Belden

Product: NB2810-2LWac2Cm-GFIx

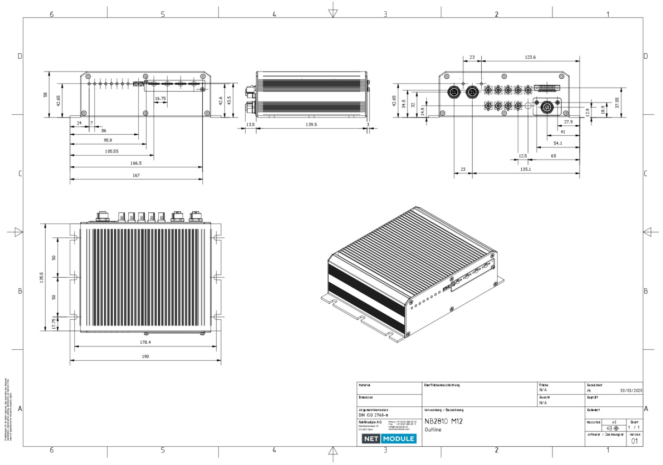


Vehicle Router with 2x GbE (M12 X), -25..+70°C, 2xLTE cat.4, Wi-Fi AC, 2xCAN-passive, ITxPT

Product Description

Vehicle approved, high-performance wireless router. 2x Gigabit Ethernet (M12 X-Coded). Temperature range -25..+70°C. With two times LTE category 4 modem. 802.11ac Wi-Fi modem. With two times passive CAN. ITxPT compliant.

Technical Drawing



Technical Specifications

Product Overview

Name:	NB2810-2LWac2Cm-GFIx
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

Life Cycle:	Active - Product is available

General Information

Scope of delivery:	Device, General safety instructions

More Interfaces

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, M12 X-coded female)
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; M12 A-coded female
CAN Bus:	2x CAN; Protocol: Controller Area Network V2.0B (ISO 11898); Signals: CANH, CANL; Signal Level: High ≥ 2.75V, Low ≤ 2.0V; Up to 8000 Frames/s; Isolation up to 1500 VDC; No internal bus termination; Passive - read only access;
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, …)
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	On each (2x) 4G module: GSM/GPRS/EDGE Bands: B3 (1800), B8 (900)	On each (2x) 4G module: DC-HSPA+/UMTS Bands: B1 (2100), B3 (1800), B8 (900)	On each (2x) 4G module: LTE Cat. 4 Bands: B1, B3, B7, B8, B20, B28A	On each (2x) 4G module: 2x2 MIMO	On each (2x) 4G: 2x FAKRA D-coded male;	On each (2x) 4G module: CSFB; VoLTE;				
Module 4				2x2 MIMO	WLAN: 2x FAKRA I-coded male;		802.11 a/b/g/n/ac (Wi-Fi 5)	WLAN 2.4/5 GHz	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;	Client; 802.11r (FT); Roaming Thresholds; Background Scan; Multiple Client SSID Profiles;

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

Power requirements

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

Diagnostics features

Alarm and event actions:	Email; SMS sending
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 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

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

Mechanical construction

Dimensions (WxHxD):	164/190 mm x 58 mm x 139.5 mm
Weight:	800 g

Mount Type:	Flat surface mounting
Mating Side:	all from front

Approvals

Basis Standard:	CE according to 2014/53/EU (RED), 2011/65/EU (RoHS)
Transportation:	ITxPT certification (hardware compliance requires adapter cables)
Wireless standards:	WLAN FCC ID: TK4WLE600VX,
UK Regulation Compliance:	UKCA Mark
Suitability - Indoor:	Yes

Reliability

Guarantee:	5 years

WLAN Access Point

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

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

Further Instructions

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

History

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

Variants

Item #	Type
942998501	NB2810-2LWac2Cm-GFIx

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