



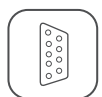













MTX-IoT

Advanced 4G/3G modular programmable IoT modem

The MTX-IoT devices are an innovative and powerful solution for the most demanding IoT applications, enabling 4G/3G high speed cellular data transmission, GSM voice, SMS. MTX-IoT are Java J2ME programmable and have many interfaces (RS232/485, USB, optoisolated IOs, analog-to-digital converter) avoiding need for further hardware reducing costs. Its modular architecture allows a series of optional features like a GPS module, RF card, and analog audio. It is also compatible with MTX-Tunnel, a firmware that can be executed in our MTX modems to use them as powerful gateways or routers.











MAIN FEATURES

 4G/3G/2G	 USB 2.0	 Up to 2x RS232	 RS485	 Analog input	 GPIO	 GPS optional	 Audio optional
 Wavenis optional	 4G/3G/2G serial gateway	 GPIO management	 Relays management	 DynDNS and No-IP	 MQTT/s	 Modbus & Datalogger	 SMS control

● Hardware features

● MTX-Tunnel software features

CERVELLO STEM - IOT PLATFORM FREE FOR ONE YEAR WITH MTX DEVICES*





 Autoprovisioning	 Alarms and Alerts	 Remote Control	 Real time Dashboards	 Rules engine	 Monitoring engine	 Analytics	 Remote update
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*Available with compatible devices that have MTX-Tunnel or MTX-Titan














- ⚡ DC input: 8 to 50 Vdc
- 🌡️ Temperature range: -30° to +85°C
- 📏 Dimensions: 78.1x66.8x37.2mm
- ⚖️ Weight: <190gr

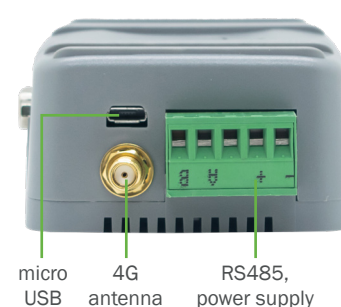
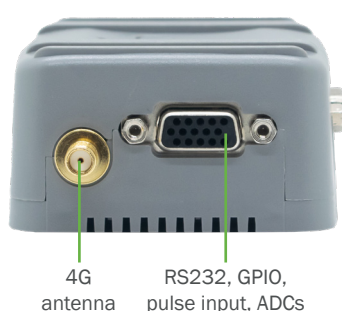
Datasheet subject to changes | 2020/05
MTX © by MATRIX ELECTRONICA S.L.U.
SUPPORT: iotsupport@mtxm2m.com
SALES: info@mtxm2m.com
mtxm2m.com

HARDWARE FEATURES









	MTX-IoT 4G	MTX-IoT 3G
	LTE 5 Bands (700, 800, 900, 1800, 2100MHz), GSM/GPRS/EDGE: 2 Bands (900, 1800MHz)	UMTS/HSPA+: 5 Bands (800, 850, 900, 1900, 2100MHz), GSM/GPRS/EDGE: 4 Bands (850, 900, 1800, 1900MHz)
	LTE Cat.1: DL 10.2Mbps, UL 5.2Mbps	
	HSPA (3GPP release 6,7): DL 7.2Mbps, UL 5.7Mbps; HSDPA Cat.8/HSUPA Cat.6 UMTS (3GPP release 4): PS data rate 384 kbps DL, UL 384kbps	HSPA (3GPP release 6,7): DL 7.2Mbps, UL 5.7Mbps; HSDPA Cat.8/HSUPA Cat.6 UMTS (3GPP release 4): PS data rate 384 kbps DL, UL 384kbps
	GPRS (EU only): DL 85.6kbps, UL 85.6kbps	EGPRS: multislot class 12; EDGE E2 power class for 8PSK GPRS class 12; mobile station class B; PBCCH support
		CSD data transmission up to 9.6 kbps, V.110, non-transparent
	SMS: text and PDU mode support	SMS: point-to-point MO and MT; text and PDU mode

Interfaces

 4G/3G/2G connectivity	 RF expansion (optional)
 USB	 Audio in/out (optional)
 RS232 (up to 2)	 SIM card interface 1.8V and 3V
 RS485	 Power supply
 GPIOs	 Operating status LEDs
 3x pulse input counter	 Real Time Clock with alarm functionality
 GPS (optional)	



Connectors (STD version)



	2x SMA F: 4G
	1x FME M: 3G
	1x SMA F: GPS
	Micro USB
	2x RJ11 (only for audio version)
	1x DB9: RS232
	1x DB15: RS232, GPIO, pulse input, ADCs
	1x terminal block (5-ways): power supply, RS485, input

Processor






	4G	3G
Flash	31MB	10MB
RAM	18MB	10MB
CPU	ARM11	ARM11

MTX-TUNNEL SOFTWARE FEATURES





Connectivity

-  4G/3G/2G serial gateways: TCP client, TCP server, UDP client/server, accept incoming CSD calls, up to 2 simultaneous tunnel
-  IP connectivity mode: permanent 100% time, under request (SMS, missed call), change on a digital input, analog input out of level, serial data on RS232/RS485 port, scheduled date/hour/time






TCP Services

-  Web server, Telnet, SNMP, Tacacs+, NTP
-  Datalogger: MQTT, MQTTs, HTTP, HTTPs, FTP
-  Shows the status of digital and analog inputs
-  Change digital output level and relays
-  Execute AT commands remotely: Telnet, MQTT/MQTTS, SMS, HTTP




Security

-  Authorized phone numbers
-  Firewall IP, SSL/TLS connections, encrypted config
-  Secure OTAP (remote FIU upgrade)
-  Watchdog hardware






Alarms and Control

-  Send SMS/MQTT alarm when the level of digital or analog input change
-  SMS can be sent to up to 10 remote users
-  Execute remote AT commands
-  Change the status of digital outputs & relays
-  Customizable SMS commands

Solutions for Dynamic IP

-  IP session using a SMS or missed call
-  DynDNS and NoIP
-  Private DNS

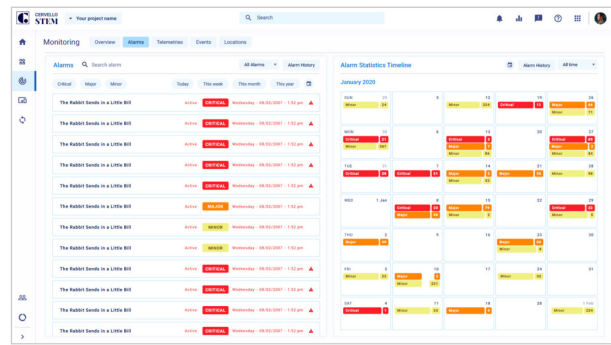
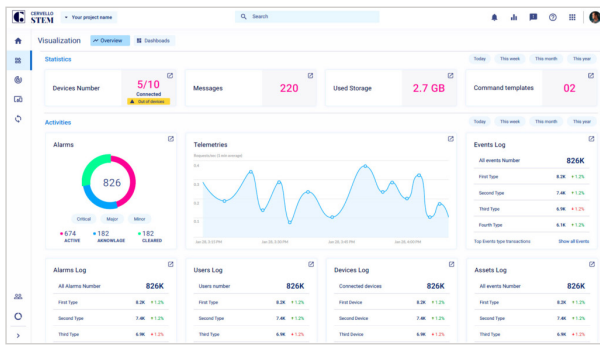
Metering, Modbus, Sensors...

-  868 MHz remote monitoring sensors (Wavenis)
-  Master for modbus RTU devices, Modbus TCP slave, Modbus TCP to RTU gateway
-  Relays control
-  Access to serial devices using 2G/3G/4G and GSM
-  Astronomical clock

















CERVELLO STEM - IOT PLATFORM



FREE FOR ONE YEAR WITH MTX DEVICES**





General Features

-  Up to unlimited devices
-  Autoprovisioning
-  Real time dashboards
-  Remote control
-  Monitoring engine
-  Alarms and alerts
-  Rules engine
-  Remote update
-  Connect engine*
-  API Keys*
-  Analytics*
-  Multi-tenant*
-  White labeling*
-  Custom admin role*




Monitor

-  Alarms, Events and Incidents
-  Tracking*




Control

-  Command template
-  OTA



Devices Inventory

-  Add single and single from template
-  Add Bulk from template and from autoprovisioning
-  Manage: Device template, Groups, Assets and Bulk actions




Connect

-  Topics*
-  Transformation*
-  Integration keys*




Visualize

-  Dashboards
-  Reports

Automate

-  Rules Engine
-  Actions
-  Triggers

Security

-  2-factor authentication
-  SSL for end user application
-  Custom admin roles*

*Upgrade required

**Available with compatible devices with MTX-Tunnel or MTX-Titan

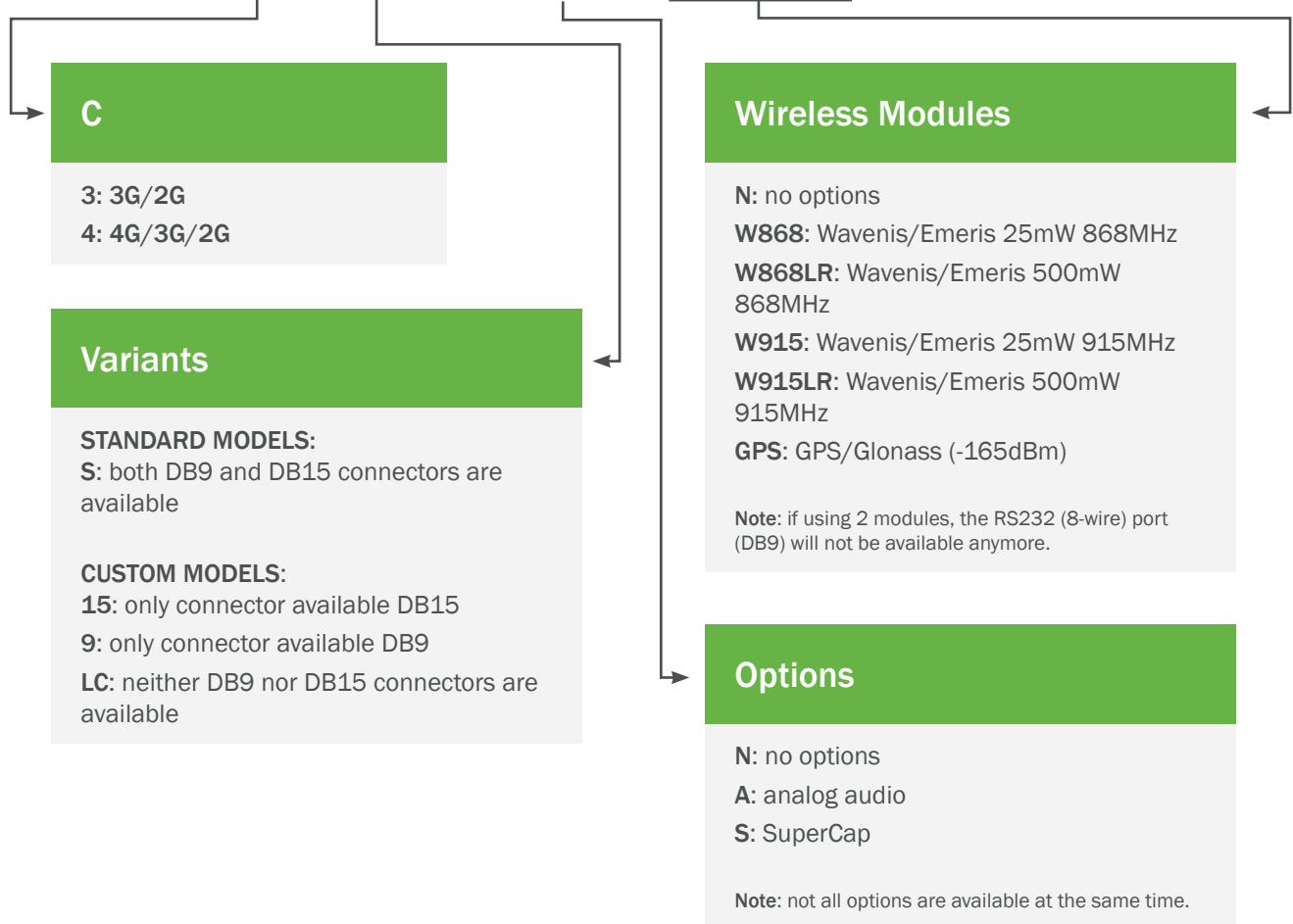
ORDERING INFORMATION

MTX-IoT [3-S-N-N]*	199801393
MTX-IoT [4-S-N-N]	199801436
MTX-IoT [3-S-A-N]*	199801403
MTX-IoT [3-S-N-GPS]*	199801456

MTX-IoT [3-S-A-GPS]*	199801448
MTX-IoT [4-S-N-GPS]	199801452
MTX-IoT [4-S-N-W868]	199801404

*With MoQ

MTX - IoT [C - Variant - Options - Wireless]



FEATURES & COMPATIBILITY

MTX-IoT			
	STANDARD VERSIONS	CUSTOM VERSIONS (by request only)	
	-S	-15	-9
GPS	*	*	*
RS232 (8-wire)	X		X
RS232 (4-wire)	X	X	
RS485	X	X	X
USB	X	X	X
ADC	x2	x2	
Optoisolated IO	x4	x4	
Counter input	x3	x3	x1
Analog Audio (A)	(*1)	(*1)	(*1)
Internal wireless module	(*1)	(*1)	(*1)

* Optional

(*1): option. See incompatibility table

	3G (3G/2G)	4G (4G/3G/2G)	RS232 (8-wire) DB9	RS232 (4-wire) DB15	RS485	-A (Analog audio)	-S (SuperCap)	Wireless module	GPS module
3G (3G/2G)									
4G (4G/3G/2G)									
RS232 (8-wire) DB9								(*1)	(*1)
RS232 (4-wire) DB15								(*1)	(*1)
RS485								(*1)	(*1)
-A (Analog audio)									
-S (SuperCap)									
Wireless module			(*1)	(*1)	(*1)				
GPS module			(*1)	(*1)	(*1)				

■ Compatible

■ Non-compatible

(*1): all serial ports not available at the same time