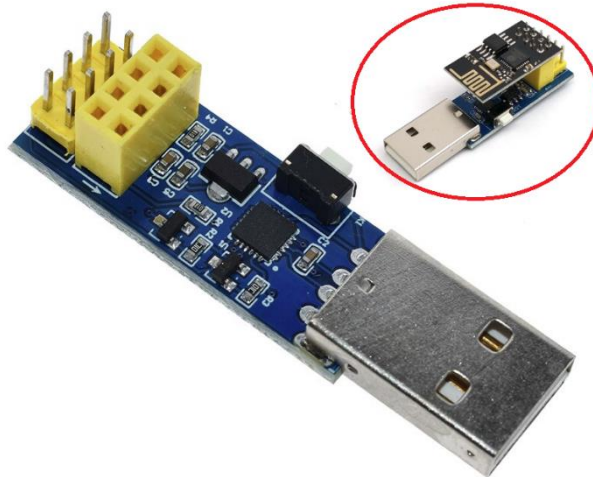


REF: B11-ESP01PROG

ESP8266 ESP-01 USB FIRMWARE FLASH BURNING WIFI MODULE DOWNLOADER PROGRAMMER



Description

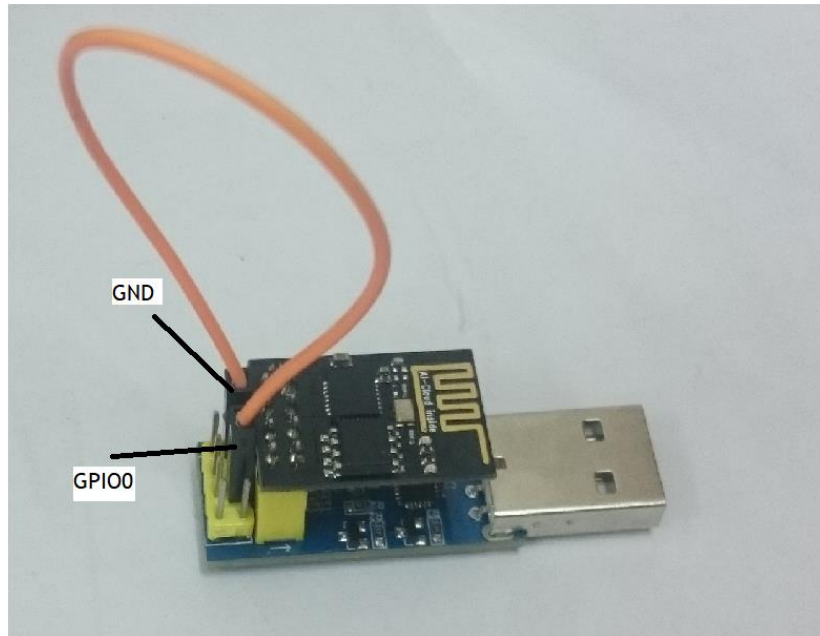
This Module is an USB adapter /programmer for ESP8266 modules of type ESP-01 or ESP-01S. It is conveniently fitted with a 2x4P 2.54mm female header to plug the ESP01. Also, it breaks out all the pins of the ESP-01 via a 2x4P 2.54mm male header, so it is very convenient for user to debug the ESP8266. The module is based on the USB-UART CP2104 which is compatible with all platforms. Onboard with the ESP8266 automatic download circuit. It is very convenient for users to download ESP-01/01S program, upgrade firmware, serial debugging and so on. It supports lots of software such as Arduino IDE, ESP8266 Flasher and Lexin FLASH_DOWNLOAD_TOOLS.

Specifications

- **USB Type A interface.**
- **One 2x4P 2.54mm female header**
- **One 2x4P 2.54mm male header**
- **Operating Voltage: 3.3V**

Circuit diagram

The photo above shows the connection between ESP8266 Flasher and Programmer and ESP8266 Wi-Fi Serial Transceiver Module by using jumper wire.





Download file

Download Driver for ESP8266 Flasher and Programmer

Download firmware inside the [ESP8266 Flash Tool](#) folder.

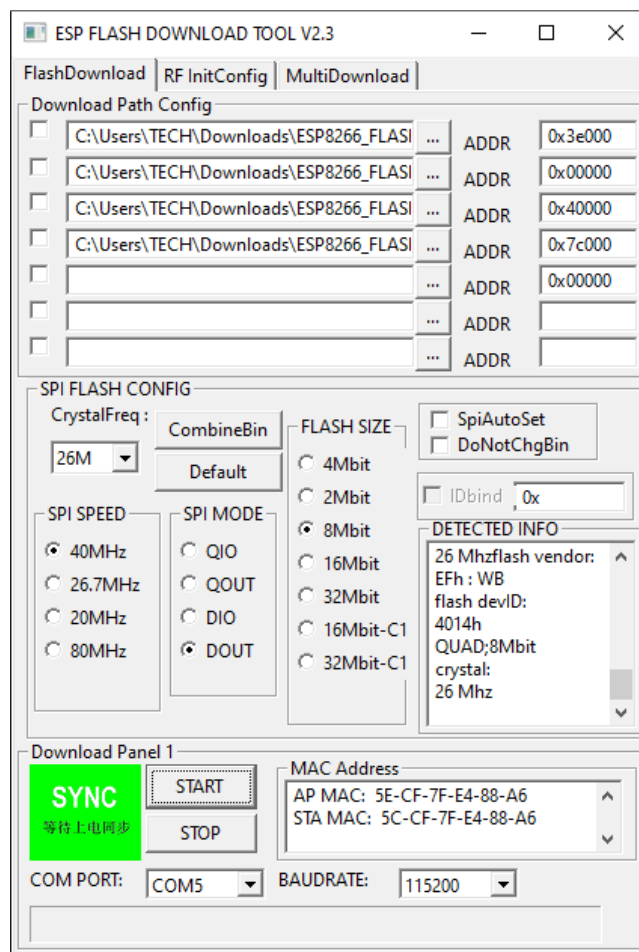
And install the driver.

 ESP8266_FLASH-20250210T034235Z-001	10/2/2025 2:23 PM	File folder
 FLASH_TOOL-20250210T044816Z-001	10/2/2025 2:23 PM	File folder

Setup Application

Window (AT Firmware)

1. After Download Firmware Flasher file. Extract it. Enter the folder, go to install_firmware > window.
2. Open ESP_DOWNLOAD_TOOL_V2.4.exe.
3. Choose the COM port ESP8266 Flasher and Programmer + ESP8266 Wi-Fi Serial Transceiver module connecting to. Set the BAUDRATE to 115200.
4. Make sure ESP8266 Wi-Fi Serial Transceiver module is in FLASH mode (Refer Step 2 first photo for hardware configuration)
5. Click START to install the firmware.
 - bin\boot_v1.2.bin 0x00000
 - bin\user1.4096.new.4.bin 0x01000
 - bin\blank.bin 0x7e000
 - bin\user2.4096.new.4.bin 0x81000
 - bin\esp_init_data_default.bin 0x3fc000
 - bin\blank.bin 0x3fe000



Result

```

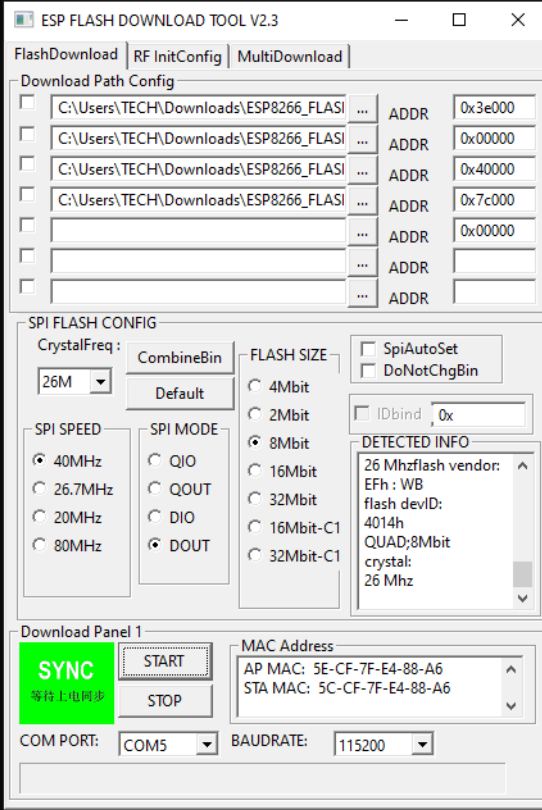
C:\Users\TECH\Downloads\FLASH_TOOL-20250210T044816Z-001\FLASH_TOOL\ESP_DOWNLOAD_TOOL_V2.4.exe
EFUSE NORMAL MODE
=====
CRC IN MODE 1:
crc_calc_res: 100
target crc val: 100
=====
CRC IN MODE 1:
crc_calc_res: 169
target crc val: 169
=====

EFUSE LOG:
=====
EFUSE LOG:
=====
REG0:A6A90000
REG1:0200E488
REG2:6400b000
REG3:005CCF7F
=====
EFUSE NORMAL MODE
=====
EFUSE CHECK PASS...
=====
reg2>>13: 5
=====
48bit mac
debug:
-----
5c cf 7f e4 88 a6
ID FOR XM: 06 40 00 00 00 0A 90 00
XM_ID: 0640000000A9000
-----
crc_efuse_4bit: 0
crc_calc_4bit: 3
48bit mac
MAC AP : 5E-CF-7F-E4-88-A6
MAC STA: 5C-CF-7F-E4-88-A6
get mac res: True
('tttest uuuuuuuuuuart : uart reg: ', 454)
(' baudrate: ', 115200)
get crystal: 26150400
head: 0 ;total: 0
erase size : 0
get flash id : 0x061440ef
manufacturer_id: 0xef

device_id: 0x4014

vendor: 239
mode: 64
size: 20
com closed

```



The screenshot shows the 'ESP FLASH DOWNLOAD TOOL V2.3' interface. It has three tabs: 'FlashDownload', 'RF InitConfig', and 'MultiDownload'. The 'FlashDownload' tab is active, showing a 'Download Path Config' table with columns for file paths and addresses. Below this is the 'SPI FLASH CONFIG' section, which includes settings for 'CrystalFreq' (26M), 'FLASH SIZE' (8Mbit), 'SPI SPEED' (40MHz), and 'SPI MODE' (DOUT). A 'DETECTED INFO' box shows: '26 Mhzflash vendor: WB', 'EFh : WB', 'flash devID: 4014h', 'QUAD:8Mbit', and 'crystal: 26 Mhz'. At the bottom, there is a 'Download Panel 1' with a green 'SYNC' button, 'START' and 'STOP' buttons, 'COM PORT' set to 'COM5', and 'BAUDRATE' set to '115200'. The 'MAC Address' section shows 'AP MAC: 5E-CF-7F-E4-88-A6' and 'STA MAC: 5C-CF-7F-E4-88-A6'.