

# MTX-Router-Titan II-S

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

The MTX-Router-Titan II-S is an innovative industrial router that comprises a complete set of wireless and wired interfaces. By providing an easy integration and powerful interfaces, it avoids further hardware components. It can be used in infinite M2M and IoT applications. It has LTE/4G connectivity with fallback 3G/2G. The MTX-Router-Titan II-S 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, GSM cell positioning, remote firmware upgrade, among others.



### Main Features



4G/3G/2G



Ethernet



RS232 RS485



WiFi



Digital input



USB



DIN rail



Cervello Stem



Webserver

HARDWARE



Serial gateway

SOFWARE





Datalogger



Modbus



DynDNS No-IP



**MQTT** 



SMS control



VPN management

# Strenghts & Benefits

- Easy onboarding and configuration with more than 50 application notes.
- Full MTX-Titan software functionalities.
- Multiple externals devices connected to a single router.
- Multiple communication protocols (HTTP/HTTPS/ FTP/ MQTT/MQTTS).

# **Applications**

- Ideal for Industry 4.0 applications.
- Capable of connecting to multiple sensors.
- A powerful device for environmental readings.

# **Specifications**

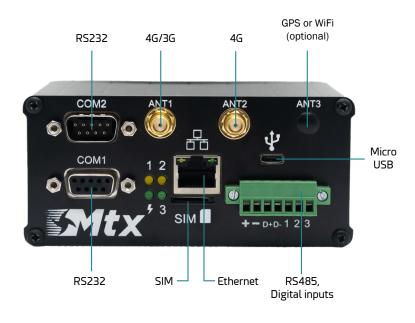
Titan II-S 4G	Titan II-S 3G
EUROPE: Penta-Band LTE: Bands 1, 3, 8, 20, 28 (700, 800,900, 1800, 2100 MHz); Dual-Band UMTS/ HSPA+: Bands 8, 1 (900, 2100 MHz); Dual-Band GSM: 900 and 1800 MHz  USA: Quad-Band LTE: Bands 2, 4, 5, 12 (700, 850,1700/2100 (AWS) and 1900 MHz); Tri-Band UMTS: Bands 5, 4, 2 (WCDMA/FDD 850, 1700/2100 (AWS) and 1900 MHz)  AUSTRALIA: Quad-Band LTE: Bands 3, 5, 8, 28 (1800, 850,900, 700 MHz); Tri-Band UMTS: Bands 1, 5, 8 (WCDMA/FDD 2100, 850, 900 MHz)	Five Bands UMTS (WCDMA/FDD) Bands: 800, 850, 900, 1900 and 2100 MHz  Quad-Band GSM Bands: 850, 900, 1800 and 1900 MHz
LTE Cat. 1 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	HSDPA Cat.8/HSUPA Cat.6 data rates DL: max. 7.2 Mbps, UL: max. 5.76 Mbps
GPRS Class 12 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 and PDU mode support	SMS text and PDU mode support

# Interfaces

- 4G/3G/2G connectivity
- Ethernet 10/100 BaseT
- USB 2.0 OTG
- 2x RS232
- RS485 and RS422 (optional)
- 2x digital input (up to 4x on demand)
- SIM card interface 1.8V/3V
- 4x operating LEDs
- GPS (optional)
- RF expansion (optional)
- WiFi b/g/n (optional)

# **Connectors**

- RJ45: Ethernet 10/100 BaseT
- Micro USB AB Type: USB 2.0
- DB9 F: RS232
- DB9 M: RS232
- Terminal block: RS485, Digital Inputs
- Micro SIM: SIM card interface 1.8V/3V
- 1x SMA F RP: WiFi (only for commercial temp.)
- 2x SMA F: 4G
- 1x SMA F: 3G
- 1x SMA F: GPS (optional)



# Characteristics

- 4x status LEDs
- DIN rail/wall mounting
- AC input: 230Vac (0.8Vn-1.15Vn)
- Temperature range: -40 85°C
- Dimensions: 112.4x51.2x90.2mm
- Weight: <500gr.
- Certifications: CE, FCC, PTCRB, AT&T, RoHS, ISO9001, RCM

# References

#### **STANDARD VERSIONS**

- industrial temperature -40°C-85°C
- no WiFi

■ MTX-Router-Titan II-S	000199802205
■ MTX-Router-Titan II-S-3G	000199802206
■ MTX-Router-Titan II-S-3G-GPS	000199802207
■ MTX-Router-Titan II-S-4G-C1 (4G/2G)	000199802208
■ MTX-Router-Titan II-S-4G-C1	000199802228
■ MTX-Router-Titan II-S-4G-GPS C1	000199802244
■ MTX-Router-Titan II-S-4G-C4	000199802215

#### **COMMERCIAL VERSIONS**

- regular temperature 0°C-60°C
- with WiFi

MTX-Router-Titan II-SC	000199802222
MTX-Router-Titan II-SC-3G	000199802223
MTX-Router-Titan II-SC-3G-GPS	000199802213
MTX-Router-Titan II-SC-4G-C1	000199802236
MTX-Router-Titan II-SC-4G-GPS C1	000199802229
MTX-Router-Titan II-SC-4G-C4	TBD

### 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/recevice 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**

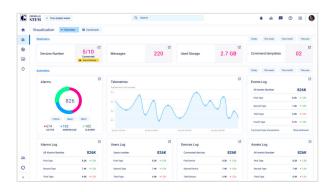
- Compatible with DynDNS/No-IP & private DNS
- GSM cell location
- Programmable autoreset (schedule, timer...)
- Multioperator SIM utilities (integrated rssi scanning tool)
- Time synchronization (NTP) with timezones
- Over The Air firmware upgrade
- Full management with AT Command by serial, socket, 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

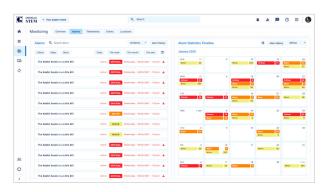
#### **VPN**

- IPSEC + OpenVPN with client/server mode (25 clients)
- Permanent or activated by SMS, AT command, modbus, SNMP, serial...

<sup>\*</sup>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

#### **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\*

The equipment may vary from the description in this document. Webdyn reserves the right to make changes to the product(s) and or information contained herein without notice. This document may not be considered as a contract specification.

<sup>\*</sup>Upgrade required

<sup>\*\*</sup>Available with compatible devices with MTX-Tunnel or MTX-Titan