

VT-SBC35-ADLN Series

Single Board Computers



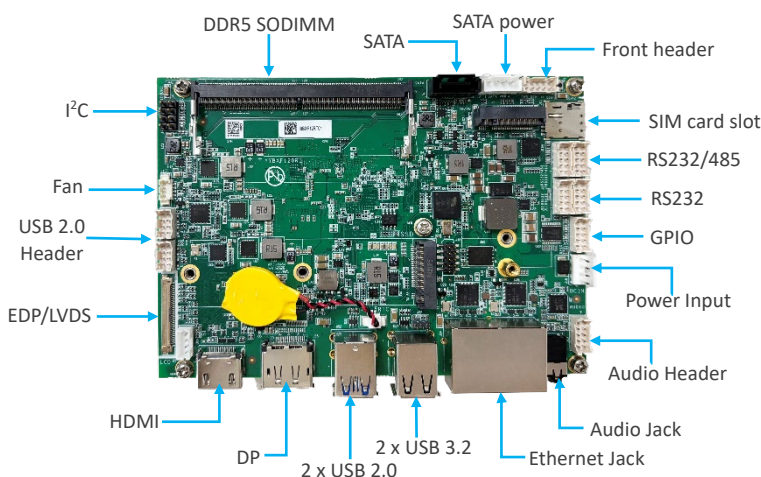
Brief Introduction

The VT-SBC35-ADLN series single board computers come in a 3.5-inch form factor, ideal for integration into embedded devices. The boards support a wide range of processor options from the Intel® IOTG series, including the Intel® Alder Lake-N N97, Core™ i3-N305, Core™ 3 N355, Atom® X7433RE, Atom® X7835RE, and Twin Lake N150. These quad-/octa-core processors feature low power consumption while offering robust processing capabilities, making them a good choice for embedded systems, edge computing, and IoT devices.

This series is equipped with major display interfaces such as HDMI, DP, eDP, and LVDS, supporting 4K video output and up to three independent displays in extended mode, ensuring smooth visual performance for modern display scenarios. In addition, it provides RJ45 Ethernet jacks for IoT connectivity and M.2 B Key slot for expansion.

This series offers the choice between Windows 10/11 IoT and Ubuntu 22.04 operating systems, providing great compatibility with development tools and software frameworks for embedded environments. The series is equipped with multiple internal connectors such as eDP, USB, SATA, M.2 SSD, and GPIO, ensuring flexible integration and expansion capabilities for a wide range of application scenarios such as smart retail, HMIs, and commercial display.

Exterior and Features



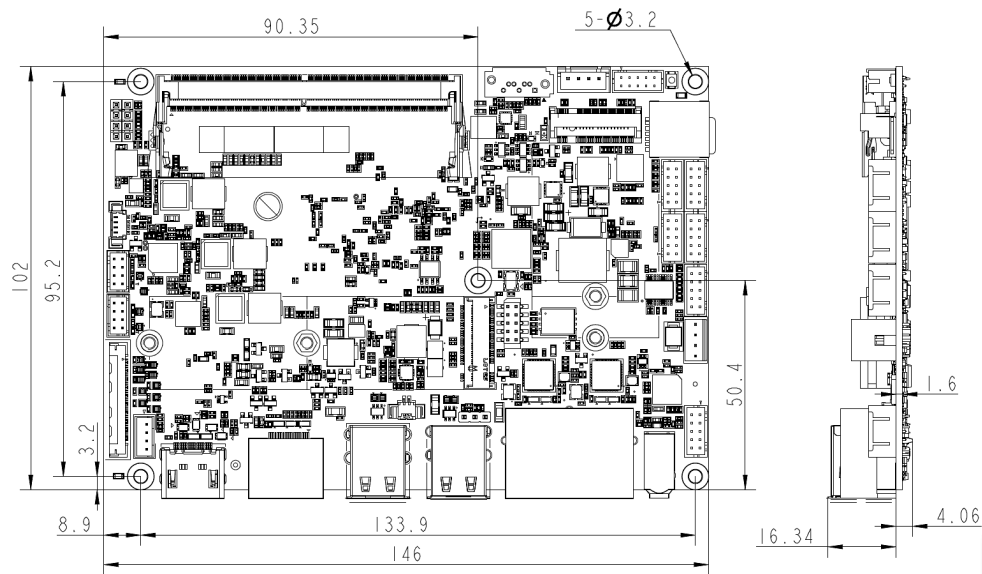
VT-SBC35-ADLN Series

- Intel® IOTG quad/octa-core processor
- Display output up to 4K
- Up to three displays in extended mode
- Multiple interfaces for flexible expansion
- Gigabit Ethernet, Wi-Fi 6, BT 5.4
- Windows 10/11 IoT, Ubuntu 22.04
- Compact and scalable

VT-SBC35-ADLN Series Single Board Computer Datasheet

VT-SBC35-ADLN Series			
System	CPU	Intel® IOTG Alder Lake-N N97, 4C4T, up to 3.6GHz, 12W TDP Intel® IOTG Core™ i3-N305 Processor, 8C8T, up to 3.8GHz, 15W TDP Intel® IOTG Core™ 3 N355 Processor, 8C8T, up to 3.9GHz, 15W TDP Intel® IOTG Atom® X7433RE Processor, 4C4T, up to 3.4GHz, 9W TDP Intel® IOTG Atom® X7835RE Processor, 8C8T, up to 3.6GHz, 12W TDP Intel® IOTG Twin Lake N150, 4C4T, up to 3.6GHz, 6W TDP	
	SIO	Fintek F81966	
	Memory	DDR5 SO-DIMM, up to 16GB	
	Storage	eMMC 5.1, default: 64GB	
		1 × SATA 3.0, up to 600MB/s SSD expansion by M.2 M-Key	
Communication	Ethernet	2 × RJ45, 2500 Mbps	
	Wi-Fi/BT	Optional: 802.11 a/b/g/n/ac/ax, Bluetooth 5.4	
	Cellular	Optional: 4G/5G (M.2 B-key)	
Media	Display interface	1 × HDMI 2.1b, up to 4096 × 2160@30Hz	
		1 × DP 1.4a, up to 4096 × 2160@60Hz	
		1 × eDP 1.4b/LVDS, up to 4096 × 2304@60Hz	
	Multi-display	Up to 3 independent displays in extended mode	
	Audio	1 × 3.5mm combo audio jack	1 × Line in header
1 × Line out header		1 × Speaker header, up to 2W	
I/O	Serial port	2 × RS232 header	2 × RS232/RS485 header
	USB	2 × USB 3.2 Type-A	2 × USB 2.0 Type-A
		4 × USB 2.0 internal header	
	GPIO	1 × 8-bit GPIO header (4 × GPI, 4 × GPO)	
	SIM	1 × SIM card slot	
	Front panel	1 × Front panel header (Power, reset, LED)	
	SATA power	1 × SATA power header	
Expansion	M.2	1 × M.2 M-key (2280/2242, SATA/PCIe for SSD expansion)	
		1 × M.2 B-key (3042/3052, PCIe/USB 3.0 for 4G/5G)	
		Optional: 1 × M.2 E-key (2230, PCIe x1/USB 2.0 for Wi-Fi & BT expansion)	
	I ² C	1 × I ² C	
Miscellaneous	RTC	Supported	
	Watchdog timer	Supported	
Power	Input	12~36V DC	1 × Power header
Software	Operating system	Windows 10/11 IoT, Ubuntu 22.04	
	BIOS	UEFI BIOS	
Mechanical	Dimensions	146 mm × 102 mm (3.5-inch)	
Environmental Condition	Temperature	Operating: 0°C~+60°C	Storage: -20°C~+80°C
	Humidity	Operating and storage: RH 10%-85% (Non-condensing)	
	Cooling	1 × Smart fan connector, 1 × Heat sink (Optional)	
	Certification	CE	

Product Outlines



Ordering Information

Nomenclature

VT-SBC35-[CPU]-[OS-WLAN-C]

Cellular connectivity: **Null**-NA, **4G**-4G, **5G**-5G

WLAN: **Null**-NA, **W**-Wi-Fi & Bluetooth

Operating system: **X10**-Windows 10 IoT, **X11**-Windows 11 IoT, **U**-Ubuntu 22.04

CPU: **ADLN-N97**-Alder Lake-N N97, **N305**-Core™ i3-N305, **N355**-Core™ 3 N355, **X33**-Atom® X7433RE, **X35**-Atom® X7835RE; **N150**-Twin Lake N150

Example Ordering No.	CPU	Operating System	WLAN	Cellular Connectivity
VT-SBC35-ADLN-N97-U4G	Alder Lake-N N97	Ubuntu 22.04	-	4G
VT-SBC35-N305-X10W	Core™ i3-N305	Windows 10 IoT	Wi-Fi & Bluetooth	-
VT-SBC35-N355-X10W	Core™ 3 N355	Windows 10 IoT	Wi-Fi & Bluetooth	-
VT-SBC35-X33-UW5G	Atom® X7433RE	Ubuntu 22.04	Wi-Fi & Bluetooth	5G
VT-SBC35-X35-X11W5G	Atom® X7835RE	Windows 11 IoT	Wi-Fi & Bluetooth	5G
VT-SBC35-N150-X11W4G	Twin Lake N150	Windows 11 IoT	Wi-Fi & Bluetooth	4G

Packing List	
VT-SBC35-ADLN Series single board computer	1

Optional Accessories	
12V/5A power adapter & power cord	1 kit
Heat sink under SBC	1