

# MC100

## Terminal/Gateway



The MC100 Data terminal and MC100 Gateway have an integrated 4G LTE modem and an Ethernet interface. 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.

The MC100 Gateway is also equipped with additional hardware interfaces.

### Key features & functionalities:

- Programmable 4G LTE Terminal/Gateway
- 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



GPS/GNSS



WLAN\*  
(optional)



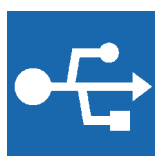
Bluetooth\*  
(optional)



10/100 MBit/s  
Ethernet



RS232\*



USB 2.0\*



RS485\*



CAN 2.0B\*



2in/2out\*

\* only Gateway

# MC100 Terminal/Gateway

## Technical Data

General	Description	Terminal	Gateway
Type	Wireless 4G LTE gateway with Linux OS 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 30 V 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
<b>Mobile</b>			
Supporting networks	<b>LTE Cat1:</b> Bands: 1, 3, 5, 7, 8, 20 <b>WCDMA:</b> Bands: 1, 5, 8 <b>GSM/GPRS/EDGE:</b> 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)	2	2
<b>Controller, Memory and OS</b>			
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
<b>Interfaces controller board (sides)</b>			
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 relays, 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, 3 and 5	Free programmable	x	x
LED 4	GSM	x	x
SIM	Mini SIM	x	x
SD card	Micro SD, up to 32 GB (internal)	x	x
GPS	GPS/GNSS (GLONASS/BeiDou/Galileo)	x	x
WLAN	802.11 b/g/n	-	x
Bluetooth		-	optional
<b>Other properties</b>			
Configurations	Basic configuration via web interface, SSH	x	x
RS232 console port	on RS232 interface (optional)	-	optional
E1 approval		optional	optional
<b>Delivery includes</b>			
Wall adapter	Plastic holder	x	x
Printed documentation	Quick Guide	x	x

Mistakes and changes are reserved.

# MC100 Terminal/Gateway

## Variants / Accessories

Variants		Part-Number	
		Terminal	Gateway
MC100		160638	162853
MC100 with E1 approval		160638E1	162853E1
MC100 with 1GB RAM		-	193354
MC100 with 1GB RAM, E1 approval		-	193354E1
MC100 with 1GB RAM, Bluetooth		-	193285
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
MiMo wall antenna	5G/4G/MIMO/3G/2G, 2x 2 m RG174, 2x SMA (male)	193600	193600
Portable antenna	GSM/UMTS/LTE/WLAN, SMA (male)	101292	101292
GPS antenna	1575.42 MHz, 2 dBi, 3 m RG174 SMA (male), magnetic	101259	101259

Mistakes and changes are reserved.