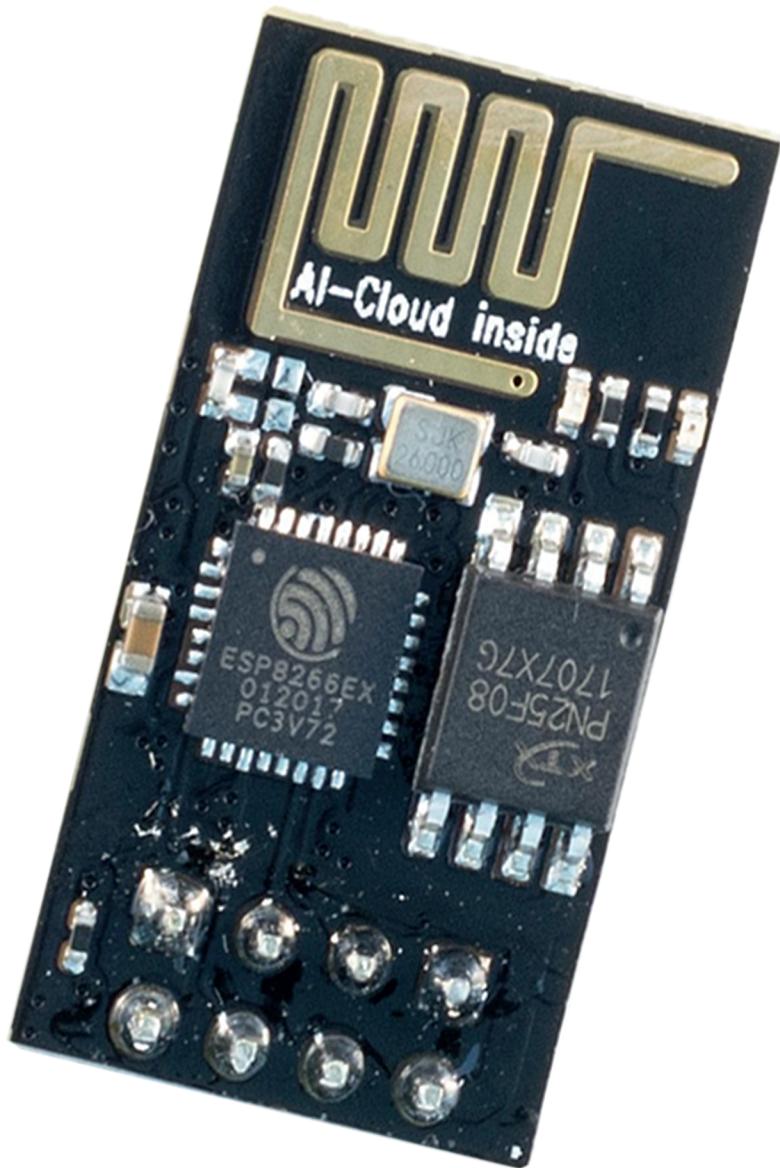


ESP8266-01S

Datenblatt



Contents:

- 1. Specifications**
- 2. Pinout**
- 3. AT Command Usage**
- 4. AT Command List**

2.Specifications

Power

VCC-3.0-3.6V

Standby ~ 0.9uA

Running ~60-215mA,

Average ~ 80mA

Default Baud Rate

11520* 8N1

LEDs

Red: Power

Blue: TX

Wifi Features

802.11 b/g/n

2.4GHz

WPA/WPA2

Wifi Direct

+20dBm output power (802.11b)

*milage may vary on different
version of the board

I/O Features

Integrated TCP/IP I

ntegrated TR switch, LNA,
balun

Memory/Speed Features

80MHz

64KB instruction RAM

96KB data RAM

64K boot ROM

1MB* Flash Memory

Basic Connection

VCC - 3.3V

GND - GND

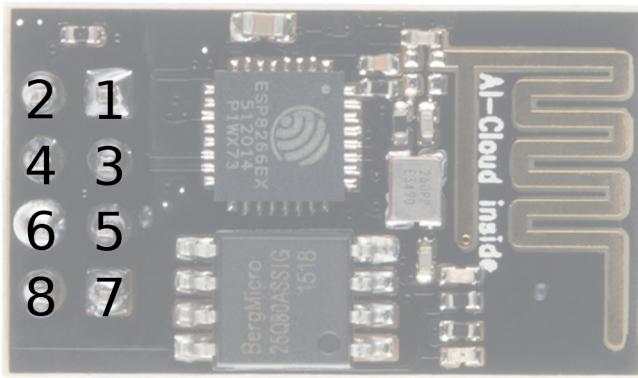
TX - RX on Arduino or FTDI

RX - TX on ARduino or FTDI

Chip Enable - 3.3V

3. Pinout

D7	GPIO1	TX	2- TXO
		Chip Enable	4- CHPD
		Reset	6- RST
		3.3V	8- 3V
		GND	1- GND
D2/SDA	GPIO2		3- GPIO2
D0	GPIO0		5- GPIO0
D8	GPIO3	RX	7- RXI



PCB Antenna

4. AT Command Usage

Commands are case sensitive and should end with /r/n

Commands may use 1 or more of these types

Set = AT+<x>=<...> - Sets the value

Inquiry = AT+<x>? - See what the value is set at

Test = AT+<x>=? - See the possible options

Execute = AT+<x> - Execute a command

Commands with * have been depreciated in favor of COMMAND_CUR and COMMAND_DEF. CUR will not write the value to flash, DEF will write the value to flash and be used as the default in the future.

5. AT Command List

AT - Attention

AT+RST - Reset the board

AT+GMR - Firmware version

AT+CWMODE* - Operating Mode

1. Client

2. Access Point

3. Client and Access Point

AT+CWJAP*=<ssid>,<pwd> - Join network

AT+CWLAP - View available networks

AT+CWQAP - Disconnect from network

AT+CWSAP*=<ssid>,<pwd><chl><ecn> - Set up access point

0. Open. No security

1. WEP

2. WPA_PSK

3. WPA2_PSK

4. WPA_WPA2_PSK

AT+CWLIF - Show assigned IP addresses as access point

AT+CIPSTATUS - Show current status as socket client or server

AT+CIPSTART=<type>,<addr>,<port> - Connect to socket server

IP is fixed at 192.168.4.1, mask is fixed at 255.255.255.0

if CIPMUX is set to multichannel add <id> to beginning of string

AT+CIPCLOSE - Close socket connection

AT+CIFSR - Show assigned IP address when connected to network

AT+CIPMUX=<mode> - Set connection

0. Single Connection

1. Multi-Channel Connection

AT+CIPSERVER=<mode>[,<port>](AT+CIPMUX=1) - Default port is 333

0. Close the Socket Server

1. Open the Socket Server

AT+CIPMODE=<mode> - Set transparent mode

Data received will be sent to serial port as

0. +IPD,<connection channel>,<length>format (AT+CIPMUX=[0,1])

1. Data stream (AT+CIPMUX=0)

AT+CIPSTO=<time> - Set auto socket client disconnect timeout from 1-28800s

Example commands

```
AT+CWMODE=? //View options for mode (test)
AT+CWMODE=3 //Set mode to client and access modes (set)
AT+CWLAP //View available networks (execute)
AT+CWJAP = "ssid","password" //Join network (set)
AT+CWJAP? //View the current network (inquiry)
AT+CIFSR //Show IP address (execute)
AT+CWQAP //Disconnect from network (execute)
AT+CWSAP="apoint","pass",11,0//Setup an open access point (set)
AT+CWLIF //Show devices connected to access point
```