LoRaWAN

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IOT PRODUCTS & SOLUTIONS

MADE IN FRANCE

IRIS Gateway

The bridge between IoT sensors and IT or cloud platforms.

At its core, a LoRaWAN gateway is the **bridge between IoT sensors and IT or cloud platforms**, collecting data from the field and forwarding it securely to network servers and applications.

With IRIS, customers can choose the deployment mode that fits their needs:

- **Packet forwarder – Integration with existing networks:** Transmission of radio frames to an external LoRaWAN network server. IRIS is compatible with leading LoRaWAN servers such as Actility, Loriot and The Things Stack, ensuring seamless integration into existing LoRaWAN ecosystems.
- **Embedded LoRaWAN server – Local autonomy:** Complete local network management, including sensors, data decoding and downlink management. This mode ensures fully autonomous operation, without reliance on an external LNS.

LoRa

Flexible architecture
Forward to any LoRaWAN Network Server or run private networks locally.

Rugged and easy to deploy
With its IP67-rated enclosure and French manufacturing, IRIS ensures long-term reliability in both indoor and sheltered outdoor environments.

BMS

No retrofit required
Connect modern IoT sensors with legacy BMS/SCADA systems.

CELLULAR ETHERNET

Always connected
Ensures reliable operation with both Ethernet and 2G/3G/4G cellular backhaul.

Fewer gateways, lower costs, same coverage
IRIS combines a competitive price with carrier-grade radio performance.

KEY FEATURES

- **EU868** channel plan
- SX1302 **8-channel** LoRa baseband processor
- **Ethernet & 2G/3G/4G** (LTE) backhaul
- Integrated **cellular and LoRa antennas** (external as options)
- Configurable forwarding software (**UDP, Basics Station**)
- **MQTT(s) and HTTP(s)** integration with application servers
- Embedded **LoRaWAN Network Server**
- **Built-in Codec Manager** includes Adeunis' decoder library and supports JavaScript payload decoder setup
- **IP67** white enclosure
- Made in **France**

HARDWARE OVERVIEW & DIMENSIONS

ARCHITECTURES

Plug & play integration with remote LoRaWAN server

Embedded LNS with custom CODECs

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TECHNICAL SPECS

HARDWARE

Hardware system	
IoT Module	Sierra Wireless WP7607-1
Memory	150 MB DDR2 RAM
Flash	150 MB NAND
LoRaWAN interface	
Concentrator	SEMTECH SX1302
Channel	8 (Half-Duplex)
Antenna	1x internal LoRa antenna, Box output for external antenna (option)
Frequency band	EU 868
Sensitivity	-141dBm (125kHz in SF12)
Tx Power	+14dBm max.
Protocol	1.0.x and 1.1.x
Class support	Class A/C
Power Supply	
Power input	DC 12/24V power supply

Ethernet Interface	
Port	1x RJ-45 WAN port (PoE not supported)
Physical layer	10/100 Base-T (IEEE 802.3)
Data Rate	10/100Mbps (auto-sensing)
Interface	Auto MDI/MDIX
Mode	Full or Half duplex (auto-sensing)
Cellular Interface	
IoT Module	Sierra Wireless WP7607-1
Network	2G/3G/4G LTE
3G Bands	HSPA+, UMTS (B1, B8)
4G Bands	Cat-1 (B1, B3, B7, B8, B20, B28)
Tx Power	23 dBm
Antenna	1x 2G/3G/4G internal antenna, Box output for external antenna (option)
SIM slot	1x internal mini SIM-2FF

Others	
Button	1x button for gateway reboot 1x button for factory reset
LED Indicators	Power & factory reset
Physical Characteristics	
Box	IP67
Material &Color	PC V0, White
Dimensions	160 x 150 x 55mm
Weight	450gr
Installation	Wall, desktop, DIN-rail mounting
Operating Conditions	
Operating temperature	-20°C / +55°C
Storage temperature	-20°C / +70°C
Relative himitidy	25% / 75% HR

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TECHNICAL SPECS

SOFTWARE

LoRaWAN	
LoRaWAN	LoRaWAN 1.0.x and 1.1.x specification LoRaWAN Packet forwarder LoRaWAN Network server Max endpoints supported: around 1,000 (depending on UL/DL frequencies) Supports Class A/C sensors
Packet forwarder	
Type	Semtech UDP, Basics Station WS/WSS, Basics Station CUPS
Compatibility	Seamless integration with mainstream 3rd party LNS: Actility, Loriot, The Things Stack, Chirpstack, etc
Embedded LoRaWAN Network Server	
Provisioning	One-by-one, bulk import of LoRaWAN endpoints for easy deployment
Configuration	Remote configuration for LoRaWAN endpoints Support multicast downlink
Data decoding	In-built Adeunis payload decoder library Support custom payload decoder setup (JavaScript)
Gateway fleet	Can work as a Network Server with multiple Packet Forwarding gateways connected (UDP protocol)
Integration	MQTT(s), HTTP(s)

Network	
Configuration	Supports 2G/3G/4G communication with WAN mobile IP assignment Network selection options Display network status Configurable APN Keep alive functionality
Protocols	Packet forwarder: UDP, WS, WSS Network server: MQTT(s), HTTP(s) Webserver: HTTP(s) Clock synchronisation: NTP Others: DHCP, DNS, ARP
Security & Firewall	
TLS	1.2, mutual authentication
Access control	for local/remote access to Web GUI
Firewalls	Access control, Filtering (IP)
Certificate	CA root certificates management

Reliability	
Autoreset	Configurable periodic Autoreset
Diagnostics	Log server
Device Management	
Configuration	Update, Backup, restore, recover configuration Local: Web GUI
Firmware update	Local: Web GUI
Factory reset	Web GUI or button
Certifications	
Certifications	CE, RED, RoHS, REACH

ref. WG0610-A01-ADE

ACCESSORIES

- Ethernet cable (included)
- Power adapter (included)
- External LoRaWAN, cellular antenna kits (not included)
- DIN-Rail mounting kit (not included)

COMPLEMENTARY PRODUCTS

Field Test Device to support site surveys and network validation.

Adeunis LoRaWAN sensors for energy management, comfort and maintenance.

LORAWAN SUPPORT SERVICES

Expert LoRaWAN consultancy services to support deployment and integration
24/7 helpdesk access to Adeunis' technology experts
Comprehensive documentation and integration guides included