Datasheet (LOB-GW-WMBUS-NB)







Technical characteristics	
Туре	LOB-GW-WMBUS-NB2
Description	Lobaro Wireless M-Bus NB-IoT Gateway V2
Cellular NB-IoT / LTE Cat. M1 Modem	
LTE SiP	Nordic nRF9160
Antenna	Internal Monopole On Request: External Antenna (SMA female)
Supported LTE Band	 Standard: B8, B20 (791 MHz - 969 MHz) Other Bands on request
SIM card slot	4FF (Nano SIM)
Supported LTE modes	Narrowband IoT (NB-IoT) LTE Cat-M1 (on request)
Data Upload	Secure CoAP over DTLS (via Lobaro IoT Platform) Plain UDP (any Platform)
Firmware Features	Certificate based authentication and encryption Remote configuration (via Lobaro IoT Platform) Remote firmware update (via Lobaro IoT Platform)
LoRaWAN Fallback Upload	
LoRaWAN Protocol	Class A LoRaWAN 1.0.2 EU868
Activation method	Over-the-air activation (OTAA) Activation by personalization (ABP)
Typically RF range	2 km

TX Power	14 dBm
Wireless M-Bus communication	
Antenna	Internal Monopole On Request: External Antenna (SMA female)
Frequencies	868.3 MHz, 868.95 MHz
Supported wireless M-Bus modes	Unidirectional 868 MHz modes according to EN13757-4:
Telegram storage size	up to 500 telegrams (avg. size 100 Byte) 218 telegrams à 255 Byte (max telegram size)
Maximum white list size	minimum 150 different meters (2 KByte config size)
White list filters	 Meter ID Manufacturer code (M-Field) Meter type (e.g. only water meters)
Supported meters per gateway	Standard: 500On request: up to 1.000
Encryption	AES128 (Mode 5 + Mode 7)
RF reception range	 up to 100 m under ideal conditions Indoor 30 m One Gateway every 2nd or 3rd Floor
Firmware features	 Configurable wireless M-Bus collection intervals Automated upload of all received telegrams
Additional I/O	
Local configuration port	PC based initial configuration via USB adapter
LED	RGB Led to signal different operating modes
Power Supply	
Supply Voltage Connection	JST-XH connector
Supply Voltage Connection Nominal Supply Voltage	JST-XH connector 3.6 V
Nominal Supply Voltage	3.6 V 3.3 V - 5 V
Nominal Supply Voltage Supply Voltage Range	3.6 V 3.3 V - 5 V Battery empty at ~3.2 V
Nominal Supply Voltage Supply Voltage Range Std. Power supply	3.6 V 3.3 V - 5 V Battery empty at ~3.2 V
Nominal Supply Voltage Supply Voltage Range Std. Power supply Current consumption @3.6V	3.6 V 3.3 V - 5 V Battery empty at ~3.2 V Lobaro ER34615M 3.6V primary battery (D-cell)
Nominal Supply Voltage Supply Voltage Range Std. Power supply Current consumption @3.6V Normal / Idle	3.6 V 3.3 V - 5 V Battery empty at ~3.2 V Lobaro ER34615M 3.6V primary battery (D-cell) 3 mA

Mechanical dimensions	
Size	130 mm x 82 mm x 55 mm (incl. DAE)
Weight	220 g (excl. Battery) + Battery: ca. 114 g
Housing Material	Industrial polycarbonate
Rating	IP67 including pressure compensating element
Environmental Requirements	
Operating temperature range	-20 °C to +55 °C
Operating rel. Humidity	20 - 70 % fR, non-condensing
Max. Installation height	2 m