

NG800-LWWtGd2Br2Cn

Automotive Gateway with LTE + WLAN + BT/BLE + ETH + 2x ETH-Auto + 2x CAN-active + GNSS-DR + eUICC + IP69K

Modular automotive gateway for telematics applications.



Keyfeatures

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| Mobile / Cellular | 1x LTE, UMTS, GSM |
| SIM | 1x eSIM chip + 1x Micro SIM (on request) |
| WiFi / WLAN | 1x Dual-band IEEE 802.11a/b/g/n (Wi-Fi 4), 1x Bluetooth Low Energy |
| Ethernet | 2x Automotive Ethernet, 1x Fast Ethernet |
| Serial / Fieldbus | 1x RS-232 console, 2x CAN active (read and write access) |
| Positioning | Multi-GNSS with Dead Reckoning |
| Operation Temperature | -40 °C to +75 °C |
| Environment | IP69K dust & water protection, vibration & shock (ISO 16750-3) |
| Software | Routing, Network Services, VPN, Firewall, Link Management, Supervisor, SDK, eUICC SIM Profile Update, free updates |
| Compliance | CE (RED), Vehicle (UNECE-R10, UNECE-R118) |
| Modularity | Extensions on request |

Product description

The multifunctional automotive gateway in an IP69K housing is suitable for harsh environments and provides the necessary robust communication between on-board vehicle equipment and cloud applications.

Applications

- Agriculture
- Telematics
- Fleet Management
- Emergency Services
- eMobility
- Mining
- Oil & Gas
- Tracking
- Smart Traffic

Specifications

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|--------------------------|-------------------|---|
| Mobile / Cellular | Standard | <p>1x Multimode LTE, UMTS, GSM for EMEA 4G - LTE B1 (2100), B3 (1800), B5 (850), B7 (2600), B8 (900), B20 (800) 3G - DC-HSPA+/UMTS B1 (2100), B2 (1900), B5 (850), B8 (900) 2G - GSM/GPRS/EDGE B2 (1900), B3 (1800), B5 (850), B8 (900) Category LTE Cat 4 Antenna ports 2x2 MIMO Data rate down / up (max) 150 Mbps / 50 Mbps Voice CSFB (with optional Software License) FCC ID XPTYOBYL210</p> |
| | Region | Europe, Middle East and Africa (EMEA) |
| | Connectors | 2x FAKRA D-coded male |
| | SIM | 1x eSIM Chip, 1x Micro SIM - 3FF (on request) |
| WiFi / WLAN | Standard | <p>1x Dual-band WLAN 2.4/5 GHz a/b/g/n (Wi-Fi 4) + BT 4.2 combo Wireless standard IEEE 802.11a/b/g/n (Wi-Fi 4) Bluetooth 4.2, Bluetooth Low Energy Frequency 2.4/5 GHz Antenna ports 2x2 MIMO Data rate (max) 144 Mbps 2.4 GHz 2x2 MIMO, 150 Mbps 5 GHz SISO Modes Client or access point (up to 10 clients) FCC ID Z64-WL18DBMOD</p> |
| | Connector | 2x FAKRA I-coded male |

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|-------------------------|---------------------|---|
| Ethernet | Standard | <p>1x Fast Ethernet Ethernet standard 100BASE-TX, Auto MDIX Speed 10/100 Mbps</p> <p>2x Automotive Ethernet - BroadR Ethernet standard 100BASE-T1 (BroadR-Reach) Speed 10/100 Mbps</p> |
| | Connector | 1x CMC-48 header |
| Positioning | Standard | <p>1x Multi-GNSS with Automotive Dead Reckoning Receiver BeiDou, Galileo, GLONASS, GPS/QZSS 72-channel u-blox M8 engine 3 concurrent GNSS channels Integrated motion sensors Antennas Active or passive Accuracy Up to 2.5 m CEP Sensitivity Up to -160 dBm Services Standalone, assisted GPS 3D Dead Reckoning Data server with JSON, NMEA data stream</p> |
| | Connector | 1x FAKRA C-coded male |
| Serial, Fieldbus | Protocol | <p>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</p> <p>2x CAN-active Protocol Controller Area Network V2.0B (ISO 11898) Signals CANH, CANL Signal level High > 2.75 V, low < 2.0 V Bit rate Up to 1 Mbps Bus access Active - read and write access</p> |
| | Connector | 1x CMC-48 header |
| System | Core | 1000 MHz single core, 512 MB RAM, 8 GB flash |
| | Module Slots | 1x Extension Module |
| Software | Features | <p>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, NAT, 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</p> |
| | Licenses | <p>GNSS, Enabled service GNSS location service Server with JSON-, NMEA stream eUICC Enabled services Remote eUICC SIM profile update with static profile management. Standard According to the remote subscriber provisioning standardized by GSMA in SGP.21 and 22 and validated according to SGP.23.</p> |

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| Power | Input Voltage | 12, 24 VDC Nominal voltages 12, 24 VDC Absolute voltages 9 VDC to 36 VDC |
| | Ignition Sense | Power Management Various power modes and wake-up sources (on request) Yes |
| | Connector | 1x CMC-48 header |
| | Consumption | 7 W (average), 10 W (max), power down state < 2 mA @ 24 VDC |
| Mounting | | Bracket |
| Dimensions | W x H x D | Width 200 mm x height 40 mm x depth 120 mm |
| Weight | | 520 g |
| Environment | Operating Temperature | -40°C to +75°C |
| | Ingress Protection Level | IP69K - Dust-tight, protected against close-range high pressure, high temperature spray downs |
| | Vibration | ISO 16750-3 (road vehicles), IEC 60068-2-64 (24 h) |
| | Shock | ISO 16750-3 (road vehicles), IEC 60068-2-27 (60 shocks) |
| MTBF | | 296'000 h / 33.8 years, according SN29500 at environmental temperature 40 °C |
| Certifications | Compliance Domain | CE according to 2014/53/EU (RED), Vehicle according to UNECE-R10 and UNECE-R118 Vehicle |
| Order Code | | NG800-LWWtGd2Br2Cn |