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IoT WORLD
 #WeAreIoTConnectivity

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 | Relays | IP67 | |
| WebsERVER | 4G 3G/2G Serial gateway | Modbus | Datalogger | SMS SMS control | Dyn DNS No-IP | MQTT | VPN VPN management |

● 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: 24V (7-50 Vdc) / AC: 90-264V (120-370 Vdc)
- 🌡️ Temperature range: -40° to +85°C
- 📏 Dimensions: 201x163x98mm
- 📦 Weight: <500gr











Preliminary Datasheet. Subject to changes | 2020/05
 MTX © by MATRIX ELECTRONICA S.L.U.
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HARDWARE FEATURES

| | MTX-ROUTER-TITAN 4G | MTX-ROUTER-TITAN 3G |
|---|--|---|
|  | <p>EUROPE: 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</p> <p>US: 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)</p> | <p>WORLDWIDE: Five Bands UMTS (WCDMA/FDD); Bands: 800, 850, 900, 1900 & 2100 MHz. Quad-Band GSM; Bands: 850, 900, 1800 & 1900 MHz</p> |
|  | LTE Cat. 3: DL max. 100 Mbps, UL max. 50 Mbps, 2x2 DL MIMO | |
|  | HSPA+ DL Cat.24 / UL Cat. 6, Dual Carrier: DL max. 42 Mbps, UL max. 5.76 Mbps | HSDPA Cat.8 / HSUPA Cat.6 data rates: DL max. 7.2 Mbps, UL max. 5.76 Mbps |
|  | 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 | 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 messages | SMS text messages |

Interfaces

| | |
|--|--|
|  4G/3G/2G connectivity |  RF expansions |
|  Ethernet 10/100 BaseT |  GPS (optional) |
|  USB 2.0 |  IP67 enclosure |
|  Up to 3x RS232 |  VGA |
|  RS485 |  1x 1Wire |
|  2x operating LEDs |  1x mini PCIe |
|  SIM card interface 1.8V/3V |  Temperature sensor |
|  2x 8A/250Vac relays |  2x DIP switch |
|  WiFi b/g/n | |

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





| | | | |
|-----------------------------|------------------|---------------------------------|------------------|
| MTX-Router-Titan (ETH+WiFi) | 199802133 | MTX-Router-Titan-3G-WC25 | 199802165 |
| MTX-Router-Titan-3G | 199802117 | MTX-Router-Titan-3G (-36-72Vdc) | 199802145 |
| MTX-Router-Titan-3G-GPS | 199802139 | MTX-Router-Titan-4G-GPS | 199802141 |
| MTX-Router-Titan-3G-WMBUS | 199802156 | MTX-Router-Titan-4G-WMBUS-GPS | 199802158 |

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

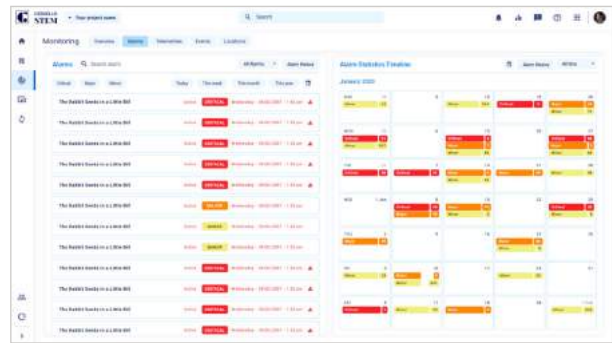
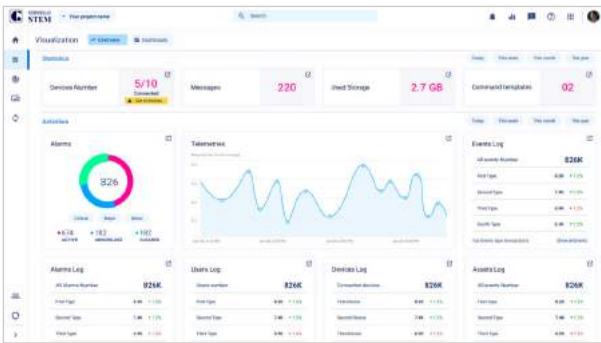
VPN

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

















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

