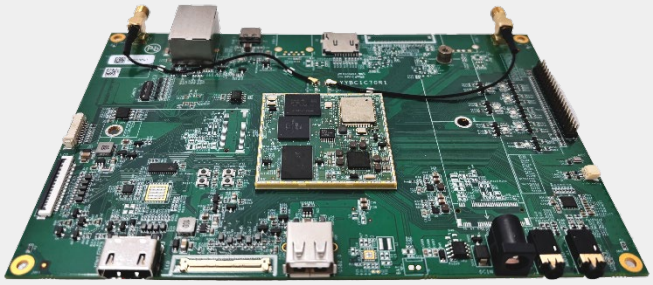
VT-SBC-VOSM93-EVB

Evaluation Board

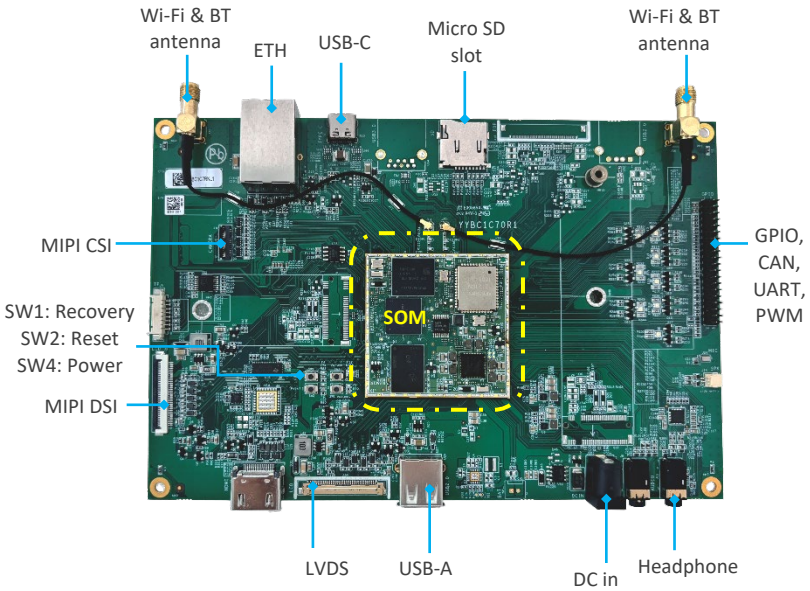


Product Brief

VT-SBC-VOSM93-EVB evaluation board is based on the VOSM93 system-on-module, offering a carrier board that implements multiple interfaces to facilitate the use of VOSM93. It is powered by the cost-effective NXP i.MX 9352 dual-core processor and low-power co-processor, offering on-board 2GB LPDDR4 memory and 16GB eMMC storage, with expansion options. It offers a high-efficiency Micro NPU to deliver optimized AI performance for low-power workloads like sensor fusion or object detection. The board provides Wi-Fi, Bluetooth, and an Ethernet jack as connectivity options, increasing its versatility for IoT scenarios.

The board supports Linux Yocto operating system, reducing time-to-market for proof-of-concepts and production deployments alike. When used together with a Vantron TMO/TMC series touchscreen monitor, it provides an overall display solution for customers, making it ideal for such scenarios as smart retail, self-service kiosks, intelligent medical health, and digital media.

Exterior and Features



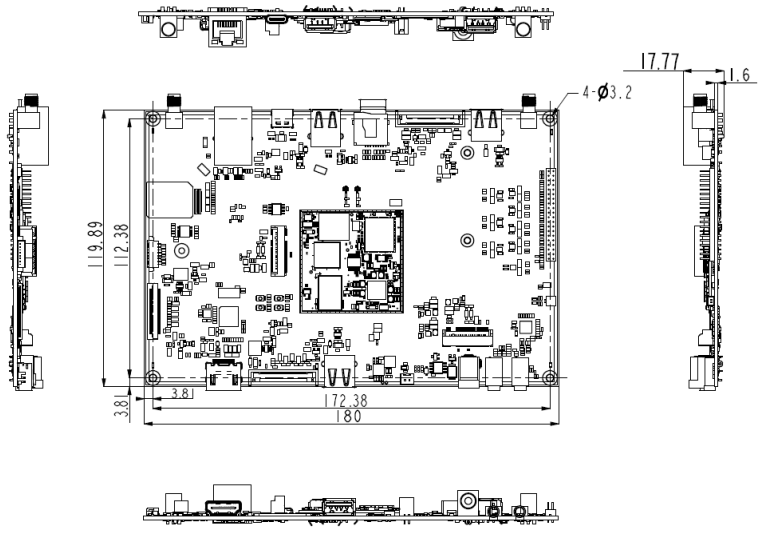
VT-SBC-VOSM93-EVB
NXP i.MX 9352 dual-core processor
Diverse interfaces, robust system performance
0.5 TOPs NPU for low-power workloads
1080P/720P display output
ETH, Wi-Fi & BT connectivity
Linux Yocto system
A cost-optimized yet full-featured solution

Ports without annotation are non-functional.

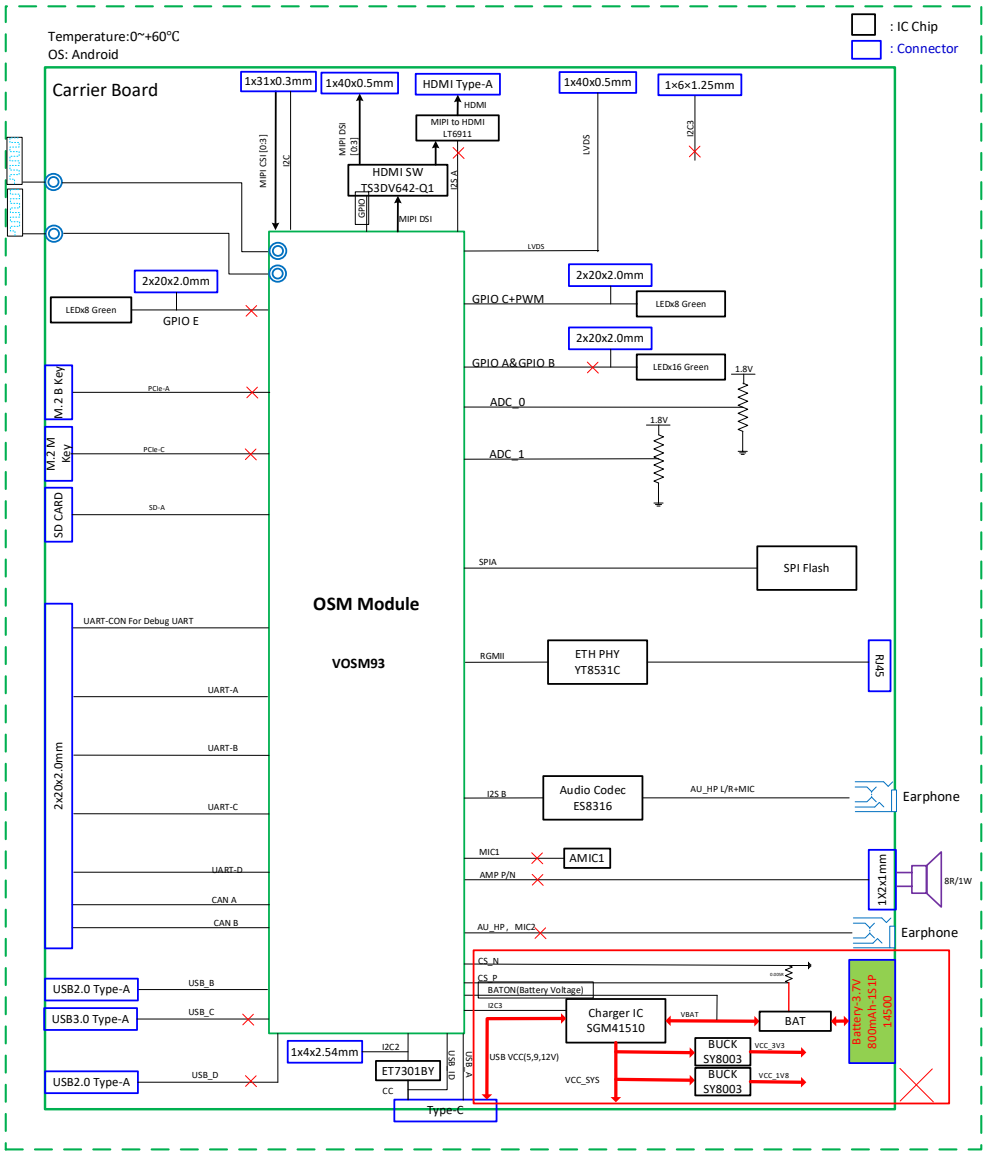
VT-SBC-VOSM93-EVB Evaluation Board Datasheet

VOSM93 Evaluation Board			
System	CPU	NXP i.MX 9352, Dual-core ARM Cortex-A55 processor, up to 1.7GHz ARM Cortex-M33 low-power real-time co-processor, 250MHz	
	Micro NPU	0.5 TOPS	
	Memory	2GB LPDDR4	
	Storage	16GB eMMC 5.1	
	EEPROM	2Kb (for hardware configuration information)	
Communication	Ethernet	1 x RJ45, 10M/100/1000Mbps	
	Wi-Fi & Bluetooth	Wi-Fi 802.11 a/b/g/n/ac + Bluetooth 5.0	
Media	Camera	8-bit Parallel YUV/RGB camera	
	Display	24-bit Parallel RGB display	
	Audio	Medium Quality Sound (MQS) output	
I/O	Display (Single display mode)	1 x 4-lane MIPI DSI, up to 1080P @60Hz output	
		1 x 4-lane LVDS, up to 720P @60Hz	
	MIPI CSI	1 x 2-lane MIPI CSI-2, 1080p @30Hz	
	Audio	1 x Headphone jack (CTIA standard)	
	USB	1 x USB 2.0 Type-A	1 x USB 2.0 Type-C (OTG)
	GPIO header	13 x GPIO (max.) 1 x Debug UART (1.8V), 3 x Communication UART (1.8V), 2 x PWM, 2 X CAN	
	SD slot	1 x Micro SD slot	
	Key	1 x Power key	1 x Reset key
		1 x Recovery key	
Power	Input	5V/2A DC input	
Software	Operating system	Linux Yocto	
Mechanical	Dimensions	180mm x 119.89mm x 17.77mm (EVB)	45mm x 45mm x 4.4mm (SOM with shield)
Environmental Condition	Temperature	Operating: 0℃ ~ +60℃ (Optional: -40℃ ~ +85℃)	Storage: -20℃ ~ +70℃
	Humidity	≤95% RH (Non-condensing)	

Product Outlines



Block Diagram



Ordering Information

Ordering No.	Chipset	Memory	Storage	Description
VT-SBC-VOSM93-EVB	i.MX 9352	2GB LPDDR4	16GB eMMC	VOSM93 + Carrier board, MIPI DSI, LVDS, MIPI CSI, UART, USB, CAN, GPIO

Packing list	
VT-SBC-VOSM93-EVB evaluation board	1
On-board Wi-Fi and BT antenna	2

Optional accessories	
5V Power adapter	1
Power cord	1