



# NAVIGATEWORX NR500 STD

Industrial Cellular VPN Router for Energy, Retail, Transportation and Industrial Automation Applications

Navigateworx NR500 Std industrial cellular VPN router enables wireless data connectivity over public and private LTE cellular networks at 4G speeds.

NR500 Std router has dual SIM backup, 2 LAN ports, RS232 and RS485 interfaces are provided to support Serial to IP communication. NR500 Std router supports 9 to 48 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.

## BENEFITS

Navigateworx NR500 Std industrial cellular VPN router is ideal connecting to 2G/3G/4G LTE network in critical M2M applications and deployments around the world.

### Industrial internet access

- Wireless Mobile Broadband 2G / 3G / 4G Connection
- Remote access to SCADA System for Industrial Automation
- Reduce high costs for on-site maintenance

### Designed for industrial usage

- Power Input Range 9 to 48 VDC
- Industrial design for harsh environment
- Aluminum casing

### Secure and reliable remote connection

- Connection manager ensure seamless communication
- Support Multiple VPN tunnels for data encryption
- Firewall prevents unsafe and unauthorized access

### Easy to use and easy maintenance

- User-friendly web interface for human interaction
- Easy configuration for deployment
- Support Central Management Platform

## APPLICATION EXAMPLE

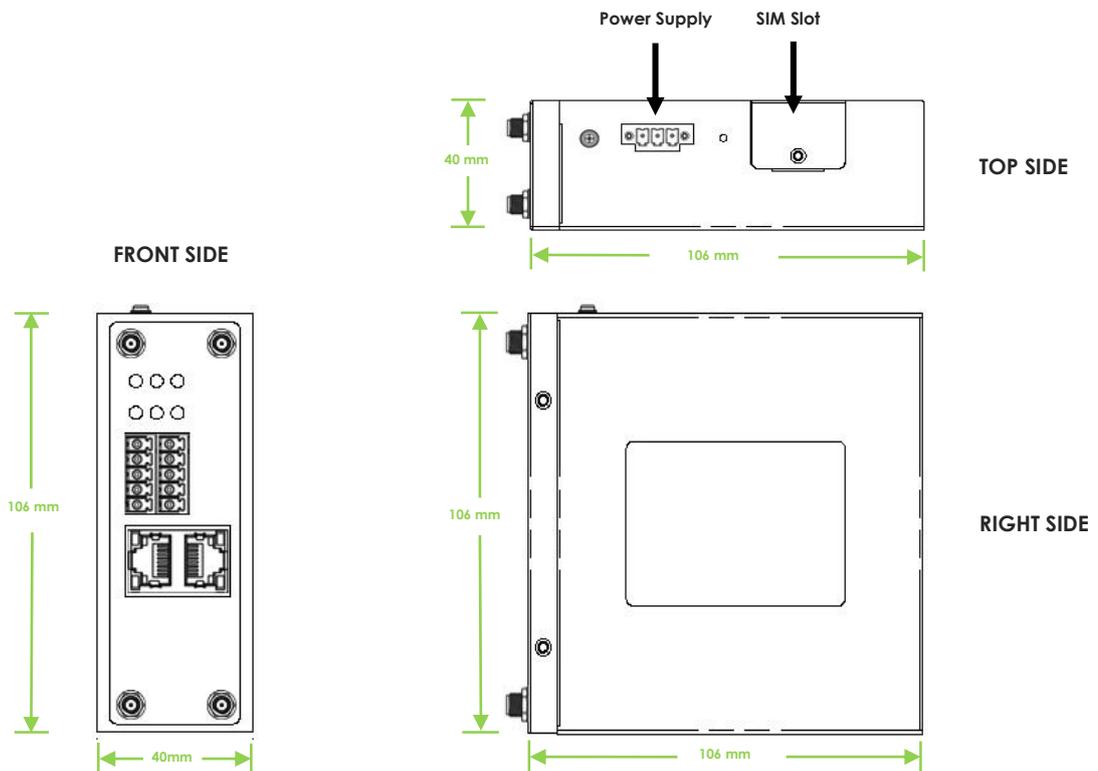


## SPECIFICATIONS

CELLULAR	
Frequency Bands	4G(LTE) AU&NZ: B1/B2/B3/B4/B5/B7/B28, B40 EMEA: B1/B3/B5/B7/B8/B20, B38/B40/B41 America: B2/B4/B12/B13 Japan: B1/B3/B8/B18/B19/B26, B41 China: B1/B3/B8, B34/B38/B39/B40/B41 WCDMA: B1/B2/B4/B5/B8/B19 TD-SCDMA: B34/B39 GSM/EDGE: B2/B3/B5/B8 <b>More Bands Demands please contact with us</b>
SIM	2 x SIM slots, 1.8V / 3V
SIM Failover	Auto-switch cases: data limited, no network, network denied, data connection fail
Auto APN List	Operator APN list
Mobile Quota Control	Set up customized data limits for both SIM cards
SMS	SMS Configuration, SMS Gateway, SMS Notification
Number of Antennas	2 (MAIN + AUX)
Connector	SMA female
ETHERNET	
Number of Ports	1 x WAN + 1 x LAN or 2 x LAN
Port Type	Auto 10/100 Mbps, auto MDI/MDIX
Magnet Isolation Protection	1.5 KV
WIFI(Optional)	
Wireless Mode	IEEE 802.11b/g/n, Access Point (AP), Client
Wireless Speed	2*2 MIMO, 300 Mbps
Wireless Security	WPA, WPA2, WEP, CCMP, TKIP
Frequency Bands	2.412 - 2.484 GHz (2.4 GHz ISM band)
Antennas	2 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
DIGITAL INPUT & OUTPUT	
Type	2 x DI + 2 x DO
Connector	Terminal block
Isolation	3KVDC or 2KVrms
Absolute Maximum VDC	36VDC
Absolute Maximum ADC	100 mA
POWER	
Connector	3-pin 3.5 mm female socket with lock
Input Voltage Range	9 to 48 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	Metal, 300 g
Dimensions	106mm x 106mm x 40mm
Installations	DIN-rail mounting
Operating Temperature	-40 °C to 75 °C
Operating Humidity	5% to 95% non-condensing

NETWORK		
<b>Routing</b>	Static routing	
<b>Dynamic Routing (Optional)</b>	RIPv1/v2, OSPF, BGP	
<b>Network Protocols</b>	TCP, UDP, IPv4, ICMP, NTP, DNS, HTTP, HTTPS, ARP, PPP, PPPoE, DHCP, IP Passthrough, VRRP	
<b>Connection Manager</b>	Ping Detection, Timer Reboot, ICMP for link detection	
<b>Firewall</b>	Flexible access control of TCP, UDP, ICMP packets, MAC address filter	
<b>DDNS</b>	Supported some service providers, others can be configured manually	
<b>Modbus Slave (Optional)</b>	Read device status via Modbus protocol	
<b>SMS</b>	SMS Configuration, SMS Gateway, SMS Notification	
VPN		
<b>OpenVPN</b>	OpenVPN client, supports up to 5 x OpenVPN tunnels	
<b>GRE</b>	Layer2 and Layer3, supports up to 5 x GRE VPN tunnels	
<b>IPsec</b>	IKEv1, IKEv2, supports up to 5 x IPsec VPN tunnels	
<b>DMVPN (Optional)</b>	Dynamic Multipoint Virtual Private Networking DMVPN	
<b>PPTP/L2TP (Optional)</b>	PPTP or Point-to-Point Tunneling Protocol and L2TP or Layer 2 Tunneling Protocol (L2TP)	
MONITORING & MANAGEMENT		
<b>Web GUI</b>	HTTP/HTTPS, firmware upgrade	
<b>Command Line Interface</b>	SSHv2 and TELNET	
<b>Management Platform</b>	Central Management Platform	
APPROVAL		
<b>EMI</b>	EN 55032:2012 Class B	
<b>EMS</b>	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
<b>Vibration</b>	EN50155	

## DIMENSIONS



## ORDERING INFORMATION

MODEL	PART NUMBER	DESCRIPTION
<b>NR500-S4G</b>	A502433	4G LTE, Dual SIMs, 2 x Eth, 1 x RS232 (3 PIN), 1 x RS485, 2 x DI, 2 x DO, 9 - 48VDC
	A512433	4G LTE, Dual SIMs, 2 x Eth, 1 x RS232 (3 PIN), 1 x RS485, 2 x DI, 2 x DO, 9 - 48VDC, 2.4GHz Wi-Fi
<b>NR500-S3G</b>	A502333	3G, Dual SIMs, 2 x Eth, 1 x RS232 (3 PIN), 1 x RS485, 2 x DI, 2 x DO, 9 - 48VDC
	A512333	3G, Dual SIMs, 2 x Eth, 1 x RS232 (3 PIN), 1 x RS485, 2 x DI, 2 x DO, 9 - 48VDC, 2.4GHz Wi-Fi

## OPTIONAL ACCESSORIES



**Power Supply**



**Cellular Rubber Antenna**



**Cellular Magnet Antenna**



**Wi-Fi Rubber Antenna**



**Wi-Fi Magnet Antenna**



**Din-Rail**

## FOR MORE INFORMATION

PLEASE VISIT [WWW.NAVIGATEWORX.COM](http://WWW.NAVIGATEWORX.COM)

Navigateworx is always available to serve you with expert technical support and we will continually concentrate on IIoT / M2M Industry and bring more and more reliable, trustable Solution for our clients. That is NavigateWorx.

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