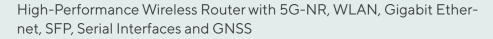




# **NB1800 5G Industrial Router**

16.06.2023, ©NetModule AG Product Information NB1800 5G Errors reserved





# **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	2x Gigabit Ethernet, 1x SFP
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, Su- pervisor, LXC, SDK, free updates
Compliance	CE (RED), UKCA (RER)
Modularity	Extensions on request

# **Product Description**

The powerful NB1800 router enables fast Internet access in an industrial environment. For a reliable network connection, the device supports a 5G-NR module as well as a WiFi module according to the latest IEEE 802.11ac (Wi-Fi 5) standard. Also included are two Gigabit Ethernet and a SFP port (typ. used for fiber optic), as well as a USB host port and a serial interface with RS-232 or RS-485 mode.

DIN rail mounting, the wide operating temperature range from -40 °C to 70 °C and the IP40 metal housing allow reliable operation under harsh conditions. Combined with its versatile features and performance, this makes the NB1800 ideal for applications such as Industrial Security, CCTV or Point of Sale Connectivity.

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

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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) 144 Mbps 2.4 GHz, 150 Mbps 5 GHz

Modes Client or Access Point (max. 100 Clients)

Connector 2x SMA female

# **3x Ethernet**

2x Gigabit Ethernet 1x SFP / GbE combo

**Standard** 1000Base-T, Auto MDIX

<mark>Speed</mark> 10 / 100 / 1000 Mbps

**Connector** 2x RJ45 1x SFP Cage (mini GBIC)

USB

1x 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 A, B / TX, RX

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

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

Average Power Consumption 11 W

Maximal Power Consumption 20 W

#### Connector

1x Terminal block header 3.5 mm (screw locking)



#### Other

Mounting DIN-Rail

Dimensions Width 61 mm x height 128/140 mm x depth 121 mm

Weight ca. 800 g

Environment Operating Temperature -40 °C to +70 °C

Ingress Protection Level IP40

### MTBF

240′000 h / 27.4 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