NB1810-L4E-G

Industrial Router with LTE + GbE + SFP + 4x GbE + GNSS

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

Keyfeatures

Mobile / Cellular	1x LTE, UMTS, GSM
SIM	2x Micro SIM
Ethernet	4x Gigabit Ethernet (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 +70 °C
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

- Condition Monitoring
- Industrial Security
- Factory Automation
- Remote Management
- Smart Buildings
- Point of Sale
- Smart Grid
- Oil & Gas
- Renewable Energy
- CCTV

Specifications

Mobile / Cellular	Standard	1x Multimode LTE, UMTS, GSM for EMEA
		4G – LTE B1, B3, B7, B8, B20, B28A
		3G - DC-HSPA+/UMTS B1 (2100), B3 (1800), B8 (900)
		2G - GSM/GPRS/EDGE B3 (1800), B8 (900)
		Category LTE Cat 4
		Antenna ports 2x2 MIMO
		Data rate down / up (max) 150 Mbps / 50 Mbps
		Voice CSFB, VoLTE (with optional Software License)
		FCC ID -
	Region	Europe, Middle East and Africa (EMEA)
	Connectors	2x SMA female
	SIM	2x Micro SIM - 3FF

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
		Ethernet standard 1000BASE-T, Auto MDIX
		Speed 10/100/1000 Mbps
	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
		Tracking Sensitivity Up to -160 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 miniPCIe (PCIe + USB), 2x Extension (USB)

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, 48 VDC
		Nominal voltages 12, 24, 48 VDC
		Absolute voltages 12 VDC to 48 VDC (-25 % /+10 %)
	Connector	1x Terminal block header 3.5 mm (screw locking)
	Consumption	15 W (average), 22 W (max)

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 +70°C
	Ingress Protection Level	IP40
MTBF		220'000 h / 25.1 years, according SN29500 at environmental temperature 40 °C
Certifications	**Compliance**	CE according to 2014/53/EU (RED), 2011/65/EU (RoHS)
	Domain	Industrial
Order Code		NB1810-L4E-G