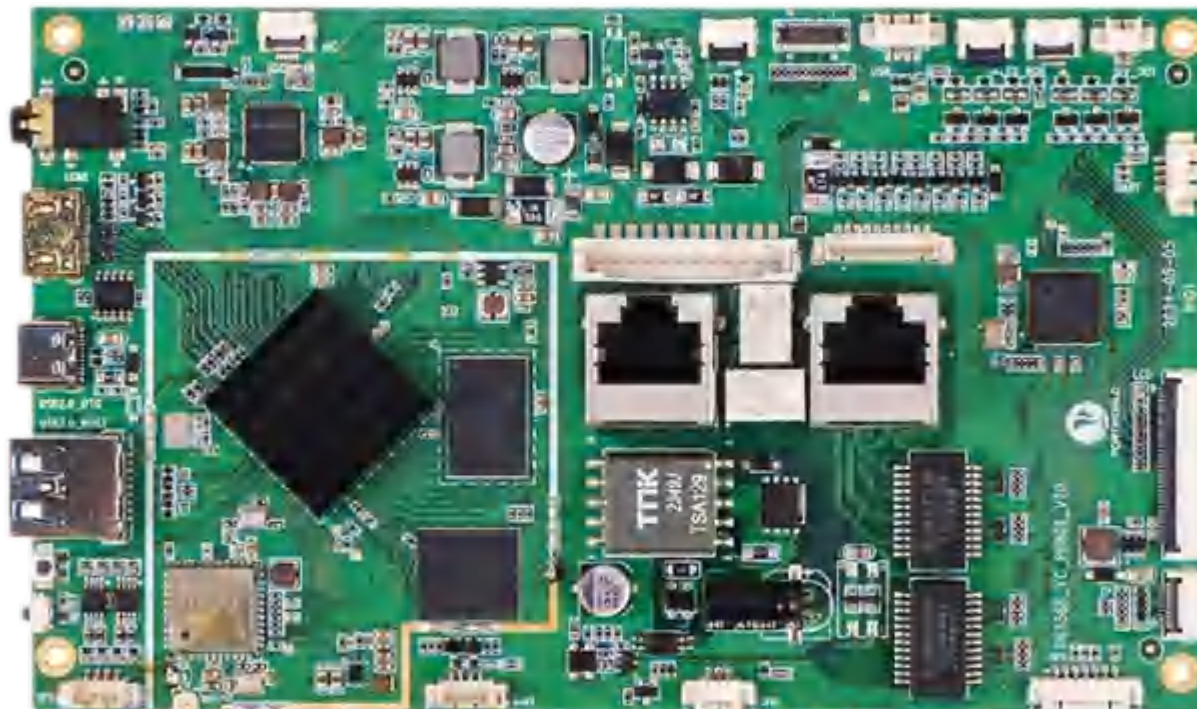




RK3568-P6802

Smart Home mainboard



V1.0 2024-9-27

PORTWORLD

Product features



Quad-core 6 4-bit processor RK3568

Quad-core 64-bit Cortex-A55 processor
Up to 2.0GHz 22nm
Advanced process, low power consumption and high performance

Integrated GPU, VPU, NPU

Support OpenGL ES3.2/2.0/1.1, Vulkan1.1
4K 60fps H.265/H.264/VP9 Video Decoding
1080P 100fps H.265/H.264 video encoding

Support multiple systems

Support Android、Ubuntu、Buildroot、Debian OS

Rich peripheral expansion interface

MIPI_DSI, I2C, UART, RS485, RS232, SPK, MIC, KNX and other interfaces, can be directly applied to external equipment control and expansion

Dual RJ45 Port

2*Gigabit Ethernet RJ45 ports
One supporting PoE

Support 8GB large memory

Up to 8GB memory capacity, up to 32Bit bit width; make data more secure and reliable, to meet the requirements of large-memory product application scenarios

Widely used scenarios

Widely used in smart home center control panel, automation control, industrial control, building intercom and other application scenarios.

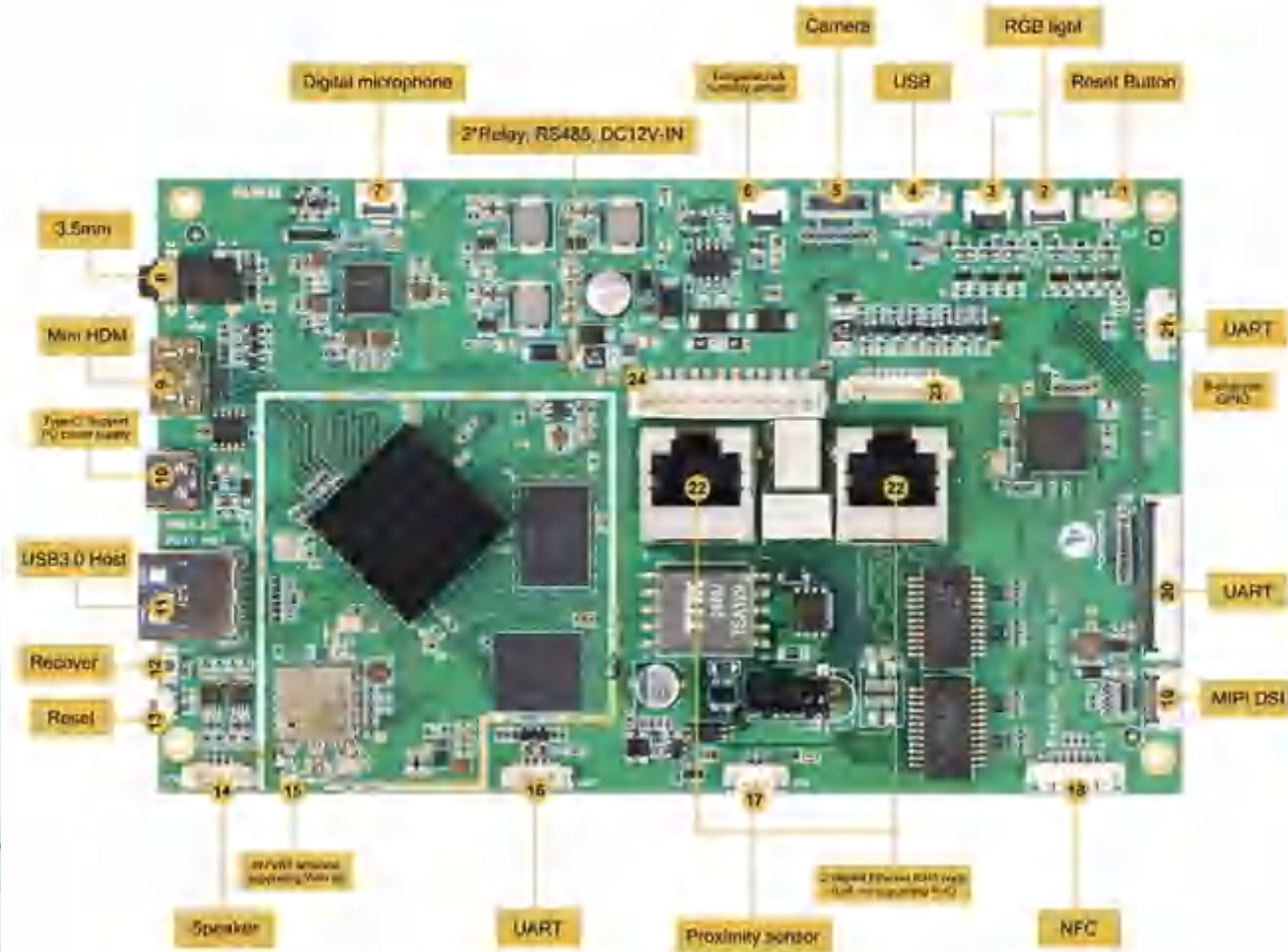
Open data, independent customization

Provide complete SDK, development documents, technical information, development tutorials and other information, users can customize it in depth

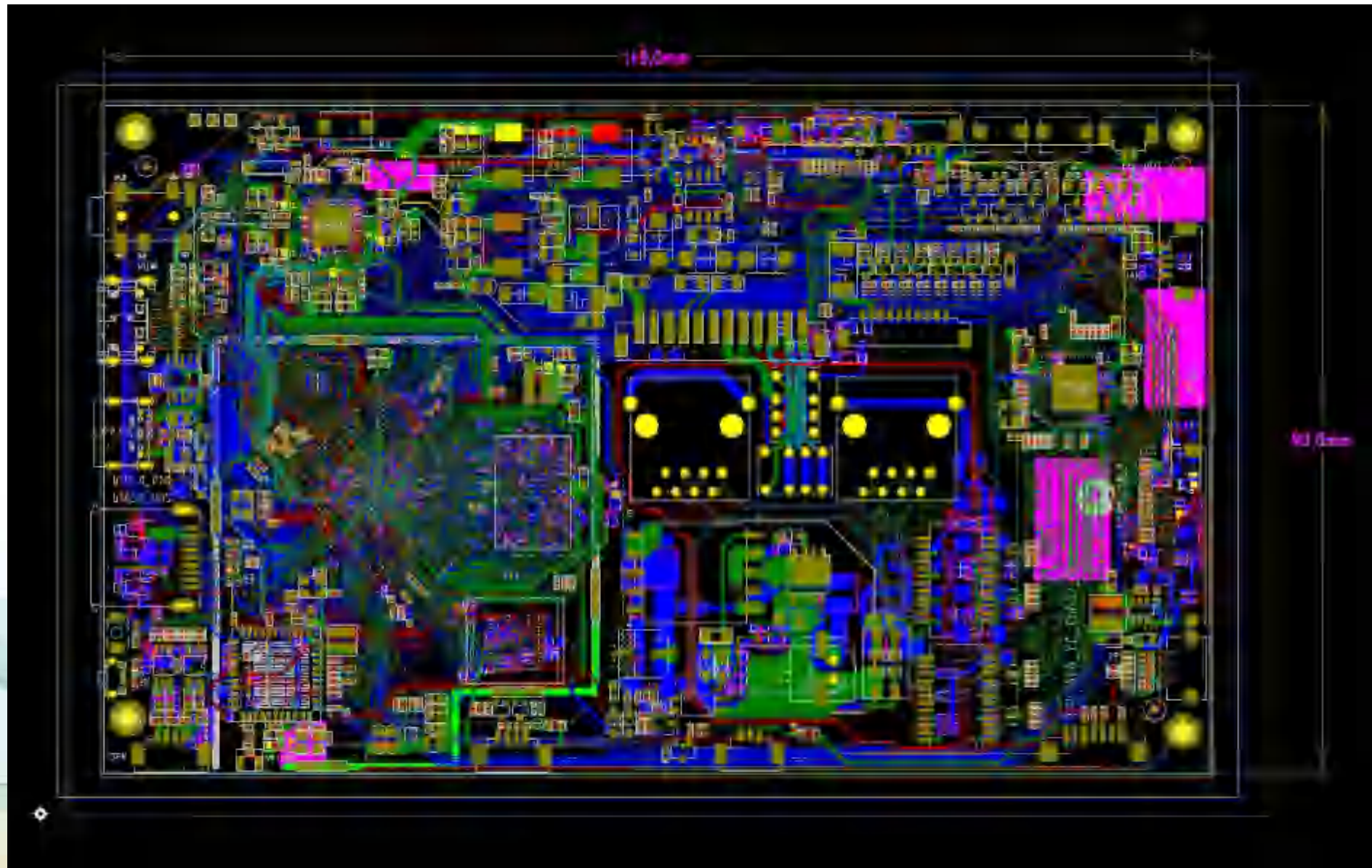
Specification		
Basic Parameters	SOC	RockChip RK3568
	CPU	Quad-core 64-bit Cortex-A55 processor, Up to 2.0GHz 22nm
	GPU	ARM G52 2EE graphics processor, supports OpenGL ES 1.1/2.0/3.2, OpenCL 2.0, Vulkan 1.1, with embedded high-performance 2D acceleration hardware
	NPU	Integrated RKNN NPU AI accelerator, 1 Tops@INT8 performance, supports one-click conversion for Caffe/TensorFlow/TFLite/ONNX/PyTorch/Keras/Darknet architecture models
	Decoding/Encoding	Video Decoding: 4K@60fps H.265/H.264/VP9 Video Encoding: 1080P@100fps H.265/H.264
	RAM	2GB （optional 4GB/8GB LPDDR4）
	ROM	16GB （optional 32GB/64GB/128GB eMMC）
	Power	5.0V （voltage tolerance $\pm 5\%$ 、expandable POE, DC / AC power）
	System	Android、Ubuntu、Buildroot、Debian etc.
	Dimensions	149mm × 90mm
	Power consumption	Min: 0.03W(5.0V/6mA) , Normal: 2.5W(5.0V/500mA) , Max: 5.25W (5.0V/1050mA)
	Environmental Conditions	Operating Temperature: -10℃- 60℃ Storage Temperature: -20℃- 70℃ Operating Humidity: 10%~90%RH （non-condensing）
Interface Parameters	Ethernet	2 X Gigabit Ethernet RJ45 ports(One supporting PoE)
	WiFi	2.4GHz , 802.11a/b/g/n , Bluetooth 5.2 （optional 2.4GHz/5GHz dual frequency WiFi , 802.11a/b/g/n/ac , Bluetooth 5.2）
	Display	1 × MIPI DSI （single channel 1920*1080@60fps） ,1 * eDP1.3 （2560x1600@60fps ）
	Audio	2 × Speaker output (1.2W 8Ω) 1 × Mic input or 2 × Digital Array Microphone 1 × Headphone output (3.5mm)
	USB	1 × USB-C (OTG USB2.0) (current limit: 500mA) , 2 × USB2.0 （current limit: 500mA）
	Touch	Support I2C touch
	Camera	1 × MIPI CSI

Rich Peripheral Expansion Interfaces

With MIPI_DSI, I2C, UART, RS485, RS232, SPK, MIC, KNX and other interfaces, it can be directly applied to external device control and expansion.



Dimension





Portworld Technology Limited

 **Contact:** +86 15818792594

 **Web:** Portworld-solu.com

 **Address:** 4F, building No.5, Longbi Industrial Park, Dafa Road, Bantian Street, Longgang district, Shenzhen

 **Email:** jonney@ycxytech.com