

NG800-LWWtGd2Br2C-OEM

Automotive IoT Gateway with LTE + WLAN + BT/BLE + ETH + 2x ETH-Auto + 2x CAN + GNSS-DR + IP55

Modular connectivity platform for OEM telematic products.



reddot award 2019
winner



Keyfeatures

| | |
|------------------------------|--|
| Mobile / Cellular | 1x LTE, UMTS, GSM |
| SIM | 1x eUICC SIM + 1x Micro SIM |
| WiFi / WLAN | 1x Dual-band IEEE 802.11a/b/g/n, 1x Bluetooth Low Energy |
| Ethernet | 2x Automotive Ethernet, 1x Fast Ethernet |
| Serial / Fieldbus | 2x CAN |
| Positioning | Multi-GNSS with Dead Reckoning |
| Operation Temperature | -40 °C to +75 °C (+85 °C extended) |
| Environment | IP55 dust & water jet protection (IP69K in progress) |
| Software | NetModule OEM Linux OS |
| Compliance | CE (RED), Vehicle (UN ECE R10, UN ECE R118) |
| Modularity | Extensions on request |

Product description

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

Applications

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

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 Datarate down / up (max) 150 Mbps / 50 Mbps Voice CSFB FCC ID XPYTOBYL210</p> |
| | Region Connectors SIM | <p>Europe, Middle East and Africa (EMEA) 2x SMA female, IP65 1x Micro SIM - 3FF, 1x eSIM - MFF2 (on request)</p> |
| WiFi / WLAN | Standard | <p>1x Dual-band WLAN 2.4/5 GHz a/b/g/n + BT 4.2 combo Wireless standard IEEE 802.11a/b/g/n Bluetooth 4.2, Bluetooth Low Energy Frequency 2.4/5 GHz Antenna ports 2x2 MIMO Datarate (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 SMA female, IP65 |

| | | |
|-------------------------|---------------------------------|---|
| Ethernet | Standard | 1x Fast Ethernet Ethernet standard 100BASE-TX, Auto MDIX Speed 10/100 Mbps 2x Automotive Ethernet - BroadR Ethernet standard 100BASE-T1 (BroadR-Reach) Speed 10/100 Mbps |
| | Connector | 1x CMC-48 header, IP69K |
| Positioning | Standard | 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 |
| | Connector | 1x SMA female, IP65 |
| Serial, Fieldbus | Protocol | 1x RS-232 Protocol EIA-232 Signals TX, RX Signal level High > 5 VDC, low < -5 VDC Bit rate Up to 1 Mbps 2x CAN 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 (Option -Cn) Passive - read access only on request (Option -Cm) |
| | Connector | 1x CMC-48 header, IP69K |
| System | Core | 1000 MHz single core, 512 MB RAM, 8 GB flash |
| | Module Slots | 1x Extension Module |
| Software | Features | NetModule Linux Operating System Software support for the hardware board in a Yocto Linux distribution OEM Linux OS Package OpenEmbedded-Core, Yocto Project-specific metadata, BSP layer provided by NetModule, Distro layer provided by NetModule Board Support Package The meta-layer "meta-netmodule-bsp" includes recipes to create Bootloader and Kernel Services Systemd, NetworkManager, ModemManager, Bluez, SocketCan, GPSd, Hostapt, OSTree Update, NTP, Package Manager (DNF), Python Environment Software Development Kit (SDK) Includes cross-development toolchain, libraries, headers files and further tools. |
| Power | Input Voltage | 12, 24 VDC Nominal voltages 12, 24 VDC Absolute voltages 9 VDC to 36 VDC Power Management Various power modes and wake-up sources (on request) |
| | Ignition Sense | Yes |
| | Connector Consumption | 1x CMC-48 header, IP69K 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 | IP55, IP69K (pending) |
| Certifications | Compliance Domain | CE according to 2014/53/EU (RED), Vehicle according to UN ECE R10 and UN ECE R118 (pending) Vehicle |
| Order Code | | NG800-LWWtGd2Br2C-OEM |

