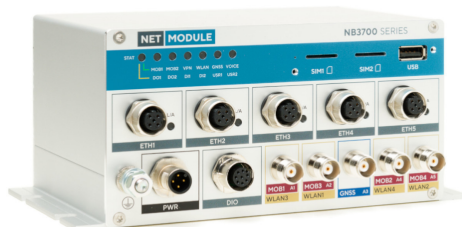


# NB3701-LWacPb-G

## Railway Router with LTE + WLAN-ac + 5x ETH +110V + GNSS + EN50155

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



### Keyfeatures

<b>Mobile / Cellular</b>	1x LTE, UMTS, GSM
<b>SIM</b>	2x Mini SIM
<b>WiFi / WLAN</b>	1x Dual Band IEEE 802.11a/b/g/n/ac, 100 Clients in Access Point Mode
<b>Ethernet</b>	5x Fast Ethernet
<b>IO</b>	4x Digital I/O
<b>Power</b>	72 VDC to 110 VDC
<b>Positioning</b>	Multi-GNSS
<b>Temperature Range</b>	-40 °C to +70 °C, EN 50155 class OT4/ST0
<b>Software</b>	Routing, Network Services, VPN, Firewall, Link Management, Supervisor, SDK, free updates
<b>Compliance</b>	CE (RED), Railway (EN50155, EN45545)
<b>Modularity</b>	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 mining or passenger WiFi.

### Applications

- Smart Traffic
- Mining
- Passenger WiFi
- Passenger Infotainment
- CCTV

### Specifications

<b>Mobile / Cellular</b>	<b>Standard</b>	1x Multimode LTE, UMTS, GSM for EMEA <b>4G - LTE</b> B1 (2100), B3 (1800), B5 (850), B7 (2600), B8 (900), B20 (800) <b>3G - DC-HSPA+/UMTS</b> B1 (2100), B2 (1900), B5 (850), B8 (900) <b>2G - GSM/GPRS/EDGE</b> B2 (1900), B3 (1800), B5 (850), B8 (900) <b>Category</b> LTE Cat 4 <b>Antenna ports</b> 2x2 MIMO <b>Datarate down / up (max)</b> 150 Mbps / 50 Mbps <b>Voice</b> CSFB <b>FCC ID</b> XPTYOBYL210
	<b>Region</b>	Europe, Middle East and Africa (EMEA)
	<b>Connectors</b>	2x TNC female
	<b>SIM</b>	2x Mini SIM - 2FF
<b>WiFi / WLAN</b>	<b>Standard</b>	1x Dual-band WLAN 2.4/5 GHz a/b/g/n/ac (Wi-Fi 5) <b>Wireless standard</b> IEEE 802.11a/b/g/n/ac (Wi-Fi 5) <b>Frequency</b> 2.4/5 GHz <b>Diversity</b> 2x2 MIMO <b>Datarate (max)</b> 300 Mbps (2.4 GHz) / 866 Mbps (5 GHz) <b>Modes</b> Client or access point (up to 100 clients) <b>FCC ID</b> TK4WLE600VX
	<b>Connector</b>	2x TNC female
<b>Ethernet</b>	<b>Standard</b>	5x Fast Ethernet <b>Ethernet standard</b> 100BASE-TX, Auto MDIX <b>Speed</b> 10/100 Mbps
	<b>Connector</b>	5x M12 D-coded female

<b>Positioning</b>	<b>Standard</b>	1x Multi-GNSS <b>Receiver</b> BeiDou, Galileo, GLONASS, GPS/QZSS 72-channel u-blox M8 engine 3 concurrent GNSS channels <b>Antennas</b> Active or passive <b>Accuracy</b> Up to 2.5 m CEP <b>Sensitivity</b> Up to -167 dBm <b>Services</b> Standalone, Assisted GPS Data server with JSON, NMEA data stream
	<b>Connector</b>	1x TNC female
<b>USB</b>	<b>Standard</b>	1x USB 2.0 Host
	<b>Connector</b>	1x Type A
<b>IOs</b>	<b>Type</b>	4x Digital I/O <b>Signals</b> 2x DI, 2x DO <b>DI signals</b> +, - <b>DI level</b> Low: 0 - 5 VDC, high: 7.2 - 40 VDC <b>DO signals</b> Relay outputs with NO, NC, COM (normally open, normally closed) <b>DO level</b> 0 - 60 VDC/1A, maximum switching capacity: 60 W <b>Isolation</b> 1'500 VDC
	<b>Connector</b>	1x M12 A-coded female
<b>System</b>	<b>Core</b>	1.3 GHz dual-core, 1 GB RAM, 4 GB flash
	<b>Module Slots</b>	2x miniPCIe (PCIe + USB)
<b>Software</b>	<b>Features</b>	NetModule Router Software <b>Package</b> The standard software package includes an intuitive user interface, covering all modern routing protocols and enables efficient mass deployment. <b>General</b> Fail-safe update (FOTA), upgrade via USB, HTTP(S), (S)FTP or TFTP, remote CLI & WebGUI, RADIUS authentication, Simple Certificate Enrollment Protocol (SCEP), logging <b>Remote Management</b> Manage and monitor devices with SNMP, telnet, SSH, or HTTP/HTTPS <b>Cellular Networking</b> Multi-SIM / soft-SIM support, multi-APN support, signal strength monitoring, dedicated bearers, GSM/CSFB calls <b>Wireless LAN</b> Client or Access Point mode, multi client support, multi / hidden SSID, WPA-PSK/WPA2-PSK, WPA-RADIUS, WPA-EAP-TLS, IEEE 802.11w, RADIUS accounting, CAPWAP <b>Link Management</b> Link prioritisation, link aggregation, load balancing, multipath-TCP, IP-passthrough, link supervision <b>Network Services</b> DHCP Client, DNS server, email, SMS service, NTP Client, NTP server, DynDNS, SSH server, SNMP agent, HTTP/HTTPS/FTP server, voice gateway, SIP call routing, coovachilli hotspot <b>Routing</b> Destination, policy, multipath, mobile-IP, OSPF, BGP, TCP-MSS clamping, STP/RSTP, bridging, LLDP, CDP, SONMP, EDP, FDP, IRDP, VRRP, VLAN, PPPoE <b>VPN</b> OpenVPN, IPsec, PPTP, GRE, CSD dial-in <b>Firewall</b> Stateful firewall, connection tracking, NAT, masquerading, bridge filtering
	<b>Licenses</b>	GNSS <b>Enabled service</b> GNSS location service Server with JSON-, NMEA stream
<b>Power</b>	<b>Input Voltage</b>	72, 96, 110 VDC <b>Nominal voltages</b> 72, 96, 110 VDC <b>Absolute voltages</b> 72 VDC to 110 VDC (-30 % / +30 %) <b>Galvanic isolation</b> 1500 VDC <b>Standard</b> EN 50155 class S2/C1
	<b>Connector Consumption</b>	1x M12 A-coded male 15 W (max)
<b>Mounting</b>		Bracket
<b>Dimensions</b>	<b>W x H x D</b>	Width 165/190 mm x height 85 mm x depth 104 mm
<b>Weight</b>		1400 g
<b>Environment</b>	<b>Operating Temperature</b>	-40°C to +70°C
	<b>Ingress Protection Level</b>	IP40
<b>MTBF</b>		210'000 h / 24 years, according SN29500 at environmental temperature 40 °C
<b>Certifications</b>	<b>Compliance Domain</b>	CE according to 2014/53/EU (RED), 2011/65/EU (RoHS), Railway according to EN 50155 class OT4/ST0, EN 45545 Railway

