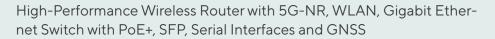




# **NB1810 5G Industrial Router**

16.06.2023, ©NetModule AG Product Information NB1810 5G Errors reserved





# **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 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 a 5G-NR module and a WiFi IEEE 802.11ac (Wi-Fi 5) module. 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.

# **Key Features**

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

# **Applications**

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

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# **Specifications**

## 1x Mobile / Cellular

#### Multimode 5G-NR, LTE, UMTS 5G-NR

n1, n3, n7, n8, n20, n28, n38, n40, n77, n78

4G - LTE B1, B3, B7, B8, B20, B28, B38, B40

3G - DC-HSPA+/UMTS B1, B3, B8

#### Specification

LTE Cat. 20 up to 7CA 4x4 MIMO support in 5G n1, n3, n7, n38, n40, n77, n78 and LTE B1, B3, B7, B38, B40 up to 5.5 Gbps DL / 2.7 Gbps UL 5G NR Modes Sub-6 FDD and TDD 5G Core SA and NSA operations 3GPP LTE/5G Rel. 15, 3G HSPA+ Rel. 18

Region EMEA (APAC or NA on request)

**Connector** 4x SMA female

**SIM** 2x Micro SIM - 3FF

## 1x 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 2x SMA female

# 6x Ethernet

1x Gigabit Ethernet, 1x SFP / GbE combo 4x Gigabit Ethernet Switch optional with PoE+ (max. 60 W output)

**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

GNSS Receiver BeiDou, Galileo, GLONASS, GPS

Sensitivity Up to -161 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  $\Omega$  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 15 W average, 25 W maximal

## Power Supply with PoE+

Nominal Input Voltages 48 VDC (-10 % / + 10 %)

Power Consumption 82 W average, 90 W maximal (at 60 W PoE+)

## 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 - 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