

WiFi Module

TECHNICAL DATA SHEET

This module uses ARM cortex-M0 micro controller interfaced with the 2.4GHz Wi-Fi module through UART interface and RS-485 or 232 output was given as Debug port or Communication port connect to the outer application .

Module works with a predefined commands or packets formats send and receive data from the Wi-Fi module. The pre-defined packets formats are given on standard Modbus protocol or RS-485 multi drop protocol format. Programming option was given to program the micro controller as per customer requirement.

The ESP8266 is a very user friendly and low cost device to provide internet connectivity to your projects. The module can work both as a Access point (can create hotspot) and as a station (can connect to Wi-Fi), hence it can easily fetch data and upload it to the internet making Internet of Things as easy as possible. It can also fetch data from internet using API's hence your project could access any information that is available in the internet, thus making it smarter. So if you are looking for a module to get started with IOT or to provide internet connectivity to your project then this module is the right choice for you.

This protocol is designed to communicate data through noisy RF environments that are common in commercial and industrial applications. Version builds on the existing Wi-Fi standard but unifies the market-specific application profiles to allow all devices to be wireless connected in the same network, irrespective of their market designation and function.

Specifications of Module:

S.No	Description	Specification
1	Product Category	Wireless Networking Module
2	Power Source	12V,1A
3	Micro controller	ARM CORTEX-M0 CPU with 48 MHz Operating Frequency
4	Interface Type	RS-485,RS-232, and UART-TTL(3.3V)
5	Wireless Interface	2.4GHz Wi-Fi
6	Memory	I2C EEPROM
6	PCB Dim	125x66mm
7	Enclosure	80x160x55mm
8	Safety	IP66

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Specification of RF Design:

1	Protocol	Wi-Fi®
2	RF Standard	802.15.4
3	Frequency (ISM Band)	2.4GHz
4	Data Rate	RF 250 Kbps, Serial up to 1 Mbps
5	RATED OUTDOOR Range	100mtrs
6	Transmit Power	0.063mW
7	Channels	4
8	Encryption	128-bit AES
9	Supply Voltage (V)	2.1 to 3.6
10	Transmit Gain	7dBi
11	Receive Gain	7dBi



Applications:

- Telemetric & Transportation
- Energy Meters
- Smart Home Security
- Data logger application