

VT-SBC35-3562

Single Board Computer

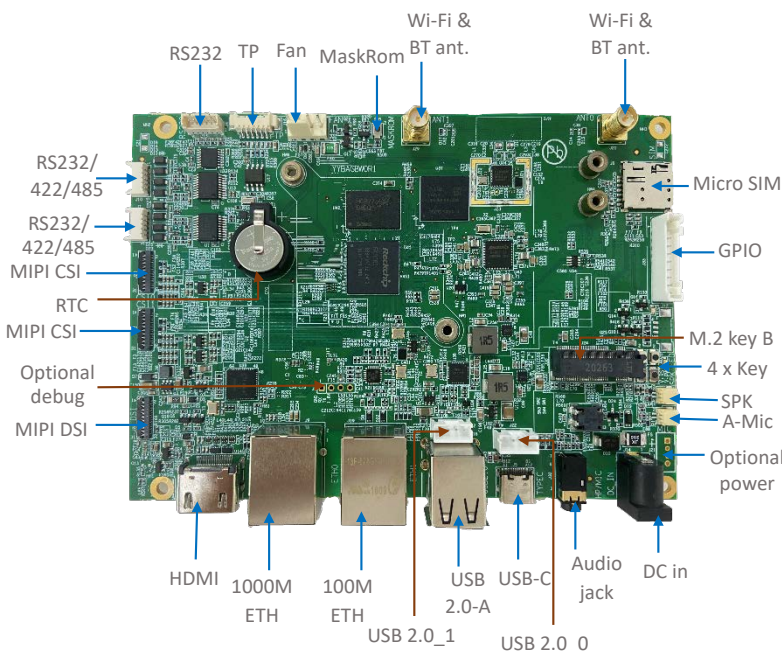


Product Brief

VT-SBC35-3562 single board computer comes in a 3.5-inch form factor that is easy to be integrated. The board is powered by the high-performance, low-power quad-core Rockchip RK3562 processor, which integrates an Arm Mali-G52 GPU for enhanced 2D/3D graphic acceleration, supporting OpenGL ES1.1/2.0/3.2, OpenCL 2.0, and Vulkan 1.1. It offers video codec support including H.264 decoding at 1080p@60fps, H.265 decoding at 4K@30fps, and H.264 encoding at 1080p@60fps. The built-in NPU offers up to 1 TOPS processing performance, with support for mainstream deep-learning frameworks such as TensorFlow, TF-lite, Pytorch, Caffe, MXNet. The 13MP @30fps ISP with HDR capabilities is for capturing high-resolution images and smooth video footage for optimal interactive performance.

Connectivity options include both Megabit and Gigabit Ethernet jacks, a combo Wi-Fi 6 and Bluetooth 5.4 chipset, and optional 4G/5G network for IoT applications. In addition, it provides rich peripherals for diverse applications such as commercial displays, live streaming devices, smart education controllers, smart home hubs, industry-specific tablets, and medical appliances.

Exterior and Features



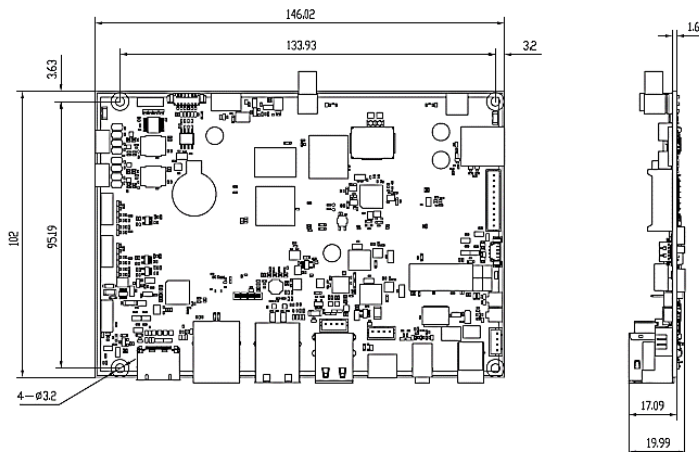
VT-SBC35-3562	
	Rockchip RK3562 quad-core processor
	Ethernet, Wi-Fi, BT, optional 4G/5G connectivity
	Display output up to FHD @30Hz + 4K @30Hz
	H.264/H.265 video codec
	13MP @30fps for camera ISP
	Rich I/Os: COM, USB, MIPI, HDMI, GPIO
	Powerful AI acceleration & graphic processing
	3.5-inch form factor

VT-SBC35-3562 Single Board Computer Datasheet

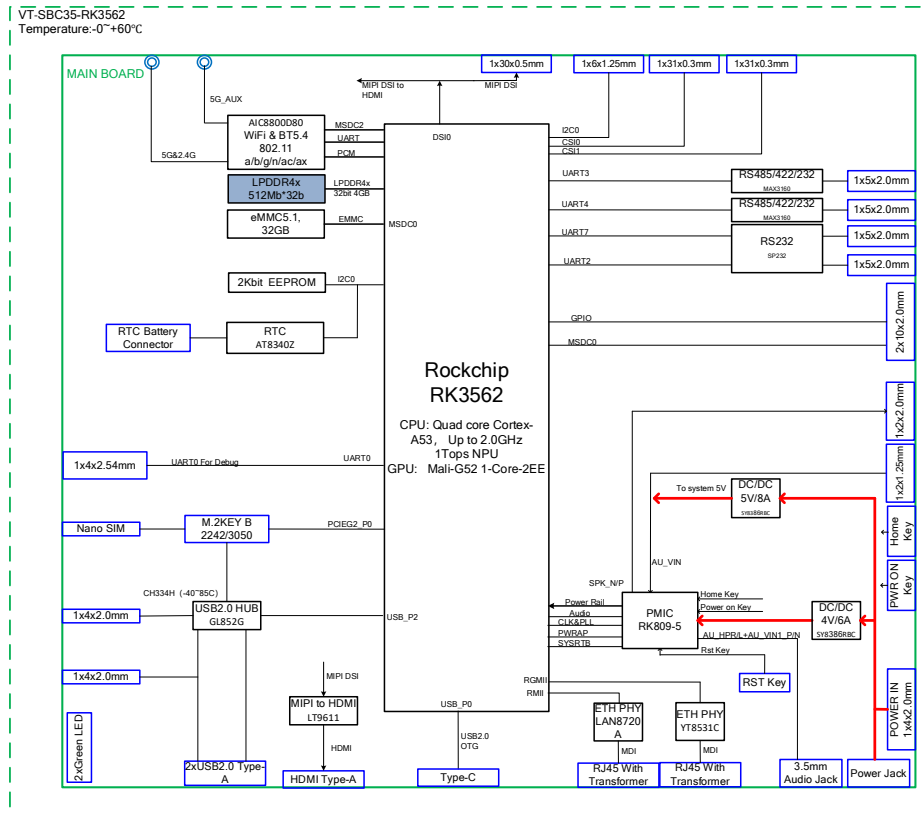
VT-SBC35-3562			
System	CPU	Rockchip RK3562, Quad-core ARM Cortex-A53 processor, up to 2.0GHz	
	GPU	Arm Mali-G52	
	NPU	Up to 1 TOPS	
	Video CODEC	H.265 decoding at 4K @30fps, H.264 codec at 1080p @60fps	
	Memory	2GB 32-bit LPDDR4x	
	Storage	32GB eMMC 5.1	Optional: SSD expansion (M.2 Key B)
Communication	Ethernet	1 x RJ45, 10/100/1000Mbps	1 x RJ45, 10/100Mbps
	Wi-Fi and BT	802.11 a/b/g/n/ac/ax + BT 5.4	
	Cellular	Optional: 4G/5G (M.2 Key B)	
Media	Display (Alternate)	1 x MIPI DSI, up to 4096 x 2304 @30fps / 1920 x 1080 @60fps 1 x HDMI 1.4, up to 1920 x 1200 @60fps	
	Audio	1 x A-Mic 1 x 3.5mm 4-pole combo audio jack	1 x 1W Speaker connector
	Camera	2 x MIPI CSI, ISP: 13M @30fps	
	Touch	1 x TP connector	
	Serial	2 x RS232	2 x RS232/485/422
I/Os	USB	2 x USB 2.0 Type-A	2 x USB 2.0 connector* 1 x USB 2.0 Type-C (OTG, debug...)
	GPIO header	8 x GPIO	
	Fan	1 x Fan connector (12V)	
	UART	1 x Debug UART (3.3V, Optional)	
	SIM	1 x Nano SIM slot	
	RTC	Supported	
	WDT	Supported	
	Expansion	M.2 Key B	1 x M.2 Key B (2242, PCIe 2.0 for SSD or 3050, USB 2.0 for 4G / PCIe 2.0 for 5G)
System Control	Key	4 x Key (Volume +/-, RST, PWR)	1 x MaskROM key 1 x Connector (PWR, RST, Home, DL)
	LED indicator	1 x Power indicator	1 x User defined indicator
Power	Input	12V 3A DC 1 x Power jack	1 x Power connector (Optional)
	Operating system	Android 13, Debian 11	
Mechanical	Dimensions	146mm x 102mm	
Environment Condition	Temperature	Operating: 0°C~+60°C (Optional: -40°C~+85°C)	Storage: -20°C~+80°C (Optional: -55°C~+85°C)
	Humidity	20%-80% RH (Non-condensing)	
	Certification	FCC Part 15, Class B	ESD: ±8KV (Air), ±4KV (Contact)

* USB 2.0_1 (see the I/Os on the previous page) is not intended for simultaneous use with the USB 2.0 Type-A port located at the top of the stack configuration.

Product Outlines



Block Diagram



Ordering Information

Ordering No.	CPU	I/Os	Connectivity
VT-SBC35-3562	Rockchip RK3562 quad-core processor	HDMI, MIPI DSI, MIPI CSI, RS232, RS232/485/422, USB-A, USB-C, GPIO	Ethernet, Wi-Fi 6 & BT 5.4
VT-SBC35-3562-4G			Ethernet, Wi-Fi 6 & BT 5.4, 4G
VT-SBC35-3562-5G			Ethernet, Wi-Fi 6 & BT 5.4, 5G

* More variants are available, please contact the sales executive for details.

Packing list	
VT-SBC35-3562 single board computer	1
12V 3A power adapter & power cable	1 kit

Optional accessories	
Wi-Fi & BT antenna	2
4G module with on-board antenna	1
5G module with on-board antenna	1

Since its establishment in 2002 by two Silicon Valley entrepreneurs, Vantron Technology has been at the forefront of the connected IIoT devices and IIoT platform solutions. Today, Vantron boasts a global customer base that includes many Fortune Global 500 companies. Its product lines cover edge intelligent hardware, IIoT communication devices, industrial displays and BlueSphere cloud platforms.

With over 20 years of experience in R&D of intelligent edge hardware, Vantron has provided users with diverse embedded solutions featuring ARM and X86 architectures. Its offerings range from Linux, Android to Windows, from embedded to desktop level, and from gateways to servers. In addition, it provides users with system trimming, driver transplantation and more to cater to the unique needs of its users.