



# MTX-IoT-XS

# Basic 4G/3G/2G programmable IoT modem

MTX-IoT-XS is an innovative and powerful allin-one solution. Thanks to its set of interfaces (RS232, RS485, USB, digital I/O...) and the embedded MTX-Tunnel firmware that provides the MTX-IoT-XS with a basic router-like functionality, this modem can be used in most of the IoT applications with no need for further hardware, shortening the time-to-market and providing a very cost-effective solution. MTX-IoT-XS can be also programmed in JavaJ2ME, for those customers who want to embed their own firmware on it.



# MAIN FEATURES



4G/3G/2G



USB 2.0



Up to 2x RS232 (see options)



RS485 (see options)



1x digital input



1x digital output



4G/3G/2G serial gateway



**GPIO** management



Datalogger



**DynDNS** and No-IP



MQTT/s



Modbus TCP/RTU



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

DC input: 7 to 36VDC

Temperature range: -30° to +85°C

□ Dimensions: 78x31x84mm

Weight: 131gr











<sup>\*</sup>Available with compatible devices that have MTX-Tunnel or MTX-Titan

# HARDWARE FEATURES

### MTX-IoT-XS 4G

- LTE 5 Bands (700, 800, 900, 1800, 2100MHz), GSM/GPRS/EDGE: 2 Bands (900, 1800MHz)
- 4G LTE Cat.1: DL 10.2Mbps, UL 5.2Mbps
- HSPA: DL 7.2Mbps, UL 5.7Mbps
  UMTS PS: DL 384Mbps, UL 384 Mbps, CS: DL 64Mbps, UL 64Mbps
- EDGE Class 12 data rates, DL: max. 237 kbps, UL: max. 237 kbps GPRS Class 12 data rates, DL: max. 85.6 kbps, UL: max. 85.6 kbps
- CSD data transmission up to 9.6 kbps, V.110, non-transparent
- SMS: text and PDU mode support, point-to-point MO and MT, cell broadcast

#### **Interfaces**

- 4G/3G/2G connectivity
- SIM card interface 1.8V and 3V
- **♦** USB 2.0
- Up to 2x RS232 (see options)
- RS485 (see options)
- (IN OUT) 1x digital input
- 1x digital output
- Power supply
- (-\(\hat{A}^2\)) Operating status LEDs



#### **Connectors**

- 1x SMA F antenna connector: 4G
- Mini USB B
- RJ45 (COM1): RS232, 1x input, 1x output
- RJ45 (COM2): RS232 or RS485 (check options)
- RJ11: power supply 7-36V



## 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 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

# ORDERING INFORMATION

MTX-IoT-XS [4-N]

199801473

MTX-IoT-XS [4-D]

199801475

# MTX - IoT-XS [X - Options]

X

2: 2G

3: 3G/2G

4: 4G/3G/2G

**Options** 

N: (standard) 1xRS232, 1xRS485

D: 2x RS232

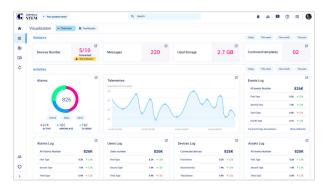


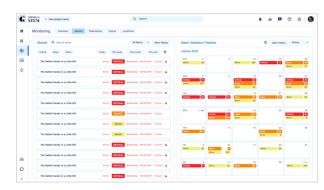
<sup>\*</sup>MTX-Tunnel features depending on modem interfaces



# **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\*



<sup>\*</sup>Upgrade required

<sup>\*\*</sup>Available with compatible devices with MTX-Tunnel or MTX-Titan