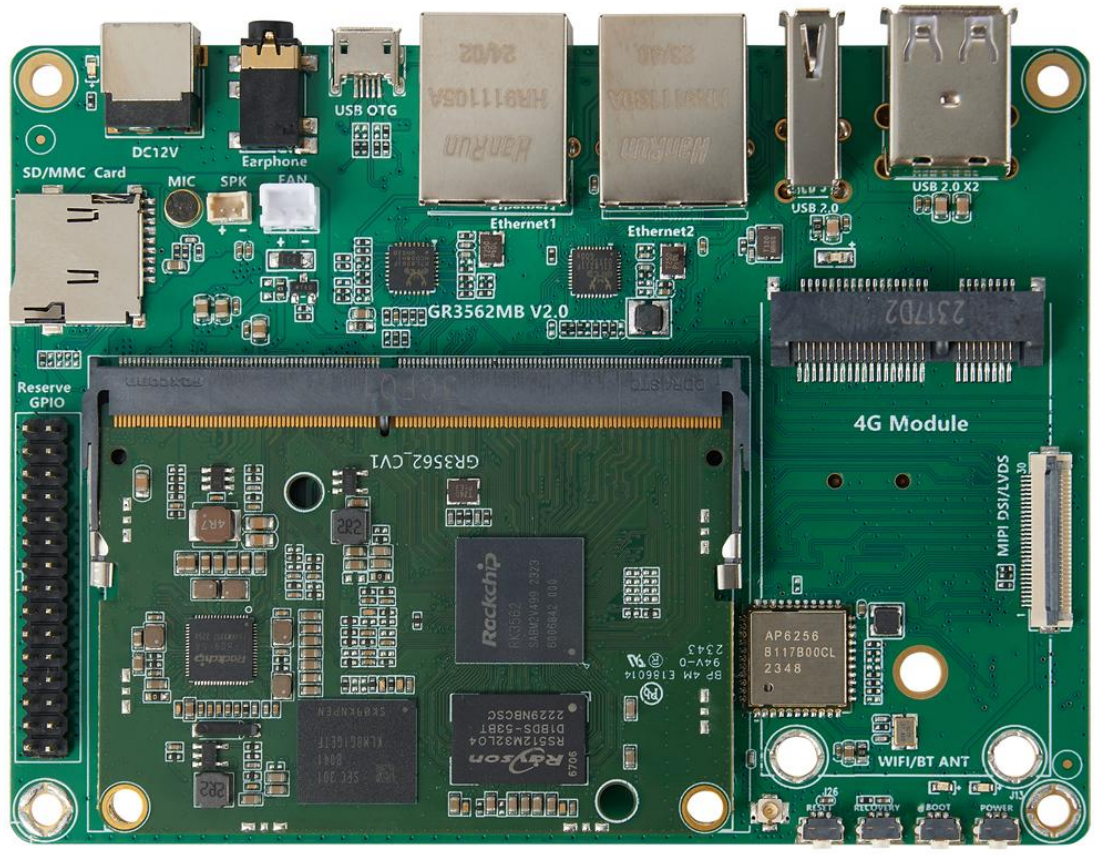


G3562 Development Board Introduction



Shenzhen Graperain Technology Co. Ltd.
www.graperain.com

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Release Notes

Version	Release date	Author	Description
v1.0	2024-3-19	RXS	Revision

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Development Board Introduction

G3562 Development Board

G3562 development board adopts Rockchip RK3562 quad core CPU, integrated dual-core architecture GPU and high-performance NPU. It supports max 8GB DDR. Onboard M.2 interface, WIFI, 4G module, dual network ports and other interfaces, which can be applied to industrial control, edge computing, face recognition and other scenarios.



Quad core 64 bit A53 RK3562

Frequency up to 2GHz



Support 8GB DDR

Meeting the needs of large memory applications
support 128GB EMMC



Integrate GPU, VPU, NPU

Mali-G52 2EE GPU
VPU 4K 30fps H.265/VP9 video decoder
1TOPS NPU



Multiple display inputs and outputs

MIPI-CSI, MIPI-DSI, LVDS
Built-in 13M ISP



Support M.2

Expandable SSD



Rich Expansion Interfaces

Support UART, I2C, ADC, PWM, GPIO, USB2.0, MIPI CSI, MIPI DSI, I2S etc.



OS

Android, Ubuntu, Debian, Buildroot+QT



Develop efficiency

Provide technical reference design

Hardware Features

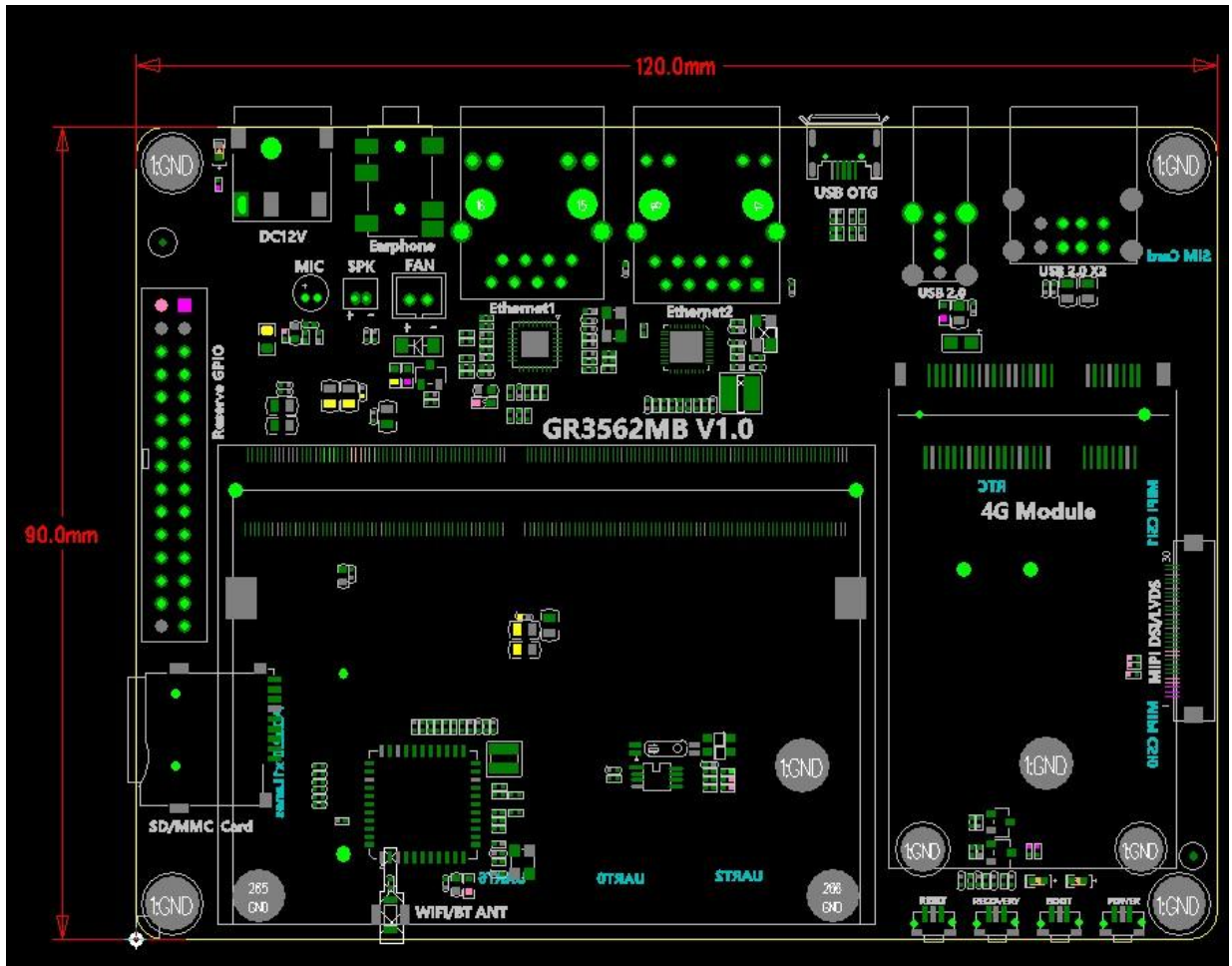
Features	
SOC	Rockchip RK3562
CPU	Quad core 64 bit Cortex-A53, frequency up to 2GHz
GPU	ARM G52 2EE GPU, support OpenGL ES 1.1/2.0/3.2, OpenCL 2.0, Vulkan 1.1, integrate high-performance dedicated 2D processor
NPU	Build-in RKNN NPU AI acceleration engine, 1Tops computing power Deep learning frameworks: Caffe/TensorFlow/TF-Lite/ONNX/MXNet/PyTorch/Keras/Darknet
Video Codec	1080P 60fps H.264 encoder 4K 30fps H.265/VP9, 1080P 60fps H.264 decoder
DDR	2GB/4GB/8GB LPDDR4/LPDDR4X
eMMC	8GB/16GB/32GB/64GB/128GB eMMC

Hardware Parameters

Power	DC 12V
Ethernet	1x 1000Mbps Ethernet(RJ45) 1x 100Mbps Ethernet(RJ45)
WIFI	Expandable WiFi+Bluetooth 2-in-1 module via SDIO interface: - support 2.4GHz / 5GHz dual band WiFi, 802.11a/b/g/n/ac protocol - support Bluetooth5.0 Supports extended 4G LTE/3G wireless networks
Display	1 x MIPI DSI, single channel support 1920x1080@60fps 1 x LVDS, up to 1280x800@60fps

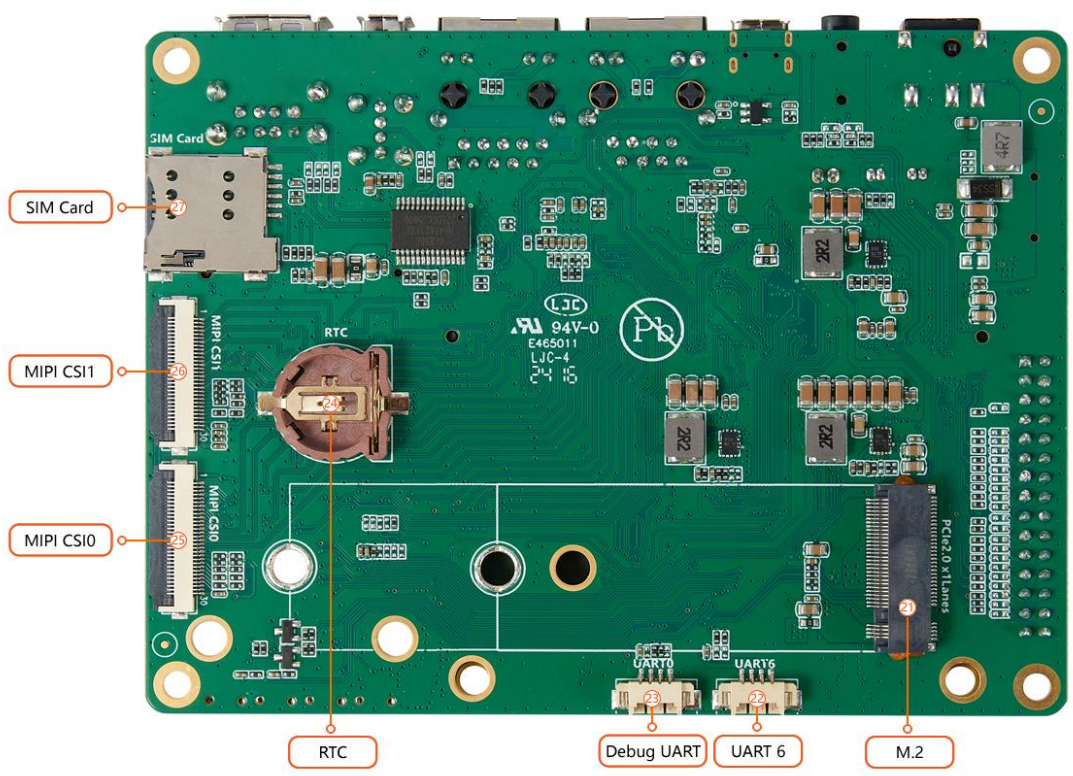
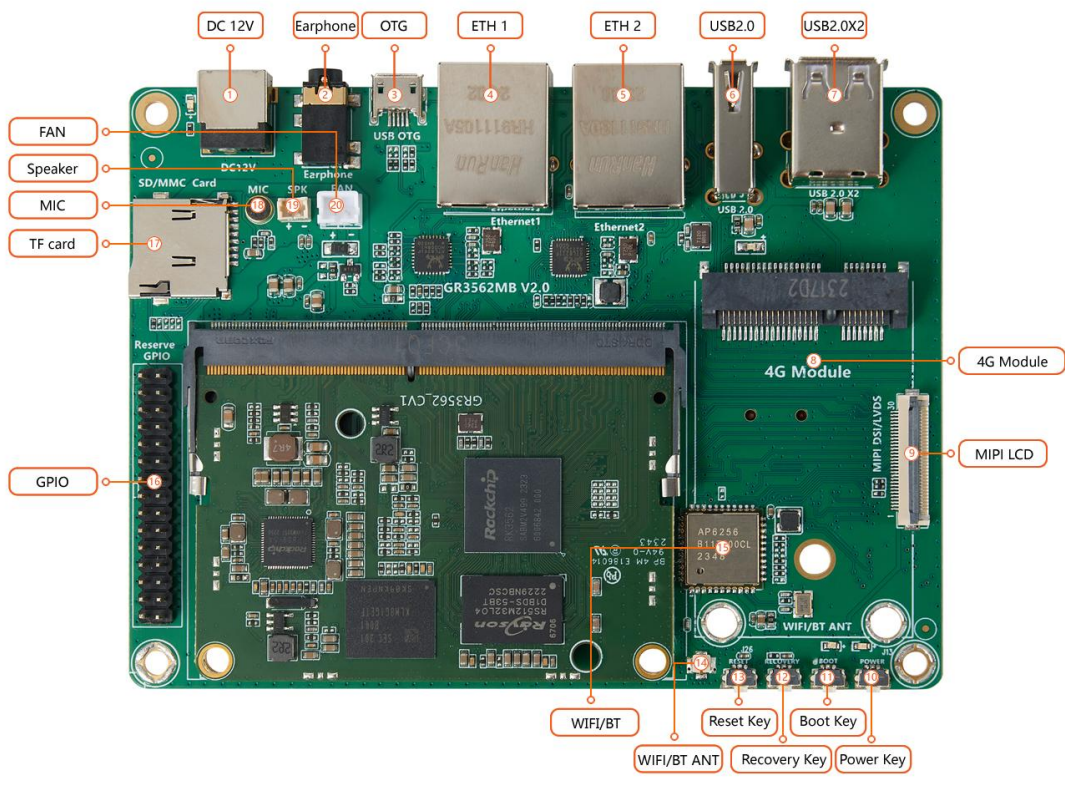
Camera	2 x MIPI-CSI(up to 13M)
Audio	1 x Earphone, earphone output(without MIC recording) 1 x Mic, MIC audio input 1 x Speaker, speaker output
USB	3 x USB2.0, 1 x OTG
M.2	1 x M.2(Supports SSD expansion)
TF Card	1 x TF card slot, max support 128GB
Others	1 x Debug uart 1 x FAN 1 x ADC 1 x RTC 1 x SIM card slot
System Software	
OS	Android13, Ubuntu, Buildroot+QT, Debian
Other Parameters	
Size	120mm x 90mm
Environment	Operating Temperature: 0°C - 70°C Storage Temperature: -20°C - 80°C Storage humidity: 10%~80 %

G3562 Development Board Size



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Interfaces Description



Carrier Board Interfaces Description		
No.	Name	Description
【1】	DC-12V	DC-12V power in
【2】	Earphone	Earphone output
【3】	OTG	USB3.0 OTG
【4】	ETH 1	RJ45 100M Ethernet port
【5】	ETH 2	RJ45 1000M Ethernet port
【6】	USB2.0	USB2.0 HOST
【7】	USB2.0 x 2	USB2.0 HOST
【8】	4G module	4G module connector
【9】	MIPI LCD	MIPI DSI/LVDS display
【10】	Power key	Power key
【11】	Boot key	Maskrom/upgrade key
【12】	Recovery/volume+ key	Recovery/volume+ key
【13】	Reset key	Reset key
【14】	WIFI/BT antenna	WIFI, BT antenna
【15】	WIFI/BT module	WIFI, BT module
【16】	GPIO expansion	GPIO expansion
【17】	TF card	TF card
【18】	MIC	MIC
【19】	Speaker	Speaker
【20】	FAN	FAN
【21】	M.2	M.2 SSD interface
【22】	Uart6	Uart6 serial port, the default is Bluetooth serial port
【23】	Debug uart	Debug UART
【24】	RTC	RTC connector
【25】	MIPI CSIO	MIPI CSIO
【26】	MIPI CSI1	MIPI CSI1

Company Introduction

Graperrain 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.

Sales and service network

Shenzhen Graperain Technology Co., Ltd.

Website: <https://www.graperain.com>

Landline: +86 755 23025312

mail: sales@graperain.com

Address: RM 1801-1805, Huafeng International Business Building, No. 4018 Bao'an Avenue, Bao'an District, Shenzhen, 518102