

NB800-LjWWtScSu-SGViSe

IIoT-Router with LTE-WW +WLAN +BT/BLE +COM-I/O +USB +OpenVPN Server +GNSS +Virt + eSIM

Compact and modular mobile router to connect remote locations.



Keyfeatures

Mobile / Cellular	1x LTE, UMTS, GSM
SIM	1x Micro SIM
WiFi / WLAN	1x Dual-band IEEE 802.11a/b/g/n (Wi-Fi 4), 1x Bluetooth Low Energy
Ethernet	1x Fast Ethernet
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, OpenVPN Server, LXC Virtualization, eSIM Profile Update, Firewall, Link Management, Supervisor, SDK, free updates
Conformity	CE (RED), UKCA (RER), UL*/IEC/EN 62368-1, FCC, PTCRB, AT&T, RCM*
Modularity	Extensions on request

* in Progress

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
- Point of Sale
- Industrial Security
- Renewable Energy

Specifications

Mobile / Cellular	Standard	1x Multimode LTE, UMTS, GSM, data only 4G - LTE B1, B2, B3, B4, B5, B7, B8, B12, B13, B18, B19, B20, B26, B28, B38, B39, B40, B41 2014/53/EU (RED): B1, B3, B7, B8, B20, B28, B38, B40 3G - DC-HSPA+/UMTS B1, B2, B5, B8 2014/53/EU (RED): B1, B8 2G - GSM/GPRS/EDGE B2 (1900), B3 (1800), B5 (850), B8 (900) 2014/53/EU (RED): B3 (1800), B8 (900) Category LTE Cat 4 Antenna ports 2x2 MIMO Data rate down / up (max) 150 Mbps / 50 Mbps Voice - Data only FCC ID XPYUBX21BE01 Region Europe, Middle East and Africa (EMEA), North America (NA), Asia and Pacific (APAC) Europe, United States of America (USA) Connectors 2x SMA female SIM 1x Micro SIM - 3FF
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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 POR-WL18DBMOD
	Connector	2x SMA female
Ethernet	Standard	1x Fast Ethernet Ethernet standard 100BASE-TX, Auto MDIX Speed 10/100 Mbps
	Connector	1x RJ45
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	600 MHz single core, 512 MB RAM, 4 GB flash, HW Rev. A
	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	S-OpenVPN Server, Enabled services Extend number of openVPN clients from 10 to 25 an enables DynDNS server Software Key Open VPN Server Licens, up to 25 Clients LXC virtualization, Enabled service Linux Container (LXC) environment to integrate customer specific applications, isolated from the router functionalities eUICC, Enabled services Remote eUICC SIM profile update with static profile management. Standard According to the remote subscriber provisioning standardized by GSMA in SGP.21 and 22 and validated according to SGP.23. GNSS, Enabled service GNSS location service Server with JSON-, NMEA stream OpenVPN Server (up to 25 clients) Enabled service Extends number of OpenVPN clients from 10 to 25 and enables DynDNS server
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)
Mounting		Bracket
Dimensions	W x H x D	Width 85/111 mm x height 32 mm x depth 110 mm
Weight		220 g
Environment	Operating Temperature	-40°C to +70°C
	Ingress Protection Level	IP40
MTBF		340'000 h / 38.8 years, according SN29500 at environmental temperature 40 °C
Certifications	Compliance	CE according to 2014/53/EU (RED), 2011/65/EU (RoHS), UKCA (RER), UKCA (RER), UL*/IEC/EN 62368-1, FCC, PTCRB*, AT&T* (* in progress)
	Domain	Industrial
Order Code		NB800-LjWWtScSu-SGViSe