

NB1800 Industrial Router

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Product Information NB1800
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High-Performance Wireless Router with LTE Advanced, WLAN, Gigabit Ethernet, Fiber, Serial Interfaces and GNSS



Key Features

Mobile / Cellular	1 - 2x LTE Advanced, UMTS
SIM	2x Micro SIM
WiFi / WLAN	1 - 2x 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, Supervisor, LXC, SDK, free updates
Compliance	CE (RED)
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 multiple LTE Advanced modules as well as WiFi modules according to the latest IEEE 802.11ac (Wi-Fi 5) standard. Also included are two Gigabit Ethernet and a fiber optic port (SFP), 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

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)

144 Mbps 2.4 GHz, 150 Mbps 5 GHz

Modes

Client or Access Point (max. 100 Clients)

Connector

2-4x SMA female

3x Ethernet

2x Gigabit Ethernet
1x SFP / GbE combo

Standard

1000Base-T, Auto MDIX

Speed

10 / 100 / 1000 Mbps

Connector

3x RJ45

USB

1x 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

A, B / TX, RX

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

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. 900 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), 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