5G Industrial CPE

F-NR200

5G LAN | **VPN** | **4G** | **5G⁺⁺ 5G**

RS232 | **RS485** | **2·4G&5·8G WIFI** | **Micro SD Card**
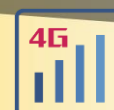
Introduction

F-NR200 is a 5G industrial CPE for the Internet of Things (IoT), it uses a high-performance industrial level 32-bit communication processor and wireless module, embedded with the real-time operating system as the software platform, and using 3G/4G/5G cellular network to provide users with wireless long-distance large data transmission function.

Industrial-grade Design

▶ High-performance industrial-grade wireless module
▶ High-performance industrial-grade 32-bit communication processor
▶ Metal shell, protection grade IP68. Metal housing and system safety isolation
▶ Wide power input DC 9~36V

Stability & Reliability

▶ WDT Watchdog design to ensure system stability
▶ Adopt a complete anti-drop 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, in line 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, Ethernet and WIFI Interface
▶ Standard WAN port (support standard PPPOE protocol), which can be directly connected to ADSL equipment
▶ Intelligent data terminal, can enter data transmission state after power on
▶ Easy to use, flexible, multiple working mode options
▶ Convenient system configuration and maintenance interface (WEB/CLI)
▶ Support wall-mounted, pole-mounted installation

High Performance

▶ Multiple WAN connection methods, include Static IP/DHCP/PPPOE/DHCP-4G/5G

▶ 3G/4G/5G and wired WAN dual link backup（optional）

▶ VPN Tunnel: PPTP/L2TP/IPSEC/OPENVPN/GRE

▶ Remote management SYSLOG/SNMP/TELNET/SSH/HTTPS

▶ Support local upgrade and remote upgrade

▶ Import and export configuration files

▶ NTP / Built in RTC

▶ MAC address clone

▶ 2.4G WIFI support 802.11b/g/n, 5.8G WIFI support 802.11ac

▶ Support WIFI AP mode, client mode, bridge mode(optional)

▶ WIFI support WEP/WPA/WPA2 encryption

▶ Support multiple online and offline trigger modes

▶ Support APN/VPDN

▶ Support DHCP server/DHCP client/DHCP binding MAC/DDNS/NAT/DMZ/QOS, traffic statistics, real-time display of data transmission rate

▶ Support TCP/IP/UDP/FTP/HTTP and other network protocols

▶ Support SPI firewall, access control, URL filter

▶ Support IPV6/IPV4, 5G LAN

▶ Support lock frequency, lock resident

▶ Support EOIP, bridge mode, VxLAN, virtual IP, GRETAP, etc.

▶ Support traffic statistics, VLAN management, and VLAN division

Product Specification

Cellular Specification	
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 Remarks: Different modules support different network standards
Bandwidth	5G NR：DL 3.4Gbps， UL 350Mbps LTE Cat20：DL 2.0Gbps， UL 150Mbps HSPA+：DL 42Mbps， UL 5.76Mbps
Power	< 23dBm
Sensitivity	<-97dBm

5G Industrial CPE F-NR200

WIFI Specification	
Items	**Contents**
Frequency	IEEE802.11b/g/n，2.4G，AP mode, Station mode (Option)
	IEEE802.11ac, 5.8G, AP mode, Station mode (Option)
Bandwidth	IEEE802.11b/g：54Mbps
	IEEE802.11n：300Mbps
	IEEE802.11ac：866Mbps
Security	WEP, WPA, WPA2 encryption，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	Nor flash 16MB NAND flash 128MB
DDR3	512MB

Interfaces	
Items	**Contents**
WAN	1 x 1000M ETH port (RJ45water proof), auto adapt MDI/MDIX, built in 1.5KV ESD
LAN	1 x 1000M ETH port (RJ45water proof), auto adapt MDI/MDIX, built in 1.5KV ESD
Optical Fiber	1 x 1000M fiber interface (External all-plastic waterproof interface)
	Auto adapt MDI/MDIX, built in 1.5KV ESD
Serial	1 x RS232/RS485 serial port (External all-plastic waterproof interface), built in 1.5KV ESD
	Data bit:5, 6, 7, 8
	Stop bit:1,1.5(optional), 2
	Check: NONE, ODD, EVEN, SPACE (optional) and MARK (optional)
	Baud rate:2400~115200bits/s
Indicators	"PWR", "SYS", "2.4G","5.8G", "Online","Signal"
	Remarks: Built-in indicator light
Antenna	Cellular：4 x waterproof SMA female antenna, characteristic impedance 50 ohms
	WIFI：4 x waterproof SMA male antenna, characteristic impedance 50 ohms
SIM/UIM	Standard drawer type, 1.8V/3V SIM/UIM card, built-in 15KV ESD protection
Power	Terminal interface, built-in power reverse protection
USB	USB2.0 (Built-in)
Reset button	Through this button, the parameter configuration can be restored to the factory

5G Industrial CPE F-NR200

Power Supply	
Items	**Contents**
Standard	DC 12V/1.5A and Support POE (802.3af) power supply
Range	DC 9~36V
Consumption	<1.2A (12V)
Physical Properties	
Items	**Contents**
Shell	Metal shell, protection grade IP68
Size	259x259x45 mm (Does not include antenna and mounting parts)
Weight	2480g
Others	
Items	**Contents**
Operating Temperature	-35~+75ºC（-31~+167℉）
Storage Temperature	-40~+85ºC（-40~+185℉）
Relative Humidity	95% (No condensation)

Topology

IP Camera 1

IP Camera 2

NVR

Robot Arm

Mobile Phone

Control Panel
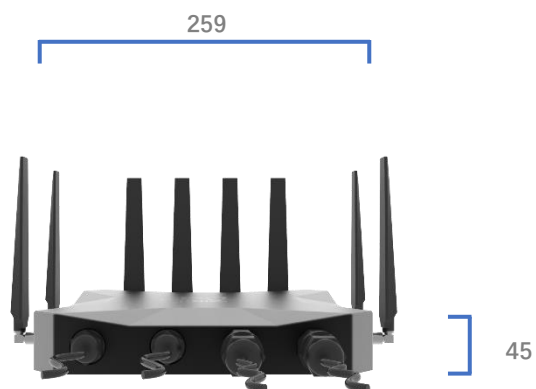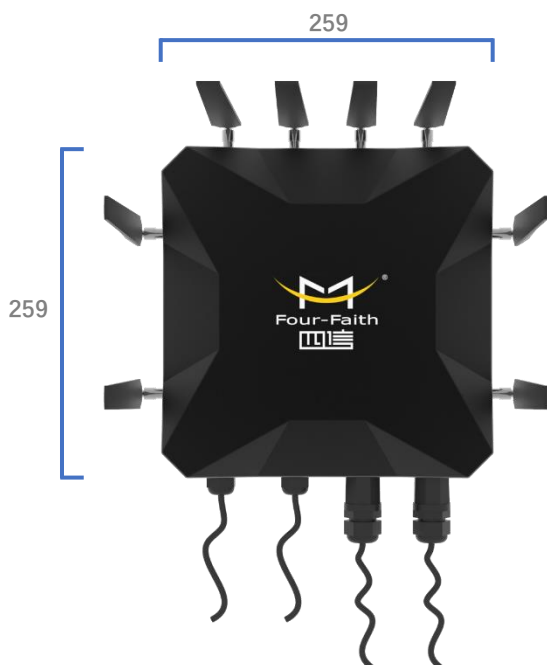
F-NR200

5G

Server 1

Server 2
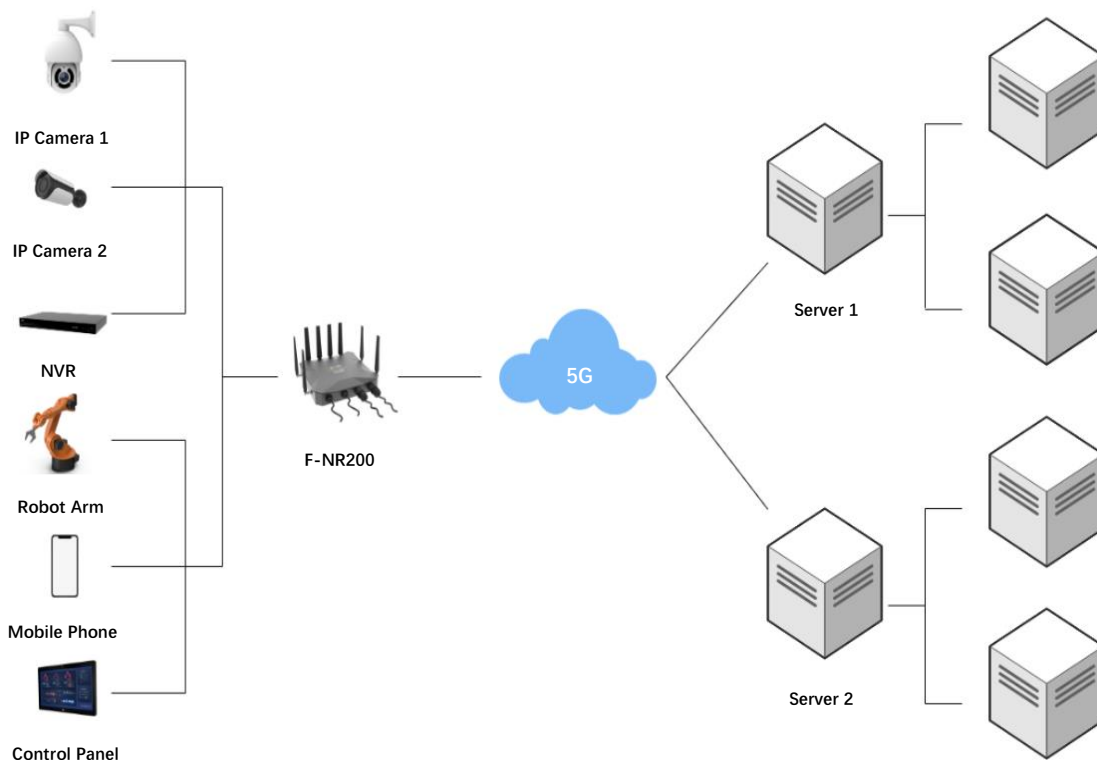
5G Industrial CPE F-NR200

Dimension (mm)

Order Information

Models	Description
F-NR200	Cellular (5G NR), 2.4G/5G WIFI, SIM*1
F-NR200-SIM2	Cellular (5G NR), 2.4G/5G WIFI, SIM*2