

Document: [ESP8266 AT Getting Started Guide](#) and [ESP AT Commands Set](#).

Since the ESP8266 AT v2.0, we implement the AT firmware based on the new IDF style ESP8266_RTOS_SDK. Some of the AT commands are different with the old ESP8266 NonOS AT. Considering these major changes may cause significant impact on existing projects, it's recommended that this version is **only used for the implementation of new projects, instead of being used as an upgrade for any existing mass-production projects.**

To run the ESP8266 AT, you can download the binary in ESP8266-IDF-AT/factory to address 0x0. The ESP8266 IDF AT sends AT commands through the following pins.

- GPIO13 is RXD
- GPIO15 is TXD
- GPIO1 is RTS (Optional)
- GPIO3 is CTS (Optional)

We will keep maintaining the old ESP8266 NonOS AT (bug fix only) for a certain but long term. But for the new AT customers, it is suggested to use the new ESP8266 IDF AT.

ESP8266 AT V2.0 20190715 Release Note

Basic AT Commands List

- AT : Tests AT startup.
- AT+RST : Restarts a module.
- AT+GMR : Checks version information.
- AT+GSLP : Enters Deep-sleep mode.
- ATE : Configures echoing of AT commands.
- AT+RESTORE : Restores the factory default settings of the module.
- AT+UART_CUR : Current UART configuration.
- AT+UART_DEF : Default UART configuration, saved in flash.
- AT+SLEEP : Sets the sleep mode.
- AT+SYSRAM : Checks the remaining space of RAM.
- AT+SYSMSG : Set message format.
- AT+RFPOWER : Set RF TX Power.

Wi-Fi AT Commands List

- AT+CWMODE : Sets the Wi-Fi mode (STA/AP/STA+AP).
- AT+CWJAP : Connects to an AP.

- AT+CWLAPOPT : Sets the configuration of command AT+CWLAP.
- AT+CWLAP : Lists available APs.
- AT+CWQAP : Disconnects from the AP.
- AT+CWSAP : Sets the configuration of the ESP32 SoftAP.
- AT+CWLIF : Gets the Station IP to which the ESP32 SoftAP is connected.
- AT+CWDHCP : Enables/disables DHCP.
- AT+CWDHCPS : Sets the IP range of the ESP32 SoftAP DHCP server. Saves the setting in flash.
- AT+CWAUTOCONN : Connects to the AP automatically on power-up.
- AT+CIPSTAMAC : Sets the MAC address of ESP32 Station.
- AT+CIPAPMAC : Sets the MAC address of ESP32 SoftAP.
- AT+CIPSTA : Sets the IP address of ESP32 Station.
- AT+CIPAP : Sets the IP address of ESP32 SoftAP.
- AT+CWSTARTSMART : Starts SmartConfig.
- AT+CWSTOPSMART : Stops SmartConfig.
- AT+WPS : Enables the WPS function.
- AT+MDNS : Configurates the MDNS function

TCP/IP-Related AT Commands List

- AT+CIPSTATUS : Gets the connection status.
- AT+CIPDOMAIN : DNS function.
- AT+CIPSTART : Establishes TCP connection, UDP transmission or SSL connection.
- AT+CIPSEND : Sends data.
- AT+CIPSENDEX : Sends data when length of data is , or when \0 appears in the data.
- AT+CIPCLOSE : Closes TCP/UDP/SSL connection.
- AT+CIFSR : Gets the local IP address.
- AT+CIPMUX : Configures the multiple connections mode.
- AT+CIPSERVER : Deletes/Creates TCP or SSL server.
- AT+CIPSERVERMAXCONN : Set the Maximum Connections Allowed by Server.
- AT+CIPMODE : Configures the transmission mode.
- AT+SAVETRANSLINK : Saves the transparent transmission link in flash.
- AT+CIPSTO : Sets timeout when ESP32 runs as a TCP server.
- AT+CIPSNTPCFG : Configures the time domain and SNTP server.
- AT+CIPSNTPTIME : Queries the SNTP time.
- AT+CIUPDATE : Updates the software through Wi-Fi.
- AT+CIPDINFO : Shows remote IP and remote port with +IPD.