

# EDGE-R series Industrial Wireless Routers

specifications Product Specification

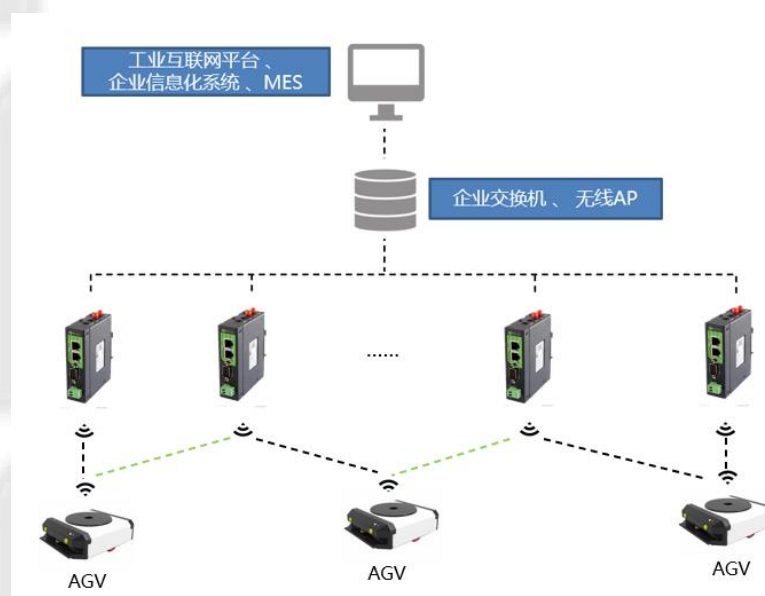


## ● Product Description

The EDGE-R series is a new wireless industrial routing product for the industrial internet and IoT. The product combines different versions that can support broadband network and WiFi network connection services to ensure the target devices fulfill industrial internet applications such as network access, protocol resolution, and data interconnection.

The product provides standard industrial wireless networking solutions for typical industrial wireless dispatching scenarios of various types AGV vehicle scheduling solutions to meet the user's on-site wireless AP roaming enhancement needs, and at the same time support dual-frequency WIFI networking to achieve on-site 2.4GHz and 5GHz dual-frequency AP networking scheduling solutions for matching applications, suitable for intelligent manufacturing, warehousing and logistics, transportation, electric power and other industries.

## ● Application Framework





EDGE-R08xx series industrial routing products adopt embedded design, the products are safe and stable. It can work in the customer's site for a long time. The device connects with vehicle control system through LAN, RS232 or RS485 port, transmits data to enterprise management system through industrial wireless network, realizes industrial site AGV scheduling networking, command control and data return, effectively reduces the work intensity of material distribution and feeding personnel, and interfaces with production management system to efficiently realize on-site logistics JIT, improve the ability to guarantee operational continuity, and help to steadily improve production efficiency. Stable improvement of production efficiency.

#### ● **Product Function**

- Embedded design, the product is safe and stable, and ensures the uninterrupted operation for 7\*24h;
- Wide voltage DC10~30V input, support over-current and reverse connection protection;
- Adopts WiFi6 and Ethernet network communication;
- Supports 2x2MIMO, which enables AP to communicate with multiple terminals at the same time;
- Has omni-directional antenna, supports full-network data transmission, and meets most of the usage scenarios in industrial sites;
- Has Gigabit Ethernet port, supports 1 WAN port and 1 LAN/WAN port;
- Supports 2.4G and 5G dual-antenna band SMA interface;





- Supports 1 RS232 and 1 RS485;
- Has Reload button, which can be long-pressed to restore the factory settings of the device;
- Has LED indicators for power, system operation status and WiFi networking status;
- Has rich routing functions, supports VLAN, and supports local Web configuration management page, which can be easily viewed and configured for industrial routing;
- Supports seamlessly roam, switching time <100ms;
- Supports both AP and STA WiFi modes, and as an AP, it can support more than 8 clients to connect;
- Supports multiple client WiFi connection encryption: PSK /TKIP/AES encryption, WEP encryption (64-bit and 128-bit), WPA/WPA2 enterprise version, WPA/WPA2 personal version;
- Supports MODBUS, MQTT, TCP, UDP and other transmission protocols;
- Supports online upgrade, threshold setting, watchdog monitoring, and comes with abnormal restart mechanism to prevent equipment downtime and ensure stable operation.





## ● Product Specification

硬件参数	
Power Supply	DC10~30V, typical DC24V, supports overcurrent and reverse connection protection
Power Consumption	5W
接口参数	
Power Connector	Fed from the terminal
RS485*1	2-wire (A/B) Electrical isolation: Support Baud rate: 2400~115200bps Data bits: 7, 8 bits Stop Bit: 1, 2 bits Check Bit: None, Even, Odd Frame length: Minimum 6 Byte, Maximum 499 Byte
RS232*1	3-wire (RX/TX/GND) Electrical isolation: Support Baud rate: 2400~115200bps Data bits: 7, 8 bits Stop Bit: 1, 2 bits Check Bit: None, Even, Odd Frame length: Minimum 6 Byte, Maximum 499 Byte
RJ45 *2	Support 10/100/1000M adaptive
SMA*2	Antenna terminal with external screw and internal hole, impedance matched to 50Ω
Reload Button	Press and hold for about 5 seconds to restore the device to its default configuration and reboot the device
Indicator light	3 device operating status indicators, PWR, SYS, WiFi
Ground Protection	the grounding screw
网络参数	
Wireless Communication	WiFi
Wireless Standard	Support IEEE802.11a/b/g/n/ac/ax
Operating Frequency	2.4/5 GHz
DL MU-MIMO	2x2
WiFi Modle	AP/STA





Seamlessly Roam	Supports seamlessly roam, switching time <100ms;
Client connection numbe	8+
Antenna	Omnidirectional antennas, 2.4G Wi-Fi: 1.1 dBi 5G Wi-Fi: 5150-5250MHz 2.57 dBi ; 5745-5825MHz 3.12 dBi
<b>机械特性</b>	
Product Size	L*W*H (mm) : 115x78x27
Installation	Rail mounting
<b>工作环境</b>	
Working temperature and humidity	-25°C~ +70°C/5%~95% non-condensing
Storage temperature and humidity	-40°C ~ +85°C/1%~95% non-condensing
<b>安全防护</b>	
Protection Class	IP20
EMC Class	Class 3

● **Status Indicator**

符号	功能定义	指示状态	指示灯颜色说明
PWR	Power indication (green)	lights on	normal operation
		-	unnormal
WiFi	Network signal strength indicator	lights on	AP hotspot connection is normal
		lights off	Unconnection
SYS	System Status Indicator	flashes	The system is working.
		lights off	system anomaly





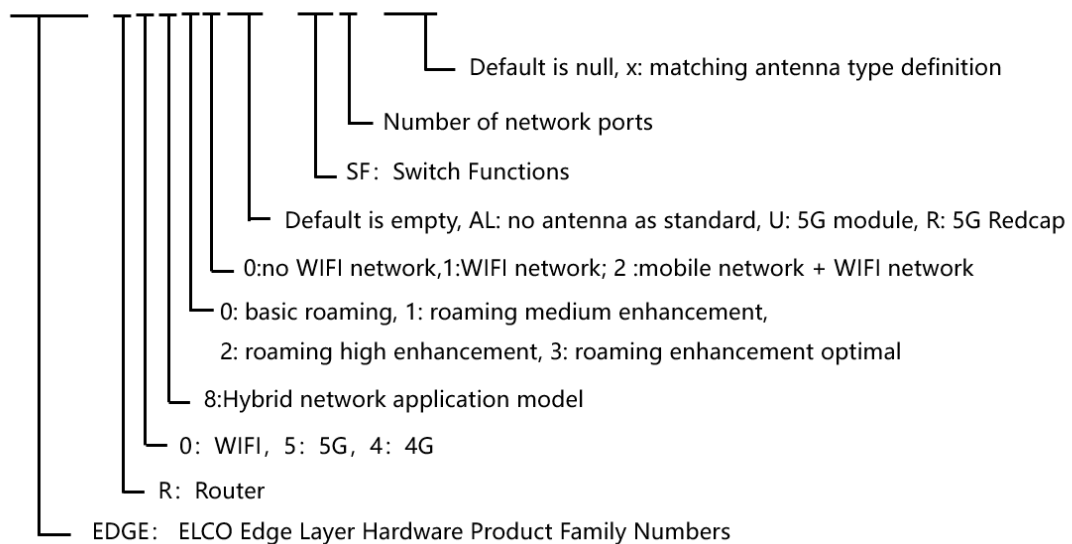
● **product model**

Serial	Version	Model	Instruction
1	Standard model	EDGE-R0821-SF2	Dual-band WIFI, dual network ports
2	Standard model	EDGE-R0821-SF4	Dual-band WIFI, Quad Network Port
3	Standard model	EDGE-R0821-SF8	Dual-band WIFI, eight network ports
4	Standard model	EDGE-R0831-SF2	Dual-band WIFI, dual network ports
5	Standard model	EDGE-R0831-SF4	Dual-band WIFI, Quad Network Port
6	Standard model	EDGE-R0831-SF8	Dual-band WIFI, eight network ports

● **Model Rule**

工业路由器型号规则说明:

**EDGE-R x 8 x x □ - SF x - 0 x A**

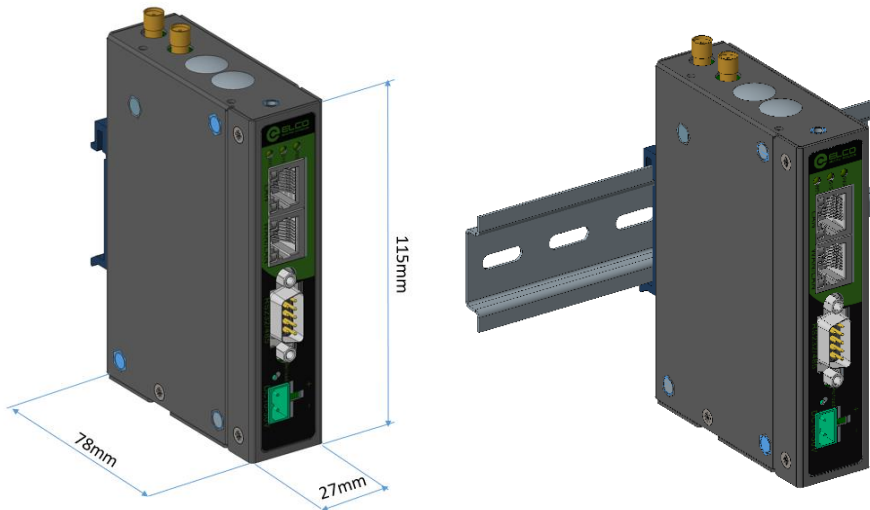




● **Connection and Size**



Product Interface



Product Size & Installation







## FCC Requirement

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.-Increase the separation between the equipment and receiver. Connect the equipment into an outlet on a circuit different





from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help. This device complies with FCC radiation exposure limits set forth for an uncontrolled environment. This device should be installed and operated with minimum distance 20cm between the radiator & your body.

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