



NB1810 5G Industrial Router

High-Performance Wireless Router with 5G-NR, WLAN, Gigabit Ethernet Switch with PoE+, SFP, Serial Interfaces and GNSS

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Product Information NB1810 5G
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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

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 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.

Applications

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

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 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

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