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
- 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 Devices Management Platform
- Reduce high costs for onsite maintenance

SPECIFICATIONS

CELLULAR	
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	Reset/restore to factory default button
Ingress Protection	IP30
Housing & Weight	Aluminum, 220 g
Dimensions	103.3 mm x 82.8 mm x 28.8 mm
Installations	DIN-rail mounting
Operating Temperature	-40 °C to 85 °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, Port mapping, DMZ, 1 to1 NAT, DDos Defense
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

MONITORING & MANAGEMENT

Web GUI	HTTP/HTTPS, firmware upgrade
Command Line Interface	SSHv2 and TELNET
Management platform	Devices Management Platform

## APP CENTER

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Apps	**VPN**: IPsec, L2TP, PPTP, DMVPN, Wireguard, Zerotier **Network**: Dynamic Routing (RIPv1/v2, OSPF, BGP), VRRP, Qos, Email Notification, Enforce Modem PPP, NAT Loopback, Loopback, Roaming policy, VPN ICMP detection, GRE VPN Redundancy **Management**: AT over IP, AT over COM, AT over Telnet, SNMPv1/v2/v3/, TR069, DMPC, Captive Portal, AAA **Protocol Converter**: Modbus Master, Modbus Slave, Modbus ID Mapping, Modbus Gateway IEC101-104, Modbus to DNP3, DNP3 to IEC104, Modbus to SparkplugB, Modbus to LwM2M, Modbus to IEC104, DLMS Master, DLMS to IEC104, FTP Transfer **More Apps Demands please contact with us**

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	

DIMENSIONS

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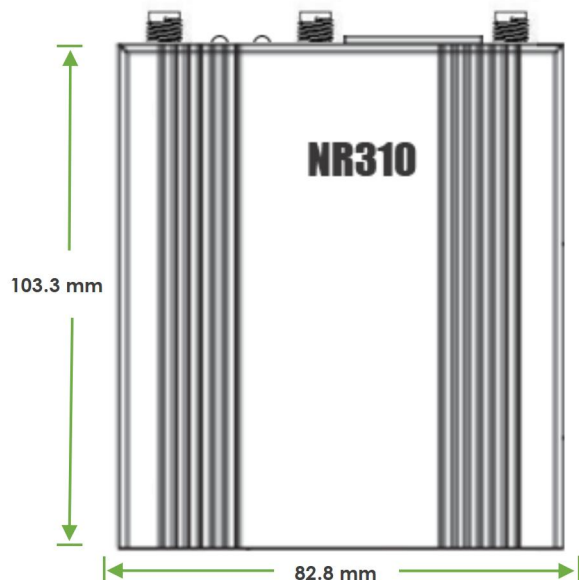
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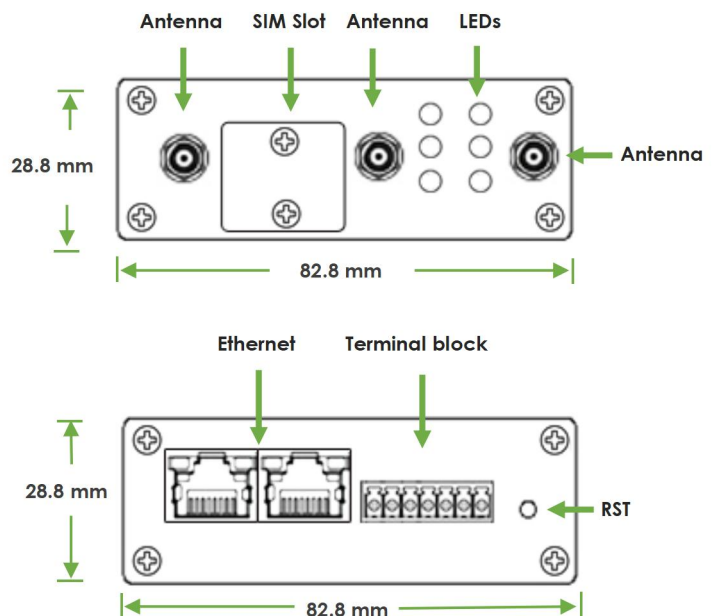
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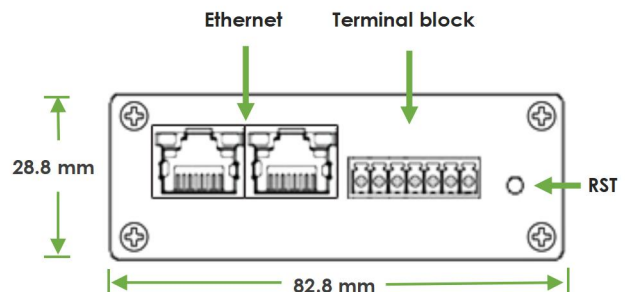
ORDERING INFORMATION

MODEL	PN	Wi-Fi	GNSS	Frequency Bands	Description	Country
NR310-4G	B312403	√	-	**4G:** LTE FDD: B1/B3/B7/B8/B20/B28A **3G:** UMTS: B1/B8 **2G:** GSM: B3/B8	4G LTE, Dual SIMs, 2 x Eth, 1 x RS232 (3 PIN), 1 x RS485,, 9 - 36VDC	EMEA
	B312404	√	-	**4G:** LTE FDD: B1/B2/B3/B4/B5/B7/B8/B28 LTE TDD: B40 **3G:** UMTS: B1/B2/B4/B5/B8 **2G:** GSM: B2/B3/B5/B8	4G LTE, Dual SIMs, 2 x Eth, 1 x RS232 (3 PIN), 1 x RS485,, 9 - 36VDC	Latin America, Australia, New Zealand, Taiwan

OPTIONAL ACCESSORIES

Accessories List	PN	Description
Power Supply	F001009	Power Supply Adapter, EU Plug, Input 100 to 240VAC, Output 12VDC 1.5A
	F001011	Power Supply Adapter, AU Plug, Input 100 to 240VAC, Output 12VDC 1.5A
	F001054	Power Supply Adapter, US Plug, Input 100 to 240VAC, Output 12VDC 1.5A
	F001063	Power Supply Adapter, UK Plug, Input 100 to 240VAC, Output 12VDC 1.5A
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
LTE Rubber Antenna	F001006	4G / 3G / 2G Rubber Antenna, 698-960 / 1710-2170 / 2500-2700 MHz, 2dbi, Φ8×108 mm, AC
LTE Magnet Antenna	F001007	4G / 3G / 2G Magnet Antenna, 3 Meters Long, 698-960 / 1710-2700 MHz, 3dbi, Φ 29×112mm, 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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