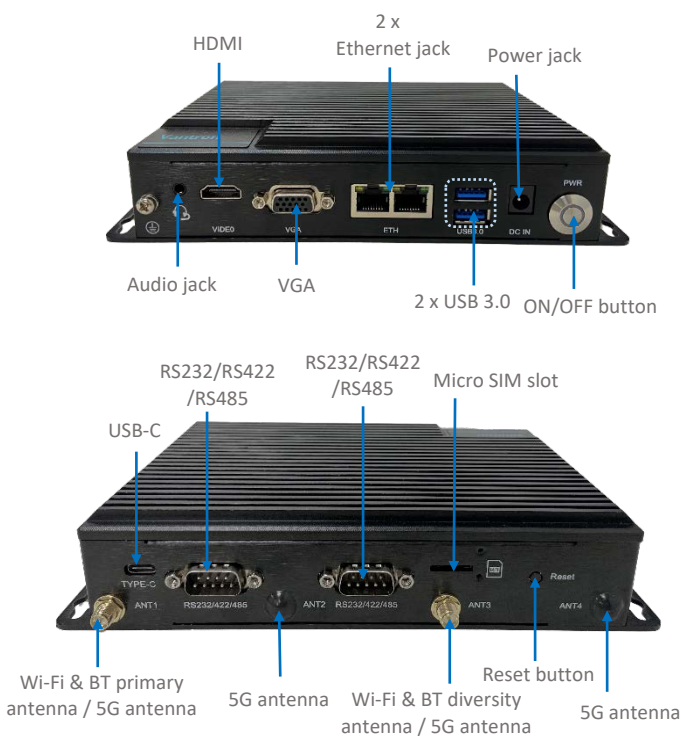# IBOX6425E Embedded Industrial Computer

Product Brief

Vantron IBOX6425E Embedded Industrial Computer is powered by the high-performing Intel® Atom® Elkhart Lake x6425E processor that has four cores capable of delivering high computing power for various embedded applications while keeping the CPU power consumption low at just 12W. The device supports two Ethernet ports transmitting at 10/100/1000Mbps. It also boasts two M.2 B-Key slots, one for SSD expansion and the other for connection of either a Wi-Fi 802.11 a/b/g/n/ac and BT 5.0 module or a 5G module to ensure reliable wireless communication.

The device comes with an HDMI interface and a VGA interface for optimized image display. In addition, there are two serial ports to enable seamless communication with external devices, ensuring a reliable, error-free data path.

IBOX6425E offers rich peripheral interfaces, allowing businesses to connect a wide range of peripherals for extended applications. This includes devices such as barcode scanners, cameras, barcode printers and keyboard plates, making customers rest assured of a reliable and consistent user experience.
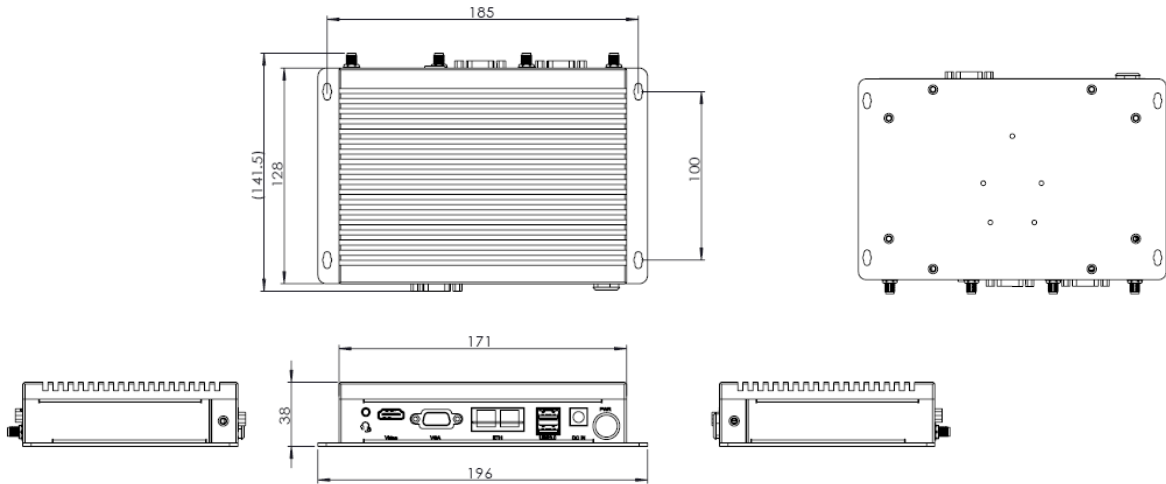
Exterior and Features

IBOX6425E
Intel® Atom® Elkhart Lake x6425E processor
HDMI/VGA for 4K/FHD video output
Rich industrial I/Os for flexible user expansion
Gigabit Ethernet, Wi-Fi, BT, optional 5G connectivity
Industrial-grade wide temperature design
Ability to withstand harsh environments
Industrial longevity

IBOX6425E Embedded Industrial Computer Datasheet

IBOX6425E			
System	CPU	Intel® Atom®, Quad-core Elkhart Lake x6425E processor, 3.0GHz (Max.)	
	GPU	Intel® HD Graphics 500	
	Memory	4GB DDR4 (Up to 16GB)	
	Storage	32GB eMMC 1 x SATA slot	1 x M.2 B-Key (2242/2280), for SSD
Communication	Ethernet	2 x RJ45, 10/100/1000Mbps	
	Wireless	1 x M.2 B-Key (3042/3052) for Wi-Fi 802.11 a/b/g/n/ac + BT 5.0 (Optional: 5G)	
Media	Display	1 x Standard HDMI 2.0b (4096 x 2160 @60Hz) 1 x VGA (1920 x 1080 @60Hz)	
	Audio	1 x 3.5mm combo audio jack	
I/Os	Serial port	2 x RS232/RS485/RS422	
	USB	2 x USB 3.0 Type-A	1 x USB 3.0 Type-C
	Micro SIM slot	1 x Micro SIM slot	
	RTC	Supported	
	Watchdog	Supported	
	TPM	1 x TPM 2.0	
Expansion	M.2 slot	1 x M.2 B-Key (2242/2280) for SSD or VPU	
		1 x M.2 B-Key (3042/3052) for Wi-Fi & BT (default) or 5G	
	I/O expansion board (Optional)	2 x USB 2.0 Type-A 2 x RS232/RS485	1 x CAN 8 x GPIO
System Control	Button	1 x ON/OFF button	1 x Reset button
	LED	1 x ON/OFF LED indicator	
Software	OS	Windows 10 (IoT)	
Power	Input	1 x Power jack (12V/5A or 24V/3A)	
Mechanical	Dimensions	171mm x 128mm x 38mm (Enclosure only) 196mm x 128mm x 38mm (With bracket)	
	Installation	Wall mounting	DIN rail mounting (Optional)
	Weight	750g	
	Shock test	IEC 60068-2-27	
	Water and dust resistance	IP40	
	Cooling mode	Fanless	
Environment Condition	Temperature	Operating: -20℃~+70℃	Storage: -40℃~+85℃
	Humidity	Operating: 10%~90% RH	Storage: 5%~95% RH
	Certification	EMC 3 Class B, SRRC, RoHs ESD: ±4KV (contact) and ±8KV (air)	

Product Outlines

Ordering Information

Ordering No.	Memory	Storage	Cellular Network	Wi-Fi & Bluetooth
IBOX6425E-L5	4GB	32GB + 256GB (SSD)	5G	-
IBOX6425E-LW	4GB	32GB + 256GB (SSD)	-	Yes
IBOX6425E-H5	8GB	32GB + 256GB (SSD)	5G	-
IBOX6425E-HW	8GB	32GB+ 256GB (SSD)	-	Yes
IBOX6425E	4GB	32GB	-	Yes

* More variants are available, please contact the sales executive for details.

Packing list	
IBOX6425E Embedded industrial computer	1
Wi-Fi & Bluetooth/5G antenna	2/4
Qualified certificate	1

Optional accessories	
12V DC Adapter	1
Power cable	1

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 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 embedded edge intelligent hardware, Vantron has provided users with diverse embedded solutions featuring ARM and X86 architectures. Its offerings range from Linux to Windows, from embedded to desktop level, and from gateway to server. In addition, it provides users with system clipping, driver transplantation and other related services.