

## VT-SBC-VOSM350-EVB

### Evaluation Board

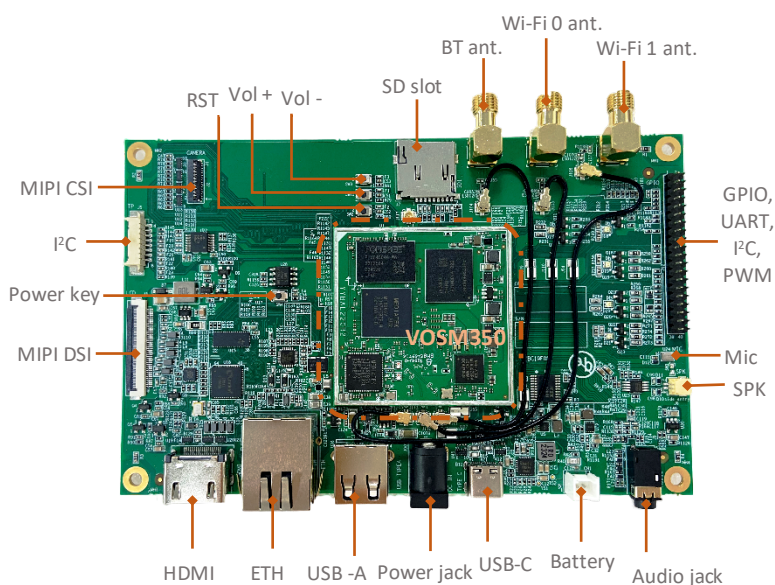


#### Product Brief





VT-SBC-VOSM350-EVB evaluation board is based on the VOSM350 system-on-board, offering a carrier board that implements rich interfaces to facilitate the use of VOSM350. It is powered by the MediaTek G350 chipset, which integrates a fast 2GHz quad-core ARM Cortex-53 CPU, a high-performance ARM Mali-G52 GPU, a VP6 APU for AI and computer vision algorithms, and a HiFi4 audio engine DSP to fit for edge AI applications that require voice and vision processing. It supports H.265/H.264 video codec for high-quality video display. Its support for Wi-Fi and Bluetooth wireless connectivity functions increases its versatility for IoT scenarios. Additionally, it offers rich interfaces to allow connection of diverse peripherals for testing the module and the board itself.

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



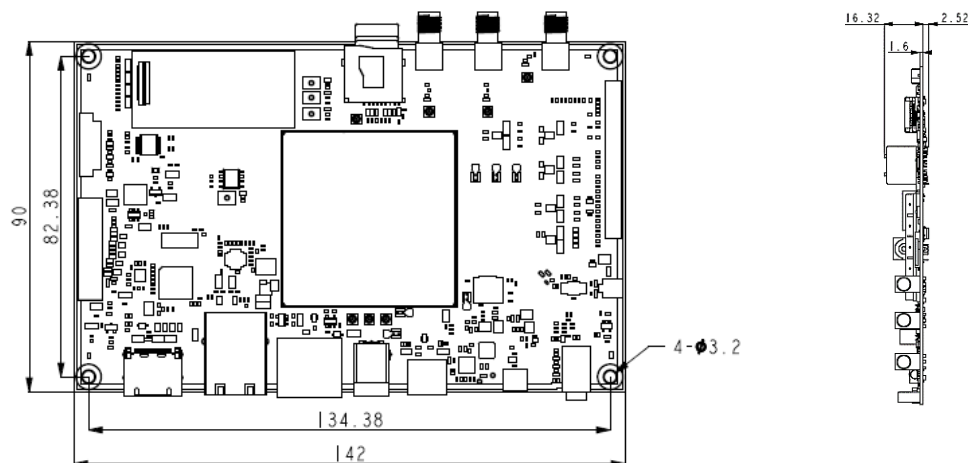
#### VT-SBC-VOSM350-EVB

-  Rich interfaces, robust system performance
-  Internal DSP unit, low power design
-  ETH, Wi-Fi & BT connectivity
-  1080p @60fps, H.265/H.264 video codec
-  4GB LPDDR4 + 32GB eMMC
-  RTC & watchdog supported
-  Android and Linux systems supported

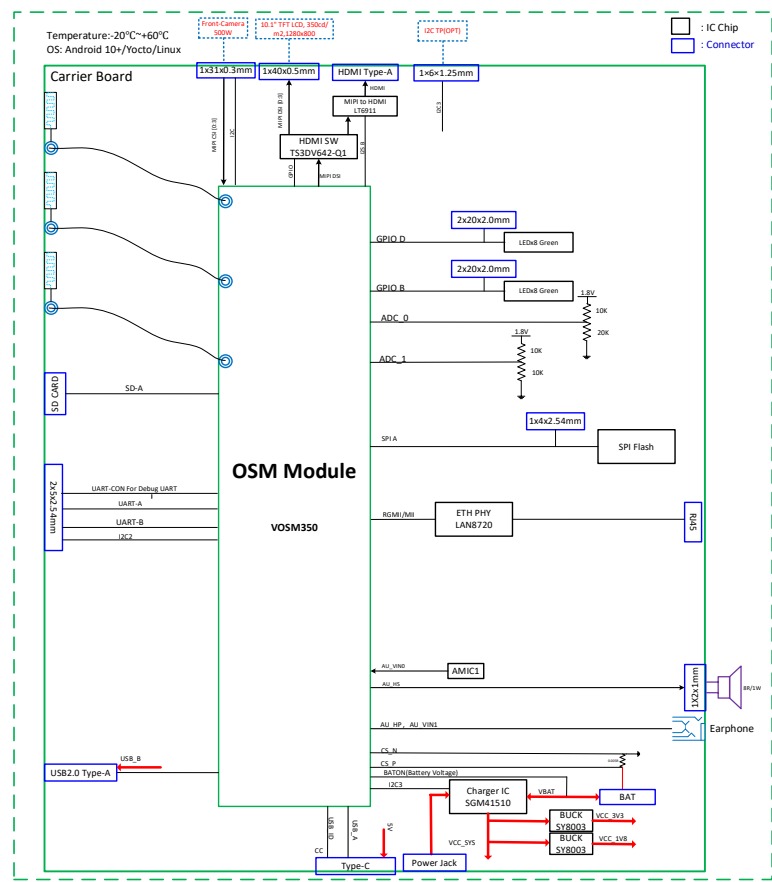
## VT-SBC-VOSM350-EVB Evaluation Board Datasheet

VT-SBC-VOSM350-EVB Evaluation Board			
System	CPU	MTK MT8365 (G350), Quad-core ARM Cortex-A53 low-power processor, 2.0GHz (Max.)	
	GPU	ARM Mali-G52 GPU, 600MHz	
	APU	Cadence® Tensilica® VP6 processor, 700MHz at 0.825V	
	Memory	4GB LPDDR4 (Optional: 2GB)	
	Storage	32GB eMMC 5.1 (Optional: 16GB)	
	EEPROM	2Kb (for hardware configuration information)	
	PMIC	MT6390	
Communication	Ethernet	1 x RJ45, 10M/100Mbps	
	Wi-Fi & Bluetooth	Wi-Fi 802.11 a/b/g/n/ac + Bluetooth 5.2	
Media	Video processing	1080p60, H.265/H.264/JPEG video encoder	1080p60, H.265/H.264/VP9 video decoder
	Audio DSP	Tensilica HiFi4	
I/Os	Display	1 x 4-lane MIPI DSI / 1 x HDMI, up to 1920 x 1080 @60Hz	
	MIPI CSI	1 x 4-lane MIPI CSI, 13MP @30fps	
	Audio	1 x 3.5mm Combo audio jack	1 x Speaker connector
		1 x D-Mic	
	USB	1 x USB 2.0 Type-A	1 x USB Type-C (USB 2.0 OTG supported)
	I²C	2 x I²C (one connector, one on the GPIO header)	
	GPIO header	9 x GPIO, 1 x Debug UART (1.8V), 2 x Communication UART (TTL), 1 x I²C, 1 x PWM	
	SD slot	1 x Micro SD slot	
	Key	1 x Power key	1 x Reset key
		1 x Volume + key	1 x Volume - key
Power	Battery	1 x Battery connector	
	Input	5V/1A DC input	1 x Power jack
Software	Operating system	Android 10+, Linux Yocto, Linux (support by request)	
	Device management	BlueSphere MDM (optional for Android version)	
Mechanical	Dimensions	142mm x 90mm x 18.84mm (EVB)	45mm x 45mm x 3.97mm (SOM)
	Temperature	Operating: -20°C ~ +60°C	Storage: -30°C ~ +70°C
Environment Condition	Humidity	≤95% RH (Non-condensing)	
	Certification	CE, FCC, CCC	

## Product Outlines



Block Diagram



Ordering Information

Ordering No.	Memory + Storage	Description	Operating system
VT-SBC-VOSM350-EVB-H	4GB LPDDR4, 32GB eMMC	VOSM350 + carrier board, HDMI/MIPI DSI,	Android (default), Linux optional
VT-SBC-VOSM350-EVB-L	2GB LPDDR4, 16GB eMMC	MIPI CSI, UART, USB, I²C	

Packing list	
VT-SBC-VOSM350-EVB evaluation board	1
On-board Wi-Fi antenna	2
On-board Bluetooth 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.