



NB2600R

Wireless Router for Railway

EN50155 certified

Applications

The NB2600R is the preferred railway communication module for:

- Mobile broadband
- Condition monitoring
- Remote management
- Passenger information systems
- Electronic payment systems
- VoIP communication

Key Features

The key features of the NB2600R are:

- EN50155 certification
- 2G/3G+, WLAN, GPS communication in one device
- Heavy duty connectors
- Always on - 24/7 operation
- NetBox software

NetBox Software

- Connection supervision
- Automatic connection recovery
- Fallback management
- Flexible firewall
- Port forwarding
- IPsec, OpenVPN server and client
- Fail-safe OTA software update

NB2600R - The Railway Router

The NB2600R NetBox Wireless Router is a communication module for railways. Typical applications are mobile Internet access, remote management, condition monitoring as well as connecting passenger information and digital signage systems.

NetBox Software is based on well proven components including an embedded Linux operating system and standard communication protocols.

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 NB2600R 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 NB2600R thanks to the integrated 5 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 EN50155/T3 certified and operates within a temperature range of -25 to +70° Celsius. Due its special vibration and shock hardening the device is an ideal solution for applications in harsh environments.

Features	
Mobile interface	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: TNC female
WLAN interface	Protocols: Wi-Fi 802.11 a/b/g client, Wi-Fi 802.11 b/g access point for up to 8 clients Encryption: Wi-Fi Protected Access (WPA and WPA2), Wired Equivalent Privacy (WEP) Antenna connector: TNC female
Ethernet switch	5 port Ethernet switch 10/100 Mbps, auto MDX, connector type: M12 4-poles D-coded female
GPS receiver	GPS receiver with NMEA 0183 data stream supporting active and passive antennas. TNC female
Serial interface (option)	Protocol: 1 x RS232 DCE interface instead of fifth Ethernet port Connector type: M12 4-poles D-coded female
Service interface	USB Device interface, RNDIS providing virtual Ethernet link protocol , connector type: USB B
Digital I/O	M12 8-pole A-coded female 2 digital inputs, maximum input voltage 40 VDC, minimum voltage for level 1 (set): 7.2 VDC, maximum voltage for level 0 (not set): 5.6 VDC. Note: a negative input voltage is not recognized. 2 digital outputs, limiting continuous current: 1 A, maximum switching voltage 60 VDC, 42 VAC (Vrms), maximum switching capacity: 60 W
Power	Nominal voltages: 24VDC and 36VDC according to EN50155, Voltage range: 20VDC to 50VDC, -15% / +20%, max. power consumption: 6W Connector type: M12 4-poles A-coded male, Pin1 +, Pin3 - No batteries included
Environment	EN50155 T3, Base model: -40 °C to +80 °C, models containing UMTS or WLAN modules: -25 °C to +70 °C IP30, IP54 option available
Dimensions, weight	190mm x 86mm x 104mm, ca. 750g
MTBF	60'000h
Safety standards	EN60950-1:2006
EMC standards	EN301489-1 V1.7.1, EN301489-7 V1.3.1 (Emission) EN61000-6-2:2005, EN50121-3-2:2006 and EN50121-4:2006 (Immunity)
Railway standards	EN50155, CEN/TS 45545, IEC 60068-2-6:1982; IEC 60068-2-27:1987
Type approval	CE according to R&TTE
Order number	
NB2600R-324-1	UMTS/HSPA, WLAN router with GPS Other variants and customer specific configurations possible - please contact us.

NetModule AG

 Meriedweg 11
 3172 Niederwangen

 T +41 31 985 25 10
 F +41 31 985 25 11

Switzerland

NetModule GmbH

 Frankfurter Strasse 92
 65760 Eschborn

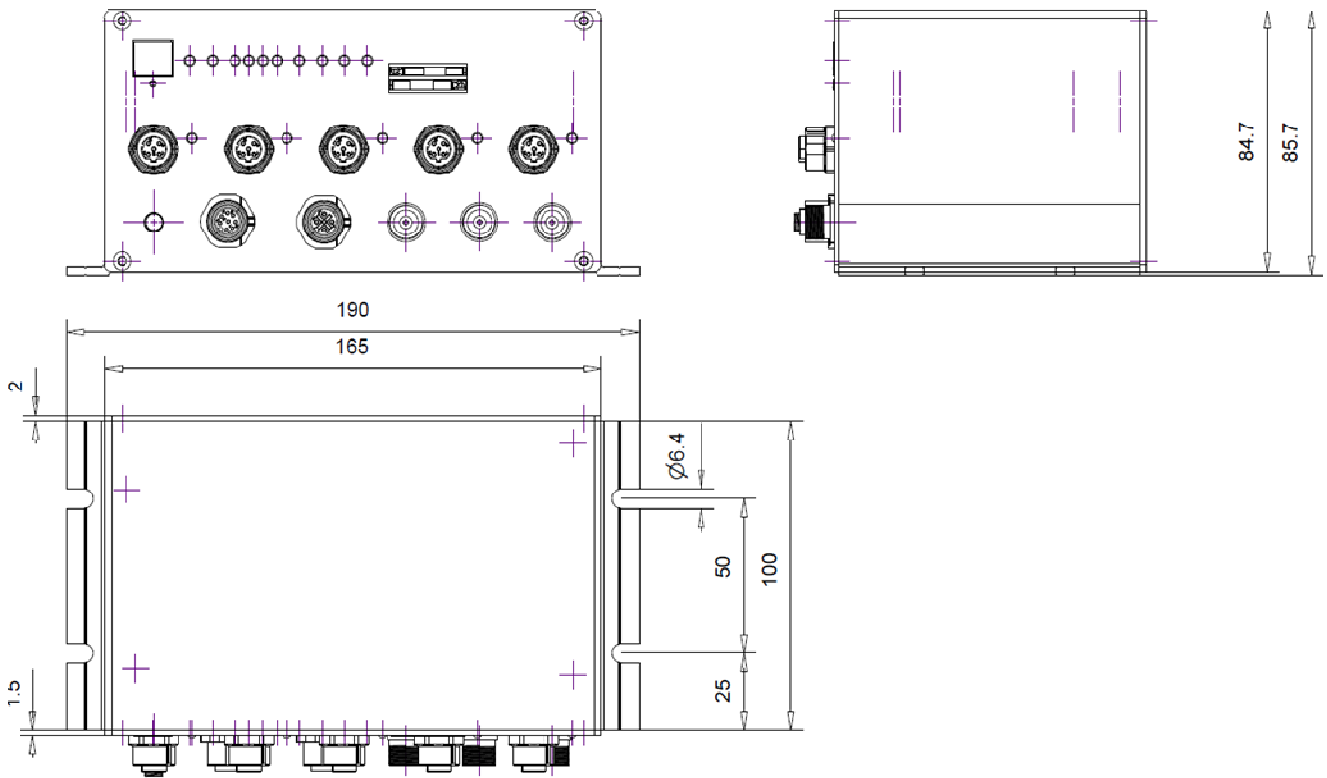
 T +49 6196 77 99 79 0
 F +49 6196 77 99 79 9

Germany

Errors Reserved

30/03/2011 © NetModule AG | Product Information NB2600R

Drawings



NetModule AG

Meriedweg 11
3172 Niederwangen

T +41 31 985 25 10
F +41 31 985 25 11

Switzerland

NetModule GmbH

Frankfurter Strasse 92
65760 Eschborn

T +49 6196 77 99 79 0
F +49 6196 77 99 79 9

Germany

Errors Reserved

30/03/2011 © NetModule AG | Product Information NB2600R