

# NB1810 Industrial Router

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Product Information NB1810  
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High-Performance Wireless Router with LTE Advanced Pro, WLAN, Gigabit Ethernet Switch with PoE+, SFP, Serial Interfaces and GNSS



## Key Features

<b>Mobile / Cellular</b>	1 - 2x LTE Advanced Pro, UMTS
<b>SIM</b>	2x Micro SIM
<b>WiFi / WLAN</b>	1 - 2x Dual-band IEEE 802.11ac (Wi-Fi 5)
<b>Ethernet</b>	4x Gigabit Ethernet with PoE 1x SFP/Gigabit Ethernet Combo 1x Gigabit Ethernet
<b>Extended Storage</b>	1x SD Card
<b>Serial / Fieldbus</b>	1x RS-232/485
<b>Positioning</b>	Multi-GNSS
<b>Temperature</b>	-40 °C to +70 °C
<b>Software</b>	Routing, Network Services, VPN, Firewall, Link Management, Supervisor, SDK, free updates
<b>Compliance</b>	CE (RED), UKCA (RER)
<b>Modularity</b>	Extensions on request

## Product Description

The NB1810 is a powerful and robust cellular router designed for use in industrial environments. With its approvals, versatile features and performance, it is the ideal device for applications such as Industrial Security, CCTV or Smart Grid.

DIN rail mounting, the wide operating temperature range and the IP40 metal housing allow reliable operation under harsh conditions.

The router supports multiple cellular modules as well as WiFi modules according to IEEE 802.11ac (Wi-Fi 5) standard. It also has a Gigabit Ethernet port and an SFP/GbE combo port (which can be used for fiber optic or ethernet) as well as a USB host port and a serial interface with RS-232 or RS-485 mode. The special highlight is the integrated 4-port Gigabit Ethernet switch with PoE+.

The software is based on well proven components including an embedded Linux operating system and a powerful communication protocol suite as well as VPN technologies as OpenVPN. Customer specific software extensions may be implemented via a sophisticated SDK.

## Applications

- Industrial Security
- Factory Automation
- Point of Sale
- Public WiFi
- CCTV
- Smart Grid



### Specifications

#### 1 - 2x Mobile / Cellular (optional) Multimode LTE, UMTS and GSM

##### 4G - LTE

B1, B3, B7, B8, B20, B28

##### 3G - DC-HSPA+/UMTS

B1, B3, B8

##### 2G - GSM/GPRS/EDGE

B3, B8

##### LTE Specification

LTE Cat 4, 2x2 MIMO  
DL 150 Mbps / UL 50 Mbps

##### Voice

CSFB, VoLTE (with optional License)

##### Region

EMEA

OR

#### 1 x Mobile / Cellular (optional) Multimode LTE Advanced Pro, UMTS

##### 4G - LTE

B1, B3, B7, B8, B20, B28, B38, B40

##### 3G - DC-HSPA+/UMTS

B1, B8

##### LTE Specification

LTE Cat 12, 2x2 MIMO  
DL 600 Mbps / UL 150 Mbps

##### Region

EMEA (APAC or NA on request)

##### Connector

2 - 4x SMA female

##### SIM

2x Micro SIM - 3FF

#### 1 - 2x WiFi / WLAN (optional)

##### Standard

IEEE 802.11a/b/g/n/ac (Wi-Fi 5)  
Dual-band 2.4/5 GHz, 2x2 MIMO

##### Bit rate (max)

300 Mbps 2.4 GHz, 866 Mbps 5 GHz

##### Modes

Client or Access Point (max. 100 Clients)

##### Connector

2 - 4x SMA female

#### 6x Ethernet

1x Gigabit Ethernet  
1x SFP / GbE combo  
4x Gigabit Ethernet Switch optional with PoE+

##### Standard

1000Base-T, Auto MDIX

##### Speed

10 / 100 / 1000 Mbps

#### Connector

6x RJ45  
1x SFP Cage (mini GBIC)

#### 1x USB

USB 2.0 Host Port

#### Connector

1x Type A

#### Positioning (optional)

GNSS Receiver (depending on model)  
BeiDou, Galileo, GLONASS, GPS/QZSS

#### Sensitivity

Up to -167 dBm, up to 2.5m CEP

#### Antennas

Active or passive

#### Connector

1x SMA female

#### 1x Serial, Fieldbus

##### Protocol

RS-232/485 combo (software switchable)

##### Signals

TX, RX / A, B

##### 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)

#### 1 - 2x Module Options

##### Options

Customer specific, please contact us

#### Connector

Module specific

#### System

##### Core

1.3 GHz dual core, 1 GB RAM, 4 GB flash

##### Extended Storage

1x SD Card Slot

#### Power

##### Power Supply Standard

##### Nominal Input Voltages

12, 24, 48 VDC (-25 % / +10 %)

##### Power Consumption

7 W average, 25 W maximal

##### Power Supply with PoE+

##### Nominal Input Voltages

48 VDC (-10 % / +10 %)

#### Power Consumption

82 W average, 90 W maximal

#### Connector

1x Terminal block header 3.5 mm (screw locking)

#### Other

##### Mounting

DIN-Rail

##### Dimensions

Width 95 mm x height 128/140 mm x depth 121 mm

##### Weight

ca. 1100 g

##### Environment

##### Operating Temperature

-40 °C to +70 °C without PoE+  
-40 °C to +50 °C with PoE+

##### Ingress Protection Level

IP40

##### MTBF

180'000 h / 20.5 years - 220'000 h / 25.1 years (depending on product variant), according SN29500 at environmental temperature 40 °C

#### Software

##### Features

Routing, Network Services, VPN, Firewall, Link Management, Supervisor, SDK, free updates

##### Licenses (optional)

Voice Gateway, LXC Virtualization, OpenVPN- and DynDNS Server, GNSS, Enhanced RF Configuration

#### Certifications

##### Compliance

CE according to 2014/53/EU (RED), UKCA according to Radio Equipment Regulations 2017 No. 1206 (RER), 2011/65/EU (RoHS)

#### Ordering options

Contact our sales team for our standard models, options or project specific adaptations