

Netmodule NB2800-UN Series

4G & 5G Automotive Router with Unwired

High-Performance Wireless Router with Multiple 4G or 5G, WLAN, Gigabit Ethernet, SSD Storage, GNSS, ITxPT and E-Mark. NB2800-UN Series comes with Unwired Cloud OS.

The NB2800-UN 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 and up to 1 TB of internal storage capacity. Thanks to the integrated ignition detection, the NB2800-UN 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 Entertainment and Information or Device Management and Telemetry.

NB2800-UN Series with Unwired Cloud OS can also be used optimally as vehicle communication gateway. It guarantees Reliable Connectivity even in demanding automotive settings and extreme temperatures.



NB2800-UN Series Automotive Router - Front



NB2800-UN Series Automotive Router - Back

Applications / Key Features:

- ✓ Passenger WiFi, Passenger Entertainment and Information
- ✓ Vehicle Communication Gateway
- ✓ Device Management and Telemetry
- ✓ Edge Computing
- ✓ Reliable Connectivity
- ✓ Remote Access

Mobile/Cellular	5G, 4G, 3G, 2G
SIM	4x Micro SIM
WiFi/WLAN	WiFi 5
Ethernet	2x Gigabit Ethernet
Extended Storage	Up to 1 TB SSD
Power	12 VDC to 48 VDC, Ignition Sense
Positioning	Multi-GNSS
Temperature	25°C to +70°C
Software	Unwired Cloud OS
Compliance	CE (RED), Vehicle (UNECE-R10, UNECE-R118), ITxPT optional

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 or SMA female

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 or SMA female

2x Ethernet

Standard

1000Base-TX, Auto MDIX

Speed

10 / 100 / 1000 Mbps

Connector

2x RJ45

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 or SMA female

1x Serial, Fieldbus

Protocol

RS-232

Signals

TX, RX

Bit Rate

Up to 1 Mbps

Connector

1x Terminal block header 5 mm

1x Module Option

Options

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

Connector

1x RJ45

System

Core

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

Extended Storage

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 5 mm

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

Unwired Cloud OS (licence included)

Features (require Unwired Edge Cloud
subscription):

Cloud Device- and Network Manage-
ment, Passenger WiFi with Passen-
ger Information and Entertainment,
Uplink Aggregation, Remote Access,
Virtualization, Monitoring and Tele-
metrie, Integration via API

Certifications

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

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