

NB800-LWWtSu2Cm-GE

Vehicle Router with LTE + WLAN + BT/BLE + ETH + USB + 2x CAN-passive + GNSS + E-Mark

Compact general purpose onboard communication unit for special vehicles.



Keyfeatures

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|------------------------------|--|
| Mobile / Cellular | 1x LTE, UMTS, GSM |
| SIM | 1x Micro SIM / 1x eSIM Chip (on request) |
| WiFi / WLAN | 1x Dual-band IEEE 802.11a/b/g/n (Wi-Fi 4), 1x Bluetooth Low Energy |
| Ethernet | 1x Fast Ethernet |
| Serial / Fieldbus | 2x CAN passive (read only) |
| USB | USB 2.0 Host |
| Positioning | Multi-GNSS |
| Operation Temperature | -40 °C to +70 °C |
| Software | Routing, Network Services, VPN, Firewall, Link Management, Supervisor, SDK, free updates |
| Compliance | CE (RED), Vehicle (UNECE-R10, UNECE-R118) |
| Modularity | Extensions on request |

Product description

The compact NB800 is the cost-effective solution for a robust on-board Internet connection in vehicles.

Applications

- Emergency Services
- Smart Traffic
- Fleet Management
- Agriculture
- eMobility
- Telematics

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 XPYTOBYL210 |
| | Region | Europe, Middle East and Africa (EMEA) |
| | Connectors | 2x SMA female |
| | SIM | 1x Micro SIM - 3FF / eSIM Chip (on request) |
| WiFi / WLAN | Standard | 1x Dual-band WLAN 2.4/5 GHz a/b/g/n (Wi-Fi 4) + BT 4.2 combo Wireless standard IEEE 802.11a/b/g/n (Wi-Fi 4) Bluetooth 4.2, Bluetooth Low Energy Frequency 2.4/5 GHz Antenna ports 2x2 MIMO Data rate (max) 144 Mbps 2.4 GHz 2x2 MIMO, 150 Mbps 5 GHz SISO Modes Client or access point (up to 10 clients) FCC ID Z64-WL18DBMOD |
| | Connector | 2x SMA female |
| | Ethernet | 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 | 2x CAN Protocol Controller Area Network V2.0B (ISO 11898) Signals CANH, CANL Signal level High > 2.75 V, low < 2.0 V Bit rate Up to 1 Mbps Termination No internal bus termination Bus access Passive - read access only Module CAN 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, SNTP 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 | 1x Terminal block header 3.5 mm |
| | Consumption | 5 W (average), 10 W (max) |
| Mounting | | Bracket |
| Dimensions | W x H x D | Width 85/111 mm x height 32 mm x depth 110 mm |
| Weight | | 220 g |

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|-----------------------|---|---|
| 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), Vehicle according to UNECE-R10, UNECE-R118 Vehicle |
| Order Code | | NB800-LWWtSu2Cm-GE |
