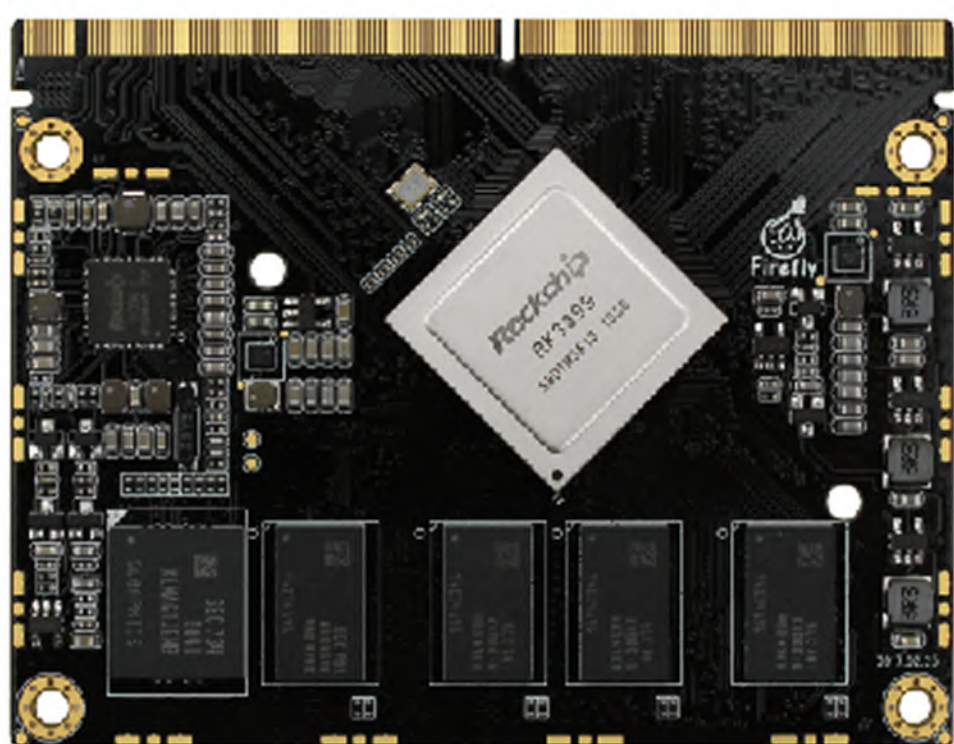


Soc	RK3399K
CPU	ARM® 6-core 64-bit processor, based on big. LITTLE architecture, Dual-core Cortex-A72(big)+ Quad-core Cortex-A53(LITTLE)
GPU	ARM® Mali-T860 MP4 quad-core GPU, Supports OpenGL ES1.1/2.0/3.0/3.1, OpenVG1.1, OpenCL, DX11 Supports AFBC (Arm Framebuffer Compression)
RAM	2GB LPDDR4 (2GB/4GB optional)
Storage	8GB high-speed eMMC 5.1

Core-3399KJ

J Series

Six-Core 64-Bit High-Performance Core Board

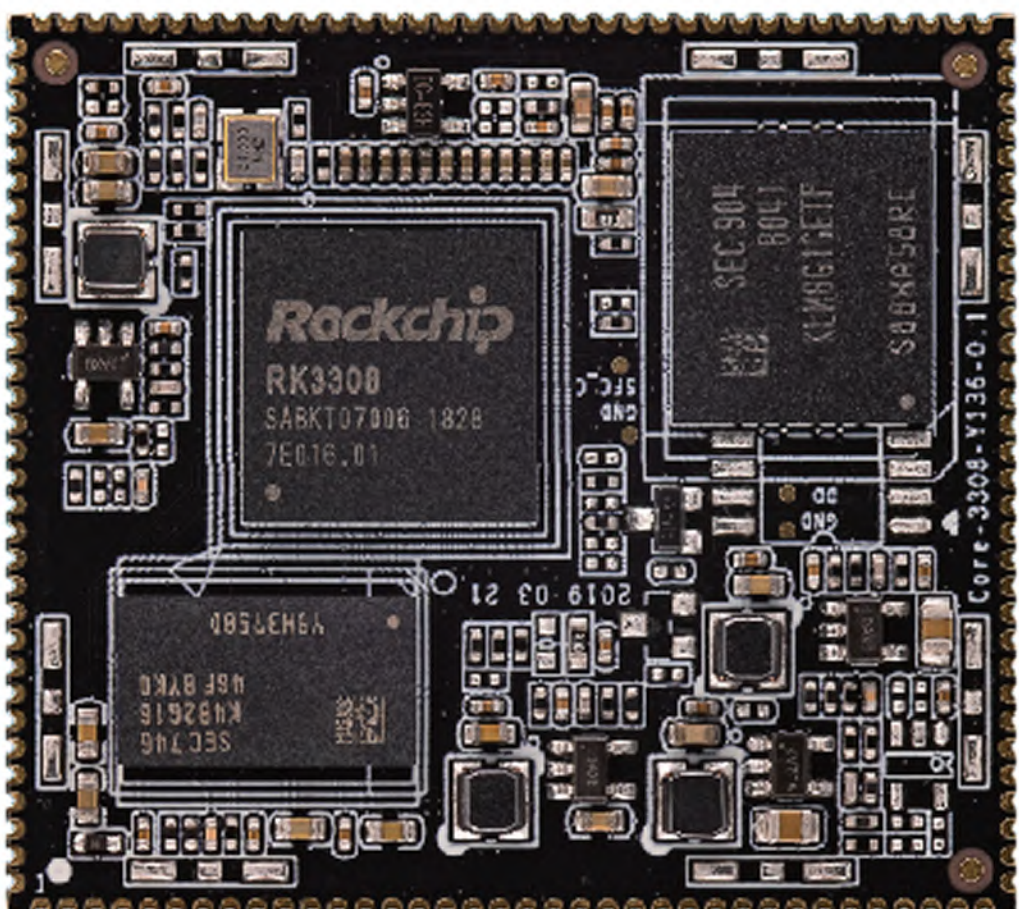


Soc	RK3399K
CPU	Six-Core ARM 64-bit processor, up to 2.0GHz Based on Big.Little architecture, Dual-Core Cortex-A72 and Quad-Core Cortex-A53
GPU	ARM Mali-T860 MP4 Quad-Core GPU Support OpenGL ES1.1/2.0/3.0/3.1, OpenCL and DirectX 11, Support AFBC
RAM	Dual-Channel DDR3 - 1333MHz (1GB/2GB/4GB Optional)
Storage	High-Speed eMMC 5.1 (8GB/16GB/32GB/128GB Optional)

Core-3308Y

Y Series

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

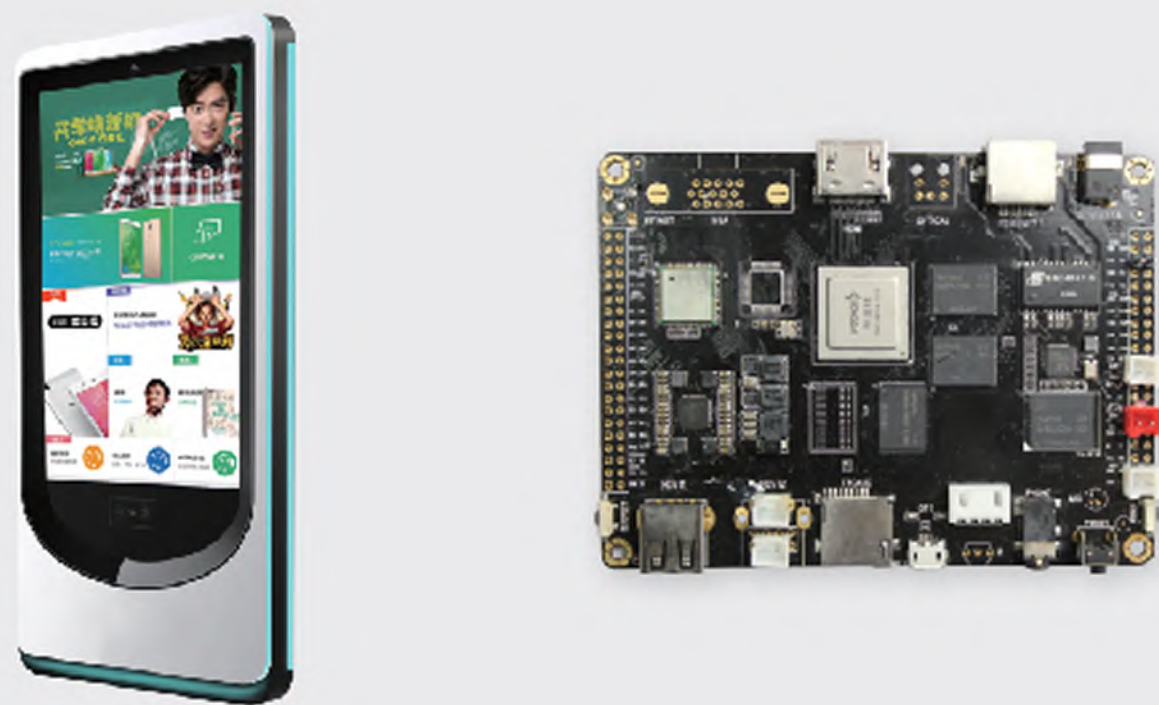
APPLICATIONS



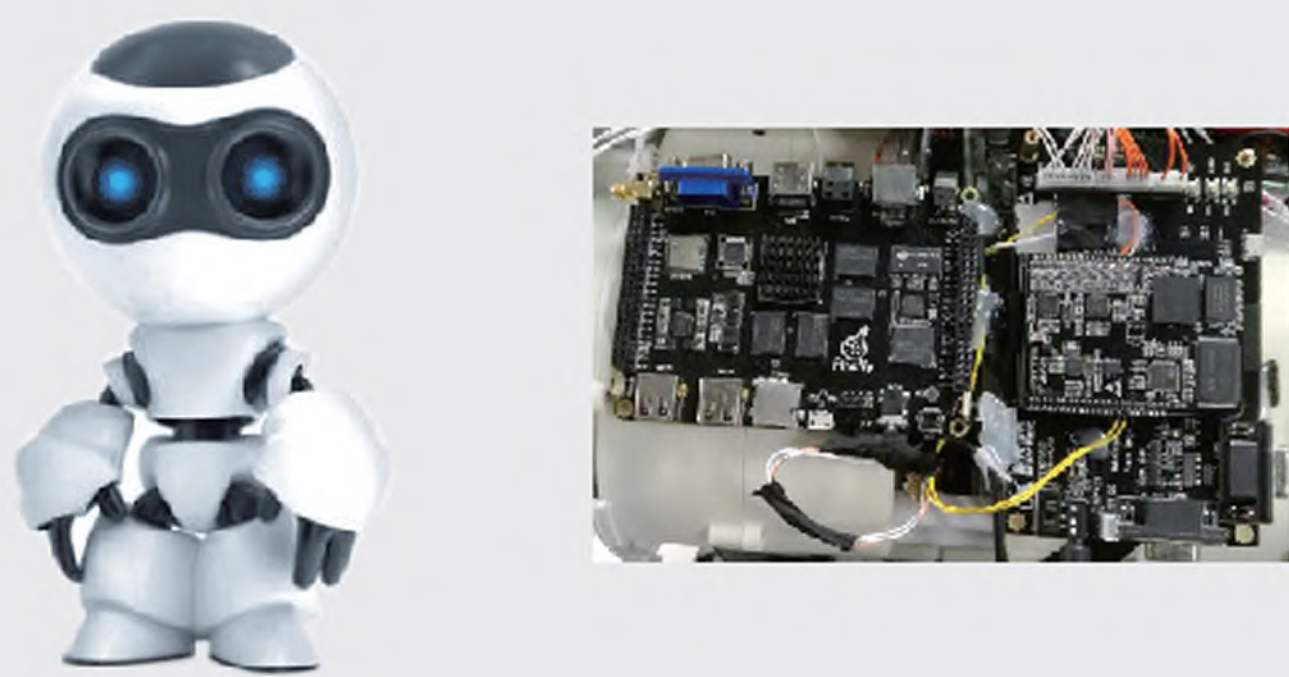
New Retail Equipment



Industrial Host



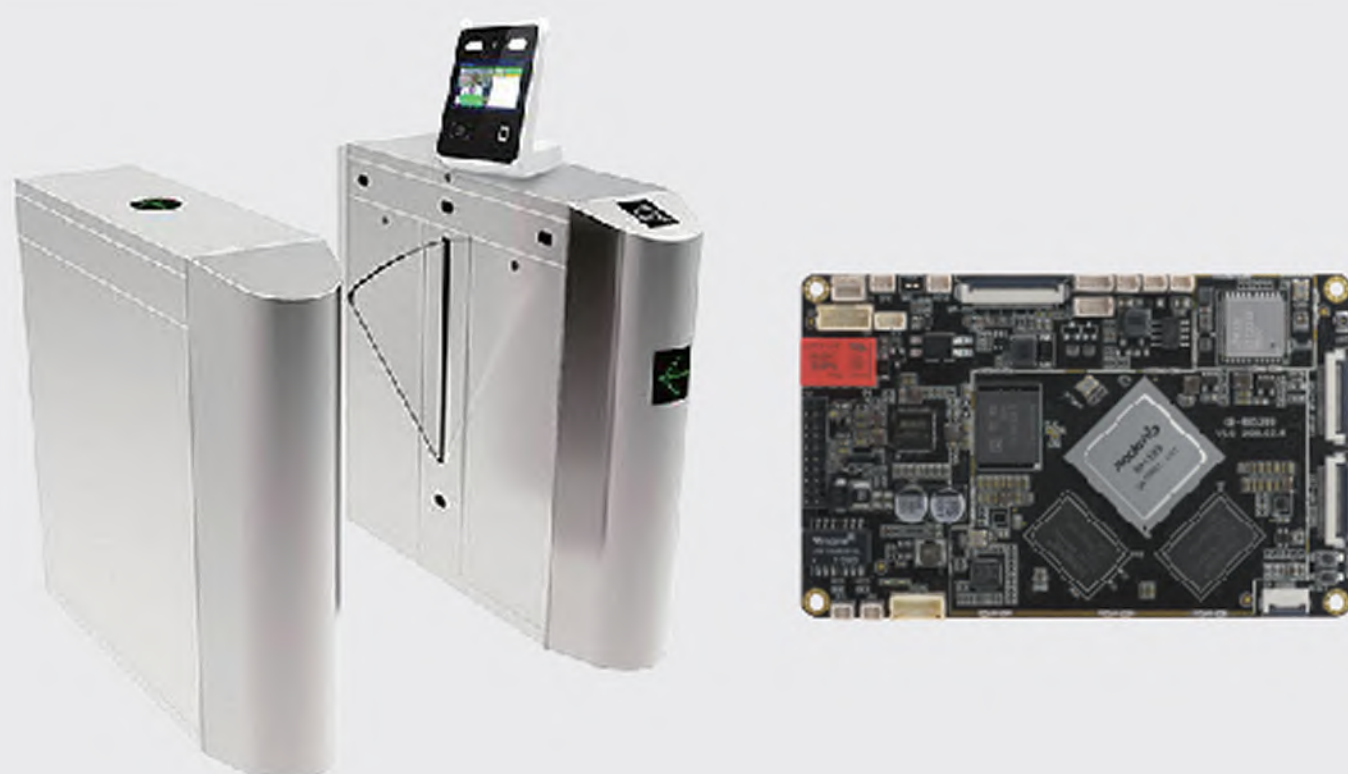
Advertising Machine



Artificial Intelligence



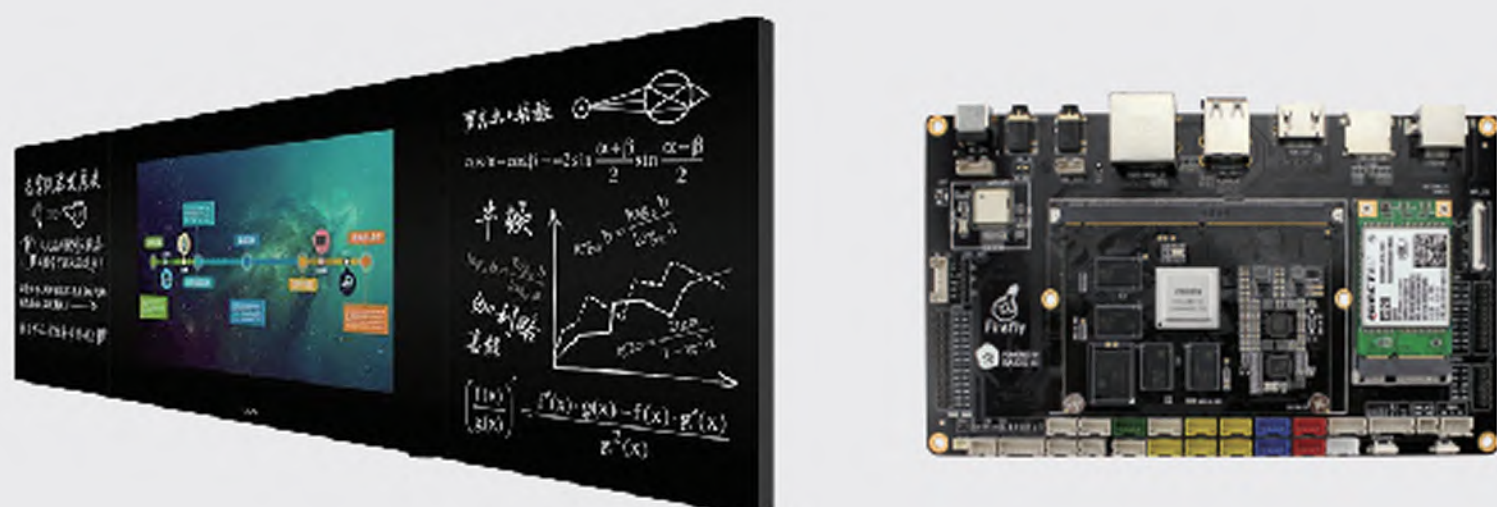
Block Chain



Face Recognition Device



Self-Service Equipment



Smart Digital Class Card



More Areas

PARTNERS





Contact Us

Firefly Website: www.t-firefly.com

Firefly Taobao: t-firefly.taobao.com

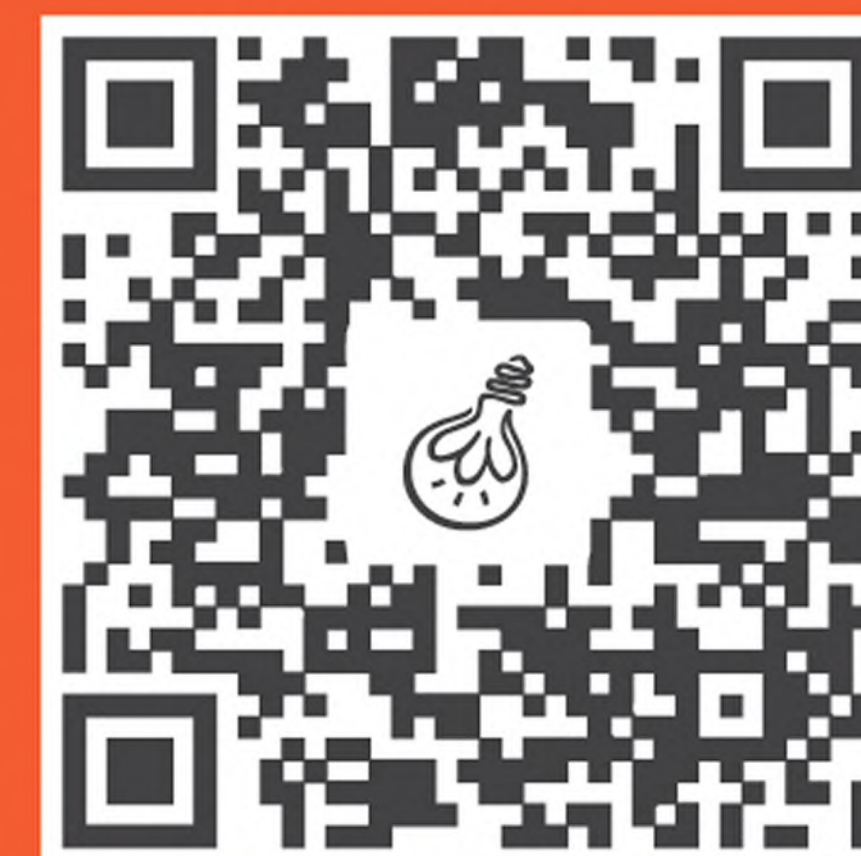
Firefly Store: store.t-firefly.com

Product customization: product@t-firefly.com

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Service Hotline: 4001-511-533

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