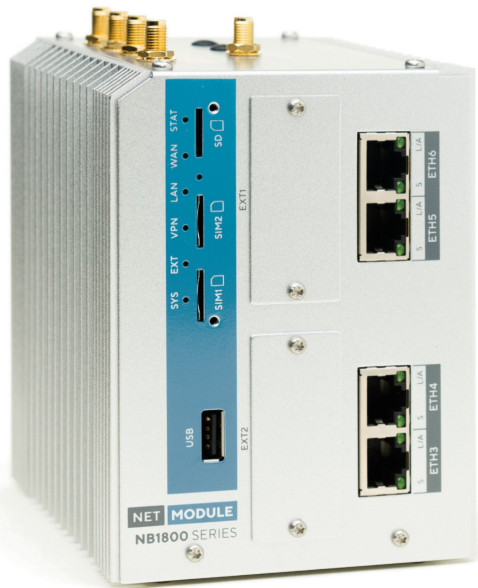


# NB1810 Industrial Router

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



## Key Features

<b>Mobile / Cellular</b>	1 - 2x LTE Advanced, 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)
<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 is equipped with multiple LTE Advanced module and WiFi IEEE 802.11ac (Wi-Fi 5) modules. It also has a Gigabit Ethernet port and an SFP/GbE combo port, which can be used for fiber or Ethernet, an 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 (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)

#### LTE Specification

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

#### Voice

CSFB

#### Region

EMEA (APAC or NA on request)

OR

#### Multimode LTE Advanced, UMTS 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)

#### LTE Specification

LTE Cat 6, 2x2 MIMO  
DL 300 / UL 50 Mbps

#### Region

EMEA, NA (APAC 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

#### 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 1 Mbps

#### Termination

120 Ω for RS-485 configurable by  
software

#### Connector

1x Terminal block header 3.5 mm (screw  
locking)

### 1 - 2x Module Options

#### Options

FXS, others on request

#### 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),  
2011/65/EU (RoHS)

#### Standards

EN 62368-1, EN 62311, EN 55032,  
EN 55035, EN 61000-6-2,  
EN 61000-6-3, EN 301489-1,  
EN 301489-3, EN 301489-7,  
EN 301489-17, EN 301489-19,  
EN 301489-24, EN 301489-52,  
EN 300328, EN 301511, EN 301893,  
EN 301908-1, EN 301908-2,  
EN 301908-13, EN 303413

#### Ordering options

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