

















# MTX-Router-Titan

## LTE/4G/3G/2G outdoor industrial IoT router

MTX-Router-Titan is an industrial router with a complete set of wireless/wired interfaces, so it doesn't need further hardware components. Some of its interfaces are: Ethernet, WiFi, USB, RS232, 1-Wire, I2C, GPIOs, relays... for infinite IoT applications. Internally attached 3G (UMTS/HSPA) modem. MTX-Router-Titan includes the advanced functions: DHCP server, NAT, WiFi Access Point, CSD, 3G to RS232/USB gateways, external sensor dataloggers (temperature, distance, Modbus RTU, Waveflow 868MHz for metering apps), DynDNS/NoIP client, relay control, GSM cell positioning, remote firmware upgrade, etc.



## Main Features

 4G/3G/2G	 Ethernet	 RS232 RS485	 WiFi	 Relays	 USB	 IP67	 Cervello Stem
 Webserver	 Serial gateway	 Datalogger	 Modbus	 DynDNS No-IP	 MQTT	 SMS control	 VPN management

■ HARDWARE ■ SOFTWARE

## Strenghts & Benefits

- A complete set of wired and wireless interfaces.
- It doesn't need further hardware components.
- Like all MTX-Titan routers, it has all the functionalities of MTX-Titan software, and the Cervello Stem IoT platform.

## Applications

- It can be used in an infinite IoT applications.
- Adaptable to harsh environments thanks to its IP67 enclosure: dust, wind, blows, etc.

# Specifications

Titan 4G	Titan 3G
<b>Penta-Band LTE:</b> Bands 1, 3, 8, 20, 28 (700, 800,900, 1800, 2100 MHz) <b>Dual-Band UMTS/HSPA+:</b> Bands 8, 1 (900, 2100 MHz) <b>Dual-Band GSM:</b> 900 and 1800 MHz	<b>Five Bands UMTS (WCDMA/FDD) Bands:</b> 800, 850, 900, 1900 and 2100 MHz <b>Quad-Band GSM Bands:</b> 850, 900, 1800 and 1900 MHz
<b>LTE Cat. 1</b> DL: max. 10.2 Mbps, UL: max. 5.2 Mbps	
<b>HSPA+ Cat.8</b> data rates DL: max. 7.2 Mbps, UL: max. 5.76 Mbps	<b>HSDPA Cat.8/HSUPA Cat.6</b> data rates DL: max. 7.2 Mbps, UL: max. 5.76 Mbps
<b>GPRS Class 12</b> DL: max. 85.6 kbps, UL: max 85.6 kbps	<b>EDGE Class 12</b> data rates DL: max. 237 kbps, UL: max. 237 kbps <b>GPRS Class 12</b> 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	SMS text and PDU mode support

## Interfaces

- 4G/3G/2G connectivity
- Ethernet 10/100 BaseT
- Up to 3x RS232
- RS485
- 2x 8A/250Vac relays
- WiFi b/g/n
- RF expansions
- GPS (optional)
- 1x 1Wire
- 1x mini PCIe
- Temperature sensor
- 2x DIP switch

## Connectors

- 3x SMA F antenna connectors: 4G/3G and other RF
- 1x SMA F R/P antenna connector: GPS
- 1x RJ45: Ethernet 10/100 BaseT
- DB15: up to 3x RS232\*, 1x RS485\*, 1x CAN, 1x 1Wire
- 3x terminal block: up to 3x RS232\*, 1x RS485\*
- 2x terminal block: 2x relays
- Micro USB connector AB Type

## Characteristics

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- 2x status LEDs
- IP67 enclosure
- DC: 24V (7-50 Vdc) / AC: 90-264V (120-370 Vdc)
- Temperature range: -40 - 85°C
- Dimensions: 201x163x98mm
- Weight: <500gr.
- Certifications: CE, FCC, PTCRB, RoHS, ISO9001

\*Up to 3x RS232 and 1x RS485 total, either on DB15 or on terminal block

## References

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### PRODUCTS

■ MTX-Router-Titan (ETH+WiFi)	<b>000199802133</b>
■ MTX-Router-Titan-3G	<b>000199802117</b>
■ MTX-Router-Titan-3G-GPS	<b>000199802139</b>
■ MTX-Router-Titan-3G-WMBUS	<b>000199802156</b>
■ MTX-Router-Titan-3G-WC25	<b>000199802165</b>
■ MTX-Router-Titan-3G (-36-72Vdc)	<b>000199802145</b>
■ MTX-Router-Titan-4G-GPS	<b>000199802141</b>
■ MTX-Router-Titan-4G-WMBUS-GPS	<b>000199802158</b>

# MTX-Titan Software Features

## SERIAL GATEWAYS

- 3 simultaneous 2G/3G/4G/Eth/WiFi <-> RS232/485/USB gateways
- Modes: TCP server/TCP client
- SSH encryption enabled, supports TACACS+
- Incoming CSD call for metering applications

## MODBUS

- Modbus TCP/Modbus RTU gateway
- Modbus TCP/RTU to SNMP gateway (SNMP connectivity for any modbus device)
- Modbus slave RTU/TCP (send/receive SMS, Email, SNMP traps...)
- User scripts

## DATALOGGER

- Data from sensors (temperature, distance...)
- Serial data collected by RS232, RS485 or USB
- GPS data for tracking applications or fleet management
- Automatic data sending (HTTP/HTTPS/FTP/MQTT) with JSON format

## SENSOR COMPATIBLE

- Temperature sensor MTX-Temp-RS232
- Distance sensors (ultrasound) Maxbotics
- Modbus RTU/TCP sensors
- Internal jamming detection sensor with alarm indicator

## SMS

- Full control by SMS with phone number authorizations
- Alarms (digital input, temp., MBus data read)
- Send/receive SMS by Modbus TCP (for PLC)

## OTHER

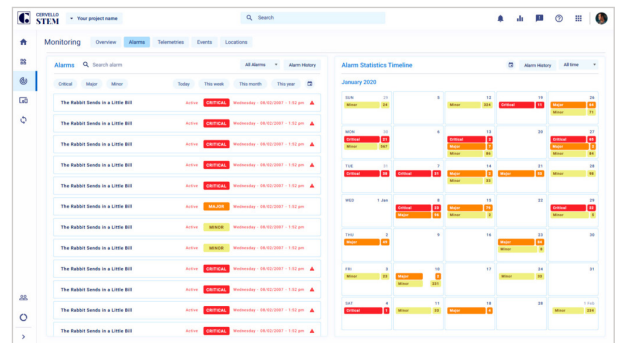
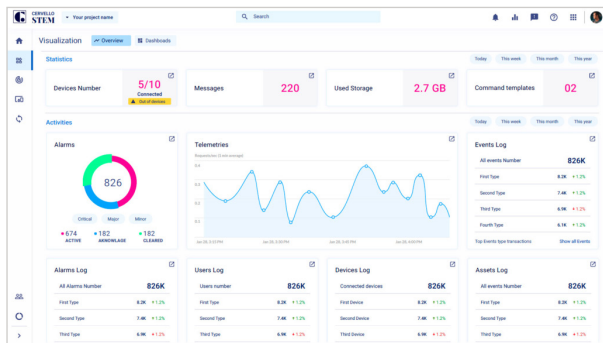
- Compatible with DynDNS/No-IP & private DNS
- GSM cell location
- Programmable autoreset (schedule, timer...)
- Multioperator SIM utilities (integrated rssi scanning tool)
- Time synchronization (NTP) with timezones
- Over The Air firmware upgrade
- Full management with AT Command by serial, socket, SMS, modbus, SNMP, ...
- NAT, firewall, DHCP, etc. and other standard router characteristics
- 4G connectivity supervisor to maintain connection always active
- Internal configuration webserver (all logos and pictures can be customized by user)
- Clear and understandable application notes with examples (OpenVPN, serial gateways, modbus, datalogger, SMS, metering, SNMPv2 and SNMPv3...)
- Traffic control (prevents excessive data traffic consumption), TACACS+ (for HTTP, Telnet and SSH), multiuser profiles

## VPN

- OpenVPN with client/server mode
- Permanent or activated by SMS, AT command, modbus, SNMP, serial...

\*The Titan network architecture is protected by nearly 60 hardware and software patents

# Cervello Stem - IoT Platform



## 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

\*Upgrade required

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

## DEVICES INVENTORY

- Add 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\*

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