IBOX3576 Edge AI
Embedded Industrial Computer

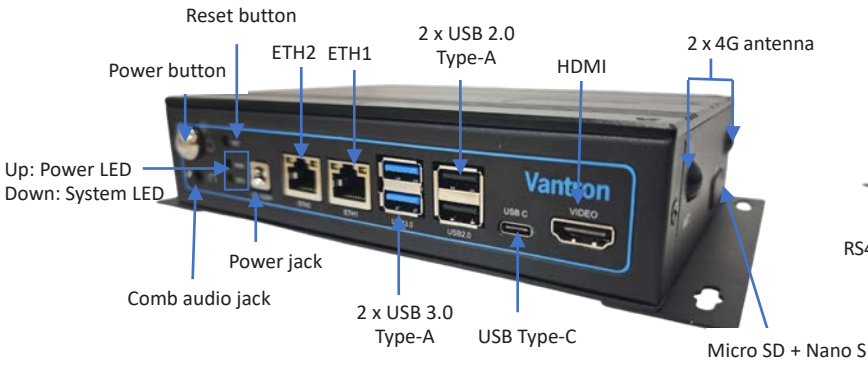


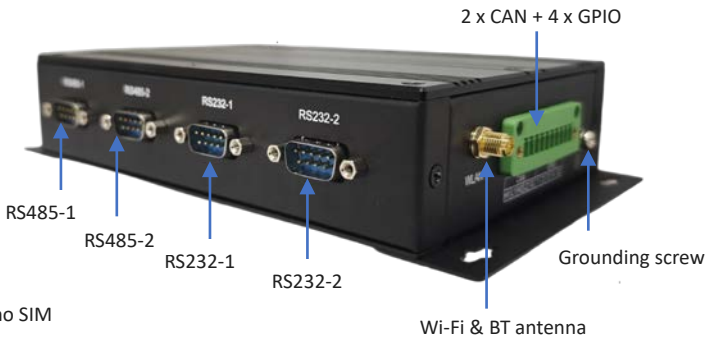
Product Brief

Vantron IBOX3576 is a high-performance edge AI embedded industrial computer, engineered to deliver exceptional computing power for edge AI and industrial applications. Powered by a high-performance, low-power octa-core processor, the IBOX3576 adopts a 4×Cortex-A72 + 4×Cortex-A53 architecture with a maximum clock speed of 2.2GHz. Equipped with 4GB LPDDR5 memory, and 64GB eMMC 5.1 storage, it ensures seamless multitasking and fast data access.

The IBOX3576 integrates an Arm Mali-G52 MC3 GPU that supports OpenGL ES 1.1/2.0/3.2, OpenCL 2.1 and Vulkan 1.2, delivering outstanding 2D/3D graphics acceleration. Its built-in NPU provides up to 6 TOPS of AI computing power for accelerated deep learning inference and parallel processing. Complemented by rich expandable I/O interfaces and robust networking capabilities, the product is perfectly tailored for diverse high-precision and high-reliability applications including edge AI computing, industrial automation, intelligent traffic management, mobile robots, AGVs, machine vision inspection, and interactive kiosks.

Exterior and Features



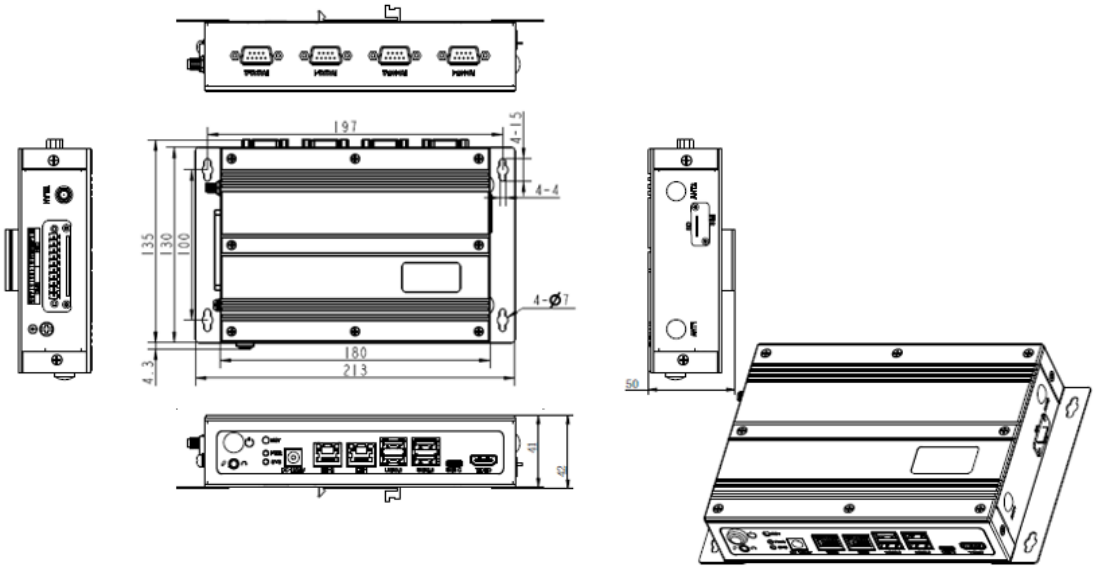


- High-performance, low-power octa-core processor
- 6 TOPS of computing performance for AI inference
- H.264/H.265 video codec
- Rich I/O: HDMI, USB, RS232/485, CAN FD, GPIO, etc.
- Flexible connectivity via GbE, Wi-Fi 6, Bluetooth, and 4G/5G (optional)
- 4GB LPDDR5 + 64GB eMMC 5.1

Specifications

IBOX3576			
System	CPU	Quad-core ARM Cortex-A72 + quad-core ARM Cortex-A53 processor, up to 2.2GHz	
	GPU	Arm Mali G52 MC3 GPU, OpenGL ES1.1/2.0/3.2, OpenCL 2.1, and Vulkan 1.2 supported	
	AI performance	6 TOPS	
	Memory	4GB LPDDR5	
	Storage	64GB eMMC 5.1; 1 x Micro SD slot, SDIO 3.0	
		Optional 128GB UFS 2.2; SATA SSD (via M.2 B-Key), up to 1TB	
Communication	Ethernet	2 x RJ45, 10M/100M/1000Mbps	
	Wi-Fi & Bluetooth	Wi-Fi 6: IEEE 802.11 a/b/g/n/ac/ax + Bluetooth 5.4	
	Cellular	Optional: 4G/5G (via M.2 B-Key)	
Media	Video	1 x HDMI 2.1, up to 4K @120Hz	1 x DP1.4 over Type-C, up to 4K @60Hz
	Audio	1 x 3.5mm combo audio jack	
I/O	Serial port	2 x RS232	2 x RS485
	USB	2 x USB 3.0 Type-A	2 x USB 2.0 Type-A
		1 x USB 3.0 Type-C (OTG, DP1.4)	
	CAN	2 x CAN FD	
	GPIO	4 x GPIO, TTL: 3.3V	
	SD	1 x Nano SIM slot	1 x Micro SD slot, SDIO3.0
	Antenna	1 x Wi-Fi & Bluetooth SMA connector	Optional: 2 x 4G SMA connector
		Optional: 4 x 5G SMA connector	
Miscellaneous	RTC	Supported	
	Watchdog	Supported (integrated, discrete)	
Expansion	M.2 slot	1 x M.2 B-Key (2260, PCIe 2.1: SSD; 3042, USB 3.0: 4G LTE; 3052, USB 3.0/PCIe 2.1: 5G)	
System Control	LED indicator	1 x Power LED (lit at power-up)	1 x System LED
	Button	1 x Power button	1 x Reset button
Power	Input	12V/24V 3A DC	
	Consumption	Max: 10W (full load)	
Software	OS	Android 14, Ubuntu 22.04, Debian 11	
Mechanical	Dimensions	213mm x 139.3mm x 50mm (with mounting brackets)	
	Weight	0.973kg	
	Installation	Wall mount, DIN rail mount	
Environmental Condition	Temperature	Operating: 0°C ~ +60°C	Storage: -20°C ~ +80°C
	Humidity	Operating: 5%~85% RH (Non-condensing)	
	Certification	FCC & CE (in progress)	

Product Outline



Ordering Information

Nomenclature

IBOX3576-[OS-S-M2]

OS (Operating system): Null-Android; **U**-Ubuntu; **D**-Debian

S (Storage expansion): Null-NA; **S**-128GB UFS 2.2

M2 (M.2 expansion): Null-NA; **4G**-4G LTE; **5G**-5G; **SSD1**-128GB; **SSD2**-256GB; **SSD3**-512GB; **SSD4**-1TB

Example Ordering No.	Operating System	Storage Expansion	Cellular Connectivity	SSD Expansion
IBOX3576	Android	-	-	-
IBOX3576-US4G	Ubuntu	128GB UFS 2.2	4G	-
IBOX3576-DSSD2	Debian	-	-	256GB M.2 SATA SSD

Packing List	
IBOX3576xxxx edge AI embedded industrial computer	1
12V⎓3A power adapter	1
Wi-Fi & Bluetooth antenna	1

Optional Accessories	
Power cord (GB/UL)	1 kit
4G/5G module	1
4G/5G antenna	2/4

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