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IoT WORLD
#WeAreIoTConnectivity

MTX-IoT US version
Advanced Internet of Things programmable modem

The MTX-IoT devices are an innovative and powerful solution for the most demanding IoT applications, enabling 4G 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. It is also compatible with MTX-Tunnel, an optional firmware that can be executed in our MTX modems to use them as powerful GPRS or 3G gateways..

MAIN FEATURES

4G	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

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

- DC input: 7 to 50 Vdc
- Temperature range: -30° to +85°C
- Dimensions: 30.7x26.3x14.6"
- Weight: <0.4lbs

FC   PTCRB   RoHS compliant   ISO 9001

HARDWARE FEATURES

MTX-IoT

	LTE 4bands (700, 850, 1700, 2100 (AWS), 1900MHz), 3bands UMTS (WCDMA/FDD 850, 1700/2100 (AWS), 1900 MHz)
4G	LTE Cat.1: DL 10.2Mbps, UL 5.2Mbps
3G	HSPA+ Cat.8: data rates DL 7.2Mbps, UL 5.76Mbps
2G	GPRS (EU only): DL 85.6kbps, UL 85.6kbps
SMS	SMS: text and PDU mode support

Interfaces

4G	4G connectivity		RF expansion (optional)
	USB		Audio in/out (optional)
	RS232 (up to 2)		SIM card interface 1.8V and 3V
	RS485		Power supply
IN OUT	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
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

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
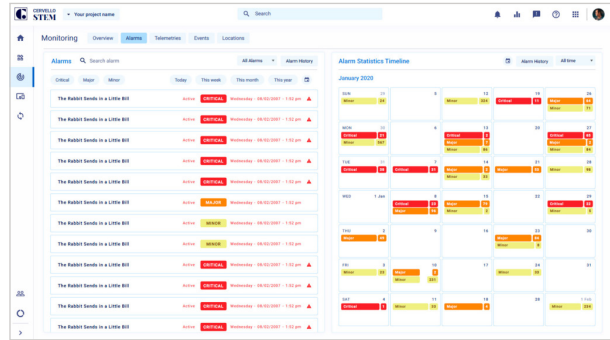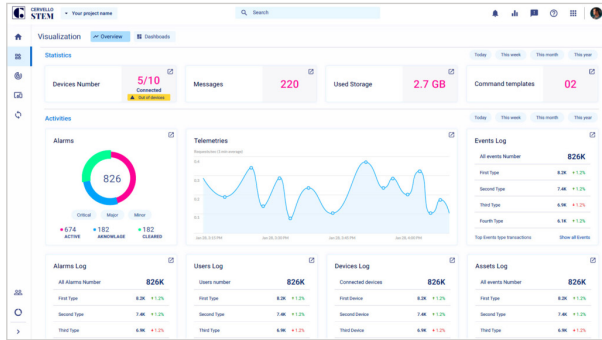- DynDNS and NoIP
- Private DNS

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

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

MTX-IoT [4-S-N-N] AT&T	199801439

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	
Analog Audio (A)	(*1)	(*1)	(*1)
Internal wireless module	(*1)	(*1)	(*1)

* Optional   (*1): option. See incompatibility table

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