pycom GO INVENT
lopy⁴

Pinout diagram

⚠ *Absolute MAX per pin 12mA*
recommended 6mA

WS2812 LED
LoRa (433 MHz) Antenna
(868/915 MHz) LoRa / Sigfox antenna port
Reset Button

RST							ChipPU	9

PROGRAM Port

| RX0 | P0 |
| TX0 | P1 |

	P2	RGB_LED
TX1	P3	HS2DATA1	SDDATA1	HSPIHD
RX1	P4	HS2CMD	SDCMD	HSPICS0

⚠ *Connected to LoRa / Sigfox module*

| CLK |
| MOSI |
| MISO |

	P8
SDA	P9	HS2DATA2	SDDATA2	HSPIQ
CLK	SCL	P10	HS2DATA3	SDDATA3	HSPIID
MOSI	P11
	P12

WiFi external / internal antenna selection control pin

CLKOUT2 — U0RXD — GPIO3 — 40
CLKOUT3 — U0TXD — EMACRXD2 — GPIO1 — 41
CLKOUT1 — Touch1 — RTCIO11 — ADC2_1 — EMACTXCLK — GPIO0 — 23
Touch0 — RTCIO10 — ADC2_0 — EMACTXER — GPIO4 — 24
MTD0 — Touch3 — RTCIO13 — ADC2_3 — EMACRXD3 — GPIO15 — 21
VSPICS0 — EMACRXCLK — GPIO5 — 34
Touch7 — RTCIO17 — ADC2_7 — EMACRXDV — GPIO27 — 16
VSPIQ — U0CTS — EMACTXD0 — GPIO19 — 38
Touch2 — RTCIO12 — ADC2_2 — GPIO2 — 22
MTDI — Touch5 — RTCIO15 — ADC2_5 — EMACTXD3 — GPIO12 — 18
MTCK — Touch4 — RTCIO14 — ADC2_4 — EMACRXER — GPIO13 — 20
VSPIWP — U0RTS — EMACTXD1 — GPIO22 — 39
VSPIHD — EMACTXEN — GPIO21 — 42

WiFi / Bluetooth External Antenna Connector

			Vin (3.5–5.5V)	
			GND	
			3V3 ⚠ Up to 1.2–A Maximum Load Capability. Output ONLY.	

17	GPIO14	EMACTXD2	ADC2_6	RTCIO16	Touch6	MTMS	HSPICLK	SDCLK	HS2CLK	P23
14	GPIO25	EMACRXD0	ADC2_8	RTCIO6					DAC_1	P22
15	GPIO26	EMACRXD1	ADC2_9	RTCIO7					DAC_2	P21
13	GPIO33		ADC1_5	RTCIO8	Touch8				XTAL32	P20
12	GPIO32		ADC1_4	RTCIO9	Touch9				XTAL32	P19
10	GPIO34		ADC1_6	RTCIO4					VDET1	P18
11	GPIO35		ADC1_7	RTCIO5					VDET2	P17
8	GPIO39	ADCPA	ADC1_3	RTCIO3					SensVN	P16 ☠
7	GPIO38		ADC1_2	RTCIO2					SensCN	P15 ☠
6	GPIO37		ADC1_1	RTCIO1					SensCP	MISO P14
5	GPIO36	ADCPA	ADC1_0	RTCIO0					SensVP	P13 ☠

Only Input pins! No pullup/pulldown internal resistance ⚠

Hack your LoPy4
☠ Connect to a 10nF capacitor to enable Touch Pin function

Legend
- 🟥 Power
- ⬛ GND
- 🟦 Serial Pin
- 🟩 Analog Pin
- 🟨 Control
- ⬜ Physical Pin
- 🟫 Port Pin
- 🟪 Touch Pin
- 🟧 DAC Pin
- ∿ PMW Pin

Low Level Bootloader
P2 + GND

Boot modes and safe boot
P12 + 3V3
1-3 sec *Safe boot, latest firmware is selected*
4-6 sec *Safe boot, previous user update selected*
7-9 sec *Safe boot, the factory firmware is selected*

Internal Functions
| 36 | GPIO23 | | VSPIID | HS1STROBE | LoRa / Sigfox Interrupt |
| 27 | GPIO18 | EMACCO180 | U2TXD | HS1DATA5 | LoRa / Sigfox Select |

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