



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	rnet 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
	Commetter	1x Type x
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 miniPCle (PCle + USB), 4x miniPCle (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 Input Voltage Power 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 WxHxD Width 167/190 mm x height 121.1 mm x depth 106.5 mm Weight 1800 g Environment Operating -40°C to +70°C Temperature Ingress Protection IP40 Level

MTBF

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

Certifications

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

Railway

Order Code

NB3800-2Wac

2