MTX-ROUTER-TITAN
LTE/4G/3G/2G outdoor industrial IoT router

The MTX-Router-Titan is an innovative industrial router with a complete set of wireless/wired interfaces. By providing easy integration and powerful interfaces, it avoids further hardware components. Interfaces: Ethernet, WiFi, USB, RS232, 1-Wire, I2C, GPIOs, relays; it can be used in infinite M2M/IoT applications. Internally attached 3G (UMTS/HSPA) modem.

MTX-Router-Titan includes advanced functions: DHCP server, NAT, WiFi Access Point, CSD, 3G to RS232/USB gateways, external sensor dataloggers (temperature, distance, Modbus RTU, Waveflow RS868MHz for metering apps), DynDNS/NoIP client, relay control, GSM cell positioning, remote firmware upgrade, etc.

Main Features

- 4G/3G/2G Ethernet RS232
- RS485
- USB 2.0 WiFi
- Webserver
- Serial gateway
- Modbus
- Datalogger
- SMS
- SMS control
- DynDNS
- No-IP
- VPN
- DynDNS/NoIP
- Control
- MQTT
- Remote Control
- Real time Dashboards
- Rules engine
- Monitoring engine
- Analytics
- Remote update

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

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

DC: 24V (7-50 Vdc) / AC: 90-264V (120-370 Vdc)
Temperature range: -40º to +85ºC
Dimensions: 201x163x98mm
Weight: <500gr
## HARDWARE FEATURES

<table>
<thead>
<tr>
<th></th>
<th>MTX-ROUTER-TITAN 4G</th>
<th>MTX-ROUTER-TITAN 3G</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EUROPE</strong></td>
<td>Penta Band LTE: 800/900/1800/2100/2600 MHz; FDD-Band (20,8,3,7,1); Tri Band UMTS (WCDMA): 900/1800/2100 MHz; FDD-Band (8,3,1); Dual Band GSM/GPRS/EDGE: 900/1800 MHz</td>
<td>WORLDWIDE: Five Bands UMTS (WCDMA/FDD); Bands: 800, 850, 900, 1900 &amp; 2100 MHz. Quad-Band GSM; Bands: 850, 900, 1800 &amp; 1900 MHz</td>
</tr>
<tr>
<td><strong>US</strong></td>
<td>Quad Band LTE: 700/850/AWS (1700/2100)/1900 MHz; FDD-Band (17,5,4,2); Tri Band UMTS (WCDMA): 850/AWS (1700/2100)/1900 MHz; FDD-Band (5,4,2); Quad Band GSM/GPRS/EDGE: 850/900/1800/1900 MHz</td>
<td></td>
</tr>
<tr>
<td><strong>WORLDWIDE</strong></td>
<td>Five Bands UMTS (WCDMA/FDD); Bands: 800, 850, 900, 1900 &amp; 2100 MHz. Quad-Band GSM; Bands: 850, 900, 1800 &amp; 1900 MHz</td>
<td></td>
</tr>
<tr>
<td><strong>LITE Cat.3</strong></td>
<td>DL max. 100 Mbps, UL max. 50 Mbps, 2x2 DL MIMO</td>
<td>HSDPA Cat.8 / HSUPA Cat.6 data rates: DL max. 7.2 Mbps, UL max. 5.76 Mbps</td>
</tr>
<tr>
<td><strong>HSPA+ Cat.24 / UL Cat. 6, Dual Carrier:</strong></td>
<td>DL max. 42 Mbps, UL max. 5.76 Mbps</td>
<td></td>
</tr>
<tr>
<td><strong>EDGE Class 12 data rates:</strong></td>
<td>DL max. 237 kbps, UL max. 237 kbps</td>
<td>EDGE Class 12 data rates: DL max. 237 kbps, UL max. 237 kbps</td>
</tr>
<tr>
<td><strong>GPRS Class 12 data rates:</strong></td>
<td>DL max. 85.6 kbps, UL max. 85.6 kbps</td>
<td>GPRS Class 12 data rates: DL max. 85.6 kbps, UL max. 85.6 kbps</td>
</tr>
<tr>
<td><strong>CSD</strong></td>
<td>CSD data transmission up to 9.6 kbps, V.110, non-transparent</td>
<td></td>
</tr>
<tr>
<td><strong>SMS</strong></td>
<td>SMS text messages</td>
<td>SMS text messages</td>
</tr>
</tbody>
</table>

### Interfaces

- **4G/3G/2G connectivity**
- **Ethernet 10/100 BaseT**
- **USB 2.0**
- **Up to 3x RS232**
- **RS485**
- **2x operating LEDs**
- **SIM card interface 1.8V/3V**
- **2x 8A/250Vac relays**
- **WiFi b/g/n**

- **RF expansions**
- **GPS (optional)**
- **IP67 enclosure**
- **VGA**
- **1x 1Wire**
- **1x mini PCIe**
- **Temperature sensor**
- **2x DIP switch**
Connectors

- 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 SIM

- 3x SMA F antenna connectors: 4G/3G and other RF
- 1x SMA F R/P antenna connector: GPS
- Micro USB connector AB Type

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

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>Product</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTX-Router-Titan (ETH+WiFi)</td>
<td>199802133</td>
</tr>
<tr>
<td>MTX-Router-Titan-3G</td>
<td>199802117</td>
</tr>
<tr>
<td>MTX-Router-Titan-3G-GPS</td>
<td>199802139</td>
</tr>
<tr>
<td>MTX-Router-Titan-3G-WMBUS</td>
<td>199802156</td>
</tr>
<tr>
<td>MTX-Router-Titan-3G-3G-WC25</td>
<td>199802165</td>
</tr>
<tr>
<td>MTX-Router-Titan-3G (-36-72Vdc)</td>
<td>199802145</td>
</tr>
<tr>
<td>MTX-Router-Titan-4G-GPS</td>
<td>199802141</td>
</tr>
<tr>
<td>MTX-Router-Titan-4G-WMBUS-GPS</td>
<td>199802158</td>
</tr>
</tbody>
</table>
**TITAN SOFTWARE FEATURES**

**Serial Gateways**
- 3 simultaneous 2G/3G/Eth/WiFi <-> RS232/485/USB gateways
- Modes: TCP server/TCP client
- SSH encryption enabled
- 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
- RF868 Wavenis sensors
- Internal jamming detection sensor with alarm indicator

**Internal Relays**
- Control & activation by: web, schedule, SMS, astronomical clock, temperature, distance...
- Automatic activation by GPS
- Watchdog for external devices (relay is activated if ping doesn’t respond)

**SMS**
- Full control by SMS with phone number authorizations
- Relay activation by custom SMS message
- 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 (custom logos, pictures, text, menus and features)
- 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...
## 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*

## 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

## Control
- Command template
- OTA

---

*Upgrade required

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