

R2 Entry-Level 5G Industrial Router

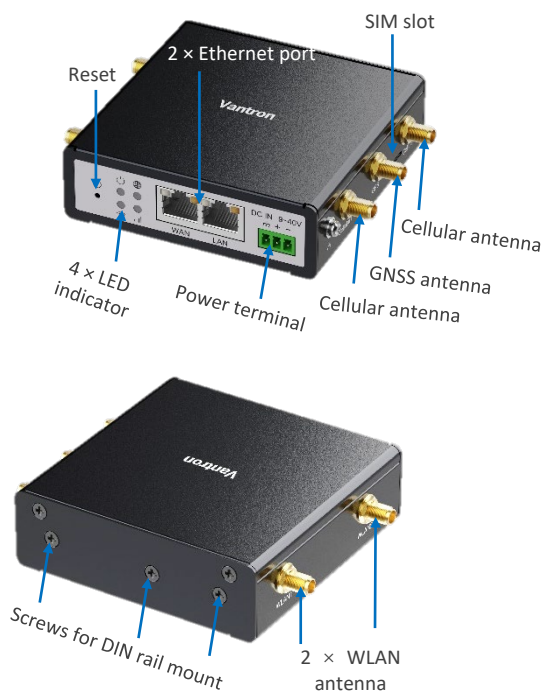


Product Brief

The R2 is a cost-effective, entry-level router built for industrial IoT use cases. Powered by a dual-core ARM Cortex-A53 platform, it is equipped with 512MB DDR3L RAM and 256MB SPI NAND Flash. While providing dual Gigabit Ethernet ports and 2.4 GHz Wi-Fi 6 (802.11ax) for local connectivity, it supports 5G RedCap connectivity as standard, with an option for a reduced-function variant. The cellular module integrates GNSS positioning capability. On the hardware layout, eSIM circuit is reserved as an optional upgrade, enabling future migration from physical SIM to embedded SIM without major board redesign.

The router supports wide-range 9–40V DC power input and operating in the -20°C~60°C temperature range. Its support for hardware watchdog and local reset button further improves long-term fleet stability.

Exterior and Features

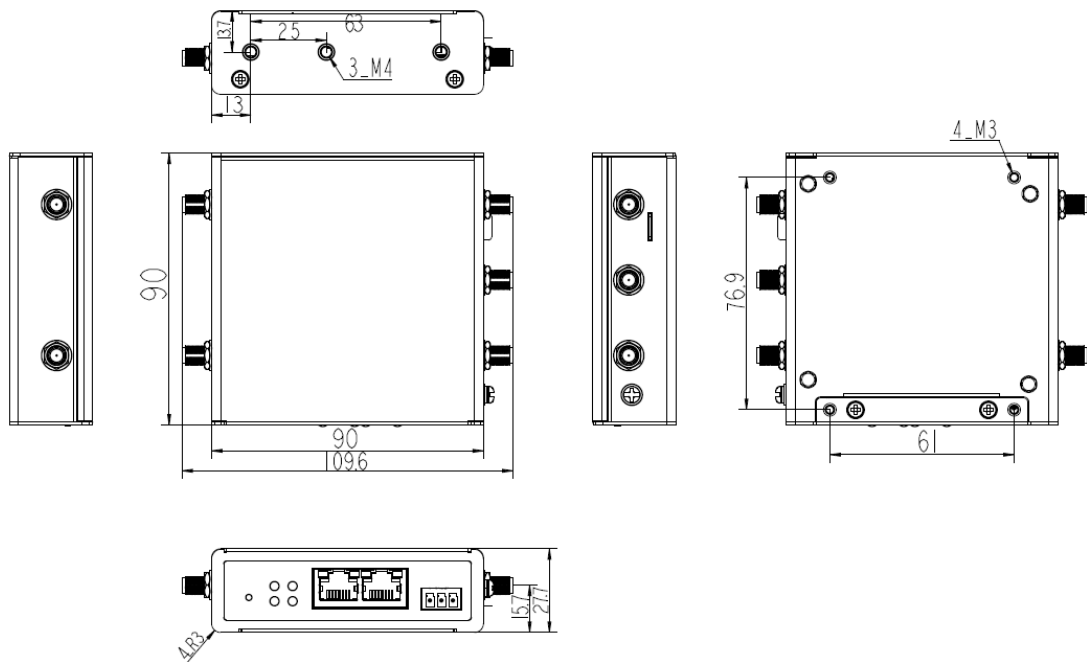


- ❖ 512MB memory, 256MB storage
- ❖ Dual Ethernet ports rating 10/100/1000Mbps
- ❖ 2.4GHz Wi-Fi 6, 5G RedCap
- ❖ Hardware eSIM support, GNSS on cellular module
- ❖ Static routing, NAT, port forwarding, ACL control, VPN
- ❖ Wide input voltage range supported
- ❖ Optional BlueSphere GWM support for remote control
- ❖ Low power, complete industrial design
- ❖ Compact size, flexible installation for varying deployment sites

Specifications

R2			
System	CPU	Dual-core ARM Cortex-A53 processor, up to 1GHz	
	Memory	512MB DDR3L	
	Flash	256MB SPI NAND Flash	
Ethernet	Port	2 × RJ45, 10/100/1000Mbps	
	Configuration	1 × WAN + 1 × LAN	
Cellular	Modem	5G RedCap	
	Frequency Band	SA: n1/2/3/5/7/8/12/13/14/18/20/25/26/28/30/38/40/41/48/66/70/71/77/78	
	Antenna	2 × Antenna (SMA-K connector)	
	SIM	1 × Nano SIM slot	
	eSIM	Hardware reserved for eUICC (eSIM)	
Wi-Fi	Standard	IEEE 802.11b/g/n/ac/ax	
	Frequency Band	2.4GHz	
	Peak PHY Rate	Up to 573Mbps	
	Working Mode	AP, Station; Supported function: Guest Wi-Fi	
	Antenna	2 × Antenna (RPSMA-K connector)	
GNSS	Constellation	BDS, GPS, GLONASS, Galileo	
	Antenna	1 × Antenna (SMA-K connector)	
System Control	LED Indicator	1 × Power LED	1 × System LED
		1 × Cellular LED	1 × WLAN LED
	Button	1 × Restore pinhole button ([2, 6s): Restart; [6, 12s): Configuration clear; [12, 20s): Factory reset; [20s,+∞): Normal operation)	
Power	Input	9~40V DC	
	Socket	1 × 3-pin × 3.81mm	
	Protection	Over-current protection, reverse polarity protection	
Mechanical	Dimensions	109.6mm × 90mm × 27.7mm	
	Installation	DIN rail mounting, wall mounting	
	Cooling mode	Fanless	
Software	Operating System	VantronOS	
	Routing	Static routing	
	Network Forwarding	NAT, port forwarding	
	Network Security	Layer 3 ACL, IPsec VPN support	
	Link Probe	Target: IP, URL	Protocols: ICMP, TCP, HTTP
	QoS	IP-layer traffic rate limiting	
	Remote Management	Vantron BlueSphere GWM (Optional)	
Environmental Condition	Temperature	Operating: -20°C~+60°C	Storage: -40°C~+85°C
	Humidity	Storage: 5%~96% RH (Non-condensing)	
Certification	Compliance	FCC, CE, ISED	
	Carrier Certification	AT & T, Verizon, T-Mobile	

Mechanical Outline



Ordering Information

Ordering No.	Memory	Storage	Wi-Fi	Cellular
R2-ETL1	512MB	256MB	2.4GHz Wi-Fi 6	5G RedCap
R2-ET01	512MB	256MB	2.4GHz Wi-Fi 6	-

* More variants are available, please contact the sales executive for details.

Packing List	
R2 industrial router	1
Wi-Fi antenna	2
Cellular antenna	2
GNSS antenna	1
DC Power connector (Female)	1

Optional Accessories	
12V DC Power adapter	1
Power cable	1
DIN rail mount	1