IBOX88 Embedded Industrial Computer

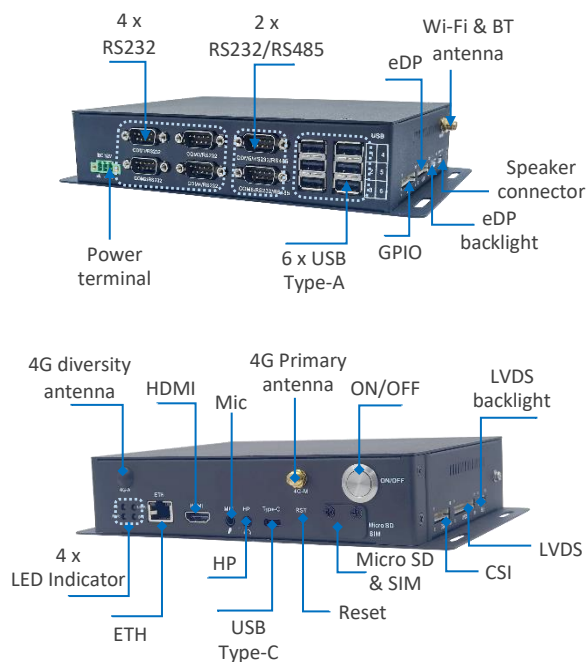

Product Brief

Vantron IBOX88 is an advanced low-power embedded industrial computer launched to meet the challenges of today's Industrial IoT application scenarios. This industrial computer seamlessly integrates wireless cellular network, routing technology, and industrial computer technology, making it a highly versatile and reliable computing solution. It is powered by quad-core ARM-A17 high-performance processor to demonstrate high computing power and performance, perfect for applications in intelligent retailing, new retailing, financial self-service terminals, and various other scenarios. It is also capable of delivering ultra-high-definition video outputs with its hardware decoding of H.265 (HEVC) and 1080p video resolution.

Vantron IBOX88 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. When teaming IBOX88 with Vantron BlueSphere, a self-developed device management platform, users will have better experience in real-time data monitoring, reporting and analysis, remote operation and maintenance of field devices.
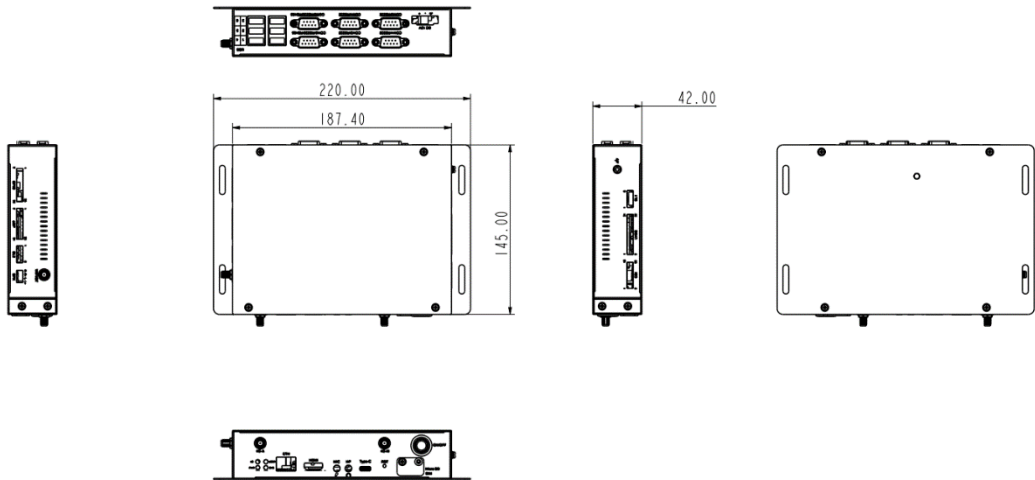
Exterior and Features

IBOX88
Quad-core ARM Cortex-A17 processor
eDP/LVDS/VDD interface for display
6 x USB Type-A, 1 x USB Type-C, 6 x COM
Wi-Fi/BT/4G/ETH for communication
Industrial-grade wide temperature design
Ability to withstand harsh environments
Industrial longevity

IBOX88 Embedded Industrial Computer Datasheet

IBOX88		
System	CPU	Quad-core ARM Cortex-A17 processor, 1.6 GHz (Max.)
	Memory	2GB (Optional: 4 GB)
	Storage	16GB (up to 64GB) 1 x Micro SD slot (up to 128GB)
Communication	Ethernet	1 x RJ45, 10M/100M/1000Mbps
	4G LTE (AT&T, Verizon)	Optional
	Wi-Fi & Bluetooth	Wi-Fi 802.11 b/g/n + BT 4.0
Media	Display	1 x HDMI Type-A 1 x 4-lane eDP, 4K@30Hz, with LCD backlight connector 1 x 8-lane LVDS, 1080P@60Hz, with LCD backlight connector
	Audio	1 x Headphone jack 1 x Mic jack 1 x Speaker connector
	Camera	1 x MIPI CSI-2, 2 x 10 x 2.0mm
I/Os	Serial port	2 x RS485/RS232, DB9 connector 4 x RS232, DB9 connector
	USB	6 x USB 2.0 Type-A 1 x USB 2.0 Type-C (USB OTG supported)
	SIM slot	1 x SIM slot
	GPIO	8 x GPIO, 3.3V
	RTC	Supported
	Watchdog	Supported
Expansion	Mini-PCIe	1 x Mini-PCIe, for 4G LTE module
System Control	Button	1 x ON/OFF button 1 x Reset button
	LED indicator	1 x Power indicator 1 x System indicator 1 x 4G indicator 1 x User defined indicator
Software	OS	Android 10, Linux + QT
	Device management platform	BlueSphere MDM (Android devices only)
	OTA tool	BlueSphere OTA
Power	Input	12V/24V 3A DC (±5%), 3-pin 3.81mm power connector
	Consumption	15W
Mechanical	Dimensions	187.4mm x 145mm x 42mm (Enclosure only) 220mm x 145mm x 42mm (With mounting bracket)
	Weight	1kg
Environment Condition	Temperature	Operating: -20℃~+70℃ Storage: -40℃~+85℃
	Humidity	Operating: RH 5%~95% Storage: RH 5%~95%
	Certification	FCC ESD: ±4KV (contact) and ±8KV (air)

Product Outlines

Ordering Information

Ordering No.	Memory	Storage	Cellular	Wi-Fi & Bluetooth
IBOX88-L4	2GB	16GB	Yes	Yes
IBOX88-H4	4GB	32GB	Yes	Yes
IBOX88-H	4GB	32GB	-	Yes
IBOX88	2GB	16GB	-	Yes

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

Packing list	
IBOX88 Embedded industrial computer	1
Wi-Fi & Bluetooth antenna	1

Optional accessories	
12V DC Adapter	1
Power cord	1
DC power connector	1
4G LTE antenna	2

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 several Fortune 500 companies. Its product lines cover edge intelligent hardware, IoT communication devices, industrial displays and BlueSphere cloud device management platform.

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.