



maxx GW4100



### maxx GW4100 Gateway LTE 4G

The programmable maxx GW4100 mobile communication gateway for industrial applications collects and processes the information from your devices, machines and sensors, and transmits it via the expanded LTE network. Connection to a VPN ensures secure data transmission and availability of the gateway. Diverse interfaces allow the connection of a broad range of devices by means of standard field buses, as well as digital and analogue I/Os.

## Features

- LTE 4G**  
 Use of LTE networks for good network coverage and bandwidth
- Always online**  
 Automatic connection check for a stable online connection
- 2 x SIM**  
 Network provider redundancy when using SIM card from two network providers
- GNSS**  
 GPS, GLONASS, BeiDou/Compass, Galileo and QZSS receiver
- Programmable**  
 Freely programmable (e.g. in C/C++ and Python)
- Linux**  
 Lean Linux distribution with Mainline Kernel
- Data storage**  
 Storage of user data on internal flash and SD card (optional)
- Serial interfaces**  
 RS232, RS485, USB and CAN interfaces
- 1-wire interface**  
 1-wire bus for connecting sensors and iButtons, for example
- I/O interfaces**  
 Multifunctional analogue I/O interfaces
- VPN**  
 OpenVPN Client for secure data transmission and availability

## Technical data

General	Description	GW4100	GW4101
Gateway		LTE	LTE incl. sensor board
<b>Power supply</b>			
Power supply	8 V ... 30 V DC	x	x
Maximum power consumption	max. 25 Watts	x	x
<b>Ambient conditions</b>			
Storage temperature range	-40 to +85 °C	x	x
Operating temperature range	-25 to +70 °C	x	x
Relative humidity during storage	0 to 95 %, non condensing	x	x
Relative humidity during operation	0 to 95 %, non condensing	x	x
<b>Interfaces</b>			
1 x Ethernet	10/100 MBit/s	x	x
1 x USB	USB 2.0	x	x
1 x CAN	CAN 2.0b, switchable terminating resistor	x	x
1 x RS232	V.28, RXD, TXD, RTS, CTS	x	x
1 x 1-wire	Dallas 1-wire @5 V	x	x
1 x RS485	Not galvanically isolated	x	x
2 x Digital IN / OUT	Multi purpose I/O, switching threshold ca. 3.5 V	x	x
4 x Digital IN	Digital inputs, 0–30 V, switching threshold ca. 4.5 V	x	x
4 x RTD	PT100 / PT1000		x
4 x 4 – 20 mA inputs	Sensor inputs		x
1 x 4 – 20 mA output			x
4 x Digital IN	Digital inputs, 0–30 V, switching threshold ca. 4.5 V		x
4 x Digital IN galvanically isolated	Digital inputs, 0–30 V, switching threshold ca. 3.5 V		x
2 x Digital OUT	Galvanically isolated, max. 350 mA		x
1 x RS485 galvanically isolated	Switchable terminating resistor		x
1 x Antenna GSM	SMA socket, impedance 50 Ω	x	x
1 x antenna GSM	SMA socket, impedance 50 Ω	x	x
2 x SIM	Mini-SIM, 1.8 V or 3.3 V	x	x
1 x SIM chip	Optional	x	x
<b>Signalling</b>			
1 x LED Power	Power supply	x	x
1 x LED mobile communication	Mobile communication connection status	x	x
2 x LED freely programmable		x	x
2 x LED Ethernet	ACT, LINK	x	x

### Mechanics

Case type	Plastic case V0	x	x
Dimensions (H x W x D)	119 x 27 x 105 mm	x	
Dimensions (H x W x D)	119 x 49 x 105 mm		x
Weight	ca. 160 g	x	
Weight	ca. 260 g		x
Assembly	DIN rail	x	x
IP rating	IP40	x	x

### Controller and memory

Controller	2 x ARM Cortex-A7, 1 GHz	x	x
RAM	DDR3, 1 GByte	x	x
Flash	8 GByte eMCC	x	x
EEPROM	64 kbit	x	x
Security chip	Infineon TPM®	x	x
SD card	Micro SD card reader	x	x

### OS and software

OS	Linux with Mainline Kernel	x	x
Programming languages	C, C++ and Python (typical), others on request	x	x

### Configuration and updates

Configuration	Web browser, SSH, YAML	x	x
Update system	RAUC	x	x

### Mobile communication

Supported bands	LTE FDD: B1/B3/B5/B7/B8/B20 WCDMA: B1/B5/B8 GSM: B3/B8	x	x
Data rates	LTE FDD: Max 10 Mbps (DL)/Max 5 Mbps (UL) DC-HSPA+: Max 42 Mbps (DL)/Max 5.76 Mbps (UL) UMTS: Max 384 Kbps (DL)/Max 384 Kbps (UL) EDGE: Max 236.8 Kbps (DL)/Max 236.8 Kbps (UL) GPRS: Max 85.6 Kbps (DL)/Max 85.6 Kbps (UL)	x	x
SIM1 and SIM2	Programmable switching	x	x

### GNSS

Antenna	Active antenna support	x	x
Sensitivity	Cold start: autonomous, -146 dBm Reacquisition: autonomous, -157 dBm Tracking: autonomous, -157 dBm	x	x
TTFF	Cold start @open sky: autonomous, 35 s Cold start @open sky: XTRA enabled, 18 s Warm start @open sky: autonomous, 26 s Warm start @open sky: XTRA enabled, 2.2 s Hot start @open sky: autonomous, 2.5 s Hot start @open sky: XTRA enabled, 1.8 s	x	x
Accuracy	CEP-50, autonomous @open sky, <2.5 m	x	x

### Ordering information

GW4100	Article number 410001	x	
GW4101	Article number 410002		x

Subject to modification without notice; errors excepted.  
7/22

