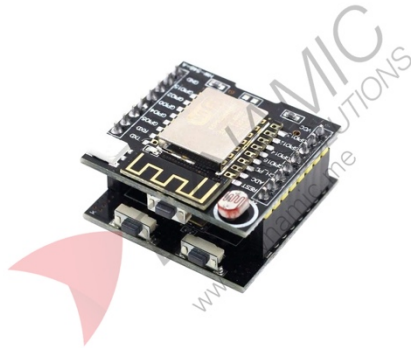


ESP8266 Serial WIFI Witty Cloud Development Board ESP12F Module



Features:

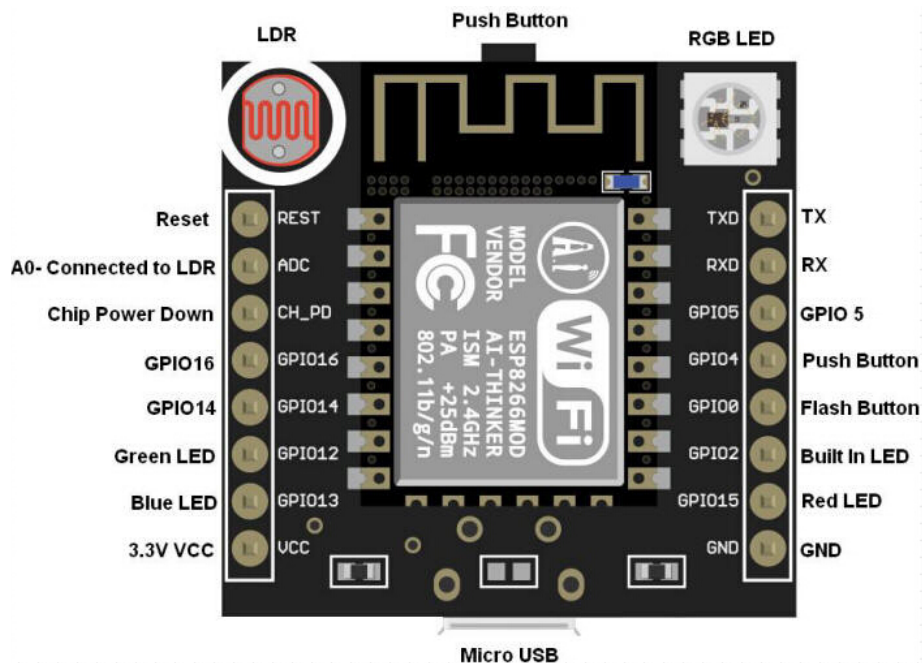
The ESP8266 Serial WIFI Witty Cloud Development Board (ESP-12F) is a versatile IoT module featuring WIFI 802.11 b/g/n connectivity, a built-in LDR light sensor, and WS2812 RGB LED. It integrates CH340G USB-to-UART for easy programming and debugging, and supports three operational modes: AP, STA, and AP+STA. Its compact dual-board design allows the upper board to run standalone applications, while the lower USB board can be used as a programmer for other ESP modules. With support for Arduino IDE and LUA (NodeMCU), this board is ideal for fast IoT prototyping, home automation, and smart control systems.

Specifications	
Microcontroller	ESP8266 (ESP-12F module)
Operating Voltage	3.3V
Flash Memory	4MB
Connectivity	WIFI 802.11 b/g/n
Interfaces	Micro USB, UART, GPIO, ADC
Onboard Sensors	LDR (photoresistor)
Onboard LED	WS2812 RGB LED
Buttons	Power, Reset, Flash
Programmer	CH340G USB-to-UART
Dimensions	30mm x 30mm x 15mm
Modes	AP, STA, AP+STA
Usage	IoT, automation, wireless connectivity

Pinouts:

Pin Name	Type	Description
RESET	Control	Resets the module
ADC (A0)	Input	Analog input, connected to onboard LDR sensor
CH_PD	Control	Chip power down / enable
GPIO16	Input/Output	General purpose I/O
GPIO14	Input/Output	General purpose I/O
GPIO12	Output	Connected to onboard LED (WS2812)
GPIO13	Output	Connected to onboard LED (WS2812)
VCC	Power	3.3V power supply
TX	UART	Transmit data

RX	UART	Receive data
GPIO5	Input/Output	General purpose I/O
GPIO4	Input/Output	Push button input
GPIO0	Control	Flash button (used for programming)
GPIO2	Output	Built-in LED control
GPIO15	Output	Red LED control
GND	Ground	Power and signal ground



Product Pictures:

