



# NB2500

## NetBox Wireless Router

### Typical Applications

The NB2500 is the preferred communication module for:

- Remote Management
- Passenger Information Systems
- Digital Signage, Infotainment
- Ticket machines, PoS Terminals
- Buses, Trams, Cars and Boats
- Condition Monitoring
- Land line backup or replacement
- Telemetry

### Key Features

The key features of the NB2500 are:

- UMTS/HSPA and GPRS/EDGE/GSM
- WLAN 802.11 a/b/g
- e1 automotive certification
- Reliable NetBox Software
- Always on - 24/7 operation
- Temperature range -20 - +70°C

### NetBox Software

- Connection supervision
- Automatic connection recovery
- Fallback management
- Flexible Firewall
- Port Forwarding
- IPsec, OpenVPN server and client
- Software configurable
- Fail-safe OTA software update

## NB2500 - The UMTS/WLAN Router

**The NB2500 NetBox Wireless Router reliably connects networks and sites via mobile, WLAN or wired connection. Modern VPN technology enables fully transparent communication for all kind of applications.**

NetBox Software is based on well proven components including an embedded Linux operating system and standard communication protocols. Typical applications are the wireless integration of Points of Sale, ATMs, Digital Signage, building technology or land line backup/replacement.

The device is administrated via web browser or command line. Self-provisioning for new software or new configuration is possible. The device can be configured remotely by customer programs via a powerful application interface. The SMS remote control capability allows remote management by mobile phones. Configurable notifications by SMS or e-mails keeps the operator informed about the current status.

The NB2500 is a compact router and enables fast and secure data transmission between two or more sites. UMTS based services such as High Speed Packet Access (HSPA) is supported as well as Wi-Fi 802.11 a/b/g. For the establishment of Virtual Private Networks (VPN) support for major technologies like IPsec, OpenVPN, PPTP is provided. Dynamic DNS or fixed IP addressing is supported as well.

For mobile internet access a 2G/3G+ modem is embedded. All services from dial-in/out, GPRS, EDGE up to HSPA are supported; the best available service is automatically selected.

Multiple devices can directly be attached to the NB2500 thanks to the integrated 4 port Ethernet switch. Port based VPN assignment allows the separation of networks and guarantees minimal and secure separation of independent applications. One Ethernet port can be configured as an additional WAN interface.

The WLAN interface can also be used as an additional WAN link or it can be operated as an access point to provide Internet access to other WLAN clients.

Flexible least-cost-routing configuration minimizes the communication costs and provides a maximum of communication bandwidth.

The dual SIM feature guarantees best availability of network connections as well it allows minimizing communication costs near country borders by selecting the local provider. Predefined network selection and roaming suppression is supported.

The router is qualified to operate within a temperature range of minus 20 to 70 degrees Celsius. Due its special vibration and shock hardening the device is an ideal solution for applications in harsh environments.

Features	
<b>Mobile interface (option)</b>	Multimode HSDPA, HSUPA, UMTS, EDGE, GPRS and GSM Global connectivity with 3G (900/2100) and quad-band 2G (850/900/1800/1900 MHz) Transparent hand-over between 2G and 3G networks Data rates: max. 7.2 Mbps downlink / 2 Mbps uplink, Power Class 3 (+24 dBm) Antenna connector: SMA female
<b>WLAN interface (option)</b>	Protocols: Wi-Fi 802.11 a/b/g client, Wi-Fi 802.11 b/g server for up to 8 clients Encryption: Wi-Fi Protected Access (WPA and WPA2), Wired Equivalent Privacy (WEP) Antenna connector: SMA female
<b>Ethernet switch</b>	4 port Ethernet switch, 10/100 Mbps, auto MDX Connector type: RJ45
<b>GPS receiver (Option)</b>	GPS receiver with NMEA 0183 data stream Support for passive antennas
<b>Serial interface</b>	Protocol: 1 x RS232/RS485 DCE interface Connector type: RJ45
<b>Power</b>	Input voltage: 12V DC to 24V DC (+ 25% /- 20%) Max. power consumption: 5W
<b>Environment</b>	Base model: -40 °C to +80 °C, models containing UMTS or WLAN modules: -25 °C to +70 °C IP40 with SIM cover mounted
<b>Dimensions</b>	165/195mm x 40mm x 104mm
<b>Safety standards</b>	EN60950-1:2006
<b>EMC standards</b>	EN301489-1 V1.7.1, EN301489-7 V1.3.1 (Emission) EN61000-6-2:2005, EN50121-3-2:2006 and EN50121-4:2006 (Immunity)
<b>Type approvals</b>	CE according to R&TTE e1 according to directive 72/245/EWG as last amended by 2009/19/EG
<b>Order number</b>	
NB2500 - 300-0	4 Port switch, firewall, Lan-Lan-Router, OpenVPN server
NB2500 - 304-0	WLAN router
NB2500 - 310-0	EDGE router
NB2500 - 310-1	EDGE router with GPS
NB2500 - 320-0	UMTS/HSAP router
NB2500 - 320-1	UMTS/HSPA router with GPS
NB2500 - 324-1	UMTS/HSPA, WLAN router with GPS

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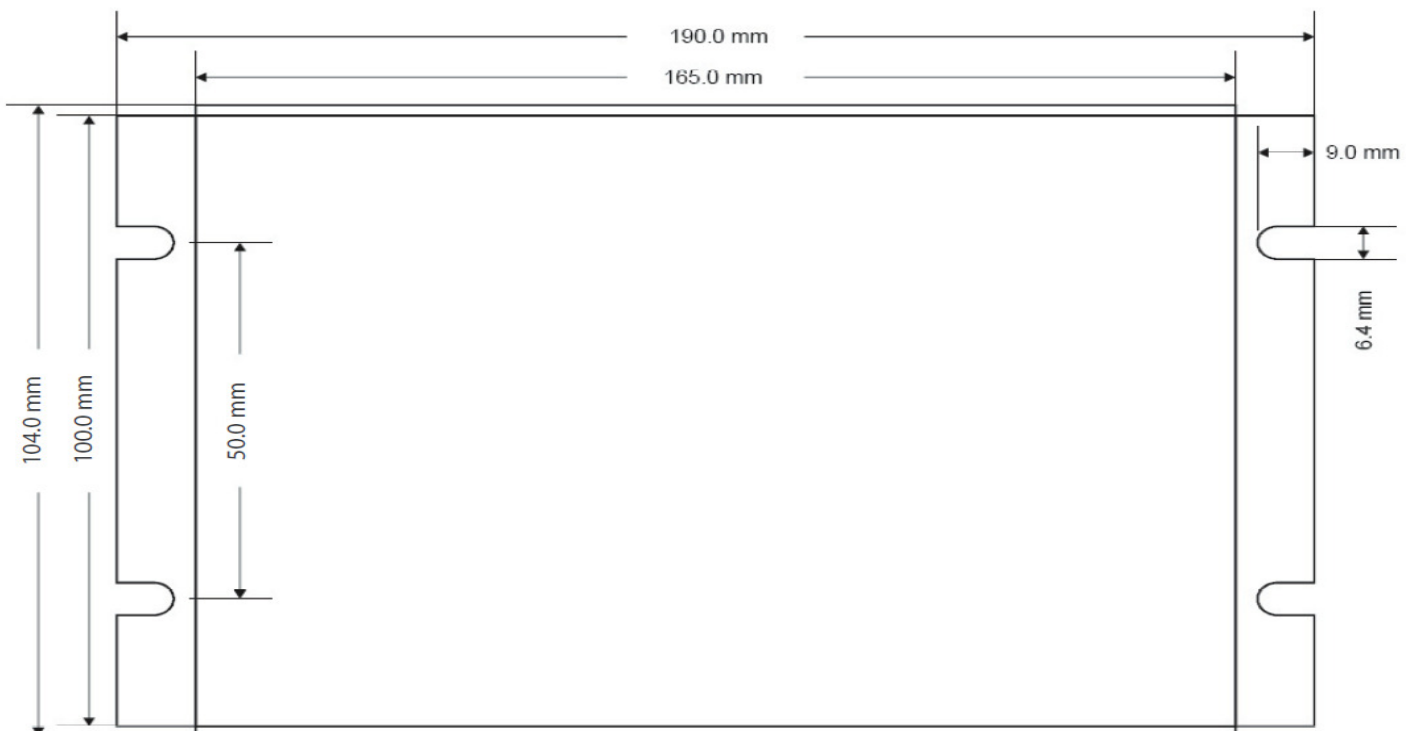
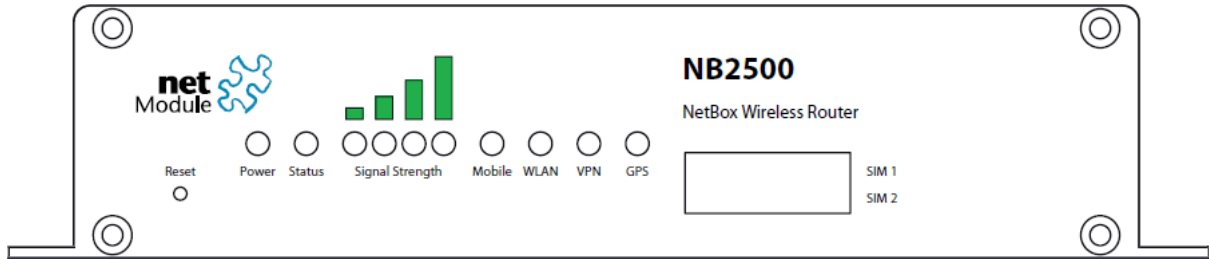
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## Drawings

Height: 40mm



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