

MC100 wMBus Gateway



MC100 Gateway is equipped with Ethernet interfaces as well as a wireless M-Bus. It allows easy connection of connected devices to the Internet using mobile network.

Thanks to Node-RED™, a simple graphic programming tool, or other programming tools, the data recorded by multiple measuring devices can be read wirelessly. Data can then, using a wide range of pre-configured transmission protocols, be uploaded to company servers or cloud services.

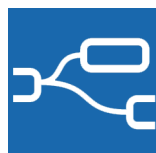
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Key features & functionalities:

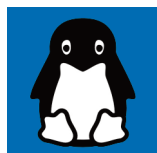
- Programmable 4G LTE Gateway with wireless M-Bus 868 MHz
- Quectel EC21-E module integrated
- Out of the box ready for mobile Internet communication
- OpenWrt 24.10 based Linux distribution, Kernel 6.6.93, optimized for the ARM-based MC100 Gateway
- Node-RED™ – flow-based programming tool pre-installed
- Supports comprehensive cloud and server protocols
- Configuration via web interface
- Free programmable



4G LTE



Node-RED™



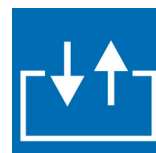
OpenWrt Linux



Cloud-Service



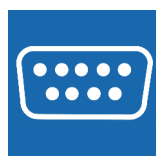
wireless M-Bus



2in/2out



10/100 MBit/s
Ethernet



RS232



USB 2.0



RS485



CAN 2.0B

MC100 wMBus Gateway

Technical Data

General	Description	
Type	4G LTE IoT Gateway with wireless M-Bus and Ethernet Interface	x
Dimensions (W x H x D)	120 x 75 x 35 mm	x
Weight	approx. 140 g	x
Supply voltage	8 to 30V DC	x
Operation temperature	-20°C to +70°C	x
Housing	Plastic	x
Protection class	IP20	x
Mounting	Wall mounting (DIN rail adapter optional)	x
Wireless module embedded	Quectel EC21-E	x
Mobile		
Supporting networks	LTE Cat1: Bands: 1, 3, 5, 7, 8, 20 WCDMA: Bands: 1, 5, 8 GSM/GPRS/EDGE: Bands: 3, 8	x x x
Transmission rates LTE	Up to 5 Mbps uplink and 10 Mbps downlink	x
Transmission rates HSPA+	Up to 5.76 Mbps uplink and 42 Mbps downlink	x
Transmission rates WCDMA	Up to 384 kbps uplink and 384 kbps downlink	x
Transmission rates EDGE	Up to 236.8 kbps uplink and 296 kbps downlink	x
Transmission rates GPRS	Up to 85.6 kbps uplink and 107 kbps downlink	x
Antenna connections	SMA (female)	3
Controller, Memory and OS		
Controller	ARM Cortex-A7 NXP i.MX 6 UltraLite, 528 MHz	x
RAM	512 MB	x
Flash	4 GB	x
OS	OpenWrt Linux	x
Programmable	C/C++, Python™, Java™, Node-RED™ or others	x
Interfaces controller board (sides)		
Power	Plug-in screw-type terminal	1
Ethernet	10/100 MBit/s	1
RS232	DB9 (RX,TX,RTS,CTS)	1
RS485	Not galvanic isolated, plug-in screw-type terminal	1
USB	USB 2.0 Type A	1
Digital inputs	Galvanic isolated, special common GND (IGND), 0 - 30V, threshold 6V	2
Digital outputs	Galvanic isolated, special common GND (IGND), solid state relais, 300mA max low-side-switch to IGND	2
CAN	CAN 2.0B, plug-in screw-type terminal	1
LED 1	Power	x
LED 2 and 3	Free programmable	x
LED 4	GSM	x
SIM	Mini SIM	x
SD card	Micro SD, up to 32 GB (internal)	x
Wireless M-Bus		
Frequency band	868 - 870 MHz	x
Data rate [kbps]	4.8/32/100	x
Other properties		
Configurations	Basic configuration via web interface, SSH	x
Delivery includes		
Wall adapter	Plastic holder	x
Printed documentation	Quick Guide	x

Mistakes and changes are reserved.

MC100 wMBus Gateway

Variants / Accessories

Variants		Part No.
MC100 wM-Bus Gateway	868 - 870 MHz	160482
Accessories		Part No.
Top-hat rail bracket KIT	for DIN rail mounting	100046
Power supply / Mount Adapter EU	18 W AC/12 V DC 1,5A	100909
Network cable	Cat. 5, 1 m	100810
Temperature sensor	Wireless Mbus temperature sensor with 2x NTC, length 1055mm	101481
MiMo wall antenna	5G/4G/MIMO/3G/2G, 2x 2 m RG174, 2x SMA (male)	193600
Portable antenna	GSM/UMTS/LTE/WLAN, SMA (male)	101292
Portable antenna	824-895 MHz, SMA (male)	101184

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