

# NAVIGATEWORX NR310



Intelligent 4G LTE VPN Router, Industrial Design, Dual SIM Failover, RS232 and RS485 Serial connection

Navigateworx NR310 industrial cellular VPN router enables wireless data connectivity over public and private LTE cellular networks at 4G speeds.

NR310 router has dual SIM backup, 2 Ethernet ports, RS232 and RS485 interfaces are provided to support Serial to IP communication. NR310 router supports 9 to 36 VDC wide range power inputs, designed with reverse-voltage protection mechanism for greater reliability. It is an advanced choice for universal wireless M2M applications with reliable features for data transmission.

### **TYPICAL APPLICATION**



#### Secure and reliable internet access

- Wireless Mobile Broadband 2G / 3G / 4G Connection
- Connection managers ensure seamless communication
- Support Multiple VPN tunnels for data encryption

#### Designed for industrial usage

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- Power Input Range 9 to 36 VDC
- Industrial design for harsh environment
- Aluminum casing and din-rail installation

#### Easy to use and easy maintenance

- User friendly web interface for user interaction
- Support Central Management Platform
- Reduce high costs for onsite maintenance



## **SPECIFICATIONS**

CELLULAR		
	LTE FDD: B1/B2/B3/B4/B5/B7/B8/B20/B28/B28A	
	LTE TDD: B40	
Frequency Bands	WCDMA: B1/B2/B5/B8 GSM: B2/B3/B5/B8	
	More Bands Demands please contact with us	
SIM	2 x SIM slots, 1.8V / 3V	
SIM Failover	Auto-switch cases: data limited, no network, network denied, data connection fail	
Antennas	2 (MAIN + AUX), SMA female	
ETHERNET		
Number of Ports	1 x WAN + 1 x LAN or 2 x LAN, Auto 10/100 Mbps	
Magnet Isolation Protection	1.5 KV	
Wi-Fi		
Wireless Mode	IEEE 802.11b/g/n, Access Point (AP), Client	
Wireless Speed	150 Mbps	
Wireless Security	WPA, WPA2, WEP, CCMP, TKIP	
Frequency Bands	2.412 - 2.484 GHz (2.4 GHz ISM band)	
Antennas	1 x RP-SMA for Wi-Fi antenna connectors	
SERIAL		
Number of Ports	1 x RS-232 (3 PIN) + 1 x RS-485	
Connector	Terminal block	
ESD Protection	± 15 KV	
Baud Rate	300bps to 115200bps	
POWER		
Connector	2-pin 3.5 mm female socket	
Input Voltage Range	9 to 36 VDC	
Power Consumption	Idle: 100 mA@12 V	
	Data link: 400 mA (peak) @12 V	
HARDWARE		
Watchdog	Built-in watchdog	
LEDs	SYS, NET, USR, RSSI x 3	
Reset Button Ingress Protection	Reset/restore to factory default button IP30	
Housing & Weight	Aluminum, 220 g	
Dimensions	103.3 mm x 82.8 mm x 28.8 mm	
	DIN-rail mounting	
Operating Temperature	-40 °C to 75 °C	
Operating Humidity	5% to 95% non-condensing	
NETWORK		
Routing	Static routing	
Network Protocols	TCP, UDP, IPv4, ICMP, NTP, DNS, HTTP, HTTPS, ARP, PPP, PPPoE, DHCP, IP Passthrough, VRRP	
Connection Manager	Ping Detection, Timer Reboot, ICMP for link detection, Call Reboot	
Firewall	Flexible access control of TCP, UDP, ICMP packets, MAC address filter	
DDNS	Supported some service providers, others can be configured manually	
SMS	SMS Configuration, SMS Gateway, SMS Notification	
VPN		
OpenVPN	OpenVPN server/client mode, client mode supports up to 5 x OpenVPN tunnels	
GRE	Layer2 and Layer3, supports up to 5 x GRE VPN tunnels	
IPsec	IKEv1, IKEv2, supports up to 5 x IPsec VPN tunnels	
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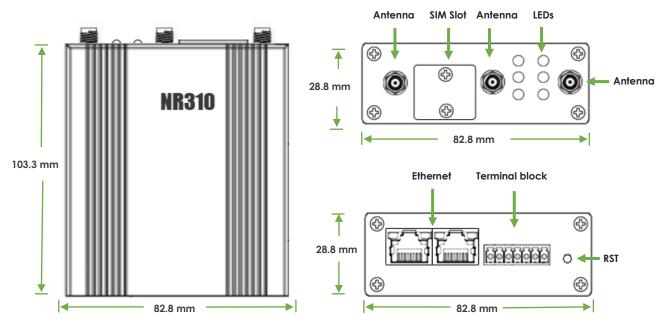


MONITORING & MAN	AGEMENT		
Web GUI	HTTP/HTTPS, firmware upgrade		
Command Line Interface	SSHv2 and TELNET		
Management platform	Central Management Platform		
APP CENTER			
Apps	<ul> <li>VPN: L2TP, PPTP, DMVPN</li> <li>Network: Dynamic Routing (RIPv1/v2, OSPF, BGP), Email Notification, Enforce Modem PPP, OoS</li> <li>Management: AT over IP, AT over COM, AT over Telnet, SNMPv1/v2/v3/, TR069, DMPC</li> <li>Protocol Converter: Modbus Master, Modbus Slave, Modbus ID Mapping, Modbus Gateway</li> <li>IEC101-104, DLMS to IEC104, Modbus to DNP3</li> <li>More Apps Demands please contact with us</li> </ul>		
APPROVAL			
EMI	EN 55032:2012 Class B		
EMS	IEC 61000-4-2 ESD	Level 4	
	IEC 61000-4-3 RS	Level 3	
	IEC 61000-4-4 EFT	Level 3	
	IEC 61000-4-5 Surge	Level 3	
	IEC 61000-4-6 CS	Level 3	
	IEC 61000-4-12	Level 3	
Vibration	EN50155	EN50155	

## DIMENSIONS







**BOTTOM SIDE** 



## **ORDERING INFORMATION**

MODEL	PART NUMBER	DESCRIPTION
NR310-4G	A312430	4G LTE, Dual SIMs, 2 x Eth, 1 x RS232 (3 PIN), 1 x RS485, 9 - 36VDC, 2.4GHz Wi-Fi
OPTIONAL ACCES	SORIES	
	F001009	Power Supply Adapter, EU Plug, Input 100 to 240VAC, Output 12V DC 1.5A
	F001011	Power Supply Adapter, AU Plug, Input 100 to 240VAC, Output 12V DC 1.5A
Power Supply	F001012	Power Supply Adapter, US Plug, Input 100 to 240VAC, Output 12V DC 1.5A
	F001013	Power Supply Adapter, UK Plug, Input 100 to 240VAC, Output 12V DC 1.5A
LTE Rubber Antenna	F001006	4G / 3G / 2G Rubber Antenna, 698-960 / 1710-2170 / 2500- 2700 MHz, 2dbi, Φ8×108mm, AC
LTE Magnet Antenna	F001007	4G / 3G / 2G Magnet Antenna, 3 Meters Long, 698-960 / 1710- 2700 MHz, 3dbi, Φ 29×112mm, AC
Wi-Fi Rubber Antenna	F001004	Wi-Fi Rubber Antenna, 2.4G-2.483G, 5dbi, Φ 13×197mm, AC
Wi-Fi Magnet Antenna	F001005	Wi-Fi Magnet Antenna, 3 Meters, 2.4G - 2.483G, 7dbi, Φ 29×220mm, AC
Din-Rail	F004001	Din Rail Kit, 35 mm, Aluminum with Black Spray Surface, 50 * 40 * 8.5 mm, 3 * M3.5 Screw Holes

#### **ABOUT NAVIGATEWORX**

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