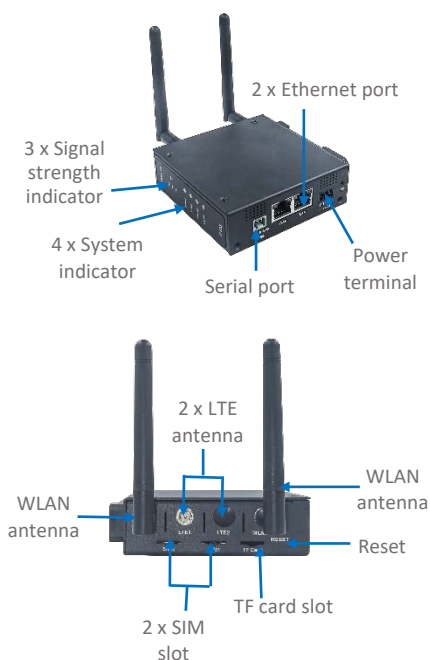# R102 Industrial Router

Product Brief Introduction

Vantron R102 industrial wireless router is designed for industrial IoT that combines dual SIM LTE, Wi-Fi, Ethernet, and virtual private network to meet diversified networking requirements. R102 industrial router applies a communication tactic that uses multiple channels with failover protocol, which together with the high-reliability watchdog maintains a secure and stable network access. As is compact in size, R102 supports panel mount, DIN rail mount, and wall mount to meet the requirements of varying sites. Meanwhile it provides access to Vantron BlueSphere cloud platform for unified management to ease the efforts of users by real-time monitoring and tracking, remote maintenance and OTA updates, task assignment and follow-up.

Featuring high stability and reliability, excellent cost performance, and convenient networking deployment, Vantron R102 industrial router is especially suitable for large-scale distributed networking in the following scenarios:

Intelligent business: parcel lockers, meal delivery cabinets, charging piles, ATM machines, digital signages, etc.;

Smart city: supply of heat, water, gas, oil etc.;

Intelligent security and intelligent transportation;

Monitoring of cranes and other devices on construction sites;

Monitoring of environmental protection devices, water conservancy devices etc.
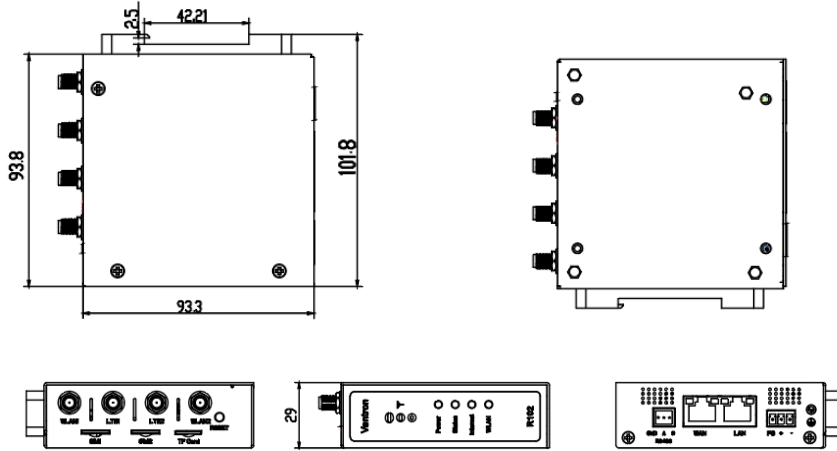
Exterior and Features

R102
LTE CAT M/4 supported
Two Ethernet interfaces rating 10/100Mbps
Industrial design to adapt to rugged conditions
Compact size and flexible installation for varying sites
Interfacing to BlueSphere cloud platform for remote management
Dual SIM hot spot, multi-channel failover to keep communication uninterrupted
Multiple VPN functions

2 x Ethernet port

3 x Signal strength indicator

4 x System indicator

Serial port

Power terminal

2 x LTE antenna

WLAN antenna

WLAN antenna

Reset

TF card slot

2 x SIM slot

R102 Industrial Router Datasheet

R102		
System	Memory	128MB
	Storage	32MB
Communication	Ethernet	2 x RJ45, 10/100Mbps
	Wi-Fi	2.4GHz, IEEE 802.11 b/g/n, 300Mbps, AP & Client
	4G LTE	CAT M/4
	WAN protocol	PPP, PPPoE, DHCP
I/Os	Serial port	1 x RS485
	SIM slot	2 x Drawer-type SIM slot
	Antenna	2 x LTE antenna, 2 x Wi-Fi antenna
	Grounding	Enclosure & PCB
System Control	Reset button	1 x Reset button
	LED indicator	3 x Signal strength indicator 1 x Power indicator 1 x Status indicator 1 x Internet indicator 1 x WLAN indicator
Mechanical	Dimensions	93.8mm x 93.3mm x 29mm
	Enclosure	Metal
	Installation	DIN rail mounting
	IP rating	IP30
	Cooling mode	Fanless
Power	Input	9-36V DC, over-current protection, reverse polarity protection
Software	OS	VantronOS
	Network management	SNMP v1/v2c/v3
	Device management platform	BlueSphere GWM
	Configuration method	Local configuration via the console port, remote configuration via WAN port
	Link detection	Heartbeat detection, automatic reconnection
	Network reliability	Failover between Ethernet, Wi-Fi, 4G LTE
	Dual SIM	Dual SIM failover, automatic switch
	IP application	Ping, Traceroute, DHCP Server/Client, DDNS
	IP Routing	Static routing
	NAT	Static and dynamic,
Security	Firewall	Supported (Stateful)
	Data security	PPTP, IPSec, OpenVPN
	Wi-Fi related	64/128 bits WEP, tkip, WPA, WPA2, WPA3, AES, WPS
Environment Condition	Temperature	Operating: -20℃~+60℃ Storage: -40℃~+70℃
	Humidity	Storage: RH 5%~95% (non-condensing)
	Certification	FCC, IC, PTCRB, AT & T, Verizon, T-Mobile, UL, SRRC

Product Outlines

Ordering Information

Identifier	4G/LTE	LTE Antenna	Wi-Fi Antenna	DIN rail mounting bracket
R102-FMNA	CAT M	Yes	Yes	Yes
R102-F4NA	CAT 4	Yes	Yes	Yes
R102	-	-	Yes	Yes

Packing list	
R102 Industrial router	1
DIN rail mounting bracket	1
Wi-Fi antenna	2

Optional Accessories	
12V DC Adapter	1
Power cable	1
4G LTE antenna	2

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.

With more than 20 years of experience in R&D of embedded intelligent edge hardware like SOMs and motherboards, Vantron provides users with various ARM- or X86-based embedded solutions. Such solutions provide users with flexible options, from Linux to Windows, from embedded level to desktop level, from gateways to servers. In the meantime, we also offer system clipping, driver transplantation and other services for custom development.