

C335 Series

Edge Computing Gateways



Product Brief Introduction

Vantron C335 series industrial edge computing gateways were launched to meet the needs of IIoT applications in various industrial scenarios. This series is powered by high-performance low-power industrial ARM processors. The gateways offer large storage capacity, rich interfaces, and run on the self-developed VantronOS.

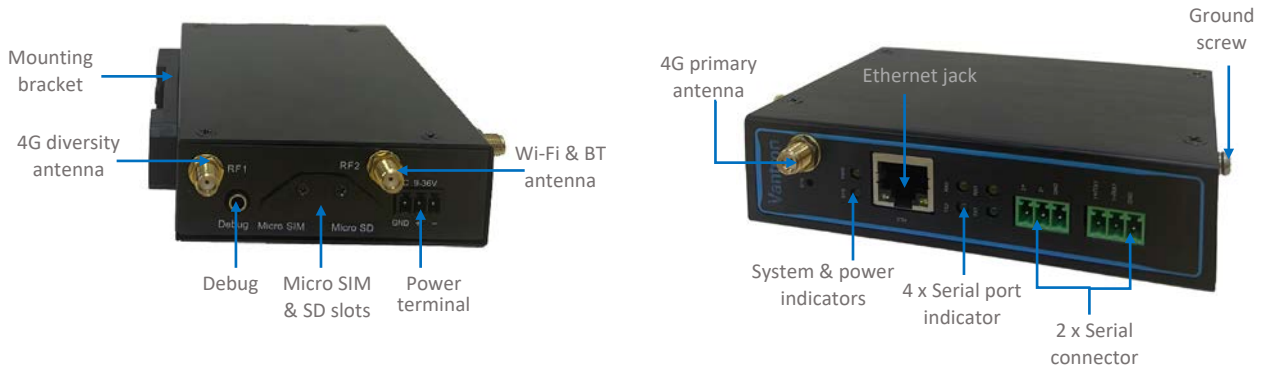
This series supports a variety of southbound protocols to allow data collection from field industrial devices such as PLCs, actuators, sensors, etc. The edge computing feature helps to achieve data optimization at IoT edge nodes, which reduces the data volume accumulated in the field and alleviates the bandwidth pressure. The gateways also support standard MQTT and other northbound protocols for data uploading to the cloud to improve productivity. The gateways may interface with Vantron BlueSphere GWM for remote and centralized management that eases the efforts of users and reduces device shutdown, therefore facilitating the digital transformation of factories.

Exterior and Features

Shared features	
	Low-consumption, high-performance ARM processor
	Sufficient industrial interfaces
	Wired and wireless network accesses
	Multiple industrial protocols supported for communication with field PLCs, etc.
	MQTT protocol supported for data uploading to the cloud
	Local edge computing
	C/C++/Python/Node-js/Node-Red supported
	Complete industrial design
	Compact size and flexible installation to meet requirements of varying sites

Comparison	C335L	C335	C335S
CPU	TI, AM335x, ARM Cortex-A8, 600MHz	TI, AM335x, ARM Cortex-A8, 600MHz	TI, AM335x, ARM Cortex-A8, 1GHz
Memory	512MB	1GB	1GB
Ethernet	1 x RJ45, 10/100Mbps	2 x RJ45, 10/100Mbps	6 x RJ45 (1 for debug), 10/100Mbps
LTE & Wi-Fi & Bluetooth	Mini PCIe for LTE CAT 4/ CAT M On-board Wi-Fi 802.11 a/b/g/n/ac & BT 5.0	Mini PCIe for either LTE CAT 4/ CAT M or Wi-Fi 802.11 a/b/g/n & BT 4.0	Mini PCIe for LTE CAT 4/ CAT M On-board Wi-Fi 802.11 a/b/g/n/ac & BT 5.0
Serial port	1 x RS485 1 x RS232/RS485	3 x RS485 1 x RS232/RS485	3 x RS485 1 x RS232/RS485
DI	NA	NA	4 x Digital input
AI	NA	NA	2 x Analog input

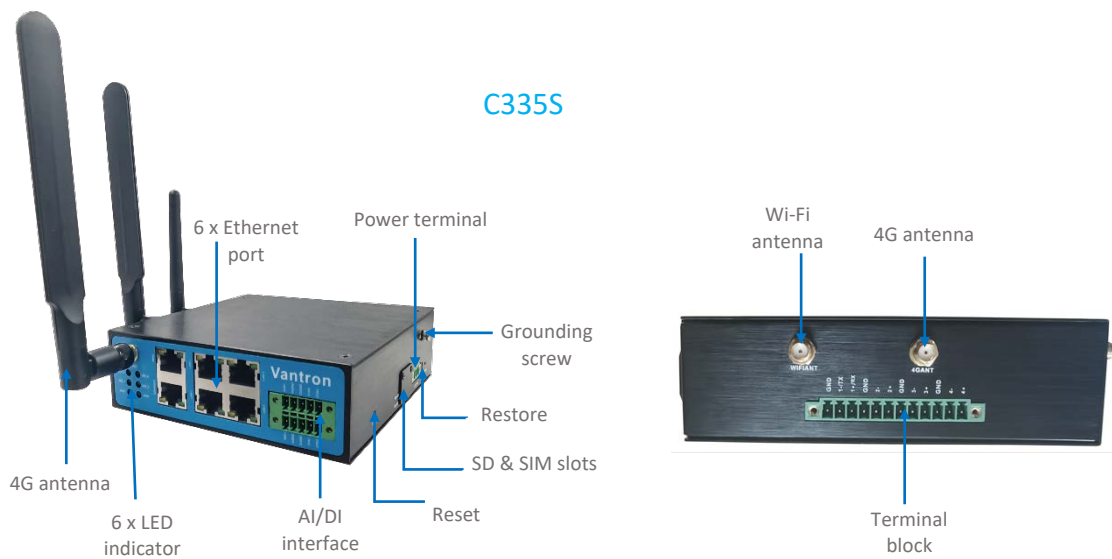
C335L



C335



C335S



C335 Series Edge Computing Gateways Datasheet

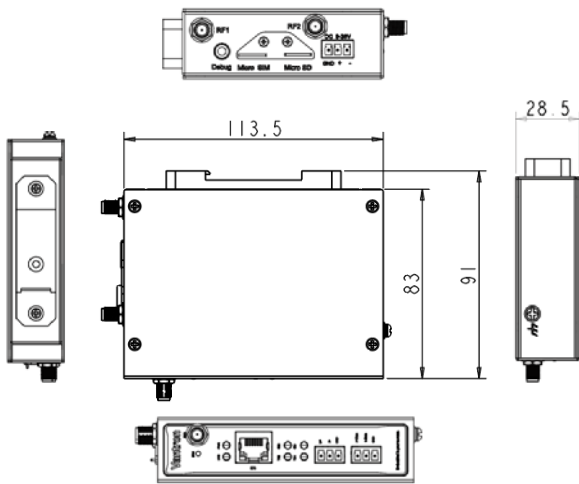
Model		C335L	C335	C335S	
System	CPU	TI, AM335x, ARM Cortex-A8, 600MHz	TI, AM335x, ARM Cortex-A8, 600MHz	TI, AM335x, ARM Cortex-A8, 1GHz	
	Memory	512MB	1GB	1GB	
	Storage	8GB, up to 64GB 1 x Micro SD card	8GB, up to 64GB 1 x Micro SD card	8GB, up to 64GB 1 x Micro SD card	
Communication	Ethernet	1 x RJ45, 10/100Mbps	2 x RJ45, 10/100Mbps	6 x RJ45 (1 for debug), 10/100Mbps	
	4G LTE & Wi-Fi & Bluetooth	Mini PCIe for LTE CAT 4/ CAT M module (AT&T, Verizon) On-board Wi-Fi 802.11 a/b/g/n/ac & BT 5.0	Mini PCIe for either LTE CAT 4/ CAT M module (AT&T, Verizon) or Wi-Fi 802.11 a/b/g/n & BT 4.0 module	Mini PCIe for LTE CAT 4/ CAT M module (AT&T, Verizon) On-board Wi-Fi 802.11 a/b/g/n/ac & BT 5.0	
I/Os	Serial port	1 x RS485, 1 x RS232/RS485 (Default)	3 x RS485, 1 x RS232/RS485 (Default)	3 x RS485, 1 x RS232/RS485 (Default)	
	DI	NA	NA	4 x Digital input	
	AI	NA	NA	2 x Analog input	
	SIM slot		1 x Drawer-type SIM slot		
	Grounding		Enclosure & PCB		
	RTC	Separate RTC chip, powered by button cell	Separate RTC chip, powered by button cell	Separate RTC chip, powered by system or button cell	
	GPIO	4 x GPIO (Optional)	4 x GPIO (Optional)	4 x GPIO	
System Control	Button	1 x Reset button	1 x Reset button 1 x Renew button	1 x Reset button 1 x Restore button	
	LED indicator	1 x Power indicator 1 x System status indicator 4 x Serial port status indicator	1 x Power indicator 1 x System status indicator 8 x Serial port status indicator	1 x Power indicator 1 x System status indicator 4 x Serial port status indicator	
	Dimensions	113.5mm x 82mm x 28.5mm	125mm x 110mm x 30mm	132mm x 124mm x 40mm	
Mechanical	Enclosure		Metal		
	Installation		DIN rail mounting		
	IP rating		IP30		
	Heat dissipation		Fanless		
Power	Input	9-36V DC, over-current protection, reverse polarity protection	12-48V DC, over-current protection, reverse polarity protection	12-48V DC, over-current protection, reverse polarity protection	
	Terminal	3-pin 3.81mm terminal	3-pin 3.81mm terminal	3-pin 3.81mm terminal	
Software	OS		VantronOS		
	Ethernet port protocol		PPP, PPPoE, DHCP, ARP		
	Custom development		SDK available, C/ C++/ Python/ Lua/ Node.js/Java/ Node-Red supported		
	Device management platform		Vantron BlueSphere GWM		
	Northbound protocol		MQTT/ HTTPS		
	Edge computing script		JavaScript, MicroPython		
	Southbound protocol		Modbus TCP, Modbus RTU, EtherNet/IP, ISO-on-TCP, CC-link, etc.		
	IPK import		Supported		
	Log		Supported		
	Configuration mode		Local, remote		
Upgrade	Local, OTA update	Local, OTA update	OTA update		
Network	NAT		Supported		
	Network management		SNMP v1/v2c/v3		
	NTP		Supported		
	IP application		Ping, Traceroute, Nslookup		
Routing		Static routing			

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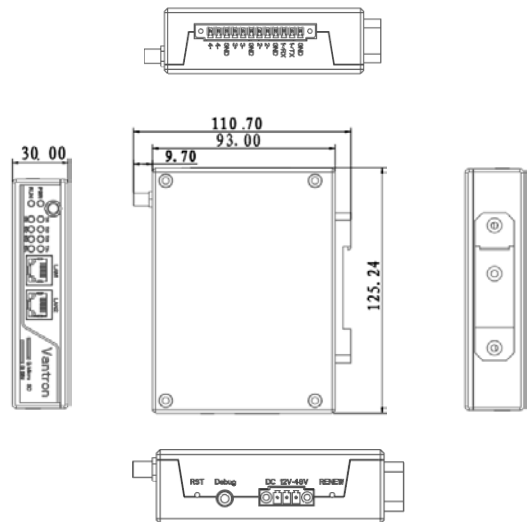
Model	C335L	C335	C335S	
Security & Reliability	Firewall	SYN-flood protection, port forwarding, custom rules		
	VPN	OpenVPN, L2TP, PPTP, IPSec		
	Link detection	Heartbeat detection, automatic re-connection		
	Network reliability	Failover supported, link backup between Ethernet, Wi-Fi and 4G/LTE		
	Multi-level permission	Supported		
Environment Condition	Temperature	Operating: -20°C ~ +70°C Storage: -30°C~+85°C	Operating: -20°C ~ +70°C Storage: -30°C~+85°C	Operating: -20°C ~ +70°C (Optional: -20°C~+85°C) Storage: -40°C~+85°C
	Humidity	RH 5%-95%		
	Certification	CE, FCC, PTCRB		

Product Outlines

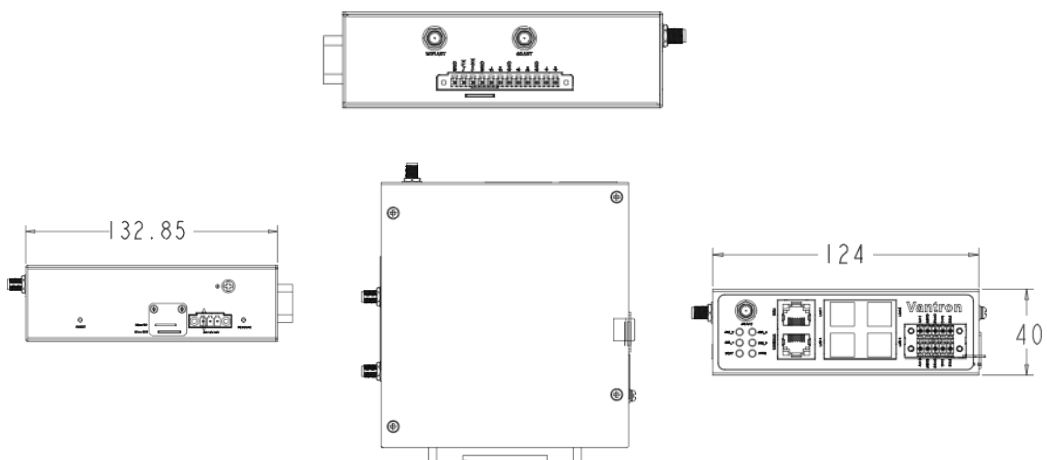
C335L



C335



C335S



Ordering Information

Ordering No. (C335L)	4G LTE	LTE Antenna	Wi-Fi Antenna	DIN rail mounting bracket
C335L-FMNA	CAT M	Yes	Yes	Yes
C335L-F4NA	CAT 4	Yes	Yes	Yes
C335L	-	-	Yes	Yes

Ordering No. (C335)	4G LTE	LTE Antenna	Wi-Fi Antenna	DIN rail mounting bracket
C335-FMNA	CAT M	Yes	-	Yes
C335-F4NA	CAT 4	Yes	-	Yes
C335-WLAN	-	-	Yes	Yes
C335	-	-	-	Yes

Ordering No. (C335S)	4G LTE	LTE Antenna	Wi-Fi Antenna	DIN rail mounting bracket
C335S-FMNA	CAT M	Yes	Yes	Yes
C335S-F4NA	CAT 4	Yes	Yes	Yes
C335S	-	-	Yes	Yes

Packing list (C335L/C335S)	
C335L/C335S Edge computing gateway	1
DIN rail mounting bracket	1
Wi-Fi antenna	1

Optional Accessories (C335L/C335S)	
12V DC Adapter	1
DC power connector	1
4G LTE antenna	2

Packing list (C335)	
C335 Edge computing gateway	1
DIN rail mounting bracket	1

Optional Accessories (C335)	
12V DC Adapter	1
DC power connector	1
4G LTE/Wi-Fi antenna	1

Since 2002 established by two Silicon Valley entrepreneurs, Vantron Technology has been a pioneer in connected IoT devices and IoT platform solutions. Today, Vantron is serving customers all over the world, including many Global Fortune 500 companies. The product lines cover intelligent edge hardware, IoT communication devices, industrial displays and the cloud-based BlueSphere device management platform.

Vantron offers IoT communication devices that facilitate multi-protocol connections for industrial equipment and local data processing through edge computing. With abundant wired and wireless connectivity options, remote operations and maintenance have become easier than ever. Such devices can be deployed across different sectors such as smart retail, medical and warehousing. Vantron IoT solutions are designed to facilitate enterprises' digital transformation, streamline operations, and enhance productivity.