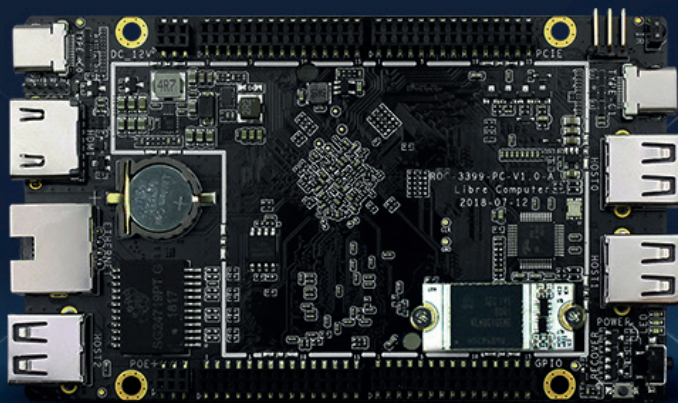


ROC-RK3399-PC

SIX-CORE 64 - BIT HIGH - PERFORMANCE MAIN BOARD

ROC-RK3399-PC adopts Rockchip high-performance core configuration, unique multiple power supply mode and unique plate design. It can be connected to the expansion board, making the performance stronger and superior. When combined with the metal casing, it becomes a pocket portable personal computer.



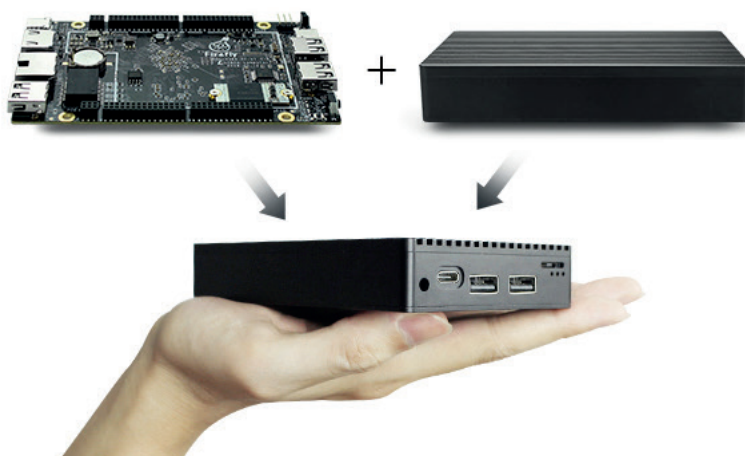
BUILT-IN STRONG CORE CONFIGURATION

With «server-level» dual-core Cortex-72+ quad-core Cortex-A53 architecture, the frequency is up to 2.0 GHz, and 4GB LPDDR4 dual-channel 64-bit RAM high-performance memory is configured to comprehensively improve the performance of mainboard.



SMALL SIZE CARD COMPUTER

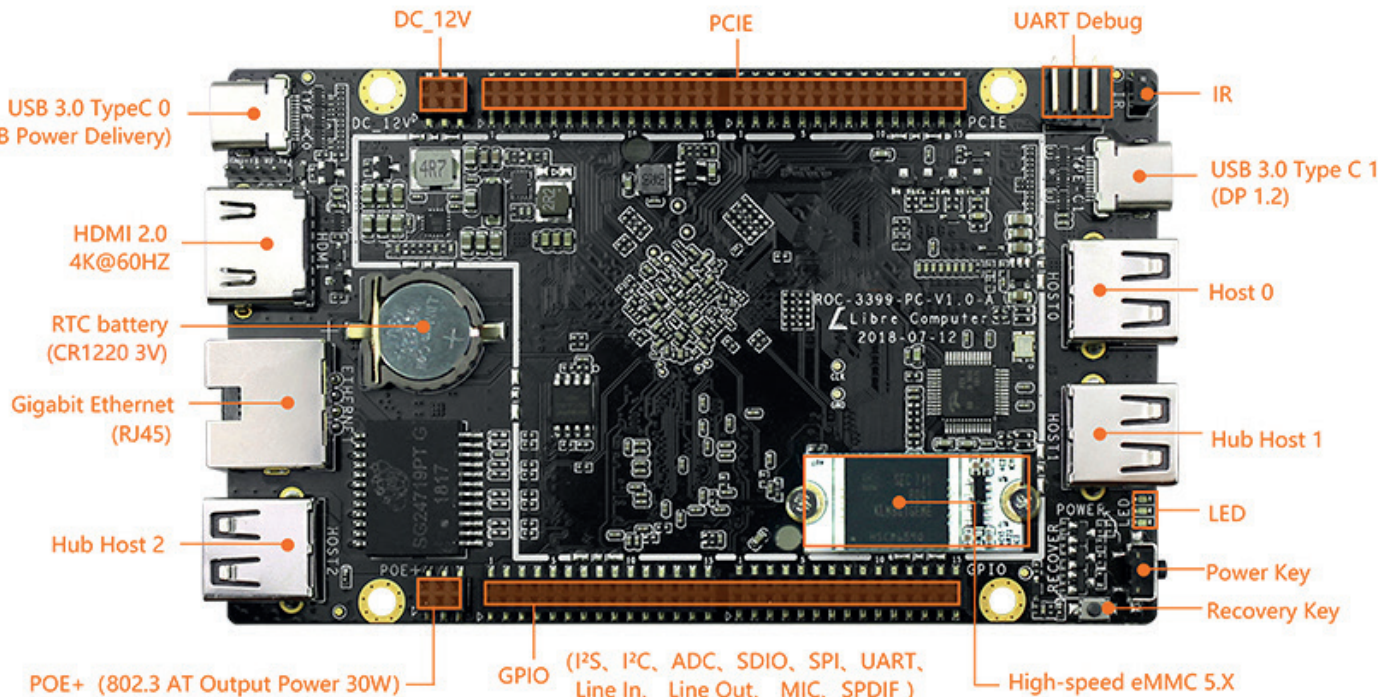
Unique plate design, golden ratio, only 120 x 72 x 11,9 mm in size. When combined with the metal casing, it becomes a pocket portable personal computer.



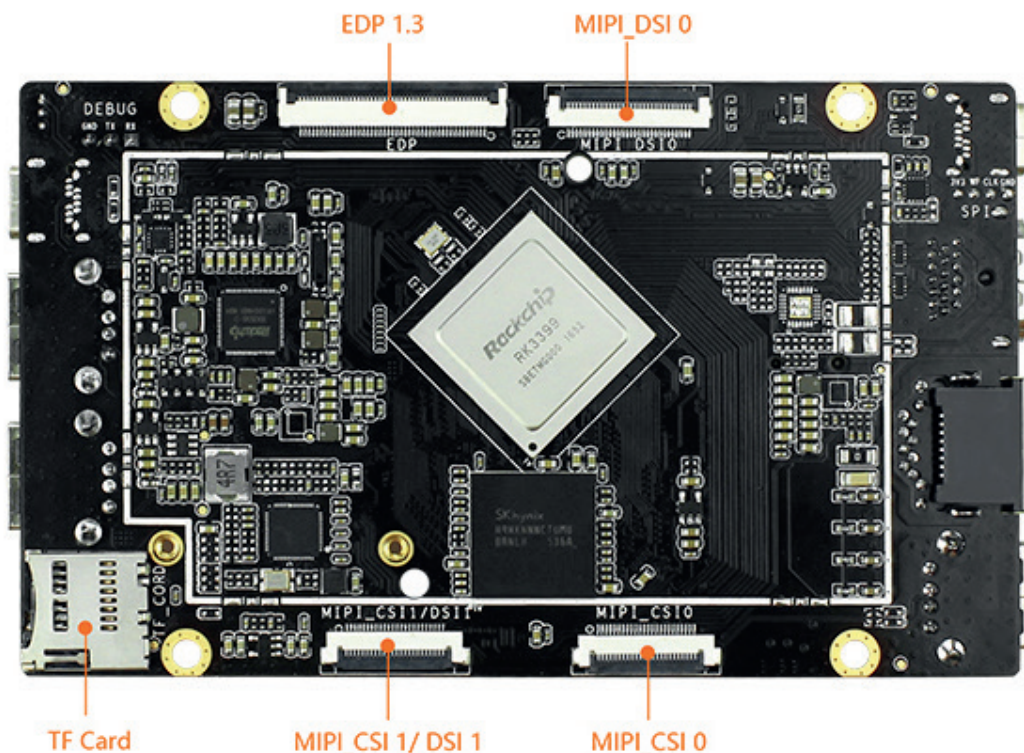
RICH PERIPHERAL INTERFACE

It has rich interfaces, such as MIPI/eDP screen interface, dual-channel MIPI CSI (supporting dual-channel cameras), Type-C x2, USB 2.0 Host x 3, HDMI 2.0, Gigabit Ethernet (RJ45), GPIO, etc...

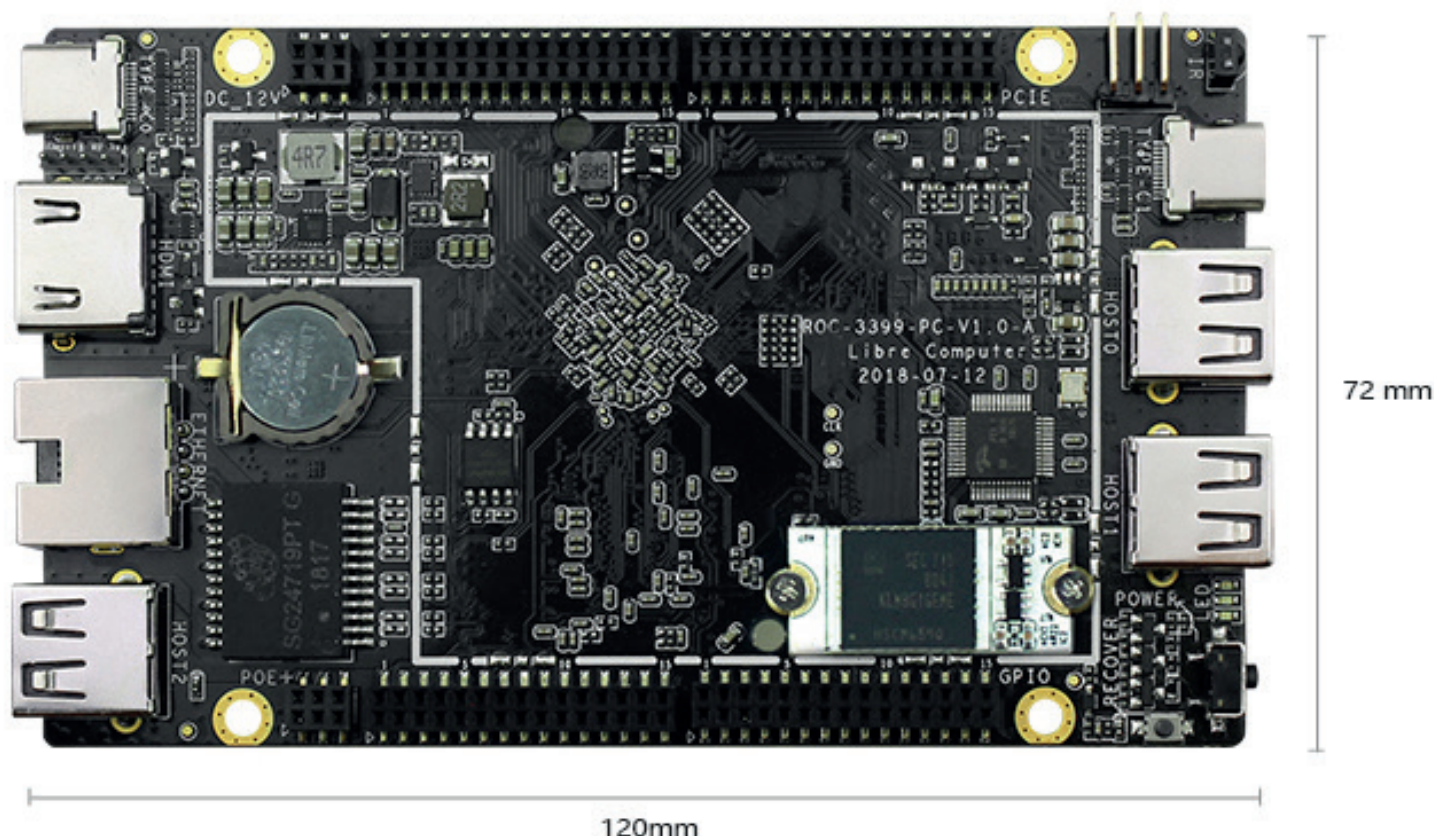
TOP VIEW



BOTTOM VIEW



SPECIFICATION



SPECIFICATION

Soc	Rockchip RK3399 (28nm HKMG manufacture procedure)
CPU	• Six-core ARM® 64-bit processor. Main frequency is up to 2.0 GHz • 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)
VPU	• Support 4K VP9 and 4K 10bits H265/H264 video decoding, up to 60 fps • 1080P multi-format video decoding (WMV, MPEG-1/2/4, VP8) • 1080P video encoding, support H.264, VP8 formats • Video post processor, de-interlacing, de-noising, edge/detail/color optimization
PMU	RK808-D PMU chip
RAM	4GB LPDDR4 dual-channel 64-bit RAM
Storage	• Onboard SPI flash (16M Byte) • 16GB/32GB/128GB high-speed eMMC (optional) • Support MicroSD (TF) card, USB flash disk expansion • Support expansion board M.2 M-Key to expand SSD

HARDWARE

Ethernet	Gigabit Ethernet (RJ45 interface)
Wifi/Bluetooth	Through the expansion board M.2 E-Key interface (providing SDIO 3.0 signal)
Display	• HDMI2. supports 4k 60Hz display, support HDCP 1.4/2.2 • DisplayPort 1.2 (up to 4k 60Hz) • Support eDP 1.3. • Support MIPI-DSI (dual-channel) • Support dual-sceen display (type-C + HDMI), support 4K + 2K output
Audio	1 x HDMI audio frequency output, DP audio frequency output
Camera	Dual-channel MIPI CSI interface (supporting Dual-channel camera at the same time)
USB	USB 2.0 Host x 3 Type-C x 2
Debugging	Debug serial port x 1, for development and debugging
Key	Recovery x 1, Power x 1
IR	One channel infrared receiving heard, support infrared remote control function
RTC	RTC real time clock x 1, onboard battery socke
Power	1. POE+ (802.3 AT, output power 30 W) 2. Type-C PD 2.0 power control chip, support wide voltage input (5V - 15V) 3. Dual battery power supply (7.4 V lithium battery)
Dual Type-C	• Support 4K@60fps output (not supporting simultaneous output) • TypeC0 interface : Support DisplayPort 1.2 + Power Delivery 2.0+ USB3.0 OTG + USB2.0 Host, Board power and DP output can be achieved simultaneously using a Type-C line • TypeC1 interface : Support DisplayPort 1.2 + USB3.0 Host + USB2.0 Host, support external power supply
Expansion board	4. POE+ (802.3 AT, output power 30 W) 5. M.2 M-Key (extending SSD) and M.2 E-Key interface (provoding SDIO 3.0, USB 2.0 signals) 6. Onboard battery (dual 7.4V lithium battery) 7. Onboard balanced charging circuit to charge the onboard battery

SYSTEM/SOFTWARE

System	• Support Ubuntu 18.04 (supporting OpenGL es3.0, OpenCL, Tensor-Flow lite) • Debian9, linux+QT, support xserver and wayland display frameworks • Android 8.1 (supporting Android NN API)
Upgrade	Onboard SPI flash, support boot from TF card, EMMC, SSD, USB flash disk

APPEARANCE

Size	120 x 72 x 11.9 (mm)
------	----------------------