

## VT-SBC-IMX8MMN Single Board Computer

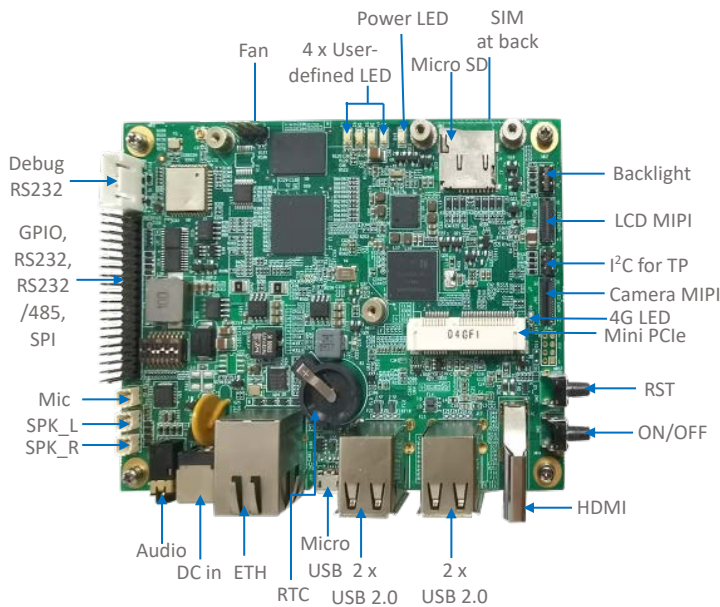


### Product Brief Introduction

VT-SBC-IMX8MMN Single Board Computer features a thinner and smaller form factor that is easy to integrate. It is powered by NXP i.MX 8M Mini processor that represents NXP's latest video and audio experience combining state-of-the-art media-specific features, and therefore delivers outstanding system performance with lowest power consumption. While both wired and wireless network accesses are available, user data is kept safe and secure. Better yet, the single board computer provides rich on-board interfaces and customer expansion options to meet different application scenarios including smart retail, self-service terminals, industrial automation, intelligent medical health, and digital media.

Featuring high flexibility and high performance, the single board computer could work under extreme environments with extended temperatures ranging from -20°C to +75°C, making it a reliable industrial IoT solution.

### Exterior and Features

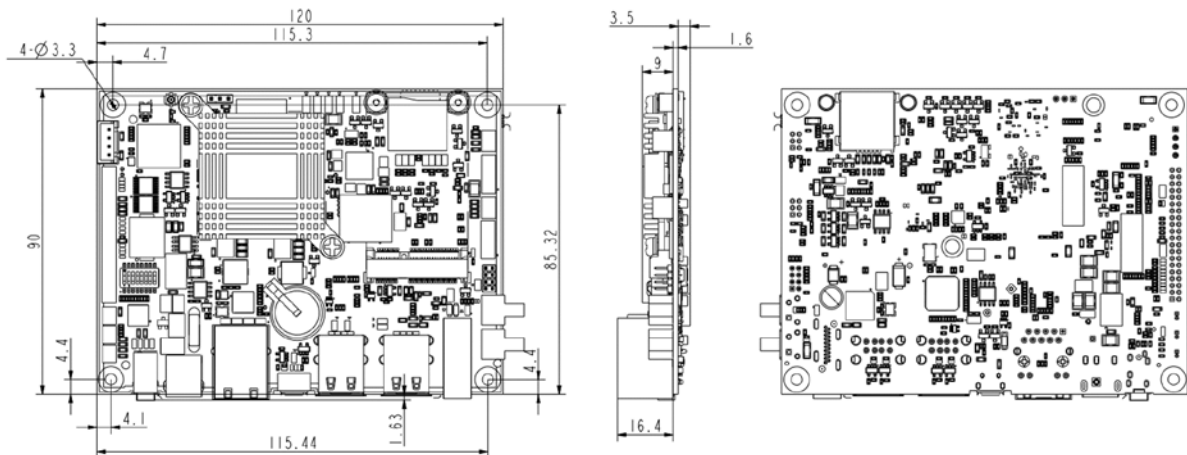


VT-SBC-IMX8MMN	
	NXP i.MX 8M Mini processor
	3GB LPDDR4
	Rich interfaces, flexible expansion
	High-definition video encoding and decoding
	Ethernet/Wi-Fi & BT
	RTC supported
	Multiple USB 2.0
	Wide temperature range supported

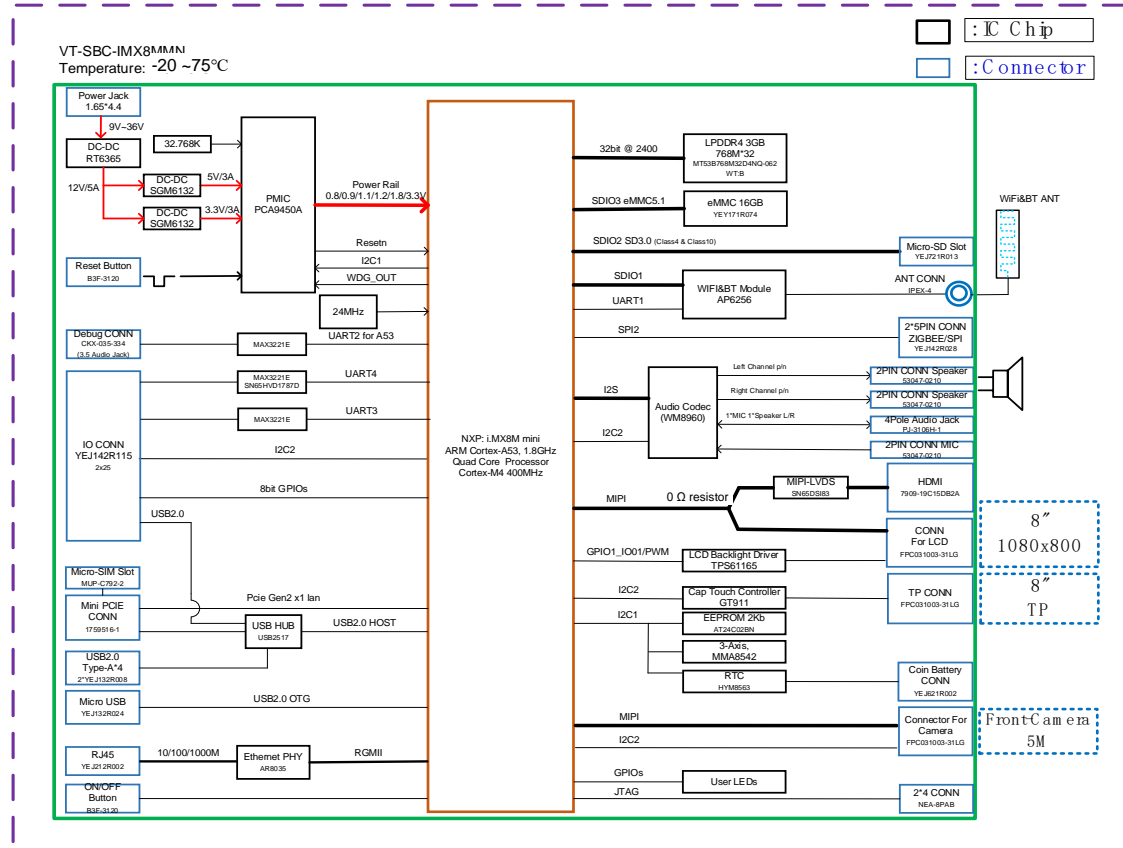
**VT-SBC-IMX8MMN Single Board Computer Datasheet**

VT-SBC-IMX8MMN			
System	CPU	i.MX 8M Mini, Quad-core ARM Cortex-A53, up to 1.8GHz	
	Memory	3GB LPDDR4	
	Storage	16GB eMMC 5.1	1 x Micro SD slot
Communication	Ethernet	1 x RJ45, 10/100/1000Mbps Base-T	
	Wi-Fi & BT	Wi-Fi 802.11a/b/g/n/ac + BT5.0	
	Cellular	4G LTE (optional)	
Media	Display	1 x 4-Lane MIPI DSI	1 x HDMI
	Camera	1 x 4-Lane MIPI CSI	
	Audio	1 x Mic 1 x 3.5mm audio jack	2 x Speaker connectors
I/Os	Serial	1 x RS232/RS485 1 x RS232	1 x Debug RS232
	USB	1 x Micro USB 2.0 OTG	4 x USB 2.0 Type-A
	GPIO	8 x GPIO, 3.3V	
	RTC	Supported	
Expansion	Bus	1 x I <sup>2</sup> C for TP	1 x Mini PCIe for 4G expansion
		1 x I <sup>2</sup> C for backlight control	1 x SPI
Sensor	G-sensor	1 x G-Sensor, 3-Axis	
System Control	Button	1 x Reset button	1 x ON/OFF button
	Indicator	1 x Power LED 1 x 4G LED	4 x User defined LED
Power	Input	5V-12V DC	
Software	Operating system	Android, Linux (support by request)	
	Device management platform	BlueSphere MDM (Android version only)	
	OTA tool	BlueSphere OTA	
Mechanical	Dimensions	120mm x 90mm	
	Cooling mode	Fan	
Environment Condition	Temperature	Operating: -20°C ~ +75°C	
	Humidity	5%-95% RH (non-condensing)	
	Certification	FCC, IC, RoHS	

**Product Outlines**



## Block Diagram



## Company Profile

Since 2002 established by two Silicon Valley entrepreneurs, Vantron Technology has been a pioneer in connected IoT devices and IoT platform solutions. Today, Vantron serves countless customers all over the world, some of them are Fortune 500 companies. Products lines cover edge intelligent hardware, IoT communication devices, industrial displays and BlueSphere cloud device management platform.

Vantron has 20 years of experience in R&D of embedded edge intelligent hardware like SOM board and motherboard, and provided users with various embedded solutions with ARM and X86 architecture. From Linux to Windows, from embedded to desktop level, from gateway to server. At the same time, we provide our users with system clipping, driver transplantation and other services.

Vantron IoT communication devices support multi-protocol connection of industrial equipment, edge computing of local data. Abundant wired and wireless connectivity make remote operations and maintenance possible. From electricity and transportation to smart retail, medical and warehousing, Vantron IoT communication device can be deployed anywhere in any business section. Vantron believes its IoT solution to help many companies finish their digital transformation, efficiency of manufacturing and productivities have been improved significantly.

Vantron industrial display systems, ARM and X86 series, are equipped with Rockchip, NXP, MediaTek, Intel and other high-performance processors. It supports various operating systems such as Windows, Linux, and Android. Diverse wireless communications keep your device online all the time. Multiple installation methods make it suitable for a variety of application scenarios. Features like waterproof, dustproof, shatter resistant guarantee the best performance in any environment.

Vantron BlueSphere device management platform, a software product, is playing a big role in Vantron overall IoT solution. Today, Vantron puts more focus on offering complete cost effective, leading-edge yet reliable solutions to help customers carry out their visions.