

# Datasheet

## MTX-Gateway

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# MTX-GATEWAY

*Industrial Outdoor Linux Programmable gateway with GSM & RF options*

4G Quad Band LTE Tri Band HSPA+ UMTS (WCDMA)	GSM GPRS/EDGE Quad/Dual Band
Ethernet	Wi-Fi b/g/n
I2C GPIO	USB 2.0 OTG RS232/RS485 CAN/1-Wire
Relay outputs	GPS
Outdoor IP65 compliant	Extended Temperature Range
GNU/Linux	Java support



The MTX-GATEWAY is an **innovative & unlimited power industrial gateway** with a complete set of wireless and wired interfaces powered by an ARM9 processor module with embedded Linux and Java VM. By providing an easy integration and powerful interfaces, it avoids further hardware components.

The MTX-GATEWAY embeds an industrial Freescale i.MX28 (TQMa28) module ARM9@454MHz RAM@128MB FLASH@4GB EEPROM@32KB.

**Plenty of interfaces:** Ethernet, WiFi, USB OTG, RS232, RS485, RS422, CAN, 1-Wire, I2C, GPIOs, relays and a VGA video port; it can be used in **infinite M2M and IoT applications**. Its internal **mini-PCIe slot** can accommodate any communication board you need: LTE & GPS, HSPA+ & GPS, GPRS, GPS, WiFi, Bluetooth 2.1 or Bluetooth Low Energy.

Internal GPS and/or WiFi (b/g/n) modules can be optionally ordered, as well as other RF modules such as: Bluetooth 2.1, Bluetooth Low Energy, ZigBee, Wireless MBus, 868/900MHz RF-ISM, Wavenis, XBEE, EnOcean, Z-Wave, 6LoWPAN etc.

It is manufactured following the ISO-9001 & ISO-14001 Quality certifications and it is RoHS/WEEE compliant.

## General features

- IP65 enclosure
- Supply voltage range:
  - AC input: 90 to 264VAC / 120-370VDC
  - DC input: 24V (7 to 50VDC)
- Operating temperature range: -40°C to +85°C
- Dimensions, excluding connectors or cable glands: 201 x 163 x 98mm
- Weight: <500 g

## Interfaces

- Cellular modem 2G/3G/4G (MiniPCIe socket) (\*)
- Ethernet 10/100 BaseT RJ45
- Internal Wi-Fi b/g/n (AP support) (\*)
- Internal MiniPCIe socket for M2M communications (See available modules below)
- USB 2.0 OTG
- HD-Dsub15 (also available as plug-In type terminal block):
  - 2x RS232 (2 wire) (\*)
  - 1x RS232/485/422 (4 wire)
  - 1x GPIO (3V)
  - 1-Wire interface (\*)
  - CAN
  - Vout (15VDC)
- Relay with plug-in type terminal blocks:
  - 2x 8A/250VAC relays (by default) (\*)
  - 1x 1A/30VDC Latch relay (upon request)
- Operating status LEDs
- SIM card interface 1.8V/3V
- Internal RF module socket (\*). See available modules below
- VGA connector (upon request) (\*)

(\*): Depending on model, see table below

## Processor

- Powered by TQ-Components TQMa28 module
  - Freescale i.MX28 (ARM9 architecture)
  - 454MHz clock CPU freq
  - 128MB DDR2
  - 4GB eMMC Flash
  - 32KB EEPROM
  - Linux Kernel 3.10
  - Java VM loaded

## Ordering information

<b>199802101:</b>	MTX-GATEWAY
<b>199802102:</b>	MTX-GATEWAY-2G
<b>199802103:</b>	MTX-GATEWAY-3G
<b>199802104:</b>	MTX-GATEWAY-4G
<b>199802106:</b>	MTX-GATEWAY-OEM
<b>199802111:</b>	MTX-GATEWAY-LC
<b>199802107:</b>	MTX-GATEWAY-LC-OEM

## Optional modules and expansions

- Other MiniPCIe socket modules available:
  - LTE & GPS
  - HSPA+ & GPS
  - WiFi + Bluetooth
- RF module socket modules available:
  - GPS receiver
  - Bluetooth v2.1 EDR Class 2
  - Bluetooth Low Energy
  - ZigBee
  - ISM 868/900MHz
  - Wavenis/Coronis 25/500mW
  - Wireless MBUS/KNX
  - XBEE socket
  - Any other technology upon request

## Features by model

	<i>MTX-GATEWAY</i>	<i>MTX-GATEWAY-2G</i>	<i>MTX-GATEWAY-3G</i>	<i>MTX-GATEWAY-4G</i>	<i>MTX-GATEWAY-OEM</i>	<i>MTX-GATEWAY-LC</i>	<i>MTX-GATEWAY-LC-OEM</i>
<b>Celullar modem</b>		<b>2G</b>	<b>3G</b>	<b>4G</b>			
<b>RS232/485/422 (4-wire)</b>	1x	1x	1x	1x	1x	1x	1x
<b>RS232 (2-wire)</b>	2x	2x	2x	2x	2x	1x	1x
<b>USB OTG</b>	X	X	X	X	X	X	X
<b>Ethernet</b>	X	X	X	X	X	X	X
<b>WiFi</b>	X	X	X	X	X		
<b>CAN 2.0B</b>	X	X	X	X	X	X	X
<b>1-Wire</b>	X	X	X	X	X		
<b>Relays</b>	2x	2x	2x	2x	2x	1x	1x
<b>GPIO</b>	1x	1x	1x	1x	1x	1x	1x
<b>Internal RF module</b>	(*1)	(*1)	(*1)	(*1)	(*1)		
<b>GPS module</b>	(*1)	(*1)	(*1)	(*1)	(*1)		
<b>VGA</b>	(*1)	(*1)	(*1)	(*1)	(*1)		

(\*1): upon request

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