EPC-H610-H

Expandable Medical AI Box PC

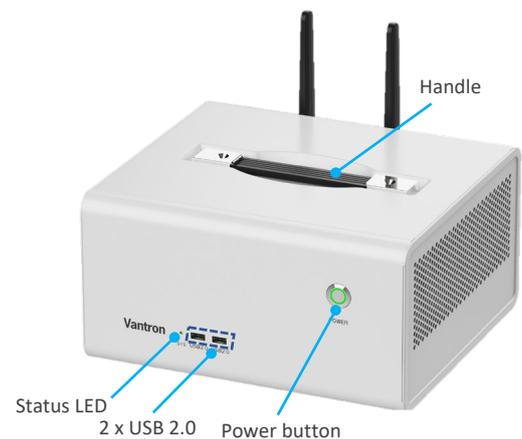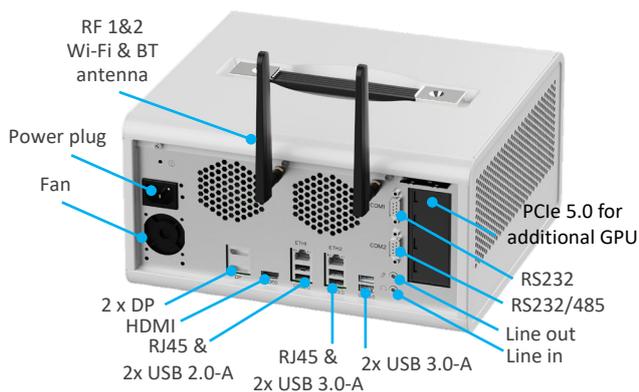

Product Brief

The EPC-H610-H is a medical-grade AI box PC designed specifically for healthcare applications. It supports Intel's 12th/13th/14th generation Core™ processors, providing a wide range of performance choices.

A rich set of ports allows the unit to interface with a variety of medical peripherals, while an internal PCIe for additional AI accelerator card delivers extra inference horsepower if needed. The entire system is engineered to comply with medical product design principles and industry standards. Featuring a compact form factor with an ergonomically integrated handle, the EPC-H610-H ensures effortless mobility in clinical settings. This portability, combined with robust data processing capabilities, allows the unit to serve as a reliable on-site data hub for all types of medical monitoring devices, ensuring seamless data transmission, analysis, and storage in real time.

As a crucial member of Vantron's EPC product line, the EPC-H610-H is part of a comprehensive portfolio dedicated to delivering professional, tailored solutions for the healthcare sector. Backed by Vantron's proven expertise in industrial computing and IoT technology, it not only meets the immediate operational needs of medical institutions but also scales with future technological advancements, making it the preferred choice for enterprises looking to drive innovation and achieve success in the fast-evolving healthcare industry.
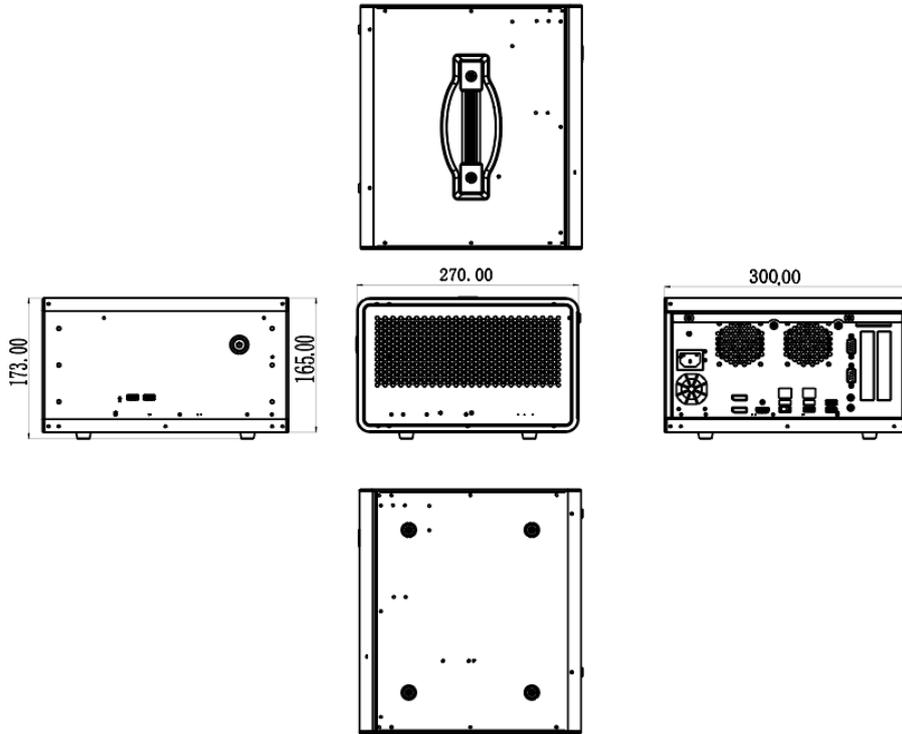
Exterior and Features

- 12th/13th/14th Gen Intel® Core™ processor
- 16GB RAM & 512GB storage, both expandable
- 3 independent displays, up to 4K video output
- Wi-Fi/BT/GbE for network connectivity

- PCIe 5.0 reserved for additional GPU
- IEC 60601 compliant
- Anti-skid feet to ensure device stability
- Windows 10 IoT, Ubuntu 22.04

EPC-H610-H Expandable Medical AI Box PC Datasheet

EPC-H610-H			
System	CPU	Default: Intel® 14th Gen Core™ i5-14500, 14C 20T, 2.6/1.9GB (Base), 5.0/3.7GB (Turbo)	
		Processor support: Intel® Desktop 12th/13th/14th Gen Core™ processor	
	Memory	16GB, up to 96GB (2 x DDR5 SO-DIMM socket)	
	Storage	512GB, Expansion via 2 x SATA 3.0 supported	
Communication	Ethernet	2 x RJ45, 2.5Gbps	
	Wi-Fi & Bluetooth	Optional (IEEE 802.11 a/b/g/n/ax + BT 5.4)	
Media	Display	1 x HDMI 2.0b, up to 3840 x 2160 @60Hz	
		2 x DP 1.4a, up to 4096 x 2304 @60Hz	
	Audio	1 x 3.5mm Line in jack	1 x 3.5mm Line out jack
I/O	USB	2 x USB 2.0 Type-A (Front)	2 x USB 2.0 Type-A (Rear)
		4 x USB 3.0 Type-A	
	Serial port	1 x RS232, DB9	1 x RS232/485, DB9 (software switch)
	Antenna	2 x SMA male antenna connector for Wi-Fi and Bluetooth	
Expansion	PCIe	1 x PCIe 5.0 x16 for GPU or AI acceleration card	
	M.2	1 x M.2 E-Key (2230, PCIe 3.0 x1 /USB 2.0 for Wi-Fi & BT expansion)	
Miscellaneous	RTC	Supported	
	Watchdog timer	Supported	
	Security	TPM 2.0	
System Control	Button	1 x Power button	
	LED indicator	1 x Status LED	
Power	Input	100V AC~240V AC, 50~60Hz	
	Consumption	~70W (Typical, not including additional GPU)	
Software	BIOS	Insyde UEFI BIOS	
	Operating system	Windows 10 IoT, Ubuntu 22.04	
Mechanical	Enclosure material	Sheet metal	
	Dimensions	300mm x 270mm x 173mm	
	Weight	6kg	
	Installation	Desktop (Anti-skid feet provided)	
	Shock test	IEC 60068-2-64	
	Heat dissipation	Fan	
Environmental condition	Temperature	Operating: 0℃~60℃	Storage: -20℃~70℃
	Humidity	5%~95% RH (Non-condensing)	
	Certification	FCC, CE	

Product Outlines

Ordering Information

Nomenclature

EPCH610-H-[P]-[W]-[OS]

P (CPU): **Null**-14th-Gen i5-14500; **13**-13th-Gen i5-13500; **12**-12th-Gen i5-12500; more variants available*

W (Wi-Fi & BT): **Null**-Not provided; **WLAN**-Wi-Fi IEEE 802.11 a/b/g/n/ax + BT 5.4

OS (Operating System): **Null**-Windows 10 IoT; **U**-ubuntu 22.04

Example Ordering No.	CPU	Wi-Fi & Bluetooth	Operating System
EPCH610-H	14th-Gen i5-14500	-	Windows 10 IoT
EPCH610-H-13-U	13th-Gen i5-13500	-	Ubuntu 22.04
EPCH610-H-12-WLAN	12th-Gen i5-12500	IEEE 802.11 a/b/g/n/ax + BT 5.4	Windows 10 IoT

* Please contact Technical Support for additional CPU options.

Packing List	
EPC-H610-H AI box PC	1
Power cord	1

Optional Accessories	
Wi-Fi & BT module	1
Wi-Fi & BT antenna	2