NB1600 LTE/4G Router
Mobile Router (LTE, UMTS, GSM)

net Module

Key Features

- Mobile 2G / 3G / 4G
- 2 Ethernet ports
- 2 digital inputs & outputs
- USB & RS-232
- Redundant power supply
- DIN rail mounting
- Programmability

The NB1600 mobile router brings mobile broadband to the DIN rail or any other place where a fixed Internet connection is unavailable, unsuitable and too expensive.In addition all NB1600 core functions are available: digital I/O, USB and serial gateway, SDK, VPNs and many more.

The NetModule NB1600 is a powerful and programmable industrial mobile broadband router for remote management, telemetry, condition monitoring, CCTV, ATMs, vending machines and other M2M applications.

For mobile internet access a GSM/UMTS or a GSM/UMTS/LTE modem is embedded. The best available service is selected automatically.

As a special highlight NB1600 offers two Ethernet ports that are highly configurable. Used as LAN ports they form a two port switch or have separated, routed IP networks. Configured as WAN port, an external modem or land line can be attached in order to add redundancy.

The RS-232 serial interface can act as serial device server or system console. Legacy equipment that does not have any Ethernet or USB port can be hooked up this way. Furthermore, the serial line can be assigned to the SDK and be controlled from there.

The NB1600 has two isolated binary inputs and two relay outputs for direct connection of sensors and actuators. The logic for the inputs/outputs is implemented by the user in the SDK environment on the router.

The USB port enables configuration and firmware update from memory stick. You may also configure it as a device server. Please ask for support of your special USB device.

The router firmware supports common VPN technologies such as IPsec and OpenVPN. Both, server and client mode is possible. Simple handling of a Public key infrastructure makes is easy to connect two NB1600 trough a VPN tunnel.

Further services include DHCP server, DNS proxy server, DDNS agent, SNMP agent, telnet server, SSH server, web server, e-mail client and SMS client. The device is administrated via an easy to use web GUI or the command line interface. Over the air software update is both easy and fail-safe.

Specifications

Mobile / Cellular	Multimode LTE, UMTS and GSM module LTE/4G FDD Bands: B1(2100), B2(1900), B3(1800), B5(850), B7(2600), B8(900), B20(800) DC-HSPA+/UMTS/3G: B5(850), B8(900), B2(1900), B1(2100) GSM/2G: B5(850), B9(900), B3(1800), B2(1900) Data rates: LTE max. 100 Mbps downlink / 50 Mbps uplink (DC-HSPA+ 42/5.76) Antenna connector: 1-2 SMA female
Digital I/O	2 digital inputs, level 0 (not set): 0-4.0 VDC level 1 (set): 7.2-40 VDC 2 digital outputs, 0-60 VDC/1A, maximum switching capacity: 60 W Connector: 8 pins of 15-pin terminal block
Ethernet	2 Ethernet ports, 10/100 Mbps, Auto MDX, bridged or routed, RJ45
USB	USB Host interface, type A
Serial	Protocol: 3-wire RS232; Connector type: 3 pins of 15-pin terminal block
Power	Redundant power supply inputs Input voltage: 12V DC to 48V DC (-15% / +20%) Max. power consumption: 5W Connector type: 2+2 pins of 15-pin terminal block
Dimensions	124.2mm x 45mm x 110mm ca. 450g
Environment	Temperature range: -25 °C to +70 °C Ingress Protection Rating: IP40; MTBF: 226'000h
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)
Type Approvals	CE according to directive 1995/5/EC (R&TTE) FCC according to 47 CFR, Part 15
Order numbers: NB1600-L	(contact sales for more models, options or project specific adaptations) LTE Router