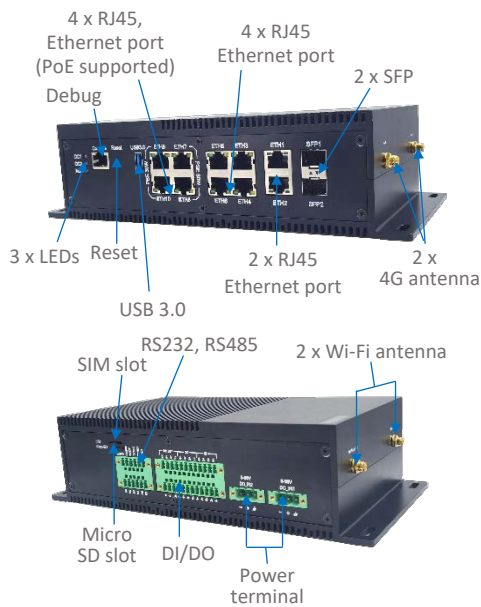# G43A Industrial Edge Computing Gateway

▬ Product Brief Introduction

Vantron G43A industrial edge computing gateway is an industry-specific high-performance gateway launched by Chengdu Vantron Technology Co., Ltd. to meet the needs of intelligent street lighting that adapts to movement by pedestrians, cyclists and cars in a smart city. It supports 4G/NB-IoT, Ethernet, Wi-Fi, and bluetooth to live up to diversified networking requirements. Its edge computing functionality helps to achieve data optimization at IoT edge nodes, which reduces the data volume accumulated in the field and the central console.

As part of its industrial-grade design, the gateway supports 9V-36V wide voltage input. Customers also have the option to enable the PoE function that delivers electrical power to devices through the Ethernet cable.

▬ Exterior and Features

G43A
ARM Cortex-A53, quad core, 1.6GHz
2 x SFP, 10 x RJ45 Ethernet port
Sufficient interfaces
Local edge computing supported
Wide input voltage range
Industrial-grade design

Labels on device diagrams:
- 4 x RJ45, Ethernet port (PoE supported)
- Debug
- 4 x RJ45 Ethernet port
- 2 x SFP
- 3 x LEDs
- Reset
- 2 x RJ45 Ethernet port
- 2 x 4G antenna
- USB 3.0
- RS232, RS485
- 2 x Wi-Fi antenna
- SIM slot
- Micro SD slot
- DI/DO
- Power terminal

G43A Industrial Edge Computing Gateway Datasheet

G43A		
System	CPU	ARM Cortex-A53, quad core, 1.6GHz
	Memory	4GB DDR4 (Optional: 2GB)
	Storage	32GB eMMC 1 x Micro SD card
Communication	Ethernet	8 x RJ45, 100Mbps (4 supporting PoE) 2 x RJ45, 1000Mbps 2 x SFP (Ethernet Ring Protection protocol supported)
	Wi-Fi &BT	2.4GHz/5GHz Wi-Fi + BT5.0
I/Os	Serial port	3 x RS485 2 x RS232/RS485
	DI/DO	8 x DI/DO
	USB	1 x USB 3.0
	SIM slot	1 x SIM slot
	Grounding	Enclosure & PCB
Expansion	Mini-PCIe	1 x Built-in mini-PCIe, for 4G/NB-IoT
System Control	Button	1 x Reset pin button
	LED	2 x Power indicator 1 x System running indicator
Mechanical	Dimensions	226.4 x 68 x 103mm
	Installation	Wall mount/Panel mount
Software	OS	Linux (CentOS or Debian 10)
	Power	2 x 9V-36V Power terminal, redundant power source supported
Environment Condition	Temperature	Operating: -40℃~+80℃

Product Outlines
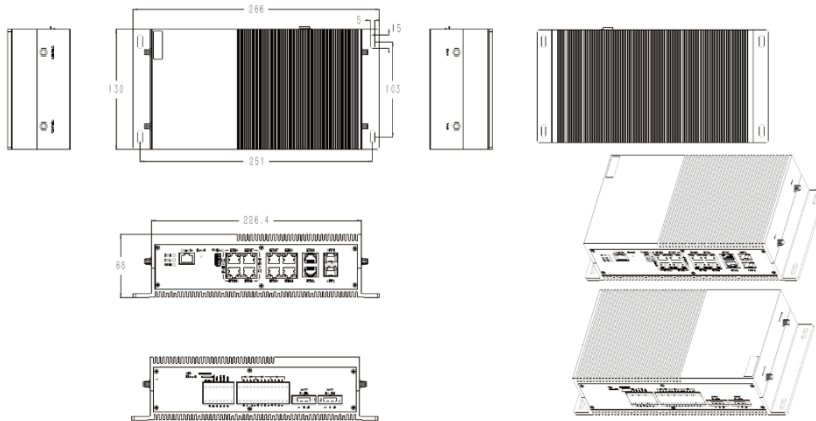
Accessories and Order Information

Accessories	
G43A	Power Adapter: 1 pc
	Power Cable: 1 pc
	Wi-Fi & Bluetooth antenna (Optional): 1pc
	4G/NB-IoT antenna (Optional): 2pcs
	Wall mount bracket (Optional): 1pc

Order Info	G43A
-x	-1: 2GB DDR4 / -2: 4GB DDR4
-xx	-x1: 4G module / -x2: NB-IoT module
-xxx	-xx1: Wall mount / -xx2: Panel mount
Example	G43A-211: 2GB DDR4, 4G module, DIN rail mount

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.