



Quad Band LTE
Tri Band HSPA+
UMTS (WCDMA)



GSM
GPRS/EDGE
Quad/Dual Band



Ethernet



Wi-Fi 2.4/5Ghz
ac/ a/b/g/n/d/e/h/i
Client & Access Point



I2C
GPIO



USB 2.0 OTG
RS232/485/422
CAN



Extended
Temperature
Range



GPS



GNU/Linux



Java support



The MTX-GTW gateway is an **innovative & unlimited power 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-GTW 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, GPIOs; 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 b/g/n, Bluetooth 4.0 or Bluetooth Low Energy.

Internal GPS, Bluetooth 4.0 and/or WiFi 5GHz/2.4GHz (802.11 ac/ a/b/g/n/d/e/h/i) modules can be optionally ordered.

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

MTX-GTW Family

General features

- Supply voltage range:
 - DC input: 12V (7 to 50VDC)
- Operating temperature range: -40°C to +85°C
- Dimensions, excluding connectors or cable glands: 78.1 x 66.8 x 37.2mm
- Weight: <190 g
- IP30 enclosure

Interfaces

- Cellular modem 3G/4G (*) (3G->FME M connector / 4G->SMA F connector)
- Ethernet 10/100 BaseT RJ45
- Wi-Fi b/g/n with external antenna (*) (SMA F RP connector)
- USB 2.0 OTG
- DB15 HD female connector:
 - 1x RS232/485/422 (4 wire)
 - 2x RS232 (2 wire)
 - 1x CAN 2.0B
 - 1x 1-Wire (*)
 - 1x Latch Relay 1A 30VDC (*)
 - 1x Count input (*) (optional 2x)
 - Optoisolated I/Os (optional) (*)
 - 2x Analog inputs (0-2.4V or 0-20mA) (optional) (*)
 - 1x Analog output (optional) (*)
- Operating status LEDs
- SIM card interface 1.8V/3V (DualSIM optional)
- Optional MFF2 SIM module (*)
- 3-axis accelerometer (*)
- GPS receiver (*)
- Optional internal Gyroscope + Magnetometer module (*)
- (*) Depending on model. See features by model table.

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 3.14
 - Java VM loaded

Optional modules and expansions

- Other MiniPCIe socket modules available:
 - LTE & GPS
 - HSPA & GPS
 - HSPA+ & GPS
 - WiFi b/g/n + Bluetooth 4.0
 - WiFi ac/ a/b/g/n/d/e/h/i & Bluetooth 4.0
 - HSPA & WiFi b/g/n & Bluetooth 4.0
 - HSPA & WiFi ac/ a/b/g/n/d/e/h/i & Bluetooth 4.0
 - HSPA & 2xWiFi b/g/n & 2xBluetooth 4.0
 - HSPA & GPS & WiFi b/g/n & Bluetooth 4.0
 - HSPA & GPS & WiFi ac/ a/b/g/n/d/e/h/i & Bluetooth 4.0
 - HSPA & GPS & 2xWiFi b/g/n & 2xBluetooth 4.0

Ordering information

199802110: MTX-GTW

Ethernet, WiFi b/g/n, USB 2.0 OTG, 1xRS232/422/485 (4-wire), 2x RS232 (2-wire), CAN

199802153: MTX-GTW-IO

Ethernet, WiFi b/g/n, USB 2.0 OTG, 1xRS232/422/485 (4-wire), 2x RS232 (2-wire), CAN, Latch Relay, 3-axis accelerometer, Count input

199802159: MTX-GTW-BT

Bluetooth 4.0 + BLE, Ethernet, WiFi b/g/n, USB 2.0 OTG, 1xRS232/422/485 (4-wire), 2x RS232 (2-wire), CAN, Latch Relay, 3-axis accelerometer, Count input

199802120: MTX-GTW-3G

HSPA/UMTS modem, Ethernet, WiFi b/g/n, USB 2.0 OTG, 1xRS232/422/485 (4-wire), 2x RS232 (2-wire), CAN, Latch Relay, 3-axis accelerometer, Count input

199802143: MTX-GTW-3G-GPS

HSPA/UMTS modem, Ethernet, WiFi b/g/n, USB 2.0 OTG, GPS receiver, 1xRS232/422/485 (4-wire), 2x RS232 (2-wire), CAN, Latch Relay, 3-axis accelerometer, Count input

199802123: MTX-GTW-4G-GPS

LTE modem, Ethernet, WiFi b/g/n, USB 2.0 OTG, GPS receiver, 1xRS232/422/485 (4-wire), 2x RS232 (2-wire), CAN, Latch Relay, 3-axis accelerometer, Count input

MTX-GTW Family

Features by model

	<i>MTX-GTW</i>	<i>MTX-GTW-IO</i>	<i>MTX-GTW-BT</i>	<i>MTX-GTW-3G</i>	<i>MTX-GTW-3G-GPS</i>	<i>MTX-GTW-4G-GPS</i>	<i>MTX-GTW-LC</i>
Celullar modem				3G	3G	4G	
WiFi	1x	1x	1x	1x	1x	1x	
GPS		(*1)			1x	1x	
Bluetooth 4.0 + BLE			X	(*1)	(*1)		
RS232/485/422 (4-wire)	1x	1x	1x	1x	1x	1x	1x
RS232 (2-wire)	2x	2x	2x	2x	2x	2x	2x
Ethernet	1x	1x	1x	1x	1x	1x	1x
CAN 2.0B	1x	1x	1x	1x	1x	1x	1x
USB OTG	1x	1x	1x	1x	1x	1x	1x
1-Wire		1x	1x	1x	1x	1x	
Count input		1x (*3)	1x (*3)	1x (*3)	1x (*3)	1x (*3)	
3-axis accelerometer		1x	1x	1x	1x	1x	
Latch Relays		1x	1x	1x	1x	1x	
Dual SIM				(*1)	(*1)	(*1)	
MFF2 SIM				(*1)	(*1)	(*1)	
Gyroscope + magnetometer		(*1)	(*1)	(*1)	(*1)	(*1)	
Opto IO		(*2)	(*2)	(*2)	(*2)	(*2)	
Analog IO		(*2)	(*2)	(*2)	(*2)	(*2)	

(*1): upon request.

(*2): upon request. This may affect other options availability such as: 1-Wire, OptoIO, Count input, Relays, Analog IO.

(*3): upon request, up to 2 count inputs available, shared with the RS232 RX lines.