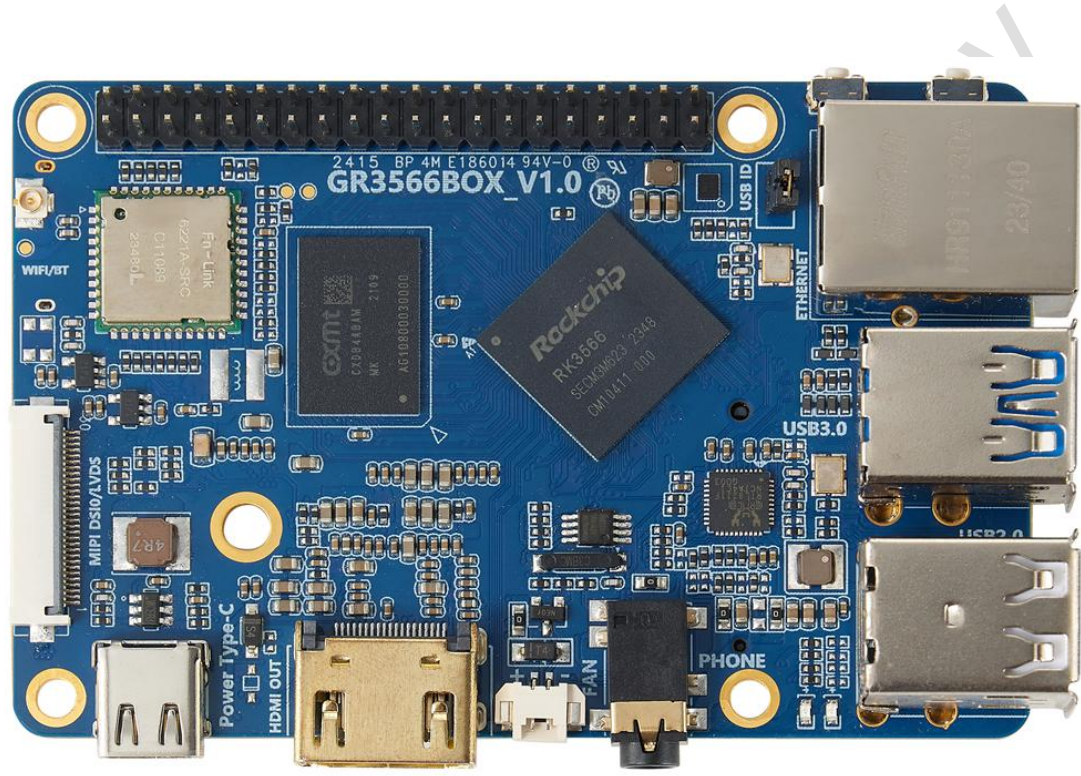


G3566 Single Board Computer



Shenzhen Graperain Technology Co., Ltd.

www.graperain.com

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New Version

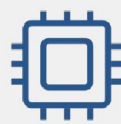
Hardware Version	Updating Date	Author	Description
V1.0	2024-4-22	RXS	Revision

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Product Introduction

G3566 Single Board Computer

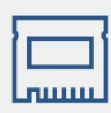
G3566 single board computer take quad-core 64 bit Cortex-A55 CPU. Its main frequency max up to 1.8GHz, inbuilt Mali-G52 GPU, 1T NPU, low consumption and high performance. And its DDR max 8GB RAM, more it support M.2 standard interface, 4K 60fps h.265/H.264/VP9 video decoding, and our company would provide you full technology supports and design reference. In this way, the user could develop their products independently.



Quad Core 64 Bit A55 CPU RK3566

Main Frequency up to 1.8 GHz
Mali-G52 2EE GPU

Low Consumption and High Performance



Support 8GB DDR

Meet Large Memory Requirement
Max 128GB EMMC



Support M.2 Standard Interface

M.2 2242 SPEC SSD



Many Expansion Interfaces

UART, I2C, ADC, PWM, GPIO,
MIPI CSI, MIPI DSI, HDMI,
USB2.0, USB3.0 etc..



Multiple Operating System

Android, Ubuntu, Debian,
Buildroot+QT etc.



Develop Efficiency

Provide technology supports
and sch design reference

Parameter
Basic Parameter

SOC	RockChip RK3566
CPU	Quad-core 64bit Cortex-A55 CPU, main frequency up to 1.8 GHz
GPU	ARM G52 2EE GPU, and support OpenGL ES 1.1/2.0/3.2, OpenCL 2.0, Vulkan 1.1,integrate high-performance 2D hardware engine
NPU	Integrate RKNN NPU AI acceleration engine, 1Tops processing performance Support deep learning frameworks: Caffe/TensorFlow/TF-Lite/ONNX/MXNet/PyTorch/Keras/Darknet
CODEC	4K 60fps H.265/H.264/VP9 video decoder 1080P 100fps H.265, 60fps H.264 video encoder
DDR	2GB/4GB/8GB LPDDR4/LPDDR4X
EMNMC	8GB/16GB/32GB/64GB/128GB EMMC memory

Hardware Parameter

Power	Type-C for the board power, and DC 5V-12
ETH	Built-in GMAC Ethernet controller, support 1000Mbps (RJ45)
Wireless	Expandable SDIO WiFi+bluetooth two-in-one module : - support 2.4GHz / 5GHz dual frequency WiFi,802.11a/b/g/n/ac - support Bluetooth4.2
Display	1 x HDMI2.0, max 4K@60Hz 1 x MIPI DSI, max 1920x1080@60fps
Audio	1 x Phone output (MIC recording), support dual-channels audio output 1 x HDMI audio output

Camera	1 x MIPI-CSI (Single channel 4 LAN),max 8mp camera
USB	USB2.0x3, USB3.0x1
M.2	M.2 2242 solid state disk
TF Card	1 x TF card slot,max 128GB TF card
Others	4 x UART 1 x Debug UART 1 x ADC 1 x I2C 1 x SPI 1 x I2S (2 channels) 12 x PWM 1 x RTC, reserved 2 PIN for power supply 1 x FAN, reserved 2 PI for FAN power supply, and 5v voltage

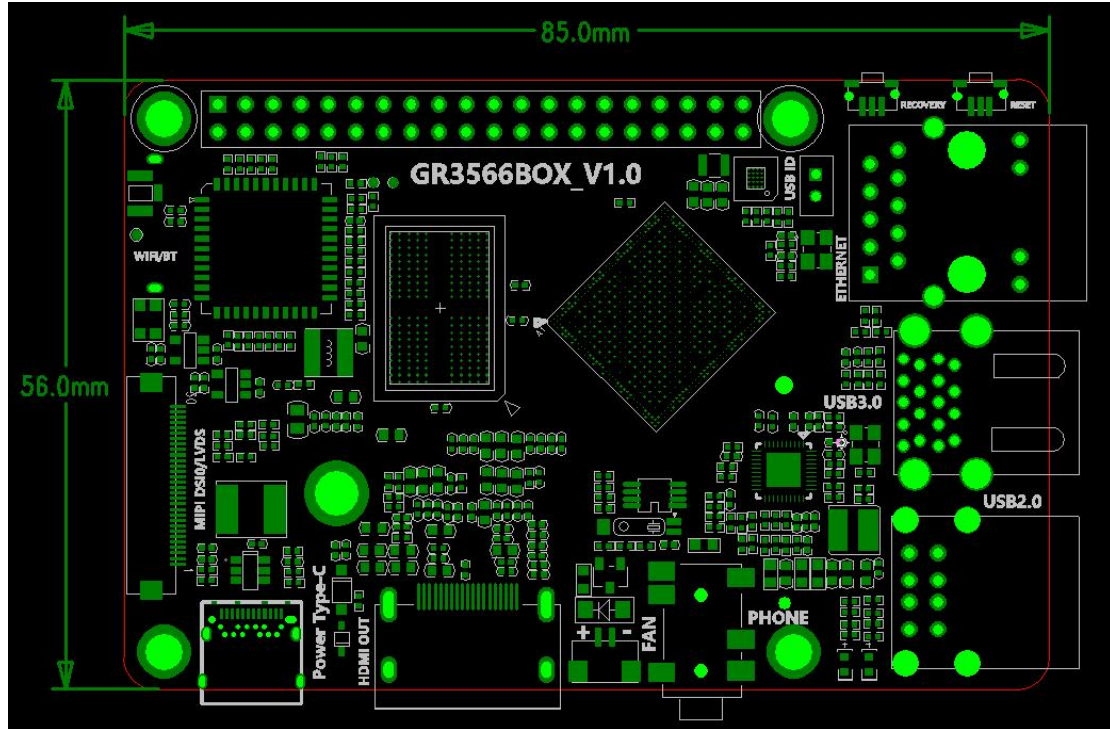
System Software

OS	Android12, Ubuntu, Buildroot+QT, Debian OS etc.
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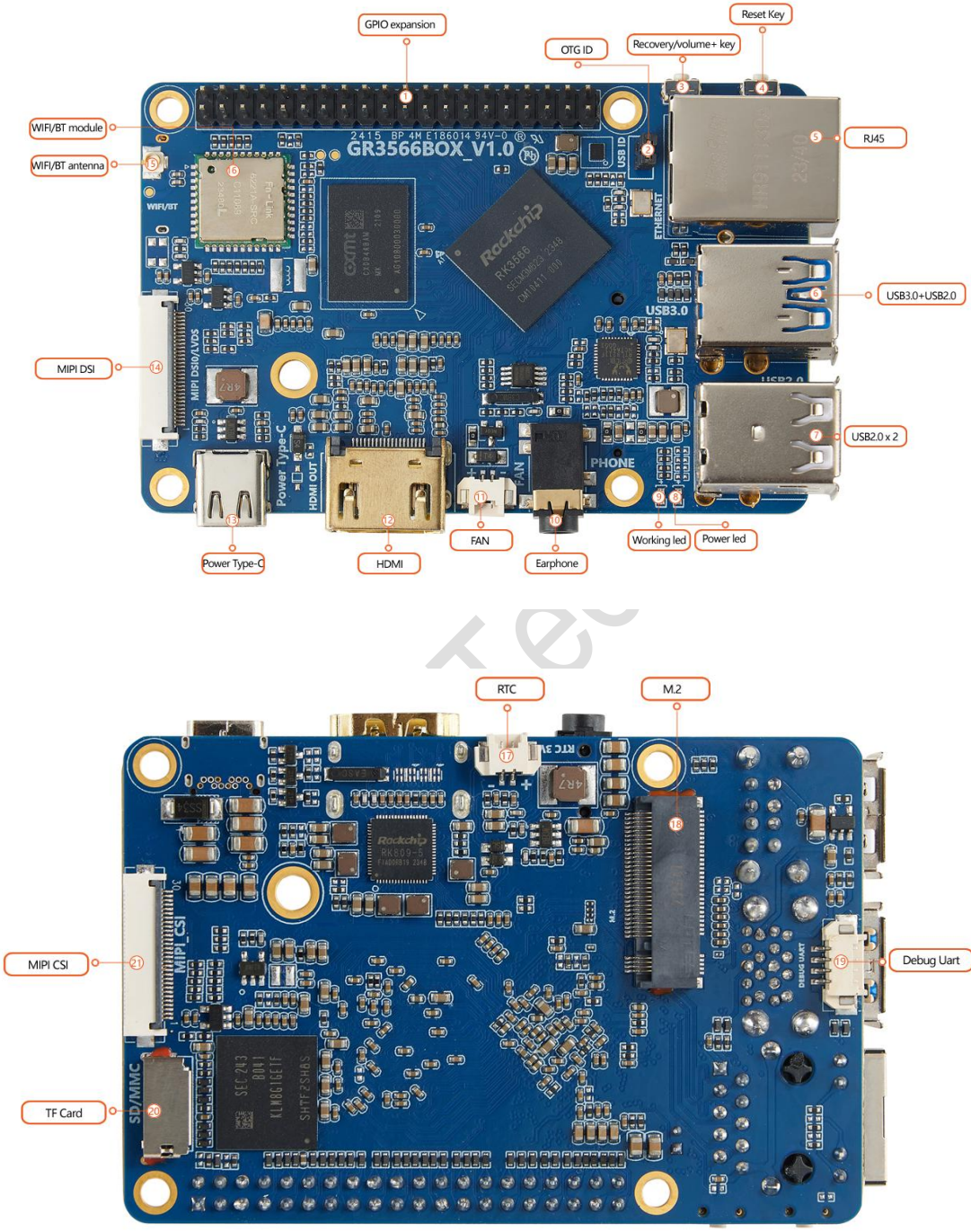
Other Parameter

Size	85mm x 56mm
Environment	Working Temperature: -20℃- 80℃ Storage Temperature: -30℃- 80℃ Storage Humidity: 10%~80 %

Size



Interfaces



G3566 Single Board Computer Hardware Introduction		
No.	Name	State
【1】	GPIO expansion	GPIO Expansion interface
【2】	OTG ID	OTG ID PIN ON/OFF key
【3】	Recovery/volume+ key	Upgrade/Vol+ key
【4】	Reset key	Reset key
【5】	RJ45	RJ45 gigabit Ethernet port
【6】	USB3.0 + USB2.0	USB3.0+USB2.0 HOST
【7】	USB2.0 x 2	USB2.0 HOST
【8】	Power led	Power led
【9】	Working led	Working led
【10】	Earphone	Earphone audio output
【11】	FAN	5V FAN power supply
【12】	HDMI	HDMI TYPE-A output
【13】	Power Type-C	5V Type-C power supply interface
【14】	MIPI DSI	MIPI DSI display interface
【15】	WIFI/BT antenna	WIFI, BT antenna interface
【16】	WIFI/BT module	WIFI, BT module
【17】	RTC	RTC power supply interface
【18】	M.2	M.2 SSD interface
【19】	Debug UART	Debug UART interface
【20】	TF card	TF card slot
【21】	MIPI CSI	MIPI CSI camera interface

Company Introduction

GraperaIn is a solution company dedicated to ARM platform development. 80% of our employees are senior engineers with bachelor degree or above, who have been engaged in embedded technology development for many years. Based on the 64-bit ARM processor, which is widely used in the embedded industry, we have streamlined the circuit design and strictly controlled the hardware cost, combined with the popular Linux, Ubuntu, Android and other operating systems. GraperaIn launched a series of solutions to provide system on modules +hardware customization + software development + OEM/ODM services to provide quality support services for manufacturers and R&D institutions.

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