

5G Industrial Router

F-NR130



Introduction

F-NR130 is a wireless router for the Internet of Things, which uses public 3G/4G/5G networks to provide users with wireless long-distance big data transmission functions. Provide 1xRS232, 1xRS485, 1xLAN and 1xWAN/LAN port to achieve transparent data transmission and routing function. The product has been widely used in the M2M industry in the IoT industry chain, such as smart grid, smart transportation, smart home, supply chain automation, industrial automation, and other fields.



Industrial-grade Design

- ▶ High-performance industrial-grade wireless module
- ▶ High-performance industrial-grade 32-bit communication processor
- ▶ Using metal shell, protection grade IP30.
- ▶ Wide power input range 9~36V



Stability & Reliability

- ▶ WDT Watchdog design
- ▶ Anti-dropping mechanism to ensure that the data terminal is always online
- ▶ Built-in 1.5KV electromagnetic isolation protection for Ethernet interface
- ▶ RS232/RS485 interface, power and data isolation with CSA, UL and IEC standards
- ▶ SIM/UIM card interface built-in 15KV ESD protection
- ▶ Built-in reverse phase protection and over voltage protection for power interface



Standard & Convenience

- ▶ Standard RS232, RS485, and Ethernet port
- ▶ Provide standard wired WAN port (Support standard PPPOE protocol)
- ▶ Plug and Play
- ▶ Multiple working mode options
- ▶ Configuration and maintenance interface
- ▶ Support DIN rail and wall-mounting installation
- ▶ Support local and remote WEB mode or CLI mode

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High Performance

- ▶ Multiple WAN connection methods, include Static IP/DHCP/PPPOE/DHCP-4G/5G
- ▶ Support 3G/4G/5G and wired WAN dual link backup
- ▶ Support VPN Client: PPTP/L2TP/IPSEC
- ▶ Support VPN Server: PPTP/L2TP/IPSEC
- ▶ Remote management SYSLOG/SNMP/TELNET/SSH/HTTPS
- ▶ Support local upgrade and remote upgrade
- ▶ Import and export configuration files
- ▶ Support NTP / Build-in RTC
- ▶ Support DDNS
- ▶ Support VLAN, MAC address clone and PPPoE server
- ▶ WIFI Support 802.11b/g/n/ac. Support AP/AP Client/Bridge mode
- ▶ WIFI Support WEP, WPA, WPA2 and other encryption methods
- ▶ Support Private APN SIM card
- ▶ Support APN/VPDN
- ▶ Support DHCP server and DHCP client, NAT, DMZ, QOS
- ▶ Support TCP/IP, UDP, FTP (Optional), HTTP and other network protocols
- ▶ Support SPI firewall, VPN pass through, ACL, URL filter
- ▶ Support IPV6/IPV4, 5G LAN
- ▶ Support lock frequency, lock resident
- ▶ Support EOIP, bridge mode, VxLAN, virtual IP, GRE/TAP, etc.
- ▶ Support traffic statistics, VLAN management, and VLAN division

Product Specification

Cellular Specification		
Product	F-NR130	F-NR130 RedCap
Items	Contents	
Module	Industrial grade wireless module	
Frequency	5G NR: n1/n2/n3/n5/n7/n8/n20/n28/n41/n66/n71/n77/n78/n79 LTE: B1/B2/B3/B4(66)/B5(18/19/26)/B7/B8/B12(17)/B13/B14/B20/B25/B26/B28/B29/B30/B38/B39/B40/B41/B42/B43/ B46/ B48/B71	5G NR: N1/N3/N5/N8/N28/N41/N78/N79 LTE-FDD: B1/B3/B5/B8 LTE-TDD: B34/B38/B39/B40/B41
	Remarks: Different modules support different network standards	
Bandwidth	5G NR: DL 3.4 Gbps, UL 350 Mbps LTE Cat20: DL 2.0 Gbps, UL 150 Mbps HSPA+: DL 42 Mbps, UL 5.76 Mbps	Downlink: 226Mbps Uplink: 120Mbps
Power	< 23dBm	
Sensitivity	<-97dBm	

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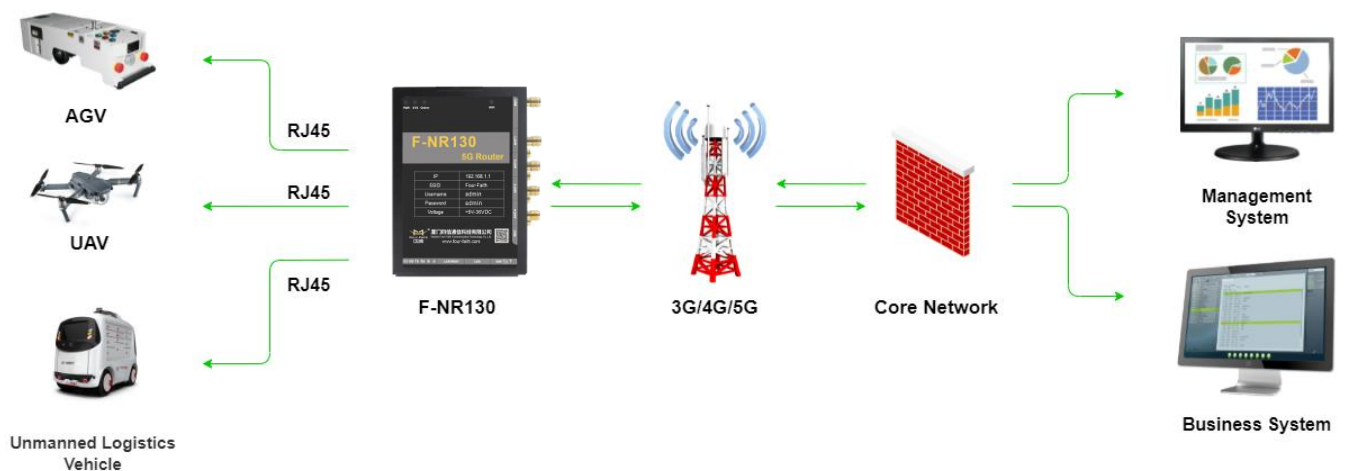
WIFI Specification		
Product	F-NR130	F-NR130 RedCap
Items	Contents	
Frequency	IEEE802.11b/g/n, 2.4G, Support AP mode	
	IEEE802.11ac, 5.8G, Support AP mode	
Bandwidth	IEEE802.11b/g: 54Mbps	
	IEEE802.11n: 150Mbps	
	IEEE802.11ac: 433Mbps	
Security	WEP, WPA, WPA2, WPS (Optional)	
Power	26dBm (11b), 21dBm (11ac/MCS7/HT40), 20dBm (11ac/MCS9/HT80)	
Sensitive	< -72dBm @ 54Mbps	
Hardware System		
Items	Contents	
CPU	Industrial-grade 32-bit communication processor	
FLASH	32MB	
DDR3	512MB	
Interfaces		
Items	Contents	
WAN	1 x 10/100/1000M Ethernet (RJ45), Auto MDI/MDIX, Built-in 1.5KV electromagnetic isolation protection	
	Remarks: Can be used as LAN port	
LAN	1*10/100/1000M Ethernet (RJ45), Auto MDI/MDIX, Built-in 1.5KV electromagnetic isolation protection	
Serial	1 x RS232/RS485, Built-in 1.5KV electromagnetic isolation protection	
	Data bit: 5, 6, 7, 8	
	Stop bit: 1, 1.5 (Optional), 2	
	Check: NONE, EVEN, ODD, SPACE (Optional), Mark (Optional)	
Indicators	Baud rate: 2400~115200bits/s	
	"WIFI", "Online", "PWR", "SYS"	
Antenna	Cellular: 4 standard SMA female antenna interfaces, characteristic impedance 50 ohms	Cellular: 2 standard SMA female antenna interfaces, characteristic impedance 50 ohms
	WIFI: 1 standard SMA male antenna interfaces, characteristic impedance 50 ohms	WIFI: 1 standard SMA male antenna interfaces, characteristic impedance 50 ohms
SIM/UIM	Standard drawer type user card interface, support 1.8V/3V SIM/UIM card, built-in 15KV ESD protection	
Power	Support Micro-SIM*2 card and eSIM	
Reset button	Terminal power socket	
	Through this button, the parameter configuration can be restored to the factory	

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Power Supply		
Product	F-NR130	F-NR130 RedCap
Items	Contents	
Standard	DC 12V/1.5A	
Range	DC 9 ~36V	
Consumption	<1.2A (12V)	
Physical Properties		
Items	Contents	
Shell	Metal shell, protection grade IP30	
Size	106 x 76 x 23.5 mm (Does not include antenna and mounting parts)	
Weight	285g	
Others		
Items	Contents	
Operating Temperature	-35~+75°C (-31~+167°F)	
Storage Temperature	-40~+85°C (-40~+185°F)	
Relative Humidity	95% (No condensation)	

Topology



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Dimension (mm)



Note: 5G Redcap version provide 2 antennas

Order Information

Models	Description
F-NR130	Cellular (5G NR), Micro-SIM*2, 2.4G/5G WIFI
F-NR130 5G RedCap	Cellular (5G RedCap), Micro-SIM*2, 2.4G/5G WIFI