



## Grove - UART WiFi V2 (ESP8285)

SKU 113020011

### Description

Grove - UART WiFi V2.0(ESP8285) is a serial transceiver module featuring the ubiquitous ESP8285 IoT SoC. With integrated TCP/IP protocol stack, this module lets your microcontroller interact with WiFi networks with only a few lines of code. Each ESP8266 module comes pre-programmed with an AT command set firmware, meaning you can send simple text commands to control the device. The SoC features integrated WEP, WPA/WPA2, TKIP, AES, and WAPI engines, can act as an access point with DHCP, can join existing WiFi networks and has configurable MAC and IP addresses.

It's the upgrade version of Grove - UART WiFi, we changed the ESP8266 into ESP8285, and made some other adjustments to make it more stable and lighter. For more detail about the version change, please refer to our wiki.

ESP8285 can perform either as a standalone application or as the slave to a host MCU. When ESP8285 hosts the application, it promptly boots up from the flash. The integrated high-speed cache helps to increase the system performance and optimize the system memory. Also, ESP8285 can be applied to any micro-controller design as a Wi-Fi adaptor through SPI/SDIO or I2C/UART interfaces.

## Features

- Grove 4-pin connector (RX,TX,VCC,GND)
- 802.11 b/g/n protocol (2.4GHz)
- WiFi Direct (P2P), soft-AP
- Supports three modes: AP, STA and AP+STA coexistence mode
- Integrated TCP/IP protocol stack
- LwIP (lightweight IP)
- Integrated low power 32-bit CPU could be reprogrammed as an application processor
- Serial UART Interface
- Multi-queue QoS management
- Wake up and transmit packets in < 2ms
- Onboard ceramic antenna
- Reset switch
- 32-bit processor
- On-chip SRAM
- 1 MB build-in SPI flash

## Part List

Grove - UART WiFi V2 (ESP8285)	1
Grove cable	1

## Technical Details

Weight	G.W 8g N.W 3.4g
Battery	Exclude
Input voltage	3V / 5V
Baud Rate	115200
Chip	ESP8258 ESP-07 SoC
AT Firmware	esp_iot_sdk_v1.1.0
Interface	SDIO 1.1/2.0, SPI, UART
Five power states	OFF, DEEP_SLEEP, SLEEP, WAKEUP and ON
Consumption	Standby power consumption of < 1.0mW (DTIM=3)
Leakage current	Power down leakage current of <10uA
Output	+19.5dBm output power in 802.11b mode
Security protocol	WPA/WPA2 PSK, and WPS

