ESP32 WROOM

ESP32Cube

				GND	1
				3V3	2
				EN	3
OD/ID	S_VP	ADC1_0	RTC	GPIO36	4
OD/ID	S_VN	ADC1_3	RTC	GPIO39	5
OD/ID	VDET_1	ADC1_6	RTC	GPIO34	6
OD/ID	VDET_2	ADC1_7	RTC	GPIO35	7
OD/ID	32K_XP	TOUCH9	ADC1_4	RTC	GPIO32	8
OD/ID	32K_XN	TOUCH8	ADC1_5	RTC	GPIO33	9
OD/ID	DAC_1	ADC1_8	RTC	GPIO25	10
OD/ID	DAC_2	ADC1_9	RTC	GPIO26	11
OD/ID	TOUCH7	ADC2_7	RTC	GPIO27	12
OD/IE/WPU	HSPI_SCK	MTMS	TOUCH6	ADC2_6	RTC	GPIO14	13
OD/IE/WPU	VDD_FLASH	HSPI_MISO	MTDI	TOUCH5	ADC2_5	RTC	GPIO12	14

WiFi ESP-WROOM-32

CE R 211-16L007

FCC ID:2AC7Z-ESPWROOM32

38	GND			
37	GPIO23	VSPI_MOSI	SPI_MOSI	OD/IE
36	GPIO22	I2C_SCL	OD/IE	
35	GPIO1	U0TXD	SERIAL_TX	OD/IE/WPU
34	GPIO3	U0RXD	SERIAL_RX	OD/IE/WPU
33	GPIO21	I2C_SDA	OD/IE	
32	NC			
31	GPIO19	VSPI_MISO	OD/IE	
30	GPIO18	VSPI_SCK	OD/IE	
29	GPIO5	VSPI_SS	SDIO	OD/IE/WPU
28	GPIO17	OD/IE		
27	GPIO16	OD/IE		
26	GPIO4	RTC	ADC2_0	TOUCH0	OD/IE/WPU
25	GPIO0	RTC	ADC2_1	TOUCH1	OD/IE/WPU

Pins: 15 16 17 18 19 20 21 22 23 24

GND

| OD/IE/WPU | HSPI_MOSI | MTCK | TOUCH4 | ADC2_4 | RTC | GPIO13 |

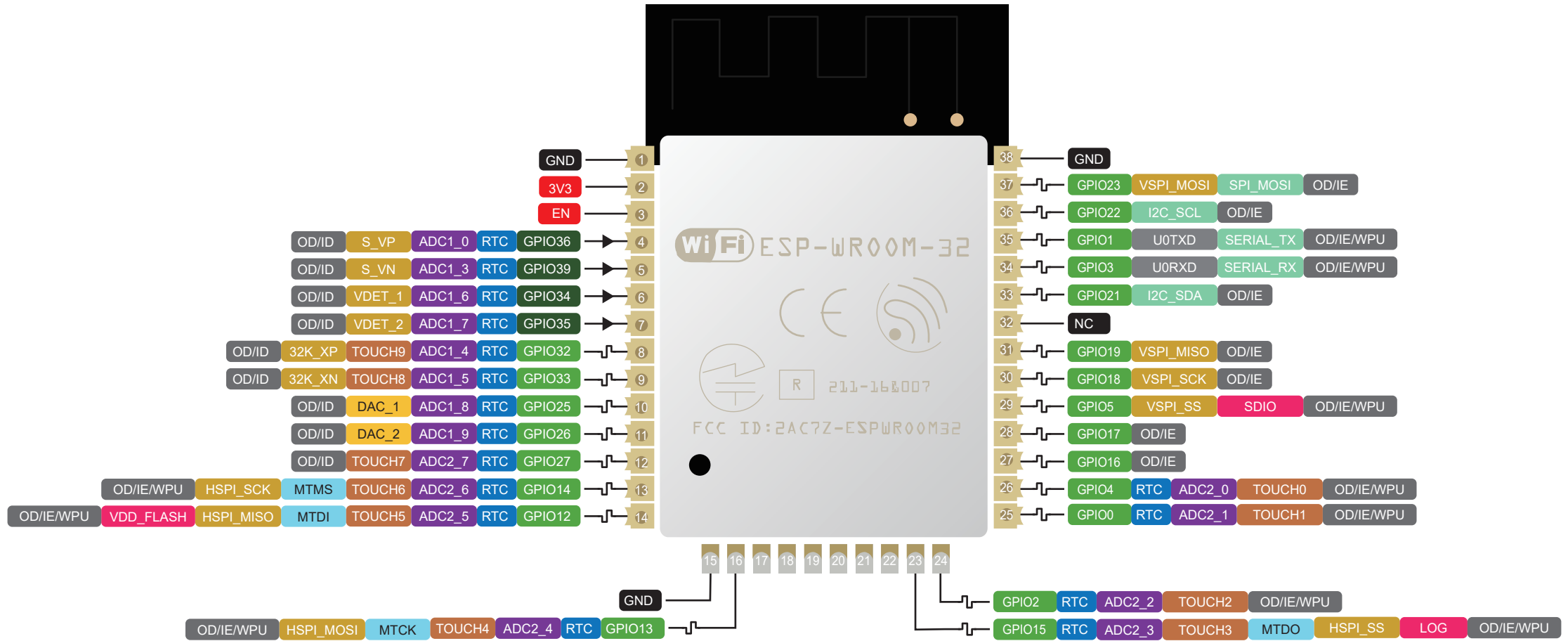| GPIO2 | RTC | ADC2_2 | TOUCH2 | OD/IE/WPU |
| GPIO15 | RTC | ADC2_3 | TOUCH3 | MTDO | HSPI_SS | LOG | OD/IE/WPU |

ESP32 WROOM Specs

32-bit Xtensa@ dual-core @24oMHz

Wi-Fi IEEE 802.11 b/q/n 2.4GHz

BLuetooth 4.2 BR/EDR and BLE

520 KB SRAM (16 KB for cache)

448 KB ROM

34 GPIOs, 4x SPI, 3x UART,2x I2C,

2x I2S, RMT, LED, PWM, 1 host SD/eMMC/SDIO

1 slave SDIO/SPI, TWAI@, 12-bit ADC, Ethernet

Symbol	Description
⊐⊏	PWM Capable Pin
→ GPIOX	GPIO Input Only
GPIOX	GPIO Input and Output
DAC_X	Digital-to-Analog Converter
DEBUG	JTAG for Debugging
FLASH	External Flash Memory(SPI)
ADCX_CH	Analog-to-Digital Converter
TOUCHX	Touch Sensor Input Channel
OTHER	Other Related Functions
SERIAL	Serial for Debug/Programming
ARDUINO	Arduino Related Functions
STRAP	Strapping Pin Functions

Symbol	Description
RTC	RTC Power Domain(VDD3P3_RTC)
GND	GND
PWD	Power Rails (3V3 and 5V)

GPIOSTATE

WPU: Weak Pull-up(Internal)

WPD: Weak Pull-down (Internal)

PU: Pull-up(External)

IE: Input Enable(After Reset)

ID: Input Disabled(After Reset)

OE: Output Enable(AfterReset)

OD: Output Disabled(After Reset)