

NB800-LScSu-G

IIoT-Router with LTE + ETH + RS-232/485 + DIO + USB + GNSS

Compact and modular mobile router to connect remote locations.



Keyfeatures

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| Mobile / Cellular | 1x LTE, UMTS, GSM |
| SIM | 1x Micro SIM / 1x eSIM chip (on request) |
| Ethernet | 1x Fast Ethernet |
| Positioning | Multi-GNSS |
| IO | 2x Digital I/O |
| Serial / Fieldbus | 1x RS-232/485 |
| USB | USB 2.0 Host |
| Operation Temperature | -40 °C to +70 °C |
| Software | Routing, Network Services, VPN, Firewall, Link Management, Supervisor, SDK, free updates. |
| Compliance | CE (RED), UKCA (RER), UL/IEC/EN 62368-1, FCC, |
| Modularity | Extensions on request |

Product description

The compact NB800 is the cost-effective solution for a robust Internet connection in an industrial environment.

Applications

- Condition Monitoring
- Factory Automation
- Remote Management
- Smart Buildings
- Intelligent Lighting Management
- Environmental Monitoring
- Smart Traffic
- ATMs
- Point of Sale
- Renewable Energy

Specifications

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|--------------------------|-------------------|--|
| Mobile / Cellular | Standard | 1x Multimode LTE, UMTS, GSM for EMEA 4G - LTE B1 (2100), B3 (1800), B5 (850), B7 (2600), B8 (900), B20 (800) 3G - DC-HSPA+/UMTS B1 (2100), B2 (1900), B5 (850), B8 (900) 2G - GSM/GPRS/EDGE B2 (1900), B3 (1800), B5 (850), B8 (900) Category LTE Cat 4 Antenna ports 2x2 MIMO Data rate down / up (max) 150 Mbps / 50 Mbps Voice CSFB (with optional Software License) FCC ID XPTYOBYL210 |
| | Region | Europe |
| | Connectors | 2x SMA female |
| | SIM | 1x Micro SIM - 3FF / eSIM Chip (on request) |
| Ethernet | Standard | 1x Fast Ethernet Ethernet standard 100BASE-TX, Auto MDIX Speed 10/100 Mbps |
| | Connector | 1x RJ45 |

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| Positioning | Standard | 1x Multi-GNSS Receiver BeiDou, Galileo, GLONASS, GPS/QZSS 72-channel u-blox M8 engine 3 concurrent GNSS channels Antennas Active or passive Accuracy Up to 2.5 m CEP Sensitivity Up to -167 dBm Services Standalone, Assisted GPS Data server with JSON, NMEA data stream |
| | Connector | 1x SMA female |
| USB | Standard | 1x USB 2.0 Host |
| | Connector | 1x Type A |
| Serial, Fieldbus | Protocol | 1x RS-232/485 combo (software switchable) Protocol EIA-232 Signals TX, RX Signal level High > 5 VDC, low < -5 VDC Bit rate Up to 115'200 Bit/s Protocol EIA-485 Signals A, B Signal level Differential output voltage, loaded 1.5 VDC - 3.6 VDC Bit rate Up to 115'200 Bit/s Termination 120 Ω for RS-485 configurable by software |
| | Connector | 1x Terminal block header 3.5 mm |
| IOs | Type | 2x Digital I/O Signals 1x DI, 1x DO DI signals +, - DI level Low: 0 - 3 VDC, high: 9 - 32 VDC DO signals Relay outputs with NO, NC, COM (normally open, normally closed) DO level 0 - 32 VDC/1A Isolation 1'500 VDC Module COM-I/O shield |
| | Connector | 1x Terminal block header 3.5 mm |
| System | Core | 1 GHz single core, 512 MB RAM, 4 GB flash, HW Rev. B02 |
| | Module Slots | 1x Shield |
| Software | Features | NetModule Router Software (supported features depending on product variant) Package The standard software package includes an intuitive user interface, covering all modern routing protocols and enables efficient mass deployment. General Fail-safe update (FOTA), upgrade via USB, HTTP(S), (S)FTP or TFTP, remote CLI & WebGUI, RADIUS authentication, Simple Certificate Enrollment Protocol (SCEP), Hardware- und Software Watchdog Remote Management Manage and monitor devices with SNMP V1/V2/V3, Netmodule vendor MIB, telnet, SSH, or HTTP/HTTPS Cellular Networking Multi-SIM / eSIM support (optional license), multi-APN support, signal strength monitoring, dedicated bearers, CSFB/VoLTE calls (optional license) Wireless LAN Access Point, Client Mode, Mesh Point or Dual Modes (Mesh Access Point / Access Point - Client), WLAN Pseudo-Bridge Client Mode: Multiple Client SSID Profile, Encryption: Open, WEP, WPA1/2/3-Personal, WPA1/2/3-Enterprise. Fast Roaming: Fast BSS Transition (802.11r), PreAuthentication, Protected Management Frames (802.11w) AP Mode: Multi-SSIDs (up to 8) Encryption: Open WPA1/2/3-Personal, WPA1/2/3-Enterprise Fast Roaming: Fast BSS Transition (802.11r), PreAuthentication, DFS support Protected Management Frames (802.11w) Client Tracking, Band Steering, Hide SSID broadcasting, Isolate Clients, Accounting, Short guard Intervall Mesh Mode (802.11s): Encryption: None, SAE. Gateway announcements Link Management Link prioritization, link aggregation, load balancing, multipath-TCP, IP-passthrough, link supervision, Services DHCP Client/Server, DNS Caching Server, Email, SMS Service, NTP Client/Server, SNMP Server, DynDNS, SSH Server, SNMP Agent, HTTP/HTTPS/FTP Server, IPv6 for WAN, 802.1x over Ethernet, MQTT Broker Voice Gateway (SIP, Call Routing, Audio with optional license) Coovachilli Hotspot Routing Destination, policy, multipath, mobile-IP, OSPF, BGP, multicast, TCP-MSS clamping, bridging discovery protocols LLDP, CDP, SONMP, EDP, FDP, IRDP, VRRP, STP/RSTP, VRRP, VLAN, PPPoE, VXLAN VPN OpenVPN, IPsec (IKEv1 and IKEv2), PPTP, GRE, L2TP, CSD dial-in, Certificate revocation service Firewall Stateful firewall, connection tracking, NAT, NAPT, masquerading, bridge filtering, Adress translation (based on SRC and DST ports) Encryption supporting password protected PKCS12 files, integrated random certificate key generator, "Let's encrypt" certificate, ECC (Certificates with Elliptic Cryptography) Quality of Service Diffserv, SFQ, HTB, Priority-based Queuing, Netflow (Softflow) Programmability SDK Troubleshooting Logging, Ping, Traceroute, Tcpdump, Speed-test |
| | Licenses | GNSS Enabled service GNSS location service Server with JSON-, NMEA stream |
| Power | Input Voltage | 12, 24 VDC Nominal voltages 12, 24 VDC Absolute voltages 12 VDC to 24 VDC (-20 % / +20 %) |
| | Connector Consumption | 1x Terminal block header 3.5 mm 5 W (average), 10 W (max) |

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| Mounting | | Bracket |
| Dimensions | W x H x D | Width 85/111 mm x height 32 mm x depth 110 mm |
| Weight | | 250 g |
| Environment | Operating Temperature Ingress Protection Level | -40°C to +70°C IP40 |
| MTBF | | 340'000 h / 38.8 years, according SN29500 at environmental temperature 40 °C |
| Certifications | Compliance Domain | CE according to 2014/53/EU (RED), 2011/65/EU (RoHS) Industrial |
| Order Code | | NB800-LScSu-G |