

NB1810-LpWac4Ep-G

Industrial Router with LTE-A Pro + WLAN-ac + GbE + SFP + 4x GbE-PoE + GNSS

High-performance and modular mobile router with SFP port and Gigabit Ethernet with PoE, for use in industrial environment.



Keyfeatures

Mobile / Cellular	1x LTE-A Pro, UMTS
SIM	2x Micro SIM
WiFi / WLAN	1x Dual-band IEEE 802.11a/b/g/n/ac (Wi-Fi 5), 100 Clients in Access Point Mode
Ethernet	4x Gigabit Ethernet with PoE (4-Port Switch), 1x SFP/Gigabit Ethernet Combo, 1x Gigabit Ethernet
Extended Storage	1x SD Card
Serial / Fieldbus	1x RS-232/485
Positioning	Multi-GNSS
Operation Temperature	-40 °C to +65 °C (@15 W PoE)
Software	Routing, Network Services, VPN, Firewall, Link Management, Supervisor, SDK, free updates
Compliance	CE (RED)
Modularity	Extensions on request

Product description

The NB1810 is a powerful and robust cellular router designed for use in industrial environments.

Applications

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

Specifications

Mobile / Cellular	Standard	1x Multimode LTE-A Pro, UMTS 4G - LTE Advanced Pro B1, B3, B7, B8, B20, B28, B38, B40 3G - DC-HSPA+/UMTS B1, B8 Category LTE Cat 12 Antenna ports 2x2 MIMO Data rate down / up (max) 600 Mbps / 150 Mbps 3GPP 4G Rel. 12 / 3G DC-HSPA+ Voice - FCC ID R17LN920
	Region Connectors SIM	Region Europe, Middle East and Africa (EMEA), on request: North America (NA), Asia and Pacific (APAC) Europe, Middle East and Africa (EMEA), North America (NA) 2x SMA female 2x Micro SIM - 3FF
WiFi / WLAN	Standard	1x 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	1x Gigabit Ethernet Ethernet standard 1000BASE-T, Auto MDIX Speed 10/100/1000 Mbps 1x Gigabit Ethernet / SFP combo (software switchable) Ethernet standard 1000BASE-T, Auto MDIX SFP standard Depending on module Speed 10/100/1000 Mbps Combo port SFP or GbE interface activated (software switchable) 4x Gigabit Ethernet PoE+ Ethernet standard 1000BASE-T, Auto MDIX Speed 10/100/1000 Mbps PoE standard IEEE802.3af, IEEE802.3at, including two event classification PoE output power max 30 W per port, 60 W in total
	Connector	2x RJ45, 1x SFP cage (mini GBIC), 4x RJ45
Positioning	Standard	1x Multi-GNSS Receiver BeiDou, Galileo, GLONASS, GPS gpsOne Gen 9 Antennas Active or passive Sensitivity Up to -161 dBm Services Standalone
	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 (screw locking)
Extended Storage		SD Card Slot type microSD Speed (read / write) 600 kByte / s Application Store user and logging data of SDK or LXC applications SD card not included
System	Core	1.3 GHz dual-core, 1 GB RAM, 4 GB flash
	Module Slots	2x miniPCle (PCle + USB), 2x Extension (USB)

Software	Features	<p>NetModule Router Software (supported features depending on product variant)</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), Hardware- und Software Watchdog</p> <p>Remote Management Manage and monitor devices with SNMP V1/V2/V3, Netmodule vendor MIB, telnet, SSH, or HTTP/HTTPS</p> <p>Cellular Networking Multi-SIM / eSIM support (optional license), multi-APN support, signal strength monitoring, dedicated bearers, CSFB/VoLTE calls (optional license)</p> <p>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</p> <p>Link Management Link prioritization, link aggregation, load balancing, multipath-TCP, IP-passthrough, link supervision,</p> <p>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</p> <p>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</p> <p>VPN OpenVPN, IPsec (IKEv1 and IKEv2), PPTP, GRE, L2TP, CSD dial-in, Certificate revocation service</p> <p>Firewall Stateful firewall, connection tracking, NAT, NAPT, masquerading, bridge filtering, Adress translation (based on SRC and DST ports)</p> <p>Encryption supporting password protected PKCS12 files, integrated random certificate key generator, "Let's encrypt" certificate, ECC (Certificates with Elliptic Cryptography)</p> <p>Quality of Service Diffserv, SFQ, HTB, Priority-based Queuing, Netflow (Softflow)</p> <p>Programmability SDK</p>
	Licenses	<p>Troubleshooting Logging, Ping, Traceroute, Tcpdump, Speed-test</p> <p>GNSS</p> <p>Enabled service GNSS location service</p> <p>Server with JSON-, NMEA stream</p>
Power	Input Voltage	<p>48 VDC</p> <p>Nominal voltages 48 VDC (restricted input range for PoE switch)</p> <p>Absolute voltages 48 VDC (-10 % / +10 %)</p>
	Connector Consumption	<p>1x Terminal block header 3.5 mm (screw locking)</p> <p>82 W (average), 90 W (max with 60W PoE load)</p>
Mounting		DIN-Rail
Dimensions	W x H x D	Width 95 mm x height 128/140 mm x depth 121 mm
Weight		1100 g
Environment	Operating Temperature	-40°C to +50°C
	Ingress Protection Level	IP40
MTBF		180'000 h / 20.5 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		NB1810-LpWac4Ep-G