



# **5G Industrial CPE**

F-NR200























Made in China

Remote

2-4G & 5-8G

MicroSD Card

#### Introduction

F-NR200 is a 5G industrial CPE for the Internet of Things (IoT), it uses a high-performance industrial level 32bit 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

### 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

#### 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



#### 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

## Product Specification

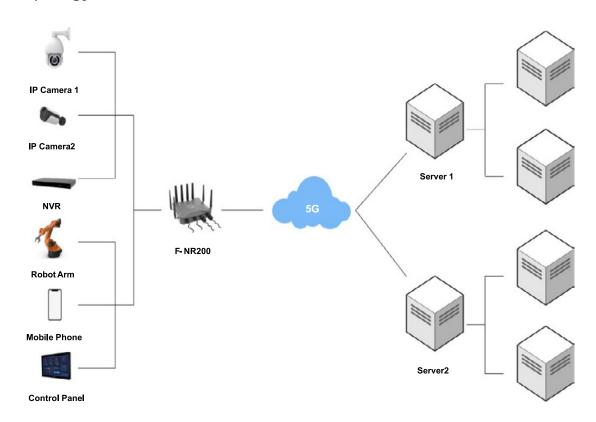
Cellular Specification	1
Items	Contents
Module	Industrial grade wireless module
Frequency	5G NR: n1/n2/n3/n5/n7/n8/n20/n28/n41/n66/n71/n77/n78/n79 LTE:B1/B2/B3/B4(66)/B5(18/19/26)/B7/B8/B12(17)/B13/B14/B20/B25/B26/B28/B29/B30/B38/B39/B40/B 41/B42/B43/ B46/ B48/B71 Remarks: Different modules support different 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
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



Items	Interfaces	
LAN  1 x 1000M ETH port (RJ45water proof), auto adapt MDI/MDIX, built in 1.5KV ESD  1 x 1000M fiber interface (External all-plastic waterproof interface) Auto adapt MDI/MDIX, built in 1.5KV ESD  1 x RS232/RS485 serial port (External all-plastic waterproof interface), built in 1.5KV ESD  Data bit.5, 6, 7, 8  Serial  Serial  Serial  Serial  Check: NONE, ODD, EVEN, SPACE (optional) and MARK (optional) Baud rate: 2400~115200bits/s  PWR*, "SYS", "2.4G", "5.8G", "Online", "Signal" Remarks: Built-in indicator light  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  Reset button  Through this button, the parameter configuration can be restored to the factory  Power Supply  Items  Contents  Standard  DC 12V/1.5A and Support POE (802.3af) power supply  Range  Consumption  Physical Properties  Items  Contents  Shell  Metal shell, protection grade IP68  259x259x45 mm  (Does not include antenna and mounting parts)  Weight  Chers  Items  Contents  Storage Temperature  35~+75°C (-31~+167°F)  Storage Temperature  40~+85°C (40~+185°F)	Items	Contents
Optical Fiber  1 x 1000M fiber interface (External all-plastic waterproof interface) Auto adapt MDI/MDIX, built in 1.5KV ESD  1 x RS232/RS485 serial port (External all-plastic waterproof interface), built in 1.5KV ESD Data bit:5, 6, 7, 8 Serial  Stop bit:1,1.5(optional), 2 Check: NONE, ODD, EVEN, SPACE (optional) and MARK (optional) Baud rate:2400-115200bits/s  PWR", "SYS", "2.4G", "5.86", "Online", "Signal" Remarks: Built-in indicator light  Cellular: 4 x waterproof SMA female antenna, characteristic impedance 50 ohms WIFI: 4 x waterproof SMA female 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 Reset button Through this button, the parameter configuration can be restored to the factory  Power Supply Items Contents Standard DC 12V/1.5A and Support POE (802.3af) power supply Range DC 9-38V Consumption Physical Properties Items Shell Metal shell, protection grade IP68 259x259x45 mm (Does not include antenna and mounting parts)  Weight QDescription QDescription Uses Contents Uses Contents Uses Contents	WAN	1 x 1000M ETH port (RJ45water proof), auto adapt MDI/MDIX, built in 1.5KV ESD
Auto adapt MDI/MDIX, built in 1.5KV ESD  1 x RS232/RS485 serial port (External all-plastic waterproof interface), built in 1.5KV ESD  Data bitt.5, 6, 7, 8  Serial  Serial  Serial  Check: NONE, ODD, EVEN, SPACE (optional), 2  Check: NONE, ODD, EVEN, SPACE (optional) and MARK (optional)  Baud rate: 2400–115200bits/s  "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 female 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  Reset button  Through this button, the parameter configuration can be restored to the factory  Power Supply  Items  Contents  Standard  DC 12V/1.5A and Support POE (802.3af) power supply  Range  Consumption  Consumption  Contents  Shell  Metal shell, protection grade IP68  259x259x45 mm  (Does not include antenna and mounting parts)  Weight  Contents  Uses  Contents  Contents  Contents  Contents  Size  Contents  Contents  Contents  Standard  Contents  Shell  Metal shell, protection grade IP68  259x259x45 mm  (Does not include antenna and mounting parts)  Weight  Contents  Contents  Contents  Contents  Contents  Contents  Storage Temperature  -35~+75°C (-31~+167°F)  Storage Temperature	LAN	1 x 1000M ETH port (RJ45water proof), auto adapt MDI/MDIX, built in 1.5KV ESD
Auto adapt MDI/MDIX, built in 1.5KV ESD  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  "PWR", "SYS", "2.4G", "5.8G", "Online", "Signal"  Remarks: Built-in indicator light  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  USB  Reset button  Terminal interface, built-in power reverse protection  USB  Reset button  Through this button, the parameter configuration can be restored to the factory  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  259x259x45 mm  (Does not include antenna and mounting parts)  Weight  Contents  Operating Temperature  -35-+75°C (-31-+167°F)  Storage Temperature  40-+85°C (-40-+185°F)	Outland Films	1 x 1000M fiber interface (External all-plastic waterproof interface)
Serial  Serial  Stop bit:1,1.5(optional), 2  Check: NONE, ODD, EVEN, SPACE (optional) and MARK (optional) Baud rate:2400-115200bits/s  "PWR", "SYS", "2.4G", "5.8G", "Online", "Signal" Remarks: Built-in indicator light  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  USB  Reset button  Through this button, the parameter configuration can be restored to the factory  Power Supply  Items  Contents  Standard  DC 12V/1.5A and Support POE (802.3af) power supply Range DC 9-36V  Consumption  Antenna  Contents  Shell  Metal shell, protection grade IP68  259x259x45 mm (Does not include antenna and mounting parts)  Weight  Contents  Items  Contents  Standard  Contents  Size  Contents  Shell  Metal shell, protection grade IP68  259x259x45 mm (Does not include antenna and mounting parts)  Weight  Contents	Optical Fiber	Auto adapt MDI/MDIX, built in 1.5KV ESD
Serial Stop bit:1,1.5(optional), 2 Check: NONE, ODD, EVEN, SPACE (optional) and MARK (optional) Baud rate:2400-115200bits/s  "PWR", "SYS", "2.4G", "5.8G", "Online", "Signal" Remarks: Built-in indicator light Re		1 x RS232/RS485 serial port (External all-plastic waterproof interface), built in 1.5KV ESD
Check: NONE, ODD, EVEN, SPACE (optional) and MARK (optional) Baud rate:2400~115200bits/s  "PWR", "SYS", "2.4G", "5.8G", "Online", "Signal" Remarks: Built-in indicator light  Antenna  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  USB  USB2.0 (Built-in)  Reset button  Through this button, the parameter configuration can be restored to the factory  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  (Does not include antenna and mounting parts)  Weight  Others  Items  Contents  Storage Temperature  -35~+75°C (-31~+167°F)  Storage Temperature  40~+85°C (-40~+185°F)		Data bit:5, 6, 7, 8
Indicators    Power	Serial	Stop bit:1,1.5(optional), 2
Indicators  "PWR", "SYS", "2.4G", "5.8G", "Online", "Signal" Remarks: Built-in indicator light  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  Reset button  Through this button, the parameter configuration can be restored to the factory  Power Supply  Items  Contents  Standard  DC 12V/1.5A and Support POE (802.3af) power supply  Range  Consumption  Consumption  Physical Properties  Items  Contents  Shell  Metal shell, protection grade IP68  259x259x45 mm  (Does not include antenna and mounting parts)  Weight  Others  Items  Contents  Operating Temperature  -35~+75°C (-31~+167°F)  Storage Temperature  -40~+85°C (-40~+185°F)		Check: NONE, ODD, EVEN, SPACE (optional) and MARK (optional)
Indicators  Remarks: Built-in indicator light  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  Reset button  Through this button, the parameter configuration can be restored to the factory  Power Supply  Items  Contents  Standard  DC 12V/1.5A and Support POE (802.3af) power supply  Range  Consumption  Physical Properties  Items  Shell  Metal shell, protection grade IP68  259x259x45 mm  (Does not include antenna and mounting parts)  Weight  Others  Items  Contents  Operating Temperature  -35~+75°C (-31~+167°F)  Storage Temperature		Baud rate:2400~115200bits/s
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 Reset button Through this button, the parameter configuration can be restored to the factory  Power Supply  Items Contents Standard DC 12V/1.5A and Support POE (802.3af) power supply Range Consumption Physical Properties Items Contents Shell Metal shell, protection grade IP68  259x259x45 mm Size (Does not include antenna and mounting parts)  Weight Contents  Contents  Contents  Contents  Contents  Contents  Contents  Standard Contents Conte	Indicators	"PWR", "SYS", "2.4G","5.8G", "Online","Signal"
Antenna 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) Through this button, the parameter configuration can be restored to the factory  Power Supply  Items Contents Standard DC 12V/1.5A and Support POE (802.3af) power supply  Range DC 9~36V Consumption Physical Properties  Items Contents Shell Metal shell, protection grade IP68  Size (Does not include antenna and mounting parts)  Weight Others  Items Contents Operating Temperature -35~+75°C (-31~+167°F) Storage Temperature -40~+85°C (-40~+185°F)	maioatoro	Remarks: Built-in indicator light
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  Power Supply  Items  Contents  Standard  DC 12V/1.5A and Support POE (802.3af) power supply  Range  Consumption  Physical Properties  Items  Contents  Shell  Metal shell, protection grade IP68  Size  (Does not include antenna and mounting parts)  Weight  Others  Items  Contents  Operating Temperature  -35~+75°C (-31~+167°F)  Storage Temperature  -40~+85°C (-40~+185°F)	Antenna	Cellular: 4 x waterproof SMA female antenna, characteristic impedance 50 ohms
Power USB USB2.0 (Built-in) Reset button Through this button, the parameter configuration can be restored to the factory  Power Supply Items Standard DC 12V/1.5A and Support POE (802.3af) power supply Range Consumption Physical Properties Items Shell Metal shell, protection grade IP68 Size Cottents Size Contents Size Contents Size Contents Shell Action Acti	7 titolina	WIFI: 4 x waterproof SMA male antenna, characteristic impedance 50 ohms
USB Reset button Through this button, the parameter configuration can be restored to the factory  Power Supply  Items Standard DC 12V/1.5A and Support POE (802.3af) power supply Range DC 9~36V Consumption Contents Items Contents Shell Metal shell, protection grade IP68 259x259x45 mm (Does not include antenna and mounting parts)  Weight Others Items Contents Contents  Sample Contents Cont	SIM/UIM	Standard drawer type, 1.8V/3V SIM/UIM card, built-in 15KV ESD protection
Reset button  Through this button, the parameter configuration can be restored to the factory  Power Supply  Items Standard DC 12V/1.5A and Support POE (802.3af) power supply Range DC 9~36V Consumption Physical Properties  Items Contents Shell Metal shell, protection grade IP68 259x259x45 mm (Does not include antenna and mounting parts)  Weight Qthers Items Contents Contents (Does not include antenna and mounting parts)  Others  Items Contents  Contents (Does not include antenna and mounting parts)  Others  Items Contents  Operating Temperature  -35~+75°C (-31~+167°F)  Storage Temperature  -40~+85°C (-40~+185°F)	Power	Terminal interface, built-in power reverse protection
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         (Does not include antenna and mounting parts)           Weight         2480g           Others         Contents           Operating Temperature         -35~+75°C (-31~+167°F)           Storage Temperature         -40~+85°C (-40~+185°F)		Through this button, the parameter configuration can be restored to the factory
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         (Does not include antenna and mounting parts)           Weight         2480g           Others         Items         Contents           Operating Temperature         -35~+75°C (-31~+167°F)           Storage Temperature         -40~+85°C (-40~+185°F)	Power Supply	
Range	Items	Contents
Consumption         <1.2A (12V)           Physical Properties         Contents           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~+75°C (-31~+167°F)           Storage Temperature         -40~+85°C (-40~+185°F)	Standard	DC 12V/1.5A and Support POE (802.3af) power supply
Physical Properties  Items  Shell  Metal shell, protection grade IP68  259x259x45 mm (Does not include antenna and mounting parts)  Weight  2480g  Others  Items  Contents  Operating Temperature  -35~+75°C (-31~+167°F)  Storage Temperature  -40~+85°C (-40~+185°F)	Range	DC 9~36V
Items     Contents       Shell     Metal shell, protection grade IP68       Size     259x259x45 mm       (Does not include antenna and mounting parts)       Weight     2480g       Others     Items       Operating Temperature     -35~+75°C (-31~+167°F)       Storage Temperature     -40~+85°C (-40~+185°F)	·	<1.2A (12V)
Shell Metal shell, protection grade IP68  259x259x45 mm (Does not include antenna and mounting parts)  Weight 2480g  Others  Items Contents  Operating Temperature -35~+75°C (-31~+167°F)  Storage Temperature -40~+85°C (-40~+185°F)	Physical Properties	
Size         259x259x45 mm           (Does not include antenna and mounting parts)           Weight         2480g           Others         Contents           Operating Temperature         -35~+75°C (-31~+167°F)           Storage Temperature         -40~+85°C (-40~+185°F)	Items	Contents
Size         (Does not include antenna and mounting parts)           Weight         2480g           Others         Contents           Operating Temperature         -35~+75°C (-31~+167°F)           Storage Temperature         -40~+85°C (-40~+185°F)	Shell	Metal shell, protection grade IP68
(Does not include antenna and mounting parts)  Weight 2480g  Others  Items Contents  Operating Temperature -35~+75°C (-31~+167°F)  Storage Temperature -40~+85°C (-40~+185°F)		259x259x45 mm
Others         Contents           Operating Temperature         -35~+75°C (-31~+167°F)           Storage Temperature         -40~+85°C (-40~+185°F)	Size	(Does not include antenna and mounting parts)
Others         Contents           Operating Temperature         -35~+75°C (-31~+167°F)           Storage Temperature         -40~+85°C (-40~+185°F)	Weight	2480a
Items         Contents           Operating Temperature         -35~+75°C (-31~+167°F)           Storage Temperature         -40~+85°C (-40~+185°F)		9
Storage Temperature -40~+85°C (-40~+185°F)		Contents
	Operating Temperature	-35~+75°C (-31~+167°F)
Relative Humidity 95% (No condensation)	Storage Temperature	-40~+85°C (-40~+185°F)
	Relative Humidity	95% (No condensation)



# Topology



# Dimension

