NB3800-2Wac

Railway Router with 2x WLAN-ac 5x ETH + EN50155

Railway approved, modular onboard communication platform for future proof IP solutions.

Keyfeatures

WiFi / WLAN	2x Dual Band IEEE 802.11a/b/g/n/ac (Wi-Fi 5), 100 Clients in Access Point Mode
Ethernet	2x Gigabit Ethernet, 3x Fast Ethernet
Power	24 VDC to 48 VDC
Temperature Range	-40 °C to +70 °C, EN 50155 class OT4/ST0
Software	Routing, Network Services, VPN, Firewall, Link Management, Supervisor, SDK, free updates
Compliance	CE (RED), Railway (EN50155, EN45545), ITxPT optional
Modularity	Extensions on request

Product description

The powerful NB3800, with its equipment, rail approvals and interfaces to on-board electronics, is ideally suited for applications such as passenger information, ticketing systems or even mining.

Applications

- Fleet Management
- Mining
- Passenger Infotainment
- Ticketing
- CCTV
- Telematics

Specifications

WiFi / WLAN	**Standard**	2x WLAN 2.4/5 GHz a/b/g/n/ac (Wi-Fi 5) **Wireless standard** IEEE 802.11a/b/g/n/ac (Wi-Fi 5) **Frequency** 2.4/5 GHz **Diversity** 2x2 MIMO **Data rate (max)** 300 Mbps (2.4 GHz) / 866 Mbps (5 GHz) **Modes** Client or access point (up to 100 clients) **FCC ID** TK4WLE600VX
	Connector	4x TNC female
Ethernet	**Standard**	2x Gigabit Ethernet **Ethernet standard** 1000BASE-T, Auto MDIX **Speed** 10/100/1000 Mbps 3x Fast Ethernet **Ethernet standard** 100BASE-TX, Auto MDIX **Speed** 10/100 Mbps
	Connector	2x M12 X-coded female, 3x M12 D-coded female
USB	**Standard**	1x USB 2.0 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 M12 A-coded female

System	Core	1.3 GHz dual-core, 1 GB RAM, 4 GB flash
	Module Slots	2x miniPCIe (PCIe + USB), 4x 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	24, 48 VDC
		Nominal voltages 24, 48 VDC
		Absolute voltages 24 VDC to 48 VDC (−30 % / +30 %)
		Galvanic isolation 1500 VDC
		Standard EN 50155 class S2/C1
	Connector	1x M12 A-coded male
	Consumption	25 W (max)

Dimensions	W x H x D	Width 167/190 mm x height 121.1 mm x depth 106.5 mm

Weight		1800 g

Environment	Operating Temperature	-40°C to +70°C
	Ingress Protection Level	IP40

MTBF		150'000 h / 17.1 years, according SN29500 at environmental temperature 40 °C

Certifications	Compliance	CE according to 2014/53/EU (RED), 2011/65/EU (RoHS), Railway according to EN 50155 class OT4/ST0, EN 45545
	Domain	Railway

Order Code		NB3800-2Wac

www.netmodule.com   Switzerland +41 31 985 25 10   NetModule AG Maulbeerstrasse 10   Hirschmann Automation & Control GmbH   Frankfurter Str. 10-14
sales@netmodule.com Germany +49 6196 77 99 79 0   Switzerland   3011 Bern   Germany   65760 Eschborn

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