

MTX-IoT-S

4G programmable IoT modem with 8x digital I/O, 2x ADC, ULP and battery

MTX-IoT-S is an innovative and powerful all-in-one solution for the IoT sector. It features a very effective ULP (Ultra Low Power) system that allows the device to work with primary batteries for years. This feature, together with its set of interfaces (RS232, RS485, USB, DI/O, ADC...) and the embedded MTX-Tunnel firmware, provides the MTX-IoT-S with a router-like functionality, and makes this modem ideal for most IoT applications, with no need for further hardware, shortening the time-to-market, and providing a cost-effective solution.



MAIN FEATURES

- | | | | | | | | |
|-----------------------------|-----------------------------|---------------------|-----------------------|----------------------|-----------------|-------------------------|---------------------|
|
4G/3G/2G communications |
USB |
RS232/485 |
8x digital I/O |
2xADC
4xDAC |
Latch relay |
Battery |
Ultra Low Power |
|
GPS |
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 |
|----------------------|-----------------------|--------------------|--------------------------|------------------|-----------------------|---------------|-------------------|

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

- ⚡ DC input: 7 to 30Vdc (36Vdc optional)
- 🌡️ Temperature range: -30° to +85°C
- 📏 Dimensions: 113x52x78mm
- 📦 Weight: 190gr

Datasheet subject to changes | 2020/05
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SUPPORT: iotsupport@mtx2m.com
SALES: info@mtx2m.com
mtx2m.com

HARDWARE FEATURES

MTX-IoT-S 4G

	LTE 5 Bands (700, 800, 900, 1800, 2100MHz), GSM/GPRS/EDGE: 2 Bands (900, 1800MHz)
	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
	GPRS (EU only): DL 85.6kbps, UL 85.6kbps
	CSD data transmission up to 9.6 kbps, V.110, non-transparent
	SMS: text and PDU mode support

Interfaces

 4G/3G/2G connectivity	 Latch relay (also available without relay)
 USB	 RF expansion 433/686/913MHz (optional)
 RS232	 Dual SIM: 2x external access microSIM
 RS485	 Power supply
 8x GPIOs (convertible to pulse input counter)	 Operating status LEDs
 2x ADC (0-10V and 4-20mA)	 Real Time Clock with alarm functionality
 4x DAC (0-10V and 20mA output max.)	 Accelerometer (optional)
 GPS (optional)	 Battery
 Tamper input	 Ultra Low Power

Connectors



2x SMA F: 4G



1x SMA F: 3G



1x SMA F: GPS



Mini USB B



1x DB9: RS232



4x2 terminal block: power supply, RS485, tamper, relay



8x2 terminal block: 8x I/O, 2x ADC, 4x DAC, 1W

Processor

	4G
Flash	31MB
RAM	18MB
CPU	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

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

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



Configure DAC tension



ADC reading



Configure RTC alarms



Select SIM



The 8x I/Os can be configured as independent inputs or outputs

Solutions for Dynamic IP



IP session using a SMS or missed call



DynDNS and NoIP



Private DNS

Security



Authorized phone numbers



Firewall IP, SSL/TLS connections, encrypted config



Secure OTAP (remote FIU upgrade)

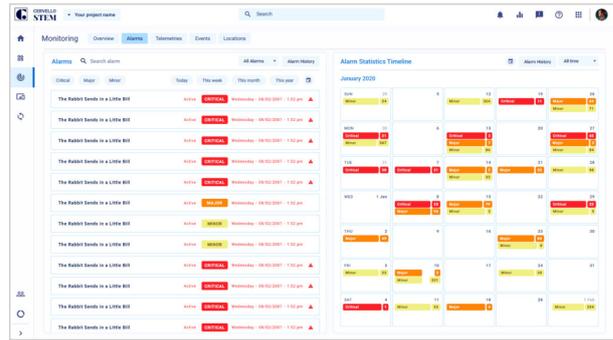
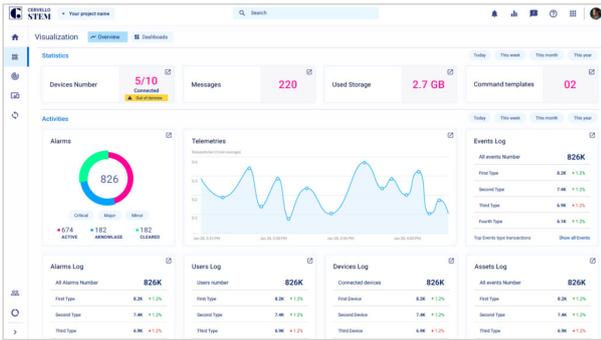


Watchdog hardware



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

Part Numbers

MTX-IoT-S [4-N-N]

199802407

MTX-IoT-S [4-R4-N]

199801494

MTX-IoT-S [4-N-GPS]

199802409

MTX-IoT-S [4-N-WMbus]

199802417

MTX - IoT-S [X - N - Wireless]

