R105 Industrial Router

Product Brief Introduction

Vantron R105 industrial router offers different options for industrial IoT connectivity, including cellular, Wi-Fi, Ethernet, and virtual private network to meet diversified networking requirements. It offers the mid- and high-speed CAT 4 cellular networks with major carriers supported. It implements 5 gigabit Ethernet jacks, including 1 LAN port that offer PoE option to supply up to 30W of power to client devices. With Wi-Fi IEEE 802.11 b/g/n/ac supported, R105 offers IEEE 802.11ax (Wi-Fi 6) as an option to customers to meet higher communication needs.

R105 industrial router supports multi-channel failover to maintain secure and stable network access. In BlueSphere GWM, a web-based cloud platform for centralized management of mass routers and gateways, you can further configure and manage the router remotely. R105 is very suitable for application in industrial automation, smart home, smart city, etc.

Exterior and Features

R105
5 Ethernet jacks rating 10/100/1000Mbps
Cellular and Wi-Fi wireless communication
Industrial design to adapt to rugged conditions
Compact size and flexible installation for varying sites
Interfacing with BlueSphere GWM for remote management
Dual SIM hot spot, multi-channel failover
Improved data security

(1): 4 x LED indicator (Net, WLAN, SYS, PWR)
(2): Cellular signal strength indicators
(3): Console port
(4): WAN
(5): 4 x LAN
(6): 2 x SIM slot

(7): DIN rail mounting bracket
(8): WLAN antenna 1
(9): Secondary 4G antenna
(10): Primary 4G antenna
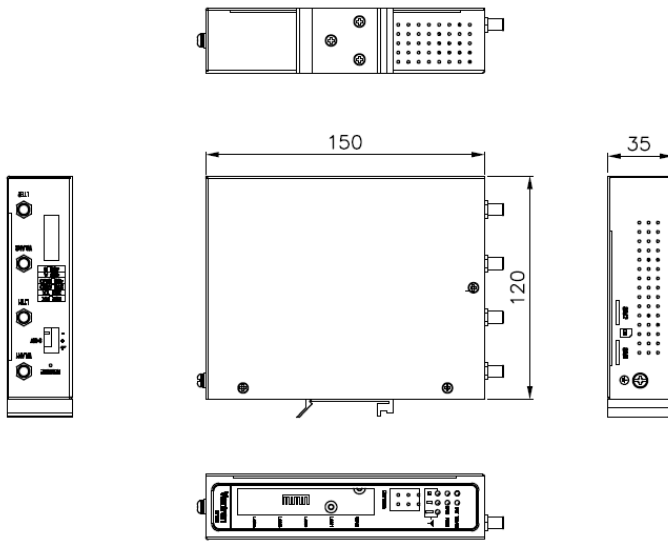(11): WLAN antenna 2
(12): Power terminal
(13): 1 x RS232, 1 x RS485

R105 Industrial Router Datasheet

		R105	
Communication	Ethernet	5 x RJ45, 10/100/1000Mbps (1 x WAN & 4 x LAN, PoE optional, 30W output)	
	Wi-Fi	2.4GHz & 5GHz, IEEE 802.11 b/g/n/ac, AP & Client Optional: Wi-Fi 6, IEEE 802.11 b/g/n/ac/ax	
	4G LTE	CAT 4, multi-carrier supported	
	WAN protocol	PPP, DHCP	
I/Os	Console	1 x Console for local configuration	
	Serial port	1 x RS485, isolated 1 x RS232, isolated	
	SIM slot	2 x SIM slot	
	Antenna (SMA conn.)	2 x LTE antenna	2 x Wi-Fi antenna
	Grounding	Enclosure & PCB	
	Power in	1 x 3.81mm Phoenix terminal block	
System Control	LED indicator	3 x Cellular signal strength indicator 1 x Power indicator 1 x System indicator	1 x Internet indicator 1 x WLAN indicator
	Button	1 x Pinhole reset button	
Mechanical	Dimensions	150mm x 120mm x 35mm	
	Enclosure	Metal	
	Installation	DIN rail mounting, panel mounting, wall mounting	
	IP rating	IP30	
	Drop test	6 ft. drop test	
	Cooling mode	Fanless	
Power	Input	9-36V DC, over-current protection, reverse polarity protection	
Software	OS	VantronOS	
	Network management	SNMP v2c/v3	
	Networking protocol	IPV4, HTTPS, TCP & UPD, NTP client and server, ARP, TLS	
	VLAN	Supported	
	Device management platform	BlueSphere GWM	
	Link detection	Heartbeat detection, automatic re-connection	
	Device log	Retrievable	
	Network reliability	Multi-channel failover, backup 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, dynamic routing	
	NAT	Supported	
Security	Firewall	Supported (Stateful)	
	Access control	MAC address, IP address	
	Data security	PPTP, L2TP, GRE, IPSec, OpenVPN	
	Wi-Fi security	64/128-bit 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	

Product Outlines

Ordering Information

Identifier	4G/LTE	LTE Antenna	Wi-Fi Antenna	PoE	Wi-Fi	DIN rail mounting
R105-F4NA	CAT 4	Yes	Yes	-	Wi-Fi 5	Yes
R105-F4NA-PW6	CAT 4	Yes	Yes	Yes	Wi-Fi 6	Yes

Packing list	
R105 Industrial router	1
DIN rail mounting bracket (attached)	1
Wi-Fi antenna (rubber stick)	2
4G LTE antenna (rubber stick)	2

Optional Accessories	
12V DC Adapter and power cord	1
DC Power connector	1
4G LTE antenna (magnetic sucker)	2
Wall mounting bracket	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.