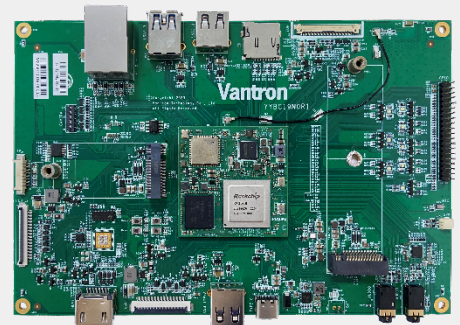


VT-SBC-VOSM568-EVB

Evaluation Board

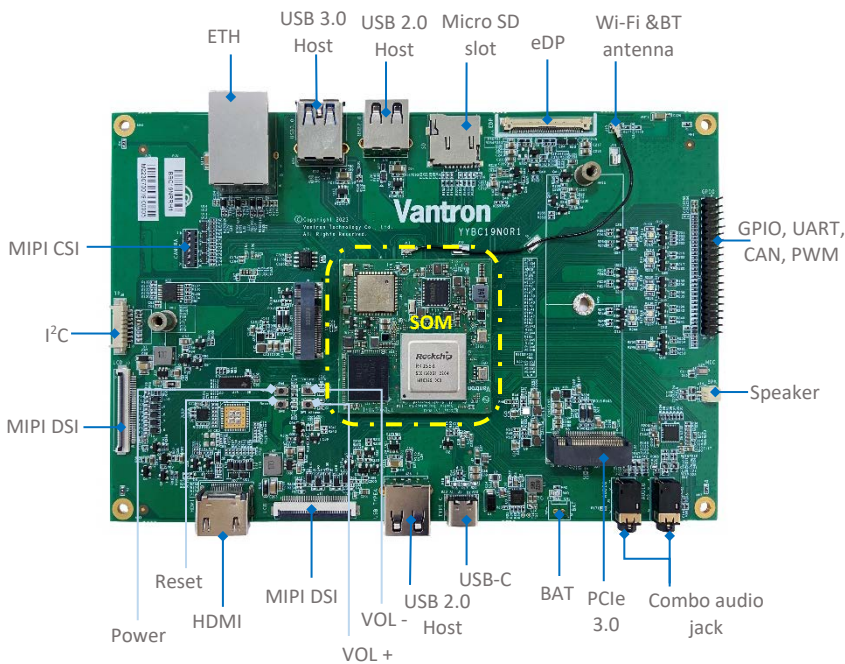


Product Brief








VT-SBC-VOSM568-EVB evaluation board is based on the VOSM568 system-on-board, offering a carrier board that implements rich interfaces to facilitate the use of VOSM568. 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. It supports H.265/H.264 video codec formats to deliver optimized video output performance. Its support for Wi-Fi and Bluetooth wireless connectivity increases its versatility for IoT scenarios. Additionally, it offers rich interfaces to allow connection of diverse peripherals to give play to the board functionalities.

The board supports Android 10 and higher operating systems, with option available for Linux distributions. Moreover, it provides an overall solution for customers when used together with a Vantron TMO/TMC series touchscreen monitor, making it ideal for such scenarios as smart retail, self-service terminals, industrial automation, intelligent medical health, and digital media.

Exterior and Features



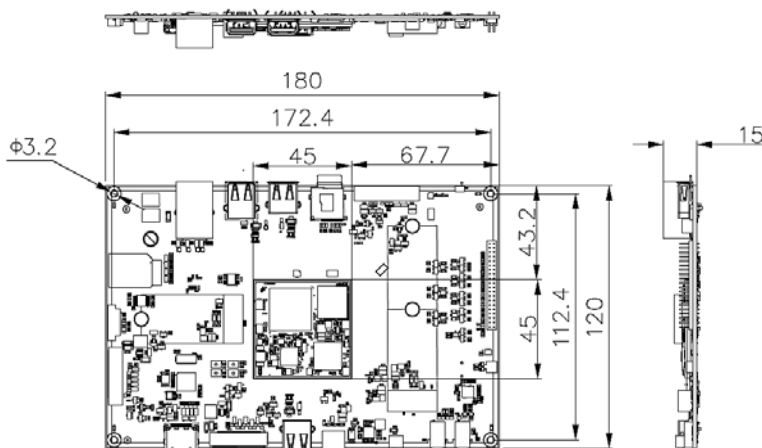
VT-SBC-VOSM568-EVB

-  RK3568 Quad-core ARM Cortex-A55 processor
-  Rich interfaces, robust system performance
-  H.265/H.264 video codec
-  Up to three displays in extended mode
-  ETH, Wi-Fi & BT connectivity
-  RTC & watchdog supported
-  Android and Linux systems supported

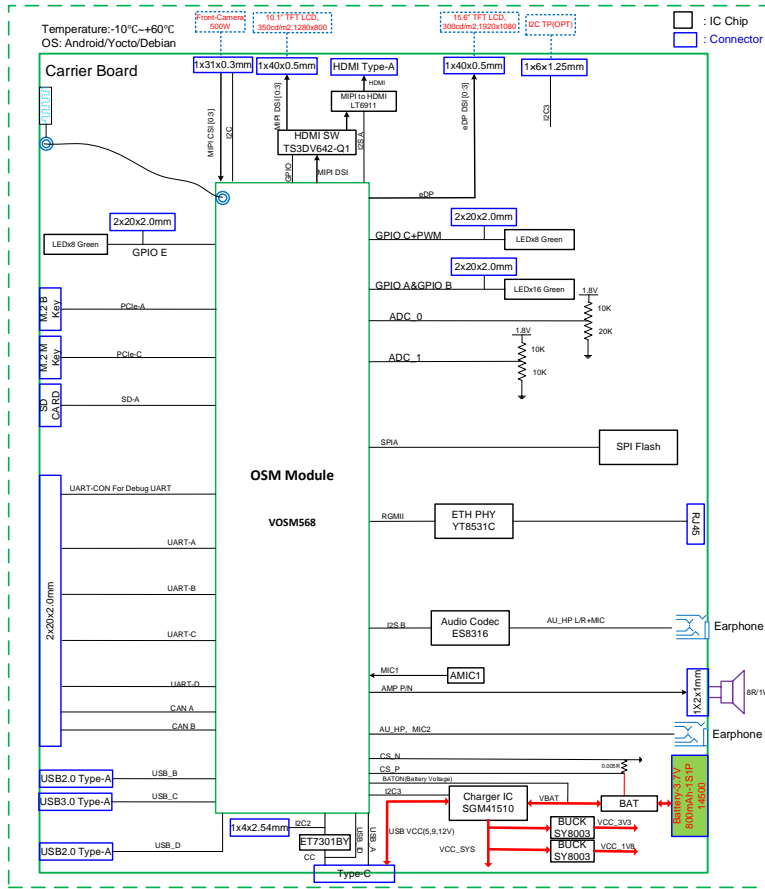
VT-SBC-VOSM568-EVB Evaluation Board Datasheet

VT-SBC-VOSM568-EVB		
System	CPU	RK3568 Quad-core ARM Cortex-A55 processor, up to 2.0GHz
	GPU	ARM Mali-G52 GPU, 600Hz
	NPU	Up to 1 TOPS performance
	Memory	2GB LPDDR4 (Optional: 4GB)
	Storage	16GB eMMC 5.1 (Optional: 64GB)
	EEPROM	2Kb (for hardware configuration information)
	PMIC	RK809
Communication	Ethernet	1 x RJ45, 10M/100M/1000Mbps
	Wi-Fi & Bluetooth	Wi-Fi 802.11 a/b/g/n/ac + Bluetooth 5.0
Media	Video processing	4K 60, H.265/H.264/VP9 video decoder 1080p 60, H.265/H.264 video encoder
	Graphics processing	Support OpenGL ES 1.1/2.0/3.2, OpenCL 2.0 and Vulkan 1.1
I/Os	Display (Extended mode supported)	2 x 4-lane MIPI DSI (up to 1920 x 1080 @60Hz, not for simultaneous use)
		1 x 4-lane eDP (up to 2560 x 1600 @60Hz)
		1 x HDMI 2.0 (up to 1080p @120Hz or 4096 x 2304 @60Hz)
	MIPI CSI	1 x 4-lane MIPI CSI
	Audio	2 x 3.5mm Combo audio jack 1 x Speaker connector
	USB	2 x USB 2.0 Type-A 1 x USB 3.0 Type-A
		1 x USB Type-C (USB 2.0 OTG, power supply)
	I ² C	1 x I ² C
	PCIe	1 x PCIe 3.0 x2
	GPIO header	12 x GPIO, 2 x CAN, 1 x Debug UART (1.8V)
		4 x Communication UART (TTL), 4 x PWM
	SD slot	1 x Micro SD slot
		Key
Power	Input	5V/2A DC input
Software	Operating system	Android 11, Linux Yocto, Debian 10, other Linux distributions (support by request)
	Device management	BlueSphere MDM (Optional for Android version)
Mechanical	Dimensions	180mm x 120mm x 15mm (EVB) 45mm x 45mm x 1mm (SOM)
Environment Condition	Temperature	Operating: -10°C ~ +60°C
		(Optional: -40°C ~ +85°C) Storage: -20°C ~ +70°C
	Humidity	≤95% RH (Non-condensing)
Certification		CE, FCC, CCC

Product Outlines



Block Diagram



Ordering Information

Ordering No.	Chipset	Memory	Storage	Description
VT-SBC-VOSM568-EVB-L	RK3568	2GB LPDDR4	16GB eMMC	VOSM568 + Carrier board, MIPI DSI, eDP, HDMI,
VT-SBC-VOSM568-EVB-H	RK3568	4GB LPDDR4	64GB eMMC	MIPI CSI, UART, USB, I2C, GPIO, CAN, PCIe 3.0

Packing list	
VT-SBC-VOSM568-EVB evaluation board	1
On-board 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.