NB2800-R

NB2800 with 2x GbE + E-Mark

High-performance and modular mobile router for wireless Internet access in vehicles.

Keyfeatures

Ethernet	2x Gigabit Ethernet
Power	12 VDC to 48 VDC, Ignition Sense
Operation Temperature	-25 °C to +70 °C
Software	Routing, Network Services, VPN, Firewall, Link Management, Supervisor, SDK, free updates
Compliance	CE (RED), Vehicle (UNECE-R10, UNECE-R118), ITxPT optional
Modularity	Extensions on request

Product description

The NB2800 provides in-vehicle routing and VPN networking services.

Applications

• Passenger Infotainment

Specifications

Ethernet	Standard	2x Gigabit Ethernet **Ethernet standard** 1000BASE-T, Auto MDIX **Speed** 10/100/1000 Mbps
	Connector	2x RJ45

USB	Standard	1x USB 3.0 Host
	Connector	1x Type A

Serial, Fieldbus	Protocol	1x RS-232 **Protocol** EIA-232 **Signals** TX, RX **Signal level** High > 5 VDC, low < -5 VDC **Bit rate** Up to 115 200 Bit/s
	Connector	1x Terminal block header 5 mm

System	Core	1.3 GHz dual-core, 1 GB RAM, 4 GB flash
	Module Slots	2x miniPCIe (PCIe + USB), 2x miniPCIe (USB)

Software	**Features**	NetModule Router Software (supported features depending on product variant)

Package The standard software package includes an intuitive user interface, covering all modern routing protocols and enables efficient mass deployment.

General Fail-safe update (FOTA), upgrade via USB, HTTP(S), (S)FTP or TFTP, remote CLI & WebGUI, RADIUS authentication, Simple Certificate Enrollment Protocol (SCEP), Hardware- und Software Watchdog

Remote Management Manage and monitor devices with SNMP V1/V2/V3, Netmodule vendor MIB, telnet, SSH, or HTTP/HTTPS

Cellular Networking Multi-SIM / eSIM support (optional license), multi-APN support, signal strength monitoring, dedicated bearers, CSFB/VoLTE calls (optional license)

Wireless LAN Access Point, Client Mode, Mesh Point or Dual Modes (Mesh Access Point / Access Point - Client), WLAN Pseudo-Bridge Client Mode: Multiple Client SSID Profile, Encryption: Open, WEP, WPA1/2/3-Personal, WPA1/2/3-Enterprise. Fast Roaming: Fast BSS Transition (802.11r), PreAuthentication, Protected Management Frames (802.11w) AP Mode: Multi-SSIDs (up to 8) Encryption: Open WPA1/2/3-Personal, WPA1/2/3-Enterprise Fast Roaming: Fast BSS Transition (802.11r), PreAuthentication, DFS support Protected Management Frames (802.11w) Client Tracking, Band Steering, Hide SSID broadcasting, Isolate Clients, Accounting, Short guard Intervall Mesh Mode (802.11s): Encryption: None, SAE. Gateway announcements

Link Management Link prioritization, link aggregation, load balancing, multipath-TCP, IP-passthrough, link supervision,

Services DHCP Client/Server, DNS Caching Server, Email, SMS Service, NTP Client/Server, SNTP Server, DynDNS, SSH Server, SNMP Agent, HTTP/HTTPS/FTP Server, IPv6 for WAN, 802.1x over Ethernet, MQTT Broker Voice Gateway (SIP, Call Routing, Audio with optional license) Coovachilli Hotspot

Routing Destination, policy, multipath, mobile-IP, OSPF, BGP, multicast, TCP-MSS clamping, bridging discovery protocols LLDP, CDP, SONMP, EDP, FDP, IRDP, VRRP, STP/RSTP, VRRP, VLAN, PPPoE, VXLAN

VPN OpenVPN, IPsec (IKEv1 and IKEv2), PPTP, GRE, L2TP, CSD dial-in, Certificate revocation service

Firewall Stateful firewall, connection tracking, NAT, NAPT, masquerading, bridge filtering, Adress translation (based on SRC and DST ports)

Encryption supporting password protected PKCS12 files, integrated random certificate key generator, "Let's encrypt" certificate, ECC (Certificates with Elliptic Cryptography)

Quality of Service Diffserv, SFQ, HTB, Priority-based Queuing, Netflow (Softflow)

Programmability SDK

Troubleshooting Logging, Ping, Traceroute, Tcpdump, Speed-test

Power	**Input Voltage**	12, 24, 48 VDC
		Nominal voltages 12, 24, 48 VDC
		Absolute voltages 12 VDC to 48 VDC (-25 % / +25 %)
		Ignition sense Input with delayed shutdown
	Ignition Sense	Yes
	Connector	1x Terminal block header 5 mm
	Consumption	20 W (max)

Mounting		Bracket

Dimensions	**W x H x D**	Width 164/190 mm x height 58 mm x depth 139.5 mm

Weight		800 g

Environment	**Operating Temperature**	-25°C to +70°C
	Ingress Protection Level	IP40

MTBF		230'000 h / 26.3 years, according SN29500 at environmental temperature 40 °C

Certifications	**Compliance**	CE according to 2014/53/EU (RED), Vehicle according to UNECE-R10, UNECE-R118
	Domain	Vehicle

Order Code		NB2800-R