

MC100 wMBus

Terminal/Gateway



MC100 Terminal/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.

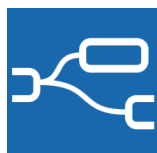
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Key features & functionalities:

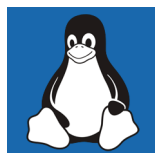
- Programmable 4G LTE Terminal/Gateway with wireless M-Bus 868 MHz (169/433 MHz on request)
- Quectel EC21-E module integrated
- Out of the box ready for mobile Internet communication
- OpenWrt 21 based Linux distribution, Kernel 5.4.154, optimized for the ARM-based MC100 Gateway
- Node-RED™ – flow-based 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



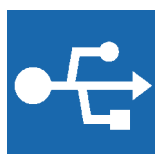
WLAN* (optional)



10/100 MBit/s Ethernet



RS232*



USB 2.0*



RS485*



CAN 2.0B*



2in/2out*

* only Gateway

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Technical Data

General	Description	Terminal	Gateway
Type	4G LTE IoT Gateway with wireless M-Bus and Ethernet Interface	X	X
Dimensions (W x H x D)	120 x 75 x 35 mm	X	X
Weight	approx. 140 g	X	X
Supply voltage	8 to 30V DC	X	X
Operation temperature	-20°C to +70°C	X	X
Housing	Plastic	X	X
Protection class	IP20	X	X
Mounting	Wall mounting (DIN rail adapter optional)	X	X
Wireless module embedded	Quectel EC21-E	X	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
Transmission rates LTE	Up to 5 Mbps uplink and 10 Mbps downlink	X	X
Transmission rates HSPA+	Up to 5.76 Mbps uplink and 42 Mbps downlink	X	X
Transmission rates WCDMA	Up to 384 kbps uplink and 384 kbps downlink	X	X
Transmission rates EDGE	Up to 236.8 kbps uplink and 296 kbps downlink	X	X
Transmission rates GPRS	Up to 85.6 kbps uplink and 107 kbps downlink	X	X
Antenna connections	SMA (female)	3	3
Controller, Memory and OS			
Controller	ARM Cortex-A7 NXP i.MX 6 UltraLite, 528 MHz	X	X
RAM	512 MB	X	X
Flash	4 GB	X	X
OS	OpenWrt Linux	X	X
Programmable	C/C++, Python™, Java™, Node-RED™ or others	X	X
Interfaces controller board (sides)			
Power	Plug-in screw-type terminal	1	1
Ethernet	10/100 MBit/s	1	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	X
LED 2 and 3	Free programmable	X	X
LED 4	GSM	X	X
SIM	Mini SIM	X	X
SD card	Micro SD, up to 64 GB (internal)	X	X
WLAN	802.11 b/g/n	-	optional
Wireless M-Bus			
Frequency band	868 - 870 MHz (169 MHz and 433 MHz on request)	X	X
Data rate [kbps]	4.8/32/100	X	X
Other properties			
Configurations	Basic configuration via web interface, SSH	X	X
RS232 console port	on RS232 interface (optional)	-	optional
Delivery includes			
Wall adapter	Plastic holder	X	X
Printed documentation	Quick Guide	X	X

Mistakes and changes are reserved.

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Variants / Accessories

Variants		Part-Number	
		Terminal	Gateway
MC100 wM-Bus		160488	160482
MC100 wM-Bus with WLAN		-	160485
Accessories		Part-Number	
Top-hat rail bracket KIT	for DIN rail mounting	100046	100046
Power supply / Mount Adapter EU	18 W AC/12 V DC 1,5A	100909	100909
Network cable	Cat. 5, 1 m	100810	100810
Data cable	Adapter cable for ASC1, RS232 (SuB D9, female) - 1m - 3pin plug	-	162500
Temperature sensor	Wireless Mbus temperature sensor with 2x NTC, length 1055mm	101481	101481
MiMo wall antenna	GSM/UMTS/LTE, 2 m RG174, 2x SMA (male)	101268	101268
Portable antenna	GSM/UMTS/LTE, SMA (male)	101292	101292
Portable antenna	824-895 MHz, SMA (male)	101184	101184

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