VT-SBC35-G1200 Single Board Computer

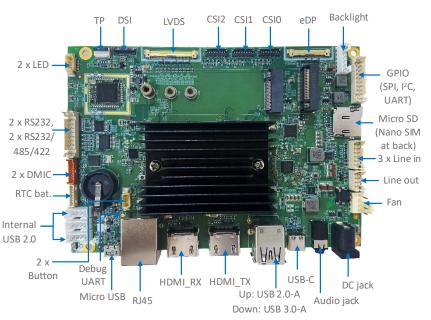


Product Brief

Adopting the 3.5-inch form factor, VT-SBC35-G1200 single board computer is powered by the MediaTek MT8395 processor that combines four high-performance Cortex-A78 cores and four power-efficient Cortex-A55 cores, striking a balance between power and performance for a wide range of IoT applications. It integrates a Mali G57 MC5 GPU for enhanced 2D/3D graphic acceleration complemented by HEVC/H.264 video encoder and multi-standard video decoder support. The HiFi 4 audio DSP offers efficient pre-/post-processing capability for audio and video contents. In addition, it incorporates a Tensilica VP6 APU backed by MediaTek Deep Learning Accelerator (MDLA 3.0), offering 4.8 TOPS AI performance for demanding imaging, computer vision, and neural network applications.

VT-SBC35-G1200 boasts versatile display output options that enable dual displays in extended mode. It offers an RJ45 Ethernet jack and a combo Wi-Fi 5 and Bluetooth 5.0 chip for IoT connectivity. It also provides optional 4G/5G connectivity for users. Additionally, it provides rich on-board interfaces to meet diverse application scenarios such as smart home, edge AI, industrial IoT, and digital media.

Exterior and Features

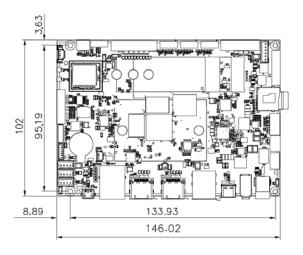


	VT-SBC35-G1200
#	MediaTek MT8395 octa-core processor
@	Optional Wi-Fi 6/4G/5G connectivity
	Display output up to FHD and 4K @60Hz
• 1	4K @60fps video encoder, 4K @90fps decoder
O'	16MP + 16MP @30fps for dual-camera ISP
<u>مال</u>	Rich I/Os: COM, USB, SPI, UART, I ² C, GPIO
(Q)	High-performance APU and GPU
	3.5-inch form factor

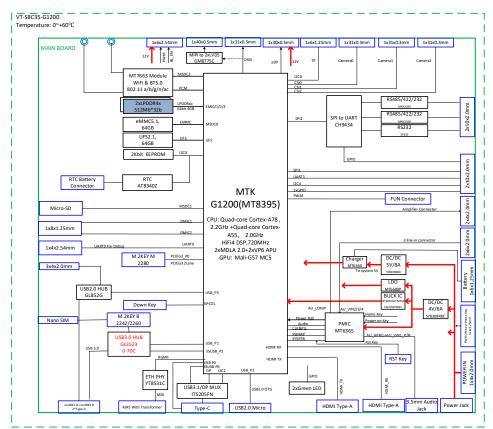
VT-SBC35-G1200 Single Board Computer Datasheet

		VT-S	BC35-G1200	
	CPU	MediaTek MT8395, C	Quad-core ARM Cortex-A78 (2.20	GHz) + Quad-core ARM Cortex-A55 (2.0GHz)
System	GPU	Mali-G57 MC5		
	APU	4.8 TOPS, Tensilica VP6 + MediaTek Deep Learning Ac		ccelerator (MDLA 3.0)
	Audio DSP	HiFi 4		
	Memory	8GB 64-bit LPDDR4x		
	Storage	64GB eMMC 5.1 + 64	GB UFS2.1	Optional: SSD expansion (M.2 Key M)
	Ethernet	1 x RJ45, 10/100/1000Mbps		
Communication	Wi-Fi & BT	Wi-Fi 5 & BT 5.0		Optional: Wi-Fi 6 & BT 5.2 (M.2 Key M)
	Cellular	Optional: 4G/5G (M.2	2 Key B)	
	Dicplay	2 x HDMI 2.0, up to 4K @60Hz (one HDMI_RX, one HDMI_TX)		
	Display (Extend mode of dual	1 x MIPI DSI, up to 4K @60Hz (default) / 1 x Dual LVDS, up to 1920 x 1200		
	displays supported)	1 x eDP, up to 4K @60Hz		
Media	displays supported)	1 x DisplayPort over USB Type-C, up to 4K @60Hz		
ivieula	A1: -	1 x 3.5mm Combo au	dio jack	1 x DMIC
	Audio	1 x Line out connector (amplifier board support, 12V) 3 x Line in connector (AMIC board support)		
	Camera	3 x MIPI CSI-2, ISP: 48MP @30fps (single cam.), 16MP + 16MP @30fps (dual cam.)		
	Touch	1 x I ² C connector for TP		
	Serial	2 x RS232 connector		2 x RS232/RS422/RS485 connector
	USB	1 x USB 2.0 Type-A	3 x USB 2.0 connector	1 x Micro USB 2.0
		1 x USB 3.0 Type-A	5 X USB 2.0 CONNECTOR	1 x USB 3.0 Type-C
I/Os	GPIO header	12 x GPIO (Max.), including 1 x SPI, 1 x UART (3.3V, with RTS/CTS), $1 \times I^2C$		
1/03	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 & WDT	Supported		
Expansion	M.2 Key B	1 x M.2 key B (2242/2260), USB 3.0, for 4G/5G		
Expansion	M.2 Key M	1 x M.2 Key M (2280), PCle 3.0, for SSD or Wi-Fi 6 & BT 5.2		
System Control	Connector	2 x LED connector		2 x Key connector (RST, download)
System Control	Key	4 x Key (SW1: Power, SW2: Reset, SW3: Volume +/program download, S		ogram download, SW4: Volume -/Home)
Power	Input	12V/3A DC (via the D	C jack or USB Type-C)	
Software	Operating system	Android 13, Linux You	cto	
Mechanical	Dimensions	146.02mm x 102mm		
	Temperature	Operating: 0°C~+60°	C	Storage: -20°C~+80°C
Environment	remperature	(Optional: -40°C~+85	°C)	(Optional: -55°C~+85°C)
Condition	Humidity	20%-80% RH (Non-co	ndensing)	
	Certification	FCC, ISED, CE		

Product Outlines



Block Diagram



Ordering Information

CPU	I/Os	Connectivity
MediaTek MT8395 Octa-core processor	HDMI, MIPI DSI/LVDS, eDP, DP, MIPI CSI, RS232, RS232/485/422, USB-A, USB-C, Micro USB, SPI, UART, I ² C, GPIO	Ethernet, Wi-Fi 5 & BT 5.0
		Ethernet, Wi-Fi 6 & BT 5.2
		Ethernet, Wi-Fi 5 & BT 5.0, 4G
		Ethernet, Wi-Fi 6 & BT 5.2, 4G
	MediaTek MT8395	MediaTek MT8395 Octa-core processor RS232, RS232/485/422, USB-A, USB-C,

Packing list		
VT- SBC35-G1200 single board computer	1	
12V 3A power adapter & power cable	1 Kit	

Optional accessories
Wi-Fi 6 & Bluetooth 5.2 module, 2 x antenna
4G module, 2 x antenna / 5G module, 4 x antenna

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.

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