NB800 LTE

Wall-Mounted Industrial Router with LTE and Ethernet

The NB800 enables robust Internet connection for vending machines, ticketing or remote management. Its small form factor and the reduced features make it the ideal device for straightforward connectivity tasks.

The industrial grade router provides key technologies to access any kind of applications in the Internet, but also Intranet sites and remote stations which can be connected via its powerful VPN protocol suite including OpenVPN and IPsec.

The integrated modem supports MIMO LTE networks and ensures WWAN connectivity with up to 100 Mbps. The Ethernet port makes it possible to connect other devices or networks. A hardware shield concept brings additional flexibility to turn the NB800 into an application specific tailored device (OEM) or to follow the technology changes. By now, shields with dual CAN or digital I/Os and serial interfaces are available.

The durable aluminum housing suitable for wall-mounting in combination with the supported temperature range -40 °C to 70 °C stands for its robustness. NB800 resists mechanical and thermal stress.

The router software is based on well proven components including an embedded Linux operating system and a wide range of communication and routing protocols as VLAN, Mobile IP, OSPF, BGP and RSTP. It's possible to run customer applications in a LXC Container. An SDK gives programmers a great tool to implementing all kind of applications with simple scripts. Data preprocessing can be done directly on the router, thus saving an additional IPC. Other features include a smart Link Manager for optimized cellular connections, Quality of Service (QoS) for an efficient data exchange, E-Mail and SMS for alarming and notifications, a web server and RADIUS authentication and hidden SSID's for WLAN.

Key Features

- LTE/UMTS/GSM
- Ethernet
- Expandability by shields
- NetModule Router Software
- SDK Scripting & LXC
- Small form factor
- Fanless

Performance

- 600 MHz CPU
- 100 Mbps routing performance

Specifications

Mobile / Cellular	1 Multimode LTE, UMTS and GSM module 4G - LTE/FDD Bands: B1(2100 MHz), B2(1900 MHz), B3(1800 MHz), B4(AWS), B5(850 MHz), B7(2600 MHz), B8(900 MHz), B20(800 MHz) 3G - UMTS/DC-HSPA+: B1(2100 MHz), B2(1900 MHz), B5(850 MHz), B8(900 MHz) 2G - GSM/GPRS/EDGE: B5(850 MHz), B8(900 MHz), B3(1800 MHz), B2(1900 MHz) Data rates: max. 150 Mbps downlink / 50 Mbps uplink (Bandwidth 20M CAT4) 2 SMA antenna connectors supporting 2x2MIMO or standard antennas 1 Micro SIM (3FF) ETSI TS 102 221 V9.0.0, Mini-UICC
Ethernet	1 Ethernet port, 10/100 Mbps, auto MDIX - Connector type: RJ45
USB	USB 2.0 Host Port, USB A connector type
Shields (Optional)	COM/IO shield: Protocols: RS-232 (RXD, TXD) or RS-485 (D+, D-) configurable Bit Rates: up to 1Mbps; RS-485 bus termination: 120R (configurable) 1 DI: level 0 (0-3VDC), level 1 (9-36VDC), isolation: 1500VAC 1 DO: 0-36VDC/1A; isolation: 1500VAC -- or -- 2xCAN shield: Bit rates: up to 1Mbps; bus termination: 120Ohms (configurable) -- Extension connector: 6 pin terminal block, 3.5 mm pitch
Storage	4GB internal
Power	Nominal Input Voltages: 12VDC (+/-20%), 24VDC (+/-20%) Average power consumption: 5W Connector type: 2 pin terminal block, 3.5 mm pitch
Environment	Operational temperature: -40 °C to +70 °C; Storage temperature: -40 °C to +85°C Ingress Protection Rating: IP40
MTBF	>440.000h depending on model
Dimensions, weight	Width 85/111mm x height 32mm x depth 110mm, ca. 250g
Compliance	CE according to 2014/53/EU (RED), 2011/65/EU (RoHS), 2012/19/EU (WEEE), 1907/2006/EC (REACH) FCC according to 47 CFR, Part 15B
Standards	EN 62368-1, EN 62311, EN 55024, EN 55032, EN 61000-6-2, EN 61000-6-3, EN 301 489-1, EN 301 489-7, EN 301 489-17, EN 301 489-24, EN 300 328, EN 301 511, EN 301 893, EN 301 908-1, EN 301 908-2, EN 301 908-13
Order numbers NB800-LSu NB800-LScSu	(contact sales for more models, options or project specific adaptations) LTE Router + USB LTE Router + COM/IO + USB