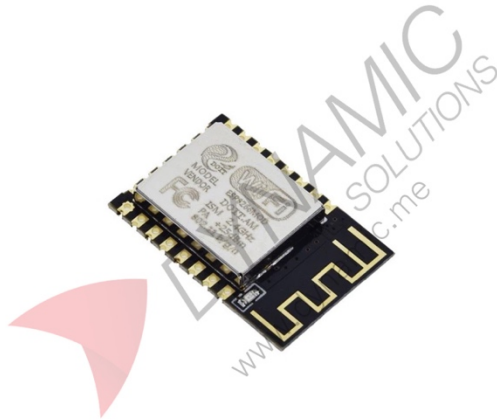


ESP8266 WIFI Module ESP-12F



Features:

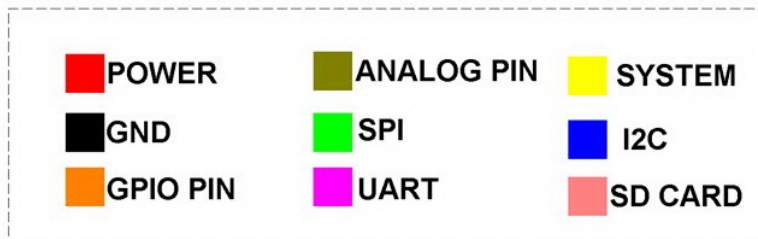
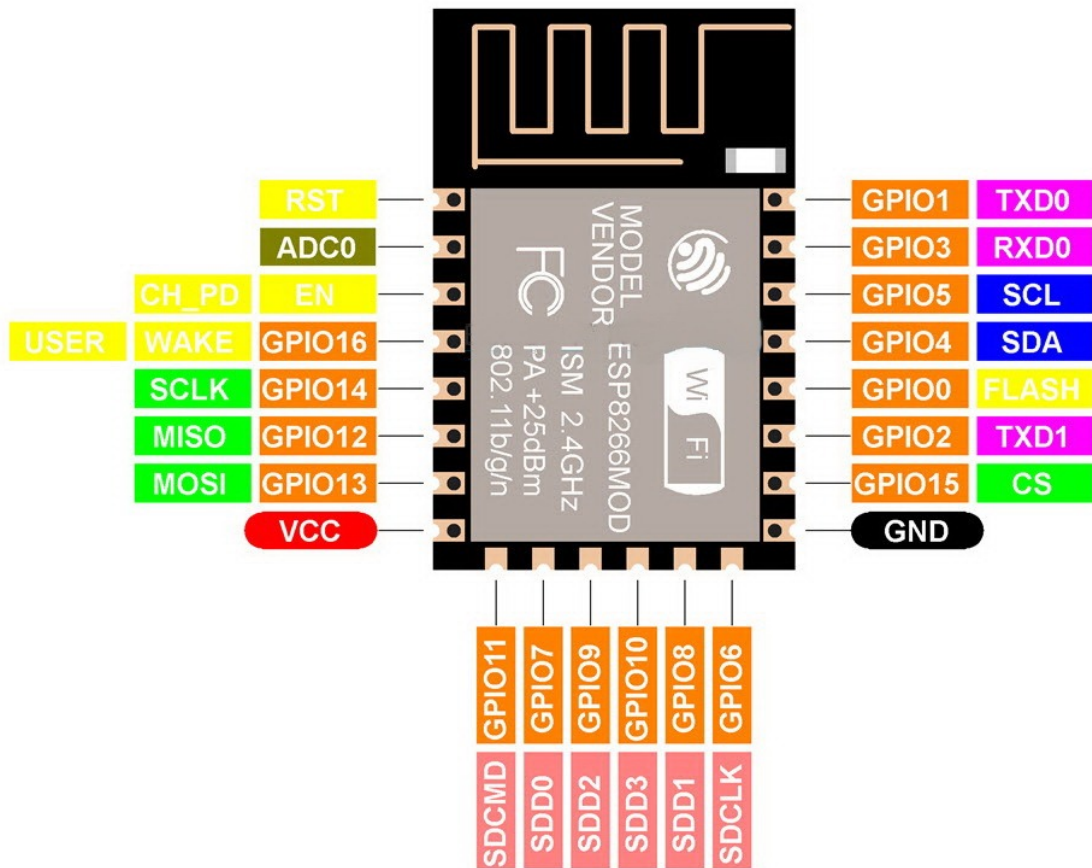
The ESP8266 Serial WiFi Module ESP-12F is a compact 2.4GHz wireless SOC module integrating the ESP8266 processor with built in WiFi MAC, baseband, RF, PA and LNA. It supports IEEE802.11 b g n protocol and a complete TCP IP stack, enabling direct Internet connectivity for embedded systems. The module is powered by a Tensilica L106 32 bit microcontroller operating at 80MHz or 160MHz and supports RTOS. It provides multiple communication interfaces including UART, HSPI, I2C, I2S, IR control, PWM and GPIO, and supports firmware upgrades via serial port, cloud or host download. It is suitable for IoT, smart home, wireless sensor and industrial control applications.

Specifications	
Wireless Standard	IEEE 802.11 b g n
Frequency Range	2.4GHz to 2.5GHz
Core Processor	Tensilica L106 32 bit MCU
CPU Clock	80MHz or 160MHz
Operating Voltage	3.0V to 3.6V, 3.3V recommended
Average Working Current	80mA
Wireless Modes	Station, SoftAP, SoftAP plus Station
Security Mechanisms	WPA, WPA2
Encryption Type	WEP, TKIP, AES
Network Protocols	IPv4, TCP, UDP, HTTP, FTP
Data Interfaces	UART, HSPI, I2C, I2S, IR, GPIO, PWM
Firmware Upgrade	Serial port, cloud upgrade, host download
Operating Temperature	-40C to 125C
Certifications	FCC, CE, TELEC
Usage	IoT devices, wireless networking, embedded WiFi integration

Pinouts:

Pin Name	Type	Description
RST	Input	Reset input, active low reset
ADC	Analog	Analog to digital input
EN	Input	Chip enable, high level enables module
IO16	I O	GPIO16, general purpose input output, wake function
IO14	I O	GPIO14, general purpose input output
IO12	I O	GPIO12, general purpose input output
IO13	I O	GPIO13, general purpose input output

VCC	Power	3.3V power supply input
TXD0	Output	UART0 transmit data
RXD0	Input	UART0 receive data
IO5	I O	GPIO5, general purpose input output
IO4	I O	GPIO4, general purpose input output
IO0	I O	GPIO0, boot mode select and general purpose input output
IO2	I O	GPIO2, general purpose input output
IO15	I O	GPIO15, general purpose input output
GND	Power	Ground



Product Dimensions:



Product Pictures:

