



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## LoPy 1.0

With LoRa, Wifi and BLE, the LoPy is the only triple bearer MicroPython enabled micro controller on the market today – the perfect enterprise grade IoT platform for your connected Things. With the latest Espressif chipset the LoPy offers a perfect combination of power, friendliness and flexibility. Create and connect your things everywhere. Fast.

### LoPy Features

- Powerful CPU, BLE and state of the art WiFi radio. 1KM Wifi Range
- Can also double up as a Nano LoRa gateway
- MicroPython enabled, the Linux o 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

### Use the Pymakr IDE

Super easy code editor to write your Python scripts

### Quick Verification

For easy and fast debugging use the interactive shell that is accessible through telnet or one of the serial ports

### Easy Upload

Upload your scripts, and any other files you want to the LoPy via the FTP server

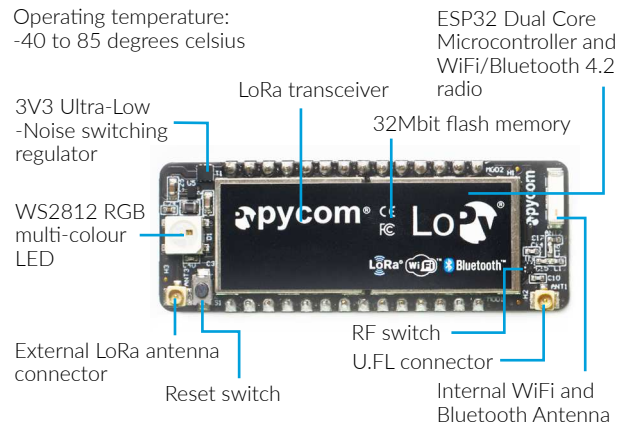
### Locally or remotely

Reset the LoPy (you can do it locally, or remotely via Telnet)

### Mechanical

Size: 55mm x 20mm x 3.5mm

Operating temperature:  
-40 to 85 degrees celsius



### Interfaces

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

### Security & Certifications

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

### Memory

- RAM: 512KB
- External flash 4MB
- Hardware floating point acceleration.
- Python multi-threading.

### Power

- Input: 3.3V - 5.5V
- 3v3 output capable of sourcing up to 400mA
- Wi-Fi: 12mA in active mode, 5uA in standby
- Lora: 15mA in active mode, 10uA in standby

### LoRa Specification

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

With dozens of ready to use templates and libraries soon to be available on the Pycom Exchange, developing a new IoT solution is now easier and faster.

### Hash / encryption

SHA, MD5, DES, AES

### Wifi

802.11b/g/n 16mbps

### Bluetooth

Low energy and classic

### RTC

Running at 32KHz