# Belden

## Product: NB2800-L2WacDd-GVi

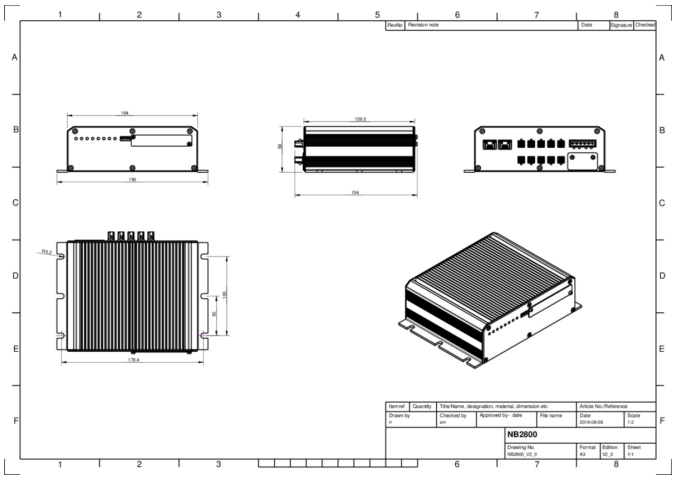


Vehicle Router with 2x GbE (RJ45), -25..+70°C, LTE cat.4, 2xWi-Fi AC, 256GB,

### Product Description

Vehicle approved, high-performance wireless router. 2x Gigabit Ethernet (RJ45). Temperature range -25..+70°C. LTE category 4 modem. With two times 802.11ac Wi-Fi modem. Extended Storage 256GB

### Technical Drawing




### Technical Specifications

#### Product Overview

| | |
|---|---|
| Name: | NB2800-L2WacDd-GVi |
| WAN: | IPv4; IPv6; IP Passthrough; DynDNS Client; PPPoE; Voice Gateway (SIP, Call Routing, Audio); |
| License: | NRSW 5.0 and newer version, included, if the hardware is capable: Vi(virtualization), V(voice), Ix(ITxPT), F(FMS2IP), Se(eSIM consum.), S(openVPN server); |

#### Product Life Cycle

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| Life Cycle: | Active - Product is available |

#### General Information

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| Scope of delivery: | Device, General safety instructions |

#### More Interfaces

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| SIM Cards: | 4x Micro SIM (3FF) |
| Local Management and Device Replacement: | Management via Web (HTTPs); Command Line Interface (CLI) over SSH/Serial/Web; SNMP v1/v2c/v3; Discovery via LLDP, CDP, FDP, SONMP, EDP, IRDP |
| Ethernet Connector Type: | 2x Gigabit Ethernet (1000Base-T, Auto MDIX, 10/100/1000 Mbps, RJ-45) |
| Power Supply: | 1x Terminal block header (5 mm); |
| Power supply/signaling contact: | Ignition Sense: Input with delayed shutdown; |
| Serial: | 1x RS-232; Protocol EIA-232; Signals TX, RX; Signal levels: High (≥5 VDC), Low (≤ -5VDC); Bit rate up to 115kbps; Terminal block header 5mm (included) |
| GPS (global positioning system): | Multi-GNSS, Receiver BeiDou, Galileo, GLONASS, GPS, gpsOne Gen 9, Antennas: active or passive, Sensitivity: Down to -161 dBm, CEP (Circular Error Probability) ≤2m (Open sky conditions, Standalone), Min Update Rate: 1Hz, Services: Standalone, GNSS Stream NMEA or JSON |
| LEDs: | 8 LEDs (STAT, MOBx, WLANx, …) |

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| Reset Function: | Pin-hole push button for reboot and factory reset |

## Radio technology

**Modules**

| Description | 2G | 3G | 4G | MIMO | Antenna Connector | Additional Radio Features | Radio Protocol | Frequency Band | Access Point Functionality | Client / STA Functionality |
|---|---|---|---|---|---|---|---|---|---|---|
| Module 1 | | | | | GNSS: 1x FAKRA C-coded male; | | | | | |
| Module 2 | GSM/GPRS/EDGE Bands: B3 (1800), B8 (900) | DC-HSPA+/UMTS Bands: B1 (2100), B3 (1800), B8 (900) | LTE Cat. 4 Bands: B1, B3, B7, B8, B20, B28A | 2x2 MIMO | 4G: 2x FAKRA D-coded male; | CSFB; VoLTE; | | | | |
| Module 4 | | | | On each (2x) WLAN module: 2x2 MIMO | On each (2x) WLAN: 2x FAKRA I-coded male; | | On each (2x) WLAN module: 802.11 a/b/g/n/ac (Wi-Fi 5) | On each (2x) WLAN module: WLAN 2.4/5 GHz | On each (2x) WLAN module: Access Point (8 SSIDs, 128 clients total); Mesh (802.11s); Bridged; Routed; IAPP; 802.11r (FT); DFS supported; Client Tracking; Band Steering; Isolate Clients Function; Accounting; Coovachilli Hotspot; | On each (2x) WLAN module: Client; 802.11r (FT); Roaming Thresholds; Background Scan; Multiple Client SSID Profiles; |

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| Load Balance: | Link Prioritizatoin and Aggregation; Load Balancing; Diffserv; SFQ; HTB; Priority based Queuing |

## Power requirements

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| Operating Voltage: | 12 .. 48 VDC (±25%) |
| Power Consumption: | max. 20 W |

## Diagnostics features

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| Alarm and event actions: | Email; SMS sending |
| Monitoring: | Watchdogs (Hard- and Software); Link Supervision; MQTT Broker |

## Security features

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| Multipoint VPN: | VXLAN, CSD dial-in, OpenVPN, IPSec, GRE, L2TP, PPTP, IKEv1/v2 |

## Service

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| Other services: | DNS Cache; |

## Software

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| Firmware Storage: | Fail-safe update (FOTA); Software Update via USB, HTTP(s) (push), FTP (pull), SFTP (pull), TFTP (pull) |
| Radius Server: | External Radius Server Management User Authentication |
| Software features: | Software Development Kit (SDK); |
| Software Version: | 5.0 (updates free of charge) |
| Operating system: | NRSW (NetModule Router Software) |
| Switching: | VLAN (802.1Q) |
| Redundancy: | Multipath TCP, VRRP (Virtual Router Redundancy Protocol), RSTP (Rapid Spanning Tree Protocol) |
| Diagnostics: | Netflow (Softflow), Ping, Traceroute, Tcpdump, Speed TestGNSS Diagnostics |
| Configuration: | DHCP Client and Server |
| Security: | Certificate Management (SCEP Client, Signing Requests), Certificate formats: PKCS12, PKCS7, PEM/DER, RSA/Ed25519 (OpenSSH/Dropbear), "Let's encrypt" support, Elliptic Curve Certificates (ECC), 802.1x for LAN, Stateful Firewall, Connection Tracking, Bridge Filtering |
| Time synchronisation: | NTP Client and Server, SNTP Server |
| Routing: | Destination, Policy, Multipath, OSPF, BGP, Multicast, TCP-MSS Clamping, NAT, NAPT, Masquerading, Mobile-IP |
| Management Software: | Compatible with "Connectivity Suite" |
| Cellular Functions: | Multi-APN; Signal Strength Monitoring; Dedicated Bearers |

## Ambient conditions

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| Degree of Protection when Installed: | IP40 |
| Operating temperature: | -25-+70 °C |

## Mechanical construction

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| Dimensions (WxHxD): | 164/190 mm x 58 mm x 139.5 mm |
| Weight: | 800 g |
| Mount Type: | Flat surface mounting |

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| Mating Side: | all from front |

## Approvals

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| Basis Standard: | CE according to 2014/53/EU (RED), 2011/65/EU (RoHS) |
| Wireless standards: | WLAN FCC ID: TK4WLE600VX, |
| UK Regulation Compliance: | UKCA Mark |
| Suitability - Indoor: | Yes |

## Reliability

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| Guarantee: | 5 years |

## WLAN Access Point

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|---|---|
| Security: | WPA3/2/1, WPA Personal (TKIP, CCMP), WPA Enterprise (Radius: EAP-PEAP/MSCHAPv2, EAP-TLS), Opportunistic Wireless Encryption (OWE), Mesh (Open, SAE) |

## WLAN Client

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| Security: | WPA3/2/1, WPA Personal (TKIP, CCMP), WPA Enterprise (Radius: EAP-PEAP/MSCHAPv2, EAP-TLS) |

## Further Instructions

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| Software Download: | https://share.netmodule.com/public/system-software/latest/ |

## History

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| Update and Revision: | Revision Number: 0.6 Revision Date: 03-19-2026 |

**Variants**

| Item # | Type |
|---|---|
| 942998386 | NB2800-L2WacDd-GVi |

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