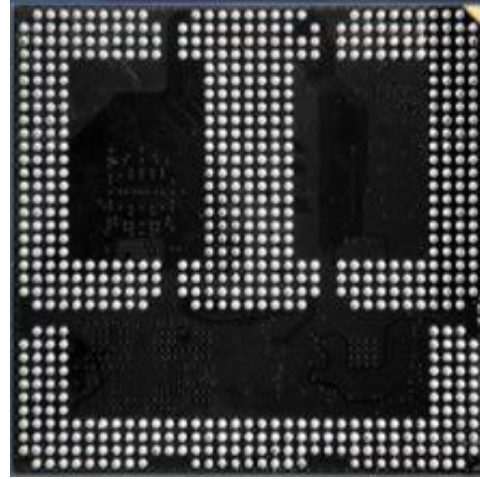


RK3566 CoreBoard

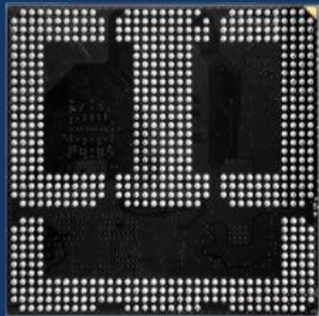
SoM-3566-OSM



The SoM-3566-OSM core board is an embedded core board developed according to the latest OSM (Open Standard Modules™) standard released by SGeT (Standardization Group for Embedded Technology e.V). It adopts with Rockchip's RK3566 processor, up to 8GB (1/2/4/8G optional) LPDDR4 and 128GB(8/16/32/64/128GB) eMMC storage. It uses LGA package design, without connectors, can be directly soldered on the functional carrier board, which is more stable. Based on the design of OSM-L, it is small in size, low in power consumption, and has rich functional interfaces for expansion. It can be configured with a suitable development board according to the actual application. It can be flexibly used in audio-visual entertainment host, smart NVR, cloud terminal, IoT gateway, industrial control, edge computing, face gate, vehicle central control, commercial display equipment, AIoT and other application fields.

<ul style="list-style-type: none"> ● Quad-Core 64-bit Processor <ul style="list-style-type: none"> • Quad-core 64-bit Cortex-A55 processor, main frequency can reach up to 1.8GHz • 32KB L1-I Cache/ 32KB L1-D Cache • Integrated dual-core architecture GPU • High-performance NPU, 1.0Tops • High-performance VPU 	<ul style="list-style-type: none"> ● Extensibility <p>662 ball grid contact points, Support UART、I2C、SPI、ADC、PWM、GPIO、PCIE2.1、USB2.0、USB3.0、HDMI、EDP、MIPI CSI、MIPI DSI、I2S、RGMII、SDIO、CIF Camera and other expansion interfaces.</p>
<ul style="list-style-type: none"> ● Balance of Power consumption and Performance <ul style="list-style-type: none"> • Support high performance • Support low Power consumption 	<ul style="list-style-type: none"> ● Excellent video codec function <p>VPU can realize 4K 60fps H.265/ H.264 / VP9 video decoding and 1080P 60fps H.265/H.264 video encoding</p>
<ul style="list-style-type: none"> ● Support System platform <p>Debian Android BuildRoot etc.</p> 	<ul style="list-style-type: none"> ● Extensive application scenarios <p>Audio and video entertainment host, face gate, intelligent NVR, cloud terminal, IoT gateway, industrial control, vehicle central control, commercial display, AIoT and other application fields.</p>
<ul style="list-style-type: none"> ● Highlight features <ul style="list-style-type: none"> • LGA Package • Small Size, Scalable peripheral interfaces • Hardware encryption, High security level 	<ul style="list-style-type: none"> ● Enterprise level service <p>Provide comprehensive quality assurance, technical support and mass production services</p>

Product Specifications



Chipset	RK3566	
Market	Global	
Processor	OS	Debian/Android/BuildRoot, etc
	CPU	Quad-core 64-bit Cortex-A55processor, 22nm lithography process , main frequency can reach up to 1.8GHz
	GPU	ARM G52 2EE GPU, support OpenGL ES 1.1/2.0/3.2, OpenCL 2.0, Vulkan 1.1, Built-in 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
	LPDDR4	2GB (1/2/4/8G option)
	EMMC FLASH	8GB eMMC5.1(8/16/32/64/128GB option)
Application Interfaces	Ethernet	*1 RGMII
	SDIO	*2
	USB OTG	*1
	HDMI	*1
	eDP	*1
	LVDS	*1
	MIPI DSI	*1
	MIPI CSI	*1 (4 lanes)
	USB 2.0	*2
	USB 3.0	*1
	UART	*3 (UART2 --> Console)
	I2C	*4 (I2C0-->PMIC,I2C2-->MIPI CSI, I2C3/I2C4 for purpose use)
	I2S	*1
	FSPI	*1
	SPI	*1
	PWM	*3
	ADC	*2
	JTAG	*1
	GPIO	*24
	PCIe 2.1	*1
CIF	*1	
Mechanical properties		
Power Supply	5V	
Dimension	45*45mm(Size-L)	
Temperature	Consumer (0° C to 70° C Tj) Industrial (-20° C to 85° C Tj)	
RoHS and Reach compliant	Yes	