

NB2810 Vehicle Router

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Product Information NB2810
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High-Performance Wireless Router with Multiple LTE Advanced, WLAN, Gigabit Ethernet, SSD Storage, GNSS, ITxPT and E-Mark



Keyfeatures

Mobile / Cellular	1 - 4x LTE Advanced, UMTS, GSM
SIM	4x Micro SIM
WiFi / WLAN	1 - 2x Dual-band IEEE 802.11ac (Wi-Fi 5)
Ethernet	2x Gigabit Ethernet M12
Extended Storage	Up to 1TB SSD
Power	12 VDC to 48 VDC Ignition Sense
Positioning	Multi-GNSS with Dead Reckoning
Temperature	-25 °C to +70 °C
Software	Routing, Network Services, VPN, Firewall, Link Management, Supervisor, LXC, SDK, free updates
Compliance (pending)	CE (RED), Vehicle (UNECE-R10, UNECE-R118), ITxPT
Modularity	Extensions on request

Product Description

The NB2810 provides in-vehicle wireless Internet access. The router can be equipped with multiple LTE Advanced modules that can be bundled, two WiFi access points with the latest IEEE 802.11ac (Wi-Fi 5) standard, GNSS for location, 2 Gigabit Ethernet ports with M12 X-coded connectors and up to 1TB of internal storage capacity. Thanks to the integrated ignition detection, the NB2810 can remain switched on even after the vehicle has been switched off. This allows the safe completion of all tasks.

The router meets the UNECE-R10 (E-Mark) and UNECE-R118 regulations. This, combined with its numerous features and high performance, makes it the ideal device for applications such as Passenger WiFi, Passenger Information and Voice Communication.

The software is based on well proven components including an embedded Linux operating system and a powerful communication protocol suite. Customer specific software extensions may be implemented via a sophisticated SDK or Linux containers (LXC).

Applications

- Passenger WiFi
- Passenger Infotainment
- CCTV
- Voice Communication
- eMobility

Specifications

1 - 4x 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 Mbps / 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 Mbps / UL 50 Mbps

Region

EMEA, NA (APAC on request)

Connector

2 - 8x FAKRA D-coded

SIM

4x 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 FAKRA I-coded

2x Ethernet

Standard

1000Base-TX, Auto MDIX

Speed

10 / 100 / 1000 Mbps

Connector

2x M12 X-coded female

1x USB

USB 3.0 Host Port

Connector

1x Type A

Positioning (optional)

GNSS Receiver (depending on model)

BeiDou, Galileo, GLONASS, GPS/QZSS,
optional with Dead Reckoning

Sensitivity

Up to -167 dBm, up to 2.5m CEP

Antennas

Active or passive

Connector

1x FAKRA C-coded

1x Serial, Fieldbus

Protocol

RS-232

Signals

TX, RX

Bit rate

Up to 1 Mbps

Connector

1x Terminal block header 3.5 (screw
locking)

1 - 2x Module Option

Options

RS-232I, RS-485I, CAN, Audio, PTT,
IBIS, Digital I/Os

Connector

1x M12 A-coded female

System

Core

1.3 GHz dual-core, 1 GB RAM, 4 GB flash

Extended Storage (optional)

Up to 1 TB SSD

Power

Nominal Input voltages

12, 24, 48 VDC (-25 % / +20 %)

Maximal Power Consumption

20 W

Ignition Sense

Input with delayed shutdown

Connector

1x Terminal block header 3.5 (screw
locking)

Other

Mounting

Brackets (wall mounting)

Dimensions

Width 164/190 mm x height 58 mm x
depth 139.5 mm

Weight

ca. 1200 g

Environment

Operating Temperature

-25 °C to +70 °C

Ingress Protection Level

IP40

MTBF

170'000 h / 19.4 years - 230'000 h
/ 26.3 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, OpenVPN- and
DynDNS Server, GNSS, LXC
Virtualization, E-Mark, ITxPT, Enhanced
RF Configuration, FMS2IP

Certifications (pending)

Compliance

CE according to 2014/53/EU (RED),
Vehicle according to UNECE-R10,
UNECE-R118, ITxPT (optional)

Standards

EN 300328, EN 300440,
EN 301489-1, EN 301489-17, EN 301511,
EN 301893, EN 301908-2, EN 302502,
EN 55032, EN 61000-6-2,
EN 61000-6-3, EN 50121-3-2, EN 62311,
EN 62368-1, EN 55035, EN 301908-1
EN 301489-52, UNECE-R10,
UNECE-R118

Ordering options

Contact our sales team for our standard
models, options or project specific
adaptations