

MODEMS

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

Modems are innovative industrial devices that comprise a complete set of wireless and wired interfaces. By providing an easy integration it avoids further hardware components.



	EasyTunnel	MTX-IoT-S	MTX-IoT-XS
Connectivity	4G/3G/2G	4G/3G/2G	4G/3G/2G
RS232	1	1 (DB9)	Up to 2 (*5)
RS485	1	1	Up to 1 (*5)
MiniUSB		1	1
Dig I/O	1 input/1 output	8: inputs/outputs	1x input/1x output
ADC		2 (0-50V/4-20mA)	
Internal relay		1 (latch)	
GPS		(*1)	
Wireless module		(*1)	
Low Power Mode		✓	
Battery		✓	
Software	Titan V6	MTX-Tunnel software	
DualSIM	✓		

(*1) Optional: one serial port missed

(*5) Up to 2x RJ45 that can be used either as 2x RS232 or 1x RS232 and 1x RS485 depending on the variant



Serial to
4G/3G/2G



GPIO control



GPS
management



MQTT/MQTTs/
HTTP/HTTPs



Modbus master
datalogger

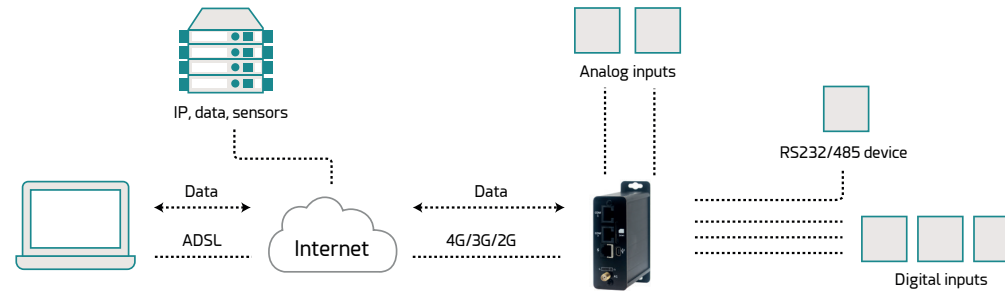


DynDNS
and no-IP



SMS control

Tunnel Software Features



CONNECTIVITY

- 4G/3G/2G serial gateways: TCP client, TCP server, UDP client/server, accept incoming CSD calls, up to 2 simultaneous tunnel
- IP connectivity mode: permanent 100% time, under request (SMS, missed call), change on a digital input, analog input out of level, serial data on RS232/RS485 port, scheduled date/hour/time

TCP SERVICES

- Web server, Telnet, SNMP, Tacacs+, NTP
- Datalogger: MQTT, MQTTS, HTTP, HTTPs, FTP
- Shows the status of digital and analog inputs
- Change digital output level and relays
- Execute AT commands remotely

SECURITY

- Authorized phone numbers
- Firewall IP, SSL connections, encrypted config.
- Secure OTAP (remote FIU upgrade)
- Watchdog hardware

ALARMS AND CONTROL

- Send SMS alarm when the level of digital input change
- SMS can be sent to up to 10 remote users
- Execute remote AT commands
- Change the status of digital outputs & relays
- Customizable SMS commands

SOLUTIONS FOR DYNAMIC IP

- IP session using a SMS or missed call
- DynDNS and NoIP
- Private DNS

METERING, MODBUS, SENSORS...

- 868 MHz remote monitoring sensors (Wavenis)
- Master for modbus RTU devices, Modbus TCP slave, Modbus TCP to RTU gateway
- Relays control
- Access to serial devices using GPRS and GSM
- Astronomical clock

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 TATACS+
- 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)

VPN

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

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

Titan V6 Features

SERIAL GATEWAYS

- 2 simultaneous 2G/3G/4G<->RS232/485
- Modes: TCP server , TCP client, UDP, MQTT
- SSL/TLS supported

MODBUS

- Modbus TCP/Modbus RTU master concentrator and Modbus slave RTU/TCP

DATALOGGER

- Serial data collected by RS232 or RS485(Modbus, sensors, meters, I/Os...)
- Automatic data sending (HTTPs/ FTPs/MQTTs) with custom JSON
- FIFO/LIFO modes
- Pulse counter

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

- Run user-programable scripts, based on JAVASCRIPT
- Configuration by web browser, MQTT, SMS, Modbus and other
- Full management with AT Command by serial, socket, SMS, modbus, SNMP
- SSH encryption enabled, supports TACACS+
- Compatible with DynDNS/No-IP & private DNS
- Programmable autoreset (schedule, timer...)
- Time synchronization (NTP) with timezones
- Over The Air firmware upgrade (OTAP)
- Clear and understandable application notes with examples (modbus,datalogger, SMS, metering,...)
- Protocol IEC 60870-5-102 for meter reading supported
- Syslog: send to a remote server