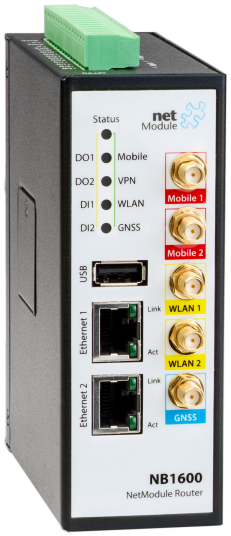
# NB1600 LTE & WLAN

## Combined LTE and WLAN router with optional GPS




**Status: End-of-Life**

- Last Time Buy: 01.09.19
- Last Time Shipment: 01.03.20

**The NB1600 WIAP supports multiple wireless networks and connects them to the Internet via GSM/UMTS/LTE.In addition all NB1600 core functions are available: digital I/O, USB and serial gateway, SDK, VPNs and many more.**

The Wireless Internet Access Point (WIAP) provides wireless internet access for other devices. With the Multi-SSID function several separated WiFi networks can be operated at the same time. In multi-WAN configuration, the device operates as a least cost router with automatic fall back in case of a failure. In this case the WiFi interface is configured as a client and one Ethernet port is connected to a local network.

The integrated GPS recevier allows you to locate the position of the device with a high accuracy or to use the GPS signal as the time base. Integrating into map services like Google Maps allows you to track the device if it's mounted in moving equipment.

In its role as device server the NB1600 converts both, the serial and the USB interface to IP, enableing remote access to these interfaces. Any PC with IP connection to the router can use the remote USB or RS-232 device as if it was directly connected. This setup allows using the original driver. Digital I/Os can be configured by local or remote devices. Based on input port state changes, applications can be informed and e.g. an SMS is sent to a group of numbers.

The SDK allows users programing the NB1600 using a simple script and implementing all kind of applications. Preprocessing can be done directly on the router, thus saving an additional IPC.

Other features and services are DHCP server, DNS proxy, Dynamic DNS Agent, SNMP agent, Telnet server, SSH server, Web server, e-mail and SMS. The router is operated by the Web Manager or via command line. Firmware and configuration updates can be easily performed from remote in a fail-safe manner. The SNMP interface allows integration of the Router in a network management system for supervision.

### Applications

- Condition monitoring
- Remote management
- Telemetry
- Digital signage
- CCTV
- Vending machines
- ATMs

### Key Features

- Cellular communication GSM, UMTS, LTE
- WiFi b/g/n
- VPN client or access point
- SMS send and control
- Remote management
- Powerfull software
- Programmability

# Specifications

| | |
|---|---|
| Mobile / Cellular | Multimode LTE, UMTS and GSM module<br>LTE/4G FDD Bands: B1(2100), B3(1800), B5(850), B7(2600), B8(900), B20(800)<br>DC-HSPA+/UMTS/3G: B5(850), B8(900), B2(1900), B1(2100)<br>GSM/2G: B5(850), B8(900), B3(1800), B2(1900)<br>Data rates: LTE max. 150 Mbps downlink / 50 Mbps uplink (DC-HSPA+ 42/5.76)<br>Antenna connector: 2 SMA female |
| GNSS | GPS receiver with NMEA 0183 data stream, tracking sensitivity -154 dBm (typical)<br>Antenna connector: SMA female, support for active and passive antennas |
| WLAN / WiFi | IEEE 802.11abgn up to 300 Mbps 2.4/5GHz MIMO<br>Access Point or Client<br>Max users in access point mode: WPA: 54, WPA2: 110<br>Antenna connector: SMA female, supporting one or two antennas |
| Digital I/O | 2 digital inputs, level 0 (not set): 0-4.0 VDC level 1 (set): 7.2-40 VDC<br>2 digital outputs, 0-60 VDC/1A, maximum switching capacity: 60 W<br>Connector: 8 pins of 15-pin terminal block, 5 mm pitch |
| Ethernet | 2 Ethernet ports, 10/100 Mbps, Auto MDX, bridged or routed, RJ45 |
| USB | USB Host interface, type A |
| Serial | Protocol: 3-wire RS232<br>Connector type: 3 pins of 15-pin terminal block, 5 mm pitch |
| Power | Redundant power supply inputs<br>Input voltage: 12V DC to 48V DC (-15% / +20%)<br>Max. power consumption: 5W<br>Connector type: 2+2 pins of 15-pin terminal block, 5 mm pitch |
| Dimensions, weight | Width 45mm x height 124.2mm x depth 110mm, ca. 600g |
| Environment | Temperature range: -25 °C to +70 °C; Storage temperature: -40 °C to +85°C<br>Ingress Protection Rating: IP40; MTBF: 142'000h |
| Compliance | CE according to 2014/53/EU (RED), 2011/65/EU (RoHS), 2012/19/EU (WEEE), 1907/2006/EC (REACH)<br>FCC according to 47 CFR, Part 15B |
| Standards | EN 300 328, EN 300 440-2, EN 301 489-1, EN 301 489-7, EN 301 489-17, EN 301 489-24, EN 301 511, EN 301 893, EN 55024, EN 55032, EN 61000-6-2, EN 60950-1, EN 62311 |
| Order numbers:<br>NB1600-LW<br>NB1600-LW-G | (contact sales for more models, options or project specific adaptations)<br>LTE, WLAN Router<br>LTE, WLAN Router + GPS |
| End-of-Life | Last Time Buy: 01.09.19<br>Last Time Shipment: 01.03.20<br>End of support and repair: 01.03.22 |

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