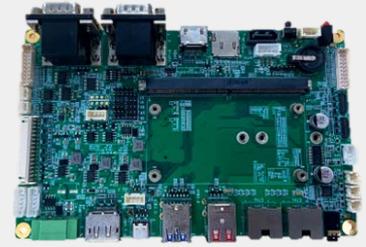


## VT-SBC-SMARC Carrier Board

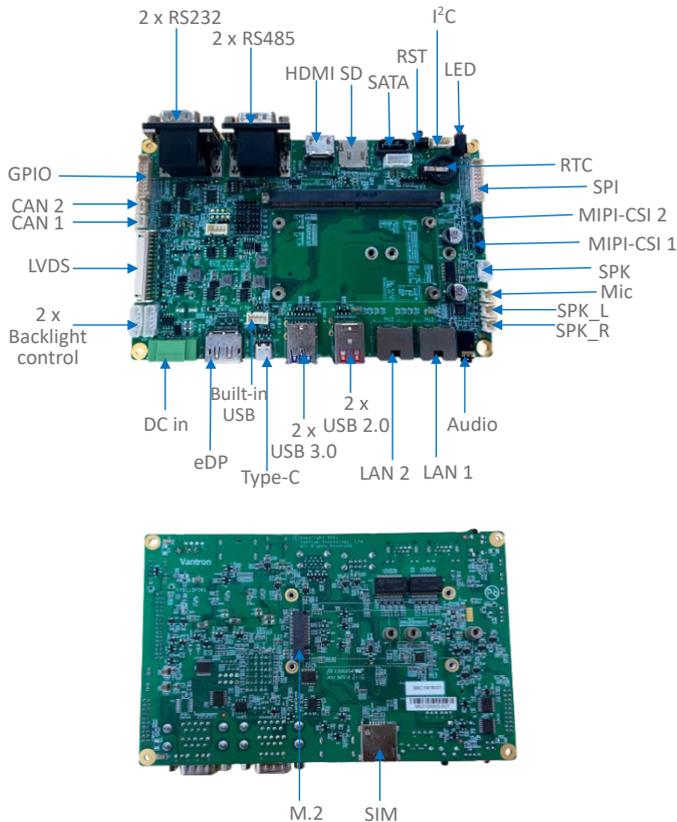


### Product Brief Introduction

VT-SBC-SMARC Carrier Board features a SMARC form factor that is easy to integrate with a computer on module (COM) to customize a single board computer (SBC) for specific use. The carrier board provides high-definition video and camera interfaces to optimize image display. It also offers a range of expansion options for different application scenarios of industry 4.0 including smart retail, self-service terminals, industrial automation, intelligent medical health, and digital media.

Featuring high flexibility and high performance, the carrier board could work under extreme environments with extended temperatures ranging from -20°C to +70°C (-40°C to +85°C optional), making it a reliable industrial IoT solution.

### Exterior and Features



#### VT-SBC-SMARC Carrier Board



Easy to integrate

Multiple displays

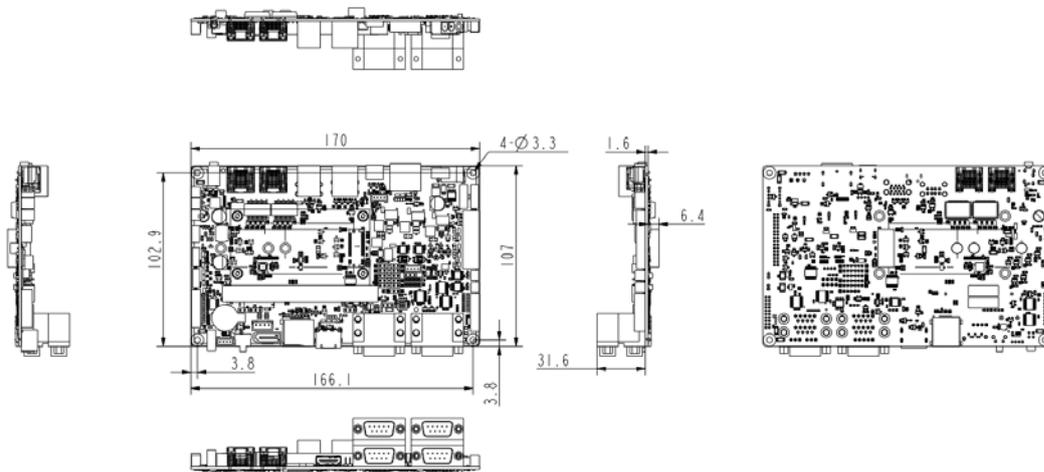
Rich interfaces, flexible expansion

Wide temperature range supported

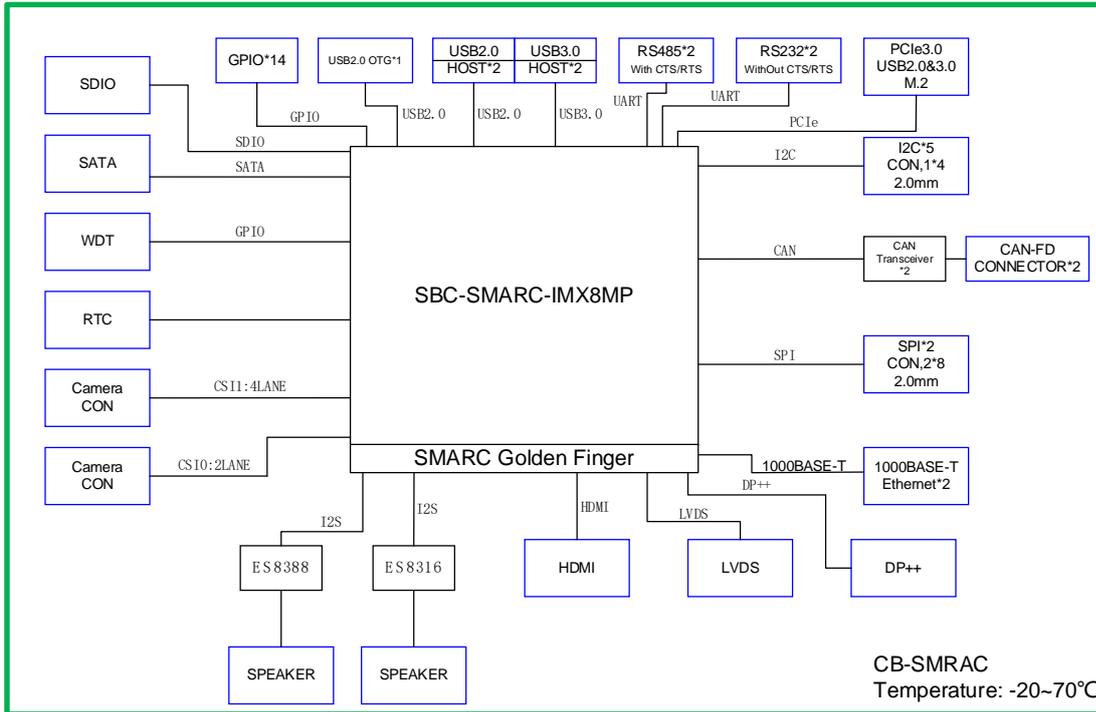
**VT-SBC-SMARC Carrier Board** Datasheet

VT-SBC-SMARC Carrier Board			
<b>Communication</b>	Ethernet	2 x RJ45, 10/100/1000M Base-T	
	3G/4G/5G	Supported (expansion by M.2 slot)	
<b>Media</b>	Display	1 x 8-lane LVDS: 1 x 1080p60 or 2 x 720p60	
		1 x MIPI-DSI: Up to 2560 x 1440	
		1 x HDMI 2.0a: Up to 3840 x 2160 @ 30fps	
		1 x eDP, not connected to CPU	
	Camera	1 x 4-lane MIPI-CSI: Up to 2560 x 1440	
		1 x 2-lane MIPI-CSI: Up to 720p80	
	Backlight	2 x Backlight control connector	
	Audio	1 x 3.5mm combo audio jack	
Mic	1 x Mic connector		
Speaker	2 x Speaker connector		
<b>I/Os</b>	Serial	2 x RS485	2 x RS232
	USB	1 x USB Type-C	2 x USB 2.0
		1 x Built-in USB	2 x USB 3.0
	GPIO	14 x GPIO	
	SATA	1 x SATA (not connected to CPU)	
	SD	1 x Micro SD slot	
	RTC	Supported	
<b>Expansion</b>	Bus	1 x I <sup>2</sup> C	1 x M.2 B-Key for 3G/4G/5G
		2 x 10-Pin SPI	2 x CAN 2.0b
<b>System Control</b>	Button	1 x Reset	
	LED	1 x 3G/4G/5G indicator	1 x System indicator
<b>Power</b>	Input	1 x DC in (12V)	
<b>Mechanical</b>	Dimensions	170mm x 110.8mm	
<b>Environment Condition</b>	Temperature	Operating: -20°C~+70°C (Optional: -40°C~+85°C)	

**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 transplanted 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.