



NB3701-2Wac

Railway Router with 2x WLAN-ac + EN50155

Proven multi-service onboard router for light rail and railways.



Keyfeatures

WiFi / WLAN	2x Dual Band IEEE 802.11a/b/g/n/ac (Wi-Fi 5), 100 Clients in Access Point Mode		
Ethernet	5x Fast Ethernet		
10	4x Digital I/O		
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)		
Modularity	Extensions on request		

Product description

The NB3701 is the compact router for railways and other applications where similarly high demands are placed on the hardware. It is the right device for passenger WiFi or infotainment.

Applications

- Passenger WiFi
 Passenger Infotainment

Specifications

WiFi / WLAN	Standard	20 MI AN 2 ATE CHE substants (MI ELEV
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	5x Fast Ethernet
		Ethernet standard 100BASE-TX, Auto MDIX
		Speed 10/100 Mbps
	Connector	5x M12 D-coded female
USB	Standard	1x USB 2.0 Host
	Connector	1x Type A
IOs	Туре	4x Digital I/O
	170	Signals 2x DI, 2x DO
		DI signals +, -
		DI level Low: 0 - 5 VDC, high: 7.2 - 40 VDC
		DO signals Relay outputs with NO, NC, COM (normally open, normally closed)
		DO level 0 - 60 VDC/1A, maximum switching capacity: 60 W
		Isolation 1'500 VDC
	Connector	1x M12 A-coded female
System	Core	1.3 GHz dual-core, 1 GB RAM, 4 GB flash

2x miniPCle (PCle + USB)

Module Slots

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	
	Consumption	15 W (max)
Mounting		Bracket
Dimensions	WxHxD	Width 165/190 mm x height 85 mm x depth 104 mm
Weight		1100 g
Environment	Operating Temperature	-40°C to +70°C
	Ingress Protection Level	IP40
МТВБ		210'000 h / 24 years, according SN29500 at environmental temperature 40 $^{\circ}\text{C}$
Scope of delivery		Device, General safety instructions

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

Order Code

Certifications

NB3701-2Wac

Railway

Compliance

Domain