

VT-SBC-3568-GEN2

Single Board Computer

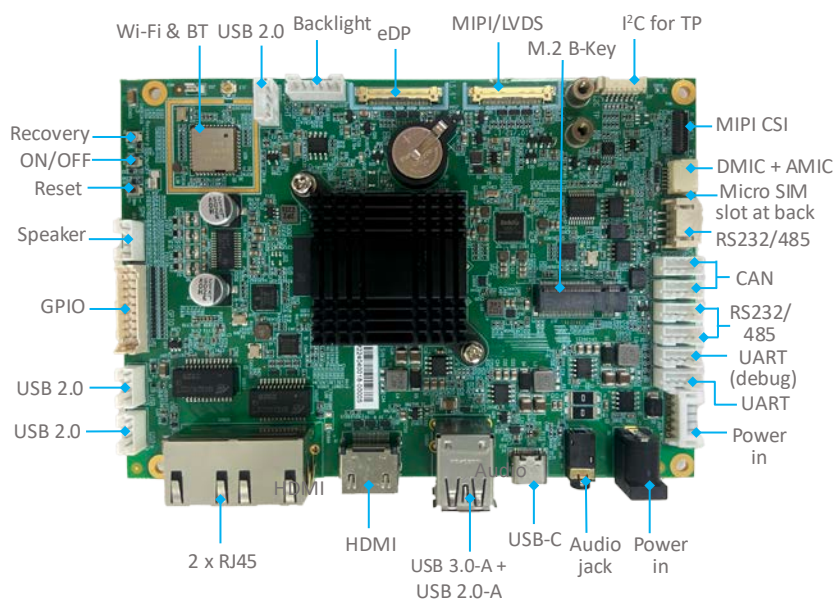


Product Brief









VT-SBC-3568-GEN2 single board computer is an enhanced version of original VT-SBC-3568, featuring updated hardware design that includes dual Ethernet jacks, upgraded serial ports, GPIO, and CAN support. It comes in a 3.5-inch form factor that is compact for flexible integration. It is powered by Rockchip RK3568 processor, which integrates a quad-core ARM Cortex-A55 CPU, a high-performance ARM Mali-G52 GPU, and an NPU with up to 1 TOPS computing performance, enhancing its capabilities in image recognition, edge computing, and more. It provides different display interfaces and supports up to three displays in extended mode. With support for H.265/H.264 video codec formats, the board can deliver optimized video output performance.

In terms of connectivity, VT-SBC-3568-GEN2 offers dual gigabit Ethernet jacks for wired connection, along with wireless options such as Wi-Fi, Bluetooth, and optional 4G/5G, ensuring secure and uninterrupted communication. The on-board 4GB memory and 32GB storage, with expansion options, provide ample resources. Moreover, it provides rich interfaces such as USB, UART, I²C, CAN, GPIO, offering flexible user expansion options. The board is ideal for application in a variety of scenarios, such as video conference, smart security, commercial display, edge computing, smart home, and industrial automation.

Exterior and Features



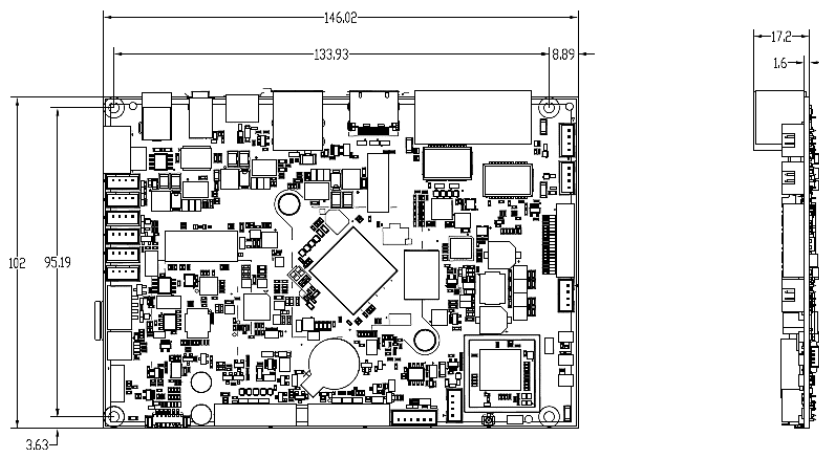
VT-SBC-3568-GEN2

-  RK3568, Quad-core ARM Cortex-A55 processor
-  Default 4GB memory + 32GB storage
-  Up to three displays in extended mode
-  H.265/H.264 video codec
-  Ethernet, Wi-Fi & BT, 4G/5G connectivity
-  Rich interfaces for flexible expansion
-  Android and Debian systems supported
-  3.5-inch form factor

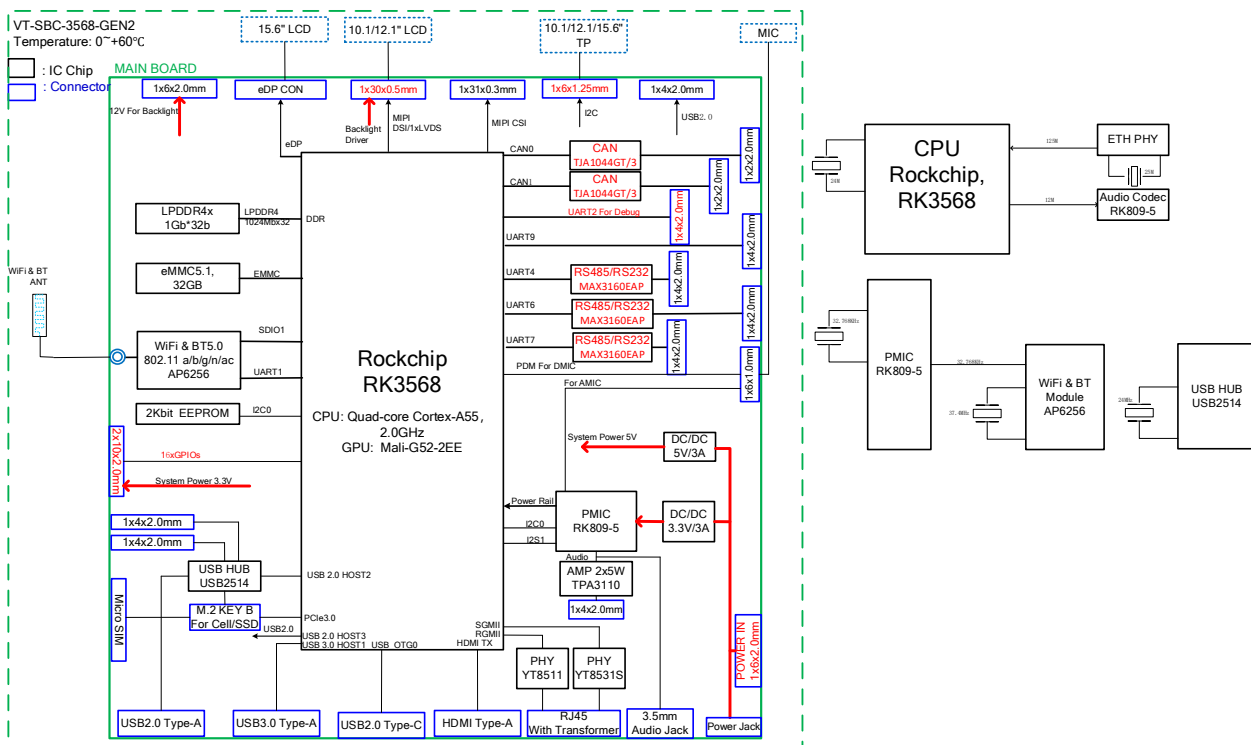
VT-SBC-3568-GEN2 Single Board Computer Datasheet

VT-SBC-3568-GEN2			
System	CPU	RK3568, Quad-core ARM Cortex-A55 MPCore, up to 2.0 GHz	
	GPU	ARM Mali-G52, 600MHz H.264/H.265 decoder by 4K @60fps, H.264/H.265 encoder by 1080p @60fps	
	NPU	Up to 1 TOPS performance	
	Memory	4GB LPDDR4 (Optional: 8GB)	
	Storage	32GB eMMC V5.1 (Optional: 64GB)	2Kb EEPROM
Communication	Ethernet	2 x RJ45, 10/100/1000Mbps 100Base-T4	
	Cellular	Optional: 4G/5G (expansion by an M.2 B-Key)	
	Wi-Fi & BT	Wi-Fi 802.11 a/b/g/n/ac + Bluetooth 5.0	
Media	Display (Extended mode)	1 x HDMI 2.0, up to 4K @60Hz 1 x eDP, up to 1920 x 1080 @60Hz	1 x MIPI DSI/LVDS, up to 1920 x 1080 @60Hz
	Camera	1 x 4-lane MIPI CSI, 5MP	
	Audio	1 x 3.5mm Combo audio jack	2 x 15W/8Ω Speaker connector
		1 x DMIC	1 x AMIC
I/Os	Serial port	1 x UART (3.3V) 1 x Debug UART (3.3V)	3 x RS232/RS485 (9600, 8N1)
	USB	1 x USB 3.0 Type-A 1 x USB 2.0 Type-A	1 x USB 2.0 Type-C (OTG) 3 x USB 2.0 connector
	Bus	2 x CAN, with transmitter	1 x I ² C for TP
	GPIO	18 x GPIO (3.3V)	
	SIM slot	1 x Micro SIM slot	
	RTC	Supported	
	WDT	Supported	
Expansion	M.2	1 x M.2 B-key, (3052) USB 2.0 for 4G/5G, or (2242) PCIe for SSD	
System Control	Button	1 x Reset 1 x Power button	1 x Recovery button
	LED indicator	1 x Power indicator	1 x System running indicator
Power	Input	12V/3A DC	1 x Power jack, 1 x Power connector
Software	Operating system	Android 11, Debian 11	
	Device management platform	BlueSphere MDM (Optional for Android version)	
Mechanical	Dimensions	146.02mm x 102mm	
	Cooling mode	Fanless	
Environment Condition	Temperature	Operating: 0°C~+60°C (Optional: -40°C~+85°C) Storage: -20°C~+80°C (Optional: -55°C~+85°C)	
	Humidity	≤95% RH (Non-condensing)	

Product Outlines



Block Diagram



Ordering Information

Ordering No.	Chipset	Memory	Storage	Description
VT-SBC-3568-GEN2-L	RK3568	4GB LPDDR4	32GB eMMC	MIPI DSI/LVDS, eDP, HDMI, MIPI CSI, UART,
VT-SBC-3568-GEN2-H	RK3568	8GB LPDDR4	64GB eMMC	RS232/RS485, USB, I ² C, GPIO, CAN

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

Packing list	
VT-SBC-3568-GEN2 single board computer	1
Wi-Fi and BT antenna	1

Optional accessories	
Power adapter	1
Power cord	1

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