

Details about ESP8266 Serial WIFI Wireless TransceiveR Module Send Receive LWIP AP+STA New EA

Features:

ESP8266 is a highly integrated chip designed for the needs of a new connected world. It offers a complete and self-contained Wi-Fi networking solution, allowing it to either host the application or to offload all Wi-Fi networking functions from another application processor.

ESP8266 has powerful on-board processing and storage capabilities that allow it to be integrated with the sensors and other application specific devices through its GPIOs with minimal development up-front and minimal loading during runtime. Its high degree of on-chip integration allows for minimal external circuitry, and the entire solution, including front-end module, is designed to occupy minimal PCB area.

SDIO 2.0, SPI, UART

32-pin QFN package

Integrated RF switch, balun, 24dBm PA, DCXO, and PMU

Integrated RISC processor, on-chip memory and external memory interfaces

Integrated MAC/baseband processors

Quality of Service management

I2S interface for high fidelity audio applications

On-chip low-dropout linear regulators for all internal supplies

Proprietary spurious-free clock generation architecture

Integrated WEP, TKIP, AES, and WAPI engines

Solutions

Supports APSD for optimal VoIP applications

Patented spurious noise cancellation algorithm for integration in SOC applications

Supports Bluetooth co-existence interface

Self-calibrated RF to ensure optimal performance under all operating conditions

Zero factory tuning

No external RF components

Specifications:

802.11 b/g/n

Wi-Fi Direct (P2P), soft-AP

Integrated TCP/IP protocol stack

Integrated TR switch, balun, LNA, power amplifier and matching network

Integrated PLLs, regulators, DCXO and power management units

+19.5dBm output power in 802.11b mode

Power down leakage current of <10uA

Integrated low power 32-bit CPU could be used as application processor

SDIO 1.1/2.0, SPI, UART

STBC, 1×1 MIMO, 2×1 MIMO

A-MPDU & A-MSDU aggregation & 0.4ms guard interval

Wake up and transmit packets in < 2ms

Voltage: 1.8-3.8V

Standby power consumption of < 1.0mW (DTIM3)

Dimension:25 x 15 mm

Net weight:2 g

Package weight:12 g

Package included:

1 x ESP8266 Serial WIFI Wireless TransceiveR Module