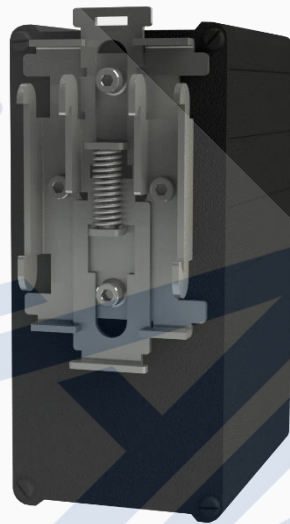


# MTX-Router-Titan II

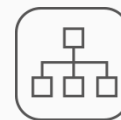
Industrial Router with LTE/4G/3G/2G



4G Connectivity



Micro USB 2.0  
OTG



Ethernet



Java



RS232



DynDNS/NoIP  
Compatible



Firewall



Linux



RS485



Extended  
temperature



Web Server







WiFi b/g/n

The MTX-Router –Titan II is an innovative industrial router that comprises a complete set of wireless and wired interfaces powered by an ARM9 processor module. By providing an easy integration and powerful interfaces, it avoids further hardware components.

**Plenty of interfaces:** Ethernet, USB, RS232, RS485, GPIOs, pulse count input, etc. It can be used in **infinite M2M and IoT applications**. A Worldwide bands 4G/2G (LTE/EGPRS/GSM) modem is attached internally.

The MTX-Router –Titan II also includes advanced functionalities such as:

DHCP server, NAT, CSD call manager, 4G to RS232/USB gateways, external sensor dataloggers (temperature, distance, Modbus RTUs), DynDNS/NoIP client, relay control, GSM cell positioning, remote firmware upgrade, among others.

-  DC Input(4G mode): +9 to +40 Vdc
-  Temperature Range: -40° to +85°C
-  Dimensions: 112x51x75mm
-  Weight: <500gr

MTX-Router –Titan II está fabricado con las certificaciones ISO-9001 & ISO-14001 y es compatible con RoHS/WEEE.

## General features

- World Wide Bands
  - LTE Quad band  
800/900/1800/2100MHz
  - UMTS/HSPA+ : Five-Band  
800/850/900/1900/2100MHz
  - GSM/GPRS/EDGE: : Quad band  
850/900/1800/1900MHz
- 4G connectivity supervisor to maintain connection always active
- DHCP server
- NAT / IP Firewall
- Up to 3 3G-to-RS232/USB simultaneous gateways
- CSD call manager (for metering applications)
- External device manager:
  - Temperature sensors  
Datalogger, SMS alarms, relay activation, etc. Data can be sent to a webserver in JSON format
  - Distance sensors  
Datalogger, SMS alarms, relay activation, etc. Data can be sent to a webserver in JSON format
  - Modbus RTU devices.  
Datalogger. Data can be sent to a webserver in JSON format
  - Waveflow 868MHz Wavenis  
Datalogger. Data can be sent to a webserver in JSON format
- Modem control via AT commands (Hayes, TS 27.007, TS 27.005)
- DynDNS, NoIP and Private DNS services
- Remote relay control
- GSM cell positioning
- Programmable autoreset
- Internal configuration webserver (all logos and pictures can be customized by user)
- Operating status LEDs
- NTP time/date synchronization
- User permissions and configuration backup
- Remote firmware upgrade
- TELNET, SSH, TACACS+, SFTP

## General features

- Supply voltage range:
  - DC input (3G mode): +9Vdc to +40Vdc
- Operating temperature range: -40°C to +85°C
- Dimensions, excluding connectors: 112x51x75 mm
- Weight: <500 g

## Interfaces

- Ethernet 10/100 BaseT (RJ45 connector)
- USB 2.0 compatible with FTDI and ACM USB devices (micro AB connector)
- 1xRS232 port DB9M connector
- 1xRS485 port terminal block
- 2 Operating LEDs:
  - 1 power LED
  - 1 status LED
- SIM card interface 1.8V/3V
- Power supply (2-way plug-in terminal block)
- SMA radio connectors
- WIFI 802.11 b/g/n

## Specifications

- **LTE Cat.1 (3GPP Release 9)**
  - DL 10.2Mbps, UL 5.2Mbps
  - HSDPA Cat.8 / HSUPA Cat.6 data rates
  - Compressed mode (CM) according to 3GPP TS25.212
- **HSPA (3GPP Release 6,7)**
  - DL 7.2Mbps, UL 5.7Mbps
  - HSDPA Cat.8 / HSUPA Cat.6 data rates
  - Compressed mode (CM) according to 3GPP TS25.212
- **UMTS (3GPP Release 4)**
  - PS data rate – 384 kbps DL, UL 384kbps
  - CS data rate – 64 kbps DL, UL 64kbps
- **GPRS**
  - DL 85.6kbps, UL 85.6kbps
  - GPRS class 12
  - Mobile station class B
- **EGPRS**
  - Multislot class 12
  - EDGE E2 power class for 8PSK
- **CSD data transmission**
  - Up to 9.6kbps
  - V.110
  - Non-transparent mode
  - USSD support
- **SMS**
  - Point-to-point MO and MT
  - SMS cell broadcast
  - Text and PDU mode



## Detailed Special Features

### Serial gateways

- 3 simultaneous 2G/3G/Eth/Wifi <-> 232/485/USB gateways
- Modes: TCP Server / TCP Client
- SSH encryption enabled
- Accept 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 for management from PLCs (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

### Sensors

- Externals: temperature, distance, any Modbus RTU/TCP device
- Compatible with Wavenis RF Sensors (WaveFlow, WaveSense, WaveTherm) using an internal Wavecard (optional module).
- GPS (optional module)
- 1-Wire temperature compatible (DS18S20, DS1822, DS18B20, DS1825, DS28EA00)
- Jamming detection

### Internal Relays

- Control & activation by: web UI, timetable, SMS, astronomical clock, temperature, distance, jamming, movement, modbus read values, snmp, ...
- 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, temperature, modbus data read, ...)
- Allows send / receive SMS by ModbusTCP (for PLC)



## VPN

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

## Other

- Compatible with DynDNS / No-IP and 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
- 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.

## Customization

- Configurable Logos and text from web UI
- Personalized menus for different users.
- Firmware can be personalized with custom features (\*depending on number of devices)

