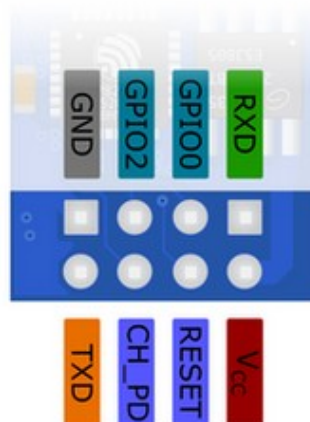# ESP8266 Module ESP-01 Cheat Sheet

ESP8266 Features:

- 32 Bit CPU @ 80MHz
- 64 KB command RAM
- 96 KB data RAM
- external QPI flash
  usually 512KB
  up to 4MBit
- IEEE 802.aa b/g/n WiFi
  2.4GHz, WEP/WPA/WPA2
- Up to 16 GPIO Pins
- SPI, I²C, I²S, UART
- 10-bit ADC

ESP01 Features:

- 2x4 DIL header
- integrated antenna
- Integrated LED (V_{CC}, TXD)
- Usually 512KB or
  1MB Flash

Pinout

Operating

V_{CC}: 3.3V (up to 200mA)

IO and UART are NOT 5V tolerant

CH_PD (aka enable) must be pulled high
        to operate

Module Variants

ESP01v1:

    Only V_{CC}, GND, RXD and TXD connected
    Can not be flashed without modification

ESP01v2:

    Connections as shown here

Boot Modes

Pins must be pulled to the
appropiate level during powerup

GPIO15	GPIO0	GPIO2	Mode
LOW	LOW	HIGH	Serial Programming
LOW	HIGH	HIGH	Boot from Flash
HIGH	ANY	ANY	Boot from SD-Card

GPIO15 is connected to GND on ESP-01

GND

RX – TX

3V3

TX – RX

USB UART (CP2102)

ESP-01