# Jupiter

Radio module for the LoRa DeepWave system: ePaper wide screen (like the one of ebooks), 2 inputs for Smart Sensor chosen from those available (temperature, humidity, differential pressure, light), local acoustic alarms through a buzzer. The **Smart Sensors** (not included) are supplied with an **reference traceable calibration certificate** and allow fast, economic and easy recalibration of the whole system, without external intervention. Jupiter mounts external antenna and external power also (batteries are used as a backup). DeepWave solution is based on the Lo.Ra. (Long Range) radio protocol which allows transmission over very long distance and requires only one Helios receiver to cover all nodes. Batteries are easily replaceable by the user.

## Applications

Pharmaceutical

Healthcare

Cosmetics

Validation

Medical

Cold Chain

Warehouses

Environment

Food & Beverages

Laboratories

Constructions

## Main features

- Lora radio module for long distances transmission (up to 3 km in open field)
- Supports up to two Smart Sensors of temperature, humidity, differential pressure, light
- 2.9" wide ePaper display
- External power connector (power adapter not included)
- External antenna included
- 4-buttons for display screen scrolling
- User replaceable batteries
- Certificate traceable to a national standard included with the Smart Sensors

## Plus

- Easy to install and configure
- Quick recalibration with the Smart Sensors
- With the external antenna you increase the transmission by 50%
- Wide and low energy display
- Local alarm for immediate intervention
- Thanks to the external power you forget to change the batteries
- Covers long transmission distances
- Validatable DeepWave LoRa system in pharmaceutical and healthcare environment

## The system

Lora Wan DeepWave system is made up by:
- DeepWave radio modules (LoRa nodes)
- Helios receiver (LoRa gateway)
- TSLog 21 software

## Accessories

- TSLog 21
- Helios - LoRa Gateway
- Surface Support for DeepWave Node
- Wall Mounting support for DeepWave Node
- Temperature Smart Sensor
- -80°C temperature Smart Sensor
- 200 temperature Smart Sensor
- Temperature Smart Sensor with thin cable
- Temperature and humidity Smart Sensor
- Differential Pressure Smart Sensor
- Light Smart Sensor (On/Off)
- Temperature Smart Sensor with internal sensor
- Smart Sensor / ZED IT adapter cable extensions
- Flat DeepWave Node / Smart Sensor cable extension
- LoRa Node / Smart Sensor cable extensions

## Technical specifications

| | |
|---|---|
| Dimensions | 159.6 X 88 x 33 (mm) (with connectors) / 146.6 X 88 X 33 (mm) (without connectors) |
| Weight | 280 g |
| Materials | ABS, Rubber |
| Sensors | 2 X Smart Sensor inputs |
| Temperature range | -20 °C ÷ +50 °C (non condensing) |
| Memory (n. of acquisitions) | 16.383 |
| Acquisition step | From 1 minute up (in steps of 1 minute) |
| Display size | |
| Display and functions | Current values, Alarms, Diagnostics, Radio Signal Strength |
| Alarms | Local (acoustic) |
| Functions | Data recording, transmission, alarm |
| Communication | Radio |
| Protocollo Radio | LoRa |
| Frequenza | 868 MHz, 915 MHz |
| Antennae | External |
| Battery type | 3 X AA 1,5 V batteries |
| Battery life | 12 months with 15 minutes transmission step and 2 sensors connected |
| Power supply | 6-26 V (adapter not included) |
| Protection degree | IP65 |
| Software&Mobile App | TSLog 21 |
| Regulation compatibility | CE, ROHS |
| Regulation compatibility | FDA 21 CFR Part 11, Annex 11, GAMP 5 |