

VT-SBC35-G700

Single Board Computer

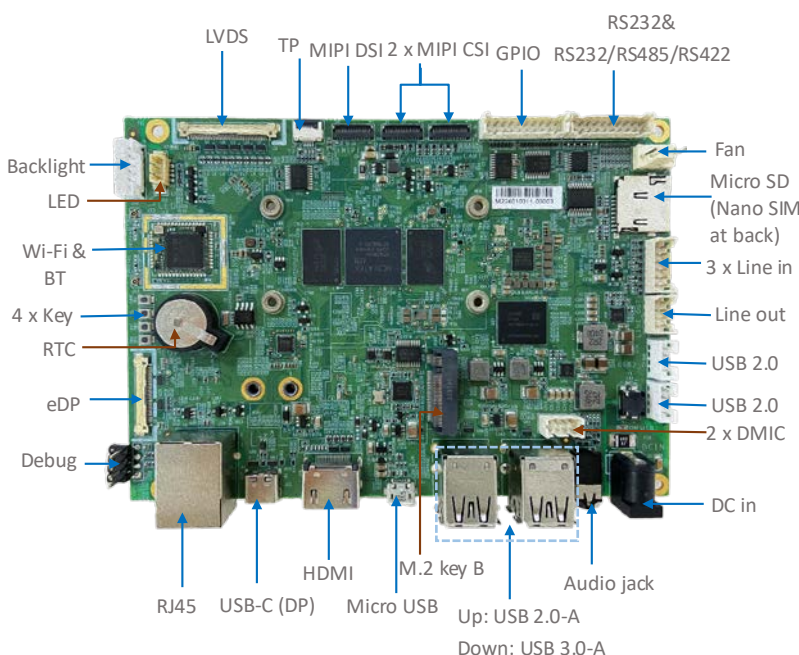


Product Brief









Adopting the 3.5-inch form factor, VT-SBC35-G700 single board computer is powered by the MediaTek MT8390 processor that combines two high-performance Cortex-A78 cores with six power-efficient Cortex-A55 cores, striking a balance between power and performance for a wide range of IoT applications. It integrates an Arm Mali-G57 GPU for enhanced 2D/3D graphic acceleration, with support for Vulkan® 1.1, OpenGL ES 3.2, and OpenCL™ 2.2. It supports 4K @75fps video decoding following the AV1/VP9/HEVC/H.264 formats and 4K @30fps video encoding following the HEVC/H.264 formats. The HiFi 5 audio DSP offers efficient pre-/post-processing capability for audio and video contents. In addition, the Tensilica VP6 APU backed by MediaTek Deep Learning Accelerator (MDLA 3.0), offering 4.4 TOPS AI performance for demanding imaging, computer vision, and neural network applications.

VT-SBC35-G700 boasts versatile display output options that enable dual displays in extended mode. It provides an RJ45 Ethernet jack and a combo Wi-Fi 5 and Bluetooth 5.0 chip for IoT connectivity. The board offers an M.2 Key B slot is for expansion of either Wi-Fi 6 and Bluetooth 5.2 or 4G/5G cellular connectivity. VT-SBC35-G700 is designed for diverse application scenarios such as smart retail, edge AI, IoT gateways, HMI, and smart fitness.

Exterior and Features



VT-SBC35-G700

-  MediaTek MT8390 octa-core processor
-  Ethernet, Wi-Fi, BT, optional 4G/5G connectivity
-  Display output up to 4K @60Hz
-  4K @30fps video encoder, 4K @75fps decoder
-  16MP + 16MP @30fps for dual-camera ISP
-  Rich I/Os: COM, USB, SPI, UART, I²C, GPIO
-  Powerful AI acceleration & graphic processing
-  3.5-inch form factor

VT-SBC35-G700 Single Board Computer Datasheet

VT-SBC35-G700			
System	CPU	MediaTek MT8390, Dual-core ARM Cortex-A78 (2.2 GHz) processor + Hexa-core ARM Cortex-A55 (2.0 GHz) processor	
	GPU	Arm Mali-G57	
	APU	4.4 TOPS, Tensilica VP6 + MediaTek Deep Learning Accelerator (MDLA 3.0)	
	Audio DSP	HiFi 5	
	Memory	4GB 64-bit LPDDR4x	
	Storage	64GB eMMC 5.1	Optional: SSD expansion (M.2 Key B)
Communication	Ethernet	1 x RJ45, 10/100/1000Mbps	
	Wireless	Wi-Fi 5 + BT 5.0	Optional: Wi-Fi 6 & BT 5.2 or 4G/5G (M.2 Key B)
Media	Display (Dual-display extended mode supported)	1 x HDMI 2.0, up to 4K @60Hz	
		1 x MIPI DSI/Dual LVDS, up to 2K @30Hz	
		1 x eDP, up to 2K @60Hz	
		1 x DisplayPort over USB Type-C, up to 4K @60Hz	
	Audio	1 x 3.5mm Combo audio jack	2 x DMIC
	1 x Line out connector	3 x Line in connector	
Camera	2 x MIPI CSI-2, ISP: 32MP @30fps (single cam.) / 16MP + 16MP @30fps (dual cam.)		
Touch	1 x TP connector		
I/Os	Serial	2 x RS232 connector	2 x RS232/RS422/RS485 connector
	USB	2 x USB 2.0 Type-A	2 x USB 2.0 connector
		2 x USB 3.0 Type-A	
	GPIO header	12 x GPIO (Max.), including 1 x SPI, 1 x UART (3.3V, with RTS/CTS), 2 x I ² C	
	Fan	1 x Fan connector	
	UART	1 x Debug UART (1.8V)	
	SD & SIM	1 x Micro SD slot	1 x Nano SIM slot
	RTC	Supported	
WDT	Supported		
Expansion	M.2 Key B	1 x M.2 key B (2242, PCIe 2.0 for SSD or 3052, USB 3.0 for 4G/5G or PCIe 2.0 for Wi-Fi 6 & BT5.2)	
System control	Key & LED	4 x Key (Home, Reset, Volume, Power)	2 x LED connector
Power	Input	12V/3A DC (via the DC jack or USB Type-C)	
Software	Operating system	Android 13, Linux Yocto	
Mechanical	Dimensions	146mm x 102mm	
Environment Condition	Temperature	Operating: -20°C~+70°C (Optional: -40°C~+80°C)	Storage: -40°C~+85°C (Optional: -55°C~+85°C)
	Humidity	5%-95% RH (Non-condensing)	
	Certification	FCC, ISED, CE	

Product Outlines

