

NB1800-LWac-G

Industrial Router with LTE + WLAN-ac + 2x GbE + SFP + GNSS

High-performance and modular mobile router with Gigabit Ethernet and fiber ports to connect remote locations.



Keyfeatures

Mobile / Cellular	1x LTE, UMTS, GSM
SIM	2x Micro SIM
WiFi / WLAN	1x Dual-band IEEE 802.11 a/b/g/n/ac (Wi-Fi 5), 100 Clients in Access Point Mode
Ethernet	2x Gigabit Ethernet, 1x SFP
Extended Storage	1x SD Card
Serial / Fieldbus	1x RS-232/485
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)
Modularity	Extensions on request

Product description

The powerful NB1800 router enables fast Internet access in an industrial environment.

Applications

- Industrial Security
- Point of Sale
- Public WiFi
- Smart Grid
- Oil & Gas
- Renewable Energy
- Mining
- Factory Automation
- Smart Traffic
- CCTV

Specifications

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 FCC ID XPYTOBYL210
	Region Connectors SIM	Europe, Middle East and Africa (EMEA) 2x SMA female 2x Micro SIM - 3FF
WiFi / WLAN	Standard	1x Dual-band WLAN 2.4/5 GHz a/b/g/n/ac (Wi-Fi 5) Wireless standard IEEE 802.11a/b/g/n/ac (Wi-Fi 5) Frequency 2.4/5 GHz Diversity 2x2 MIMO Data rate (max) 300 Mbps (2.4 GHz) / 866 Mbps (5 GHz) Modes Client or access point (up to 100 clients) FCC ID TK4WLE600VX
	Connector	2x SMA female

Ethernet	Standard	<p>2x Gigabit Ethernet</p> <p>Ethernet standard 1000BASE-T, Auto MDIX</p> <p>Speed 10/100/1000 Mbps</p> <p>1x Gigabit Ethernet / SFP combo (software switchable)</p> <p>Ethernet standard 1000BASE-T, Auto MDIX</p> <p>SFP standard Depending on module, ask for supported modules</p> <p>Speed 10/100/1000 Mbps</p> <p>Combo port SFP or GbE interface activated (software switchable)</p>
	Connector	2x RJ45, 1x RJ45
Positioning	Standard	<p>1x Multi-GNSS</p> <p>Receiver BeiDou, Galileo, GLONASS, GPS/QZSS</p> <p>72-channel u-blox M8 engine</p> <p>3 concurrent GNSS channels</p> <p>Antennas Active or passive</p> <p>Accuracy Up to 2.5 m CEP</p> <p>Sensitivity Up to -167 dBm</p> <p>Services Standalone, Assisted GPS</p> <p>Data server with JSON, NMEA data stream</p>
	Connector	1x SMA female
USB	Standard	1x USB 2.0 Host
	Connector	1x Type A
Serial, Fieldbus	Protocol	<p>1x RS-232/485 combo (software switchable)</p> <p>Protocol EIA-232</p> <p>Signals TX, RX</p> <p>Signal level High > 5 VDC, low < -5 VDC</p> <p>Bit rate Up to 1 Mbps</p> <p>Protocol EIA-485</p> <p>Signals A, B</p> <p>Signal level Differential output voltage, loaded 1.5 VDC - 3.6 VDC</p> <p>Bit rate Up to 1 Mbps</p> <p>Termination 120 Ω for RS-485 configurable by software</p>
	Connector	1x Terminal block header 3.5 mm (screw locking)
Extended Storage		<p>SD Card</p> <p>Slot type microSD</p> <p>Speed (read / write) 600 kByte / s</p> <p>Application Store user and logging data of SDK or LXC applications</p> <p>SD card not included</p>
System	Core	1.3 GHz dual-core, 1 GB RAM, 4 GB flash
	Module Slots	2x miniPCIe (PCIe + USB), 2x Extension (USB)
Software	Features	<p>NetModule Router Software</p> <p>Package The standard software package includes an intuitive user interface, covering all modern routing protocols and enables efficient mass deployment.</p> <p>General Fail-safe update (FOTA), upgrade via USB, HTTP(S), (S)FTP or TFTP, remote CLI & WebGUI, RADIUS authentication, Simple Certificate Enrollment Protocol (SCEP), logging</p> <p>Remote Management Manage and monitor devices with SNMP, telnet, SSH, or HTTP/HTTPS</p> <p>Cellular Networking Multi-SIM / soft-SIM support, multi-APN support, signal strength monitoring, dedicated bearers, GSM/CSFB calls</p> <p>Wireless LAN Client or Access Point mode, multi client support, multi / hidden SSID, WPA-PSK/WPA2-PSK, WPA-RADIUS, WPA-EAP-TLS, IEEE 802.11w, RADIUS accounting, CAPWAP</p> <p>Link Management Link prioritisation, link aggregation, load balancing, multipath-TCP, IP-passthrough, link supervision</p> <p>Network Services DHCP Client, DNS server, email, SMS service, NTP Client, NTP server, DynDNS, SSH server, SNMP agent, HTTP/HTTPS/FTP server, voice gateway, SIP call routing, coovachilli hotspot</p> <p>Routing Destination, policy, multipath, mobile-IP, OSPF, BGP, TCP-MSS clamping, STP/RSTP, bridging, LLDP, CDP, SONMP, EDP, FDP, IRDP, VRRP, VLAN, PPPoE</p> <p>VPN OpenVPN, IPsec, PPTP, GRE, CSD dial-in</p> <p>Firewall Stateful firewall, connection tracking, NAT, masquerading, bridge filtering</p>
	Licenses	<p>GNSS</p> <p>Enabled service GNSS location service</p> <p>Server with JSON-, NMEA stream</p>
Power	Input Voltage	<p>12, 24, 48 VDC</p> <p>Nominal voltages 12, 24, 48 VDC</p> <p>Absolute voltages 12 VDC to 48 VDC (-25 % / +10 %)</p>
	Connector Consumption	<p>1x Terminal block header 3.5 mm (screw locking)</p> <p>11 W (average), 20 W (max)</p>
Mounting		DIN-Rail

Dimensions	W x H x D	Width 61 mm x height 128/140 mm x depth 121 mm
Weight		900 g
Environment	Operating Temperature Ingress Protection Level	-40°C to +70°C IP40
MTBF		240'000 h / 27.4 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		NB1800-LWac-G
