

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

| | |
|--------------------------|--|
| Mobile / Cellular | 1 - 2x LTE Advanced Pro, UMTS |
| SIM | 2x Micro SIM |
| WiFi / WLAN | 1 - 2x 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 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