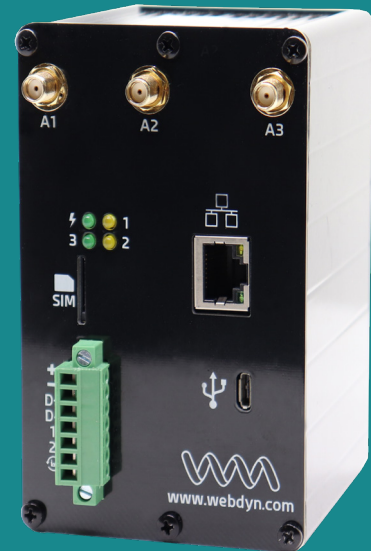


ExpertLoRaWAN

















LoRaWAN LTE gateway-Server

The ExpertLoRaWAN is a LoRaWAN gateway embedding a LoRaWAN network server to locally build up a complete private network. It can also act as a packet forwarder, connecting many endpoints to any other gateway.

ExpertLoRaWAN provides Ethernet IP backhaul or 4G-LTE IP backhaul, and everything can be easily configured through its webserver interface or remotely from platform server.



Main Features

 LoRaWAN freq. EU868	 4G 3G/2G communications	 Ethernet	 RS485	 Digital input	 USB host	 USB OTG	 DIN rail
 LoRaWAN V10.2	 LoRaWAN embedded server	 Webserver	 LoRaWAN to LTE tunnel	 Modbus	 DynDNS No-IP	 MQTT	 MTX-Titan software

■ HARDWARE ■ SOFTWARE

Strenghts & Benefits

- With all the MTX-Titan software features: routing, port forwarding, datalogger, Modbus reading...
- Compatible with commercially available sensors
- Reduced maintenance costs
- Optimised energy efficiency
- Optimisation and adaptation of speed and power

Applications

- Remote readings of all types of sensor (temperature, humidity...)
- Ideal for all types of IoT indoors applications: industry 4.0, building & home, smart cities, agriculture, healthcare, supply chain & logistics, retail...

Specifications

ExpertLoRaWAN 4G Cat.4

Penta Band LTE: Bands 1, 3, 8, 20, 28 (700, 800, 900, 1800, 2100 MHz); **Dual-Band WCDMA**900 and 2100 MHz (bands 1, 8); **Dual Band GSM** 900 and 1800MHz

FDD LTE Cat. 4: DL max.150 Mbps, UL max. 50Mbps

HSDPA+ Cat.12/HSUPA Cat.6 data rates: DL max.14.4 Mbps, UL max. 5.76 Mbps

EE/GPRS Class 12: DL max. 237 kbps, UL max. 237kbps

SMS: text and PDU mode support

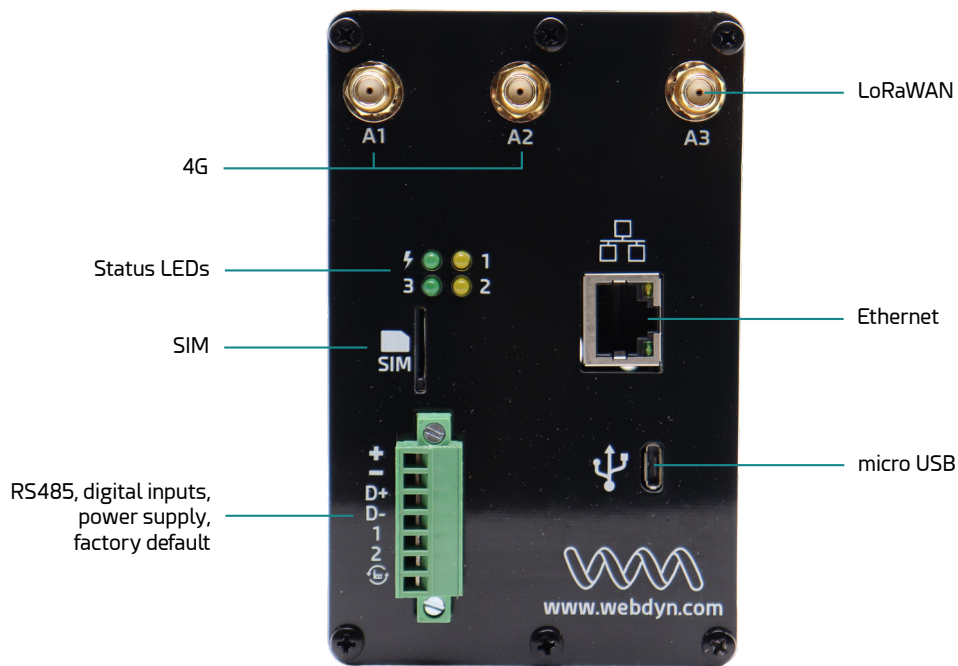
- **SX1301:** base band processor emulates 49x LoRa demodulators, 10 parallel demodulation paths. It supports 8 uplinks channel and 1 downlink channel
- **Frequency:** EU868
- **Frequencies under request:** EU433, CN470, US915, AS923, AU915, KR920, IN865, AS920
- **LoRaWAN version:** V1.0.2
- **Range urban:** 2~4km
- **Range suburb:** 5~10km
- **Range open area:** 15~20km
- **Node density:** 500 nodes/km²
- **TX power:** 25dBm (max.), typical 23 dBm
- **RX sensitivity:** -139dBm (min.) @SF12, BW 125KHz

Interfaces

- 4G/3G/2G connectivity
- LoRaWAN connectivity
- Ethernet 10/100 BaseT
- RS485
- 2x digital inputs

Connectors

- 2x SMA F: 4G
- 1x SMA F: LoRaWAN
- RJ45: Ethernet 10/100 BaseT
- Terminal block: RS485, 2x digital inputs, power supply
- micro USB type AB
- micro SIM: SIM card interface 1.8V/3V



Characteristics

- Status LEDs
- DIN rail
- Input: +9 to +30 Vdc
- Temperature range: -40 - 85°C
- Dimensions: 112x70x99mm
- Weight: <500gr.

References

PRODUCTS

- ExpertLoRaWAN

000199810121

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+

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
- Automatic data sending (HTTP/HTTPS/FTP/MQTT) with JSON format

SENSOR COMPATIBLE

- Modbus RTU/TCP sensors
- Internal jamming detection sensor with alarm indicator

VPN

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

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

*The Titan network architecture is protected by nearly 60 hardware and software patents