

- Can also double up as a Nano LoRa gateway
- MicroPython enabled, the Linux of IoT for fast deployment
- Fits in a standard breadboard (with headers)
- Ultra-low power usage: a fraction compared to other connected micro controllers



## **Processing**

- Espressif ESP32 chipset
- Dual processor + WiFi radio System on Chip.
- Network processor handles the WiFi connectivity and the IPv6 stack.
- Main processor is entirely free to run the user application.
- An extra ULP-coprocessor that can monitor GPIOs, the ADC channels and control most of the internal peripherals during deep-sleep mode while only consuming 25uA.

## **Operating Frequencies**

- 868 MHz (Europe) at +14dBm maximum
- 915 MHz (North and South America, Australia and New Zealand) at +20dBm maximum

## Range Specification

- Node range: Up to 40km
- Nano-Gateway: Up to 22km
- Nano-Gateway Capacity: Up to 100 nodes

## Interfaces

- 2 x UART, 2 x SPI, I2C, I2S, micro SD card
- Analog channels: 8x12 it ADCs
- Timers: 4x16 bit with PWM and input capture
- DMA on all peripherals
- GPIO: Up to 24

## **Security and Certifications**

- SSL/TLS support
- WPA Enterprise security
- FCC 2AJMTWIPY2R
- CE 0700

# Memory

• RAM: 512KB

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- Hardware floating point acceleration
- Python multi-threading

## Hash / encryption

• SHA, MD5, DES, AES

#### Wifi

• 802.11b/g/n 16 mbps

## Bluetooth

• Low energy and classic

## RTC

• Running at 32KHz

#### **Power**

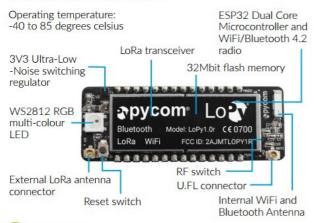
- Input: 3.3V 5.5V
- 3v3 output capable of sourcing up to 400mA
- Wi-Fi: 12mA in active mode, 5uA standby
- Lora: 15mA in active mode, 1-0uA in standby

## **LoRa Specification**

- Semtech LoRa transceiver SX1272
- LoRaWAN stack
- Class A and C devices

#### Mechanical

Size: 55mm x 20mm x 3.5mm





1 x LoPy 1.0

You may need Expansion board or Antenna Kit for your projects.

## **Documents**

Quirkstart guide

Documents download

Frequently asked queations

## Best-sellers









**Technical Details** 

Dimensions	98mm x 68mm x 21mm
Weight	G.W 31g
Battery	Exclude

# **Questions and Answers**

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# **View History**









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