

GB310 Edge Computing Gateway



Product Brief Introduction










GB310 edge computing gateway is equipped with NVIDIA Jetson Xavier NX core module, boasting 21 TOPS real-time reasoning capability with 15W low power consumption. It features small size, flexible installation, rich interfaces, and flexible expansion. Equipped with the LCFC IoT management platform, it makes full use of containerized deployment to achieve flexible and seamless updates. It can manage the model throughout its life cycle to ensure rapid time to market and reduce deployment costs.

GB310 edge computing gateway can be widely used in manufacturing, logistics, retail, services, agriculture, smart cities, healthcare and life sciences, smart machines and other fields. At the same time, it could build, deploy and manage pre-trained AI models from NVIDIA NGC™ by local cloud technology.

Application in smart transportation: contributing to vehicle-road synergy, traffic violation snapshot, smart street light, and smart parking so as to make transportation systems have such abilities as perception, interconnection, analysis, prediction and control, which greatly improve the carrying capacity of the road network, and realizes the optimal allocation of urban resources.

Application in robot services: providing a full set of tools, libraries, GPU-supported algorithms and tutorials with the ISAAC SDK to accelerate the development of robotics applications. Stable and reliable design empowers various mobile robot services in various scenarios, including security inspection robot, cleaning and disinfection robot, delivery service robot, industrial inspection robot.

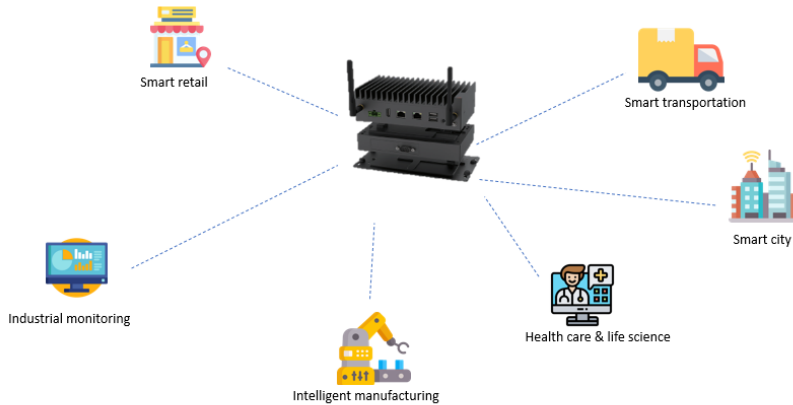
Features and Highlights

GB310	
	NVIDIA Jetson Xavier NX
	Rich interfaces and high scalability
	IP50 protection
	NVIDIA NGC open eco-system
	High computing power
	Low power consumption
	Deep learning acceleration
	Flexible expansion
	Quick upgrade

GB310 Edge Computing Gateway Datasheet

GB310		
System	CPU	NVIDIA Jetson Xavier NX, 6-core NVIDIA Carmel ARM v8.2 64-bit 6MB L2 + 4MB L3
	AI performance	21 TOPS/6 TFLOPS
	GPU	384-core NVIDIA Volta™ GPU with 48 Tensor Cores
	Memory	8GB 128-bit LPDDR4 x @ 1600 MHz 51.2GB/s
	Storage	16GB eMMC 5.1 1 x TF slot
Communication	Ethernet	2 x Gigabit Ethernet
	Wi-Fi	Supported
	4G LTE/5G	Supported
Media	Video encode	2 x 4K @ 30 (HEVC) 6 x 1080p @ 60 (HEVC)
		2 x 4K @ 60 (HEVC)
	Video decode	12 x 1080p @ 60 (HEVC) 32 x 1080p @ 30 (HEVC)
I/Os	USB	2 x USB 3.0
	Display	1 x HDMI Type A
	Media	2 x MIPI (CSI)
	Button	1 x Power button
		1 x Recovery button
	Serial	1 x RS232/RS422/RS485
	CAN	1 x CAN
	GPIO	4 x GPIO
	BUS	1 x 30-pin I/O (GPIO/I ² S/I ² C/Audio/SPI/UART)
	User expansion	1 x Mini-PCIe or 1 x M.2 E-Key 2230 for Wi-Fi
M.2 M-key 2280 NVME (PCIe)		
M.2 B-Key for LTE/5G		
	1 x Nano SIM Socket	
Mechanical	Dimensions	189mm x 96.7mm x 57.5 mm
	IP rating	IP50
	Net weight	1.2 kg
Power	Input	12-24V DC
Environment Condition	Temperature	Operating: -20°C ~ 60°C CPU/GPU full loaded operation - 20°C ~ 75°C frequency reduction operation
		Storage: -40°C ~ 70°C
	Humidity	RH 5%~90% @ 40°C (Non-condensing)
	Operation vibration	3 Grms, 5~500Hz
	Certification	CCC, RoHS, SRRC

Application Scenarios



Order Information

Order Info	GB310
-X	- 1: Mini-PCIe for Wi-Fi - 2: M.2 E-Key 2230 for Wi-F
-XX	- x0: Without wide temperature SSD - x1: With wide temperature SSD
Example	GB310-11: Mini-PCIe for Wi-Fi, 1 x Wide temperature SSD

Company Profile

Since 2002 established by two Silicon Valley entrepreneurs, Vantron Technology has been a pioneer in connected IoT devices and IoT platform solutions. Today, Vantron serves countless customers all over the world, some of them are Fortune 500 companies. Products lines cover edge intelligent hardware, IoT communication devices, industrial displays and BlueSphere cloud device management platform.

Vantron has 20 years of experience in R&D of embedded edge intelligent hardware like SOM board and motherboard, and provided users with various embedded solutions with ARM and X86 architecture. From Linux to Windows, from embedded to desktop level, from gateway to server. At the same time, we provide our users with system clipping, driver transplantation and other services.

Vantron IoT communication devices support multi-protocol connection of industrial equipment, edge computing of local data. Abundant wired and wireless connectivity make remote operations and maintenance possible. From electricity and transportation to smart retail, medical and warehousing, Vantron IoT communication device can be deployed anywhere in any business section. Vantron believes its IoT solution to help many companies finish their digital transformation, efficiency of manufacturing and productivities have been improved significantly.

Vantron industrial display systems, ARM and X86 series, are equipped with Rockchip, NXP, MediaTek, Intel and other high-performance processors. It supports various operating systems such as Windows, Linux, and Android. Diverse wireless communications keep your device online all the time. Multiple installation methods make it suitable for a variety of application scenarios. Features like waterproof, dustproof, shatter resistant guarantee the best performance in any environment.

Vantron BlueSphere device management platform, a software product, is playing a big role in Vantron overall IoT solution. Today, Vantron puts more focus on offering complete cost effective, leading-edge yet reliable solutions to help customers carry out their visions.