Belden

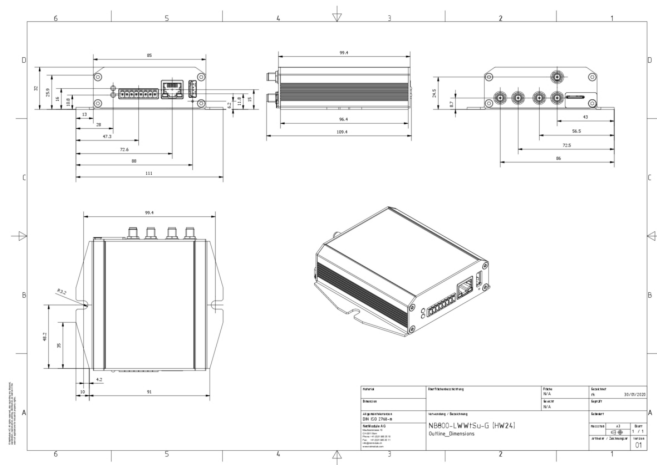**Product:** [NB800-WWtScSu-G](#)

IIoT-Router with ETH, WLAN, BT/BLE, GNSS, Serial, DI/O

Product Description

Compact Wireless Router in a small form factor for simple connectivity tasks. With: , WLAN, Bluetooth and Bluetooth Low Energy (LE), Global Positioning (GNSS, GPS), Serial Port, Digital Input/Output

Technical Drawing

Technical Specifications

Product Overview

Name:	NB800-WWtScSu-G
WAN:	IPv4; IPv6; IP Passthrough; DynDNS Client; PPPoE;

Product Life Cycle

Life Cycle:	Active - Product is available

General Information

Scope of delivery:	Device, General safety instructions, 1x Terminal block 3.5mm

More Interfaces

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
Digital Input:	1x Digital Input, 1x Digital Output
Ethernet:	1x Fast Ethernet (100 Base-TX, Auto MDIX, 10/100 Mbps, RJ45)
Power Supply:	8-pin terminal block
Serial:	1x RS-232/485 combo (software switchable); Signals TX, RX / A, B; Up to 115kBit/s, 120 Ω for RS-485 configurable by software
GPS (global positioning system):	Multi-GNSS, Receiver BeiDou, Galileo, GLONASS, GPS/QZSS, Antennas: active or passive, Sensitivity: Down to -167 dBm, CEP (Circular Error Probability) ≤2.5m, Services: Standalone, GNSS Stream NMEA or JSON, 1x SMA female
I/O Connection:	On terminal block header 3.5mm
I/O Port Functionality:	Input Level: Low 0-3 VDC, High 9-32 VDC; Isolation 1500 VDC; Output Level: 0-32 VDC/1A
CPU:	1 GHz single core

Memory:	512 MB RAM
Storage:	4 GB flash
Signaling contact:	1x Digital Input; Low 0-3 VDC; High 9-32 VDC; Isolation 1'500 VDC
LEDs:	STAT, MOB/USR, ETH Speed, ETH Activity
Reset Function:	Pin-hole push button for reboot and factory reset

Radio technology

Modules

Description	MIMO	Antenna Connector	Radio Protocol	Frequency Band	Access Point Functionality	Client / STA Functionality
Module 4	2x2 MIMO	2x SMA female	802.11 a/b/g/n (Wi-Fi 4), Bluetooth 4.2, Bluetooth Low Energy (BLE)	WLAN 2.4 or 5 GHz	Yes (up to 10 clients)	Yes

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

Power requirements

Operating Voltage:	12-24 VDC (±20%)
Power consumption:	5 W average, 10 W maximum

Diagnostics features

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

Security features

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

Service

Other services:	DNS Cache;

Software

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 Test
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
Management Software:	Compatible with "Connectivity Suite"
Cellular Functions:	Signal Strength Monitoring

Ambient conditions

Air Pressure (Operation):	Up to 4000m above sea level
Degree of Protection when Installed:	IP40
Operating temperature:	-40-+70 °C
Relative humidity (non-condensing):	0-95 %

Mechanical construction

Dimensions (WxHxD):	85/11 mm x 32 mm x 110 mm
Weight:	220 g
Housing Material:	brushed aluminium
Mount Type:	Flat surface mounting
Labeling:	Type label on bottom

Approvals

Basis Standard:	CE according to 2014/53/EU (RED), UKCA (RER), FCC
Safety of industrial control equipment:	EN 62368-1, IEC 62368-1, UL 62368-1
Transportation:	E-Mark, ECE R10, Fire Safety ECE R118
UK Regulation Compliance:	UKCA Mark
Suitability - Indoor:	Yes

Reliability

Guarantee:	5 years

Accessories

Accessories to Order Separately:	DIN-Rail-Mounting-Clip (942998042)

History

Update and Revision:	Revision Number: 0.6 Revision Date: 12-15-2025

Variants

Item #	Type
942998651	NB800-WWtScSu-G