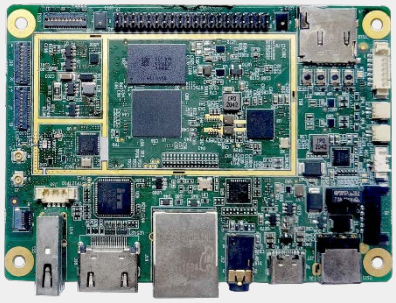
VT-SBC-G350 Single Board Computer

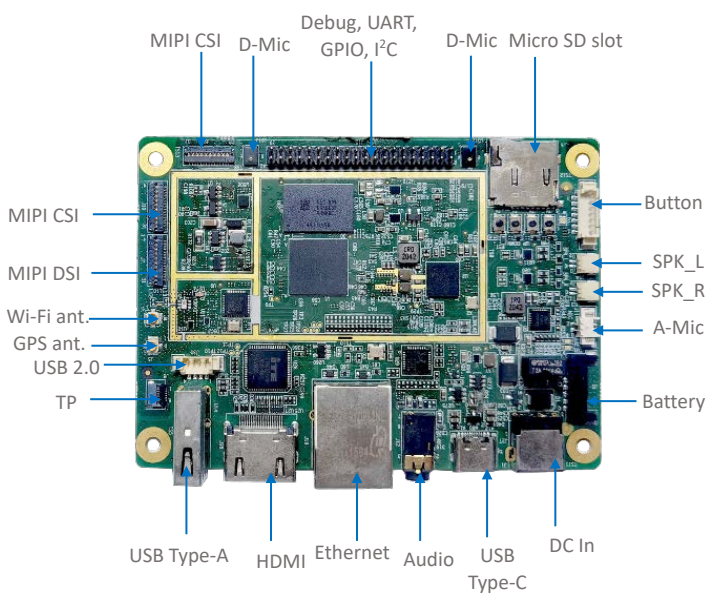


Product Brief

VT-SBC-G350 Single Board Computer features a thinner and smaller form factor that is easy to integrate. It is powered by MTK® MT8365 (G350) processor, which integrates a fast 2GHz quad-core ARM Cortex-53 CPU and a high-performance ARM Mali-G52 GPU to deliver powerful Edge AI processing with extremely low power consumption. The board supports up to 13MP high-definition camera, which, combined with the high-definition video encoding and decoding technology, provides outstanding visual experience. Better yet, it provides rich on-board interfaces and customer expansion options to meet different application scenarios including smart retail, self-service terminals, industrial automation, intelligent medical health, and digital media.

Featuring high flexibility and high performance, the board could work under extreme environments with extended temperatures ranging from -20℃ to +60℃, making it a reliable industrial IoT solution.

Exterior and Features

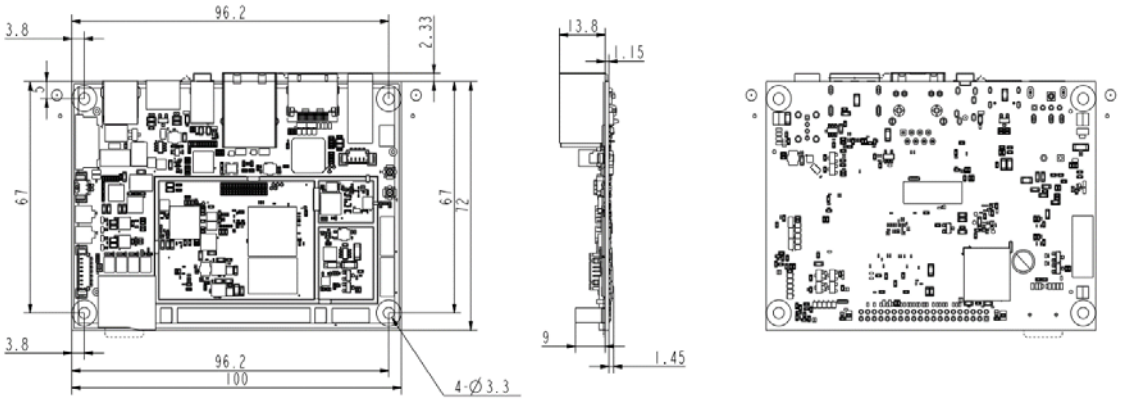


VT-SBC-G350
Android 10 or higher, Linux support
Up to 4GB LPDDR4-3200
Rich interfaces, flexible expansion
Wi-Fi & BT/ETH/GNSS for communication
High-definition video encoding and decoding
G sensor
RTC & watchdog
USB 2.0
Wide temperature range supported

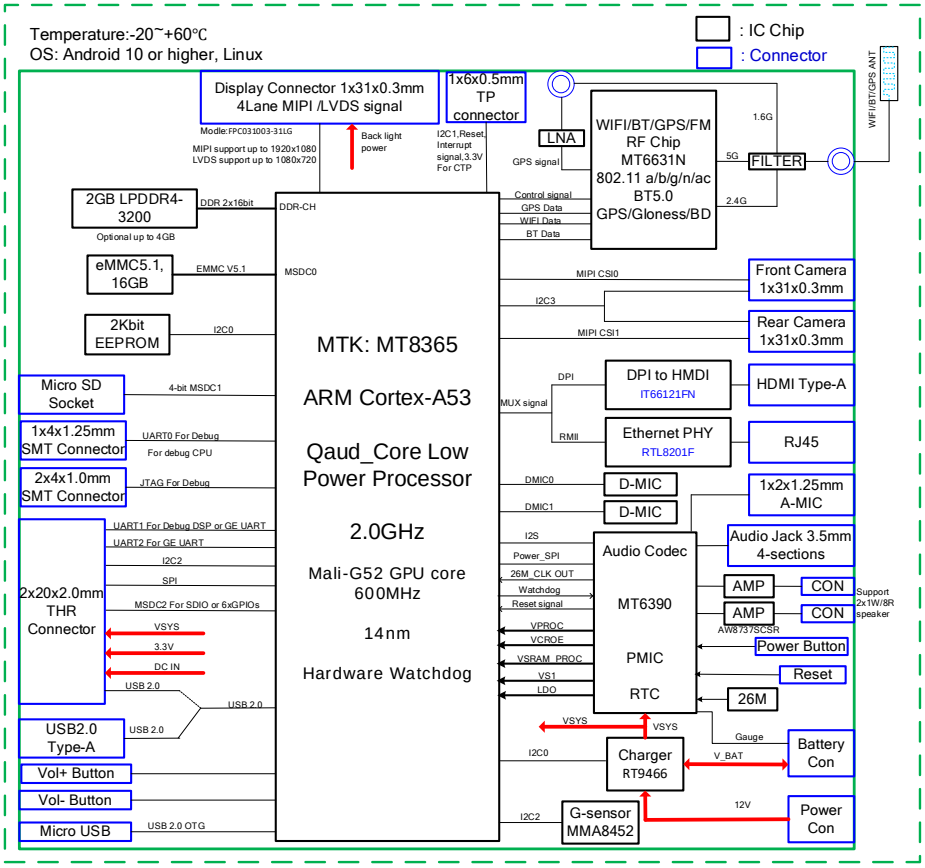
VT-SBC-G350 Single Board Computer Datasheet

VT-SBC-G350			
System	CPU	MTK MT8365 (G350), Quad-core ARM Cortex-A53, 2.0GHz (Max)	
	GPU	Mali-G52, 3D graphic accelerator, capable of processing 57.6 GFLOPS and 1600M pixel/s, 600MHz	
	Memory	2GB LPDDR4-3200, up to 4GB	
	Storage	16GB eMMC 5.1, up to 64GB 2Kb EEPROM	1 x Micro SD slot (SDIO 3.0)
	PMIC	MT6390	
Communication	Ethernet	1 x RJ45, 10M/100Mbps, RTL8201 (Ethernet PHY)	
	Wi-Fi & BT	Wi-Fi 802.11 a/b/g/n/ac + BT 5.0	
	GNSS	GPS + Glonass + Beidou/Galileo	
Media	Display	1 x 4-Lane MIPI DSI, up to 1920 x 1080	1 x HDMI (Type-A), up to 1920 x 1080
	Camera	2 x 4-Lane MIPI CSI, 13 MP, 1080P/60fps video decoder	
	Audio	1 x A-Mic to PMIC 2 x D-Mic to AP (CPU), noise reduction	1 x 3.5mm combo audio jack 2 x 1.2W Speaker connector
I/Os	Serial	2 x UART for communication	1 x UART for debugging
	USB	1 x USB 2.0 Type-C (OTG supported)	1 x USB 2.0 Type-A
		1 x USB 2.0 connector	
	GPIO	4 x GPIO	
	RTC	Supported, powered by an external battery	
	Watchdog	Supported	
Expansion	I^2C	1 x I^2C for TP	1 x I^2C for external communication
System Control	Button	1 x ON/OFF button	1 x Reset button
		2 x Volume button (+ & -)	1 x Button connector
Sensor	G-sensor	3-Axis G-sensor	
Power	Input	12V DC	1 x Power jack
Software	Operating system	Android 10 or higher, Linux (support by request)	
	Device management platform	BlueSphere MDM (Optional)	
	OTA tool	BlueSphere OTA (Optional)	
Mechanical	Dimensions	100mm x 75mm	
	Cooling mode	Fanless	
Environment Condition	Temperature	Operating: -20℃~+60℃	Storage: -40℃~+85℃
	Humidity	5%-95% RH	
	Certification	FCC (part 15 class B)	ESD (contact: ±4KV and air: ±8KV)

Product Outlines



Block Diagram



Company Profile

Since 2002 established by two Silicon Valley entrepreneurs, Vantron Technology has been a pioneer in connected IoT devices and IoT platform solutions. Today, Vantron serves countless customers all over the world, some of them are Fortune 500 companies. Products lines cover edge intelligent hardware, IoT communication devices, industrial displays and BlueSphere cloud device management platform.

Vantron has 20 years of experience in R&D of embedded edge intelligent hardware like SOM board and motherboard, and provided users with various embedded solutions with ARM and X86 architecture. From Linux to Windows, from embedded to desktop level, from gateway to server. At the same time, we provide our users with system clipping, driver transplantation and other services.

Vantron IoT communication devices support multi-protocol connection of industrial equipment, edge computing of local data. Abundant wired and wireless connectivity make remote operations and maintenance possible. From electricity and transportation to smart retail, medical and warehousing, Vantron IoT communication device can be deployed anywhere in any business section. Vantron believes its IoT solution to help many companies finish their digital transformation, efficiency of manufacturing and productivities have been improved significantly.

Vantron industrial display systems, ARM and X86 series, are equipped with Rockchip, NXP, MediaTek, Intel and other high-performance processors. It supports various operating systems such as Windows, Linux, and Android. Diverse wireless communications keep your device online all the time. Multiple installation methods make it suitable for a variety of application scenarios. Features like waterproof, dustproof, shatter resistant guarantee the best performance in any environment.

Vantron BlueSphere device management platform, a software product, is playing a big role in Vantron overall IoT solution. Today, Vantron puts more focus on offering complete cost effective, leading-edge yet reliable solutions to help customers carry out their visions.

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