

NB3701-2WacPb

Railway Router with 2xWLAN-ac + 5x ETH +110V+ 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
IO	4x Digital I/O
Power	72 VDC to 110 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 ideal device for applications as for passenger WiFi.

Applications

- Smart Traffic
- Mining
- Passenger WiFi
- Passenger Infotainment

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

Software	Features	<p>NetModule Router Software (supported features depending on product variant)</p> <p>Package The standard software package includes an intuitive user interface, covering all modern routing protocols and enables efficient mass deployment.</p> <p>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</p> <p>Remote Management Manage and monitor devices with SNMP V1/V2/V3, Netmodule vendor MIB, telnet, SSH, or HTTP/HTTPS</p> <p>Cellular Networking Multi-SIM / eSIM support (optional license), multi-APN support, signal strength monitoring, dedicated bearers, CSFB/VoLTE calls (optional license)</p> <p>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</p> <p>Link Management Link prioritization, link aggregation, load balancing, multipath-TCP, IP-passthrough, link supervision,</p> <p>Services DHCP Client/Server, DNS Caching Server, Email, SMS Service, NTP Client/Server, SNMP 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</p> <p>Routing Destination, policy, multipath, mobile-IP, OSPF, BGP, multicast, TCP-MSS clamping, bridging discovery protocols LLDAP, CDP, SONMP, EDP, FDP, IRDP, VRRP, STP/RSTP, VRRP, VLAN, PPPoE, VXLAN</p> <p>VPN OpenVPN, IPsec (IKEv1 and IKEv2), PPTP, GRE, L2TP, CSD dial-in, Certificate revocation service</p> <p>Firewall Stateful firewall, connection tracking, NAT, NAPT, masquerading, bridge filtering, Adress translation (based on SRC and DST ports)</p> <p>Encryption supporting password protected PKCS12 files, integrated random certificate key generator, "Let's encrypt" certificate, ECC (Certificates with Elliptic Cryptography)</p> <p>Quality of Service Diffserv, SFQ, HTB, Priority-based Queuing, Netflow (Softflow)</p> <p>Programmability SDK</p> <p>Troubleshooting Logging, Ping, Traceroute, Tcpdump, Speed-test</p>
Power	<p>Input Voltage</p> <p>Connector</p> <p>Consumption</p>	<p>72, 96, 110 VDC</p> <p>Nominal voltages 72, 96, 110 VDC</p> <p>Absolute voltages 72 VDC to 110 VDC (-30 % / +30 %)</p> <p>Galvanic isolation 1500 VDC</p> <p>Standard EN 50155 class S2/C1</p> <p>1x M12 A-coded male</p> <p>15 W (max)</p>
Mounting		Bracket
Dimensions	W x H x D	Width 165/190 mm x height 85 mm x depth 104 mm
Weight		1100 g
Environment	<p>Operating Temperature</p> <p>Ingress Protection Level</p>	<p>-40°C to +70°C</p> <p>IP40</p>
MTBF		297'132 h / 33.9 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		NB3701-2WacPb