

NB1810-LdWac4Ep-G

Industrial Router with LTE-Adv + 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 Advanced, 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 Advanced, UMTS for EMEA, NA 4G - LTE B1 (2100), B2 (1900), B3 (1800), B4 (AWS), B7 (2600), B12 (700ac), B13 (700c), B20 (800DD), B5 (850), B25 (1900), B26 (850), B29 (700), B41 (TDD2500), B30 (WCS) 3G - DC-HSPA+/UMTS B1 (2100), B2 (1900), B3 (1800), B4 (1700), B5 (850), B8 (900) 2G - GSM/GPRS/EDGE n.a. Category LTE Cat 6 Antenna ports 2x2 MIMO Data rate down / up (max) 300 Mbps / 50 Mbps Voice n.a.
	Region	Europe
	Connectors	2x SMA female
	SIM	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	<p>1x Gigabit Ethernet Ethernet standard 1000BASE-T, Auto MDIX Speed 10/100/1000 Mbps</p> <p>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)</p> <p>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</p>
	Connector	<p>2x RJ45, 1x SFP cage (mini GBIC), 4x RJ45</p>
Positioning	Standard	<p>1x GNSS Receiver BeiDou, GLONASS, GPS Antennas Active or passive Sensitivity -160 dBm Services Standalone, assisted GPS Data server with JSON, NMEA data stream</p>
	Connector	<p>1x SMA female</p>
USB	Standard	<p>1x USB 2.0 Host</p>
	Connector	<p>1x Type A</p>
Serial, Fieldbus	Protocol	<p>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</p> <p>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</p>
	Connector	<p>1x Terminal block header 3.5 mm (screw locking)</p>
Extended Storage		<p>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</p>
System	Core	<p>1.3 GHz dual-core, 1 GB RAM, 4 GB flash</p>
	Module Slots	<p>2x miniPCIe (PCIe + USB), 2x Extension (USB)</p>

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, 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</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> <p>Troubleshooting Logging, Ping, Traceroute, Tcpdump, Speed-test</p>
	Licenses	<p>GNSS</p> <p>Enabled service GNSS location service 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
Scope of delivery		Device, General safety instructions, Terminal block
Certifications	Compliance	CE according to 2014/53/EU (RED), 2011/65/EU (RoHS)
	Domain	Industrial
Order Code		NB1810-LdWac4Ep-G