TW-2201

Overview

Transystem Inc. offers TW-2201 Embedded WiFi module, which provides 802.11b/g/n 2x2 MIMO based WiFi networking for a printed circuit board device design.

The module can be ordered with either two external MMCX connectors, or one external MMCX connector and one internal chip antenna options. The module is a low profile (47x33x8mm, including the height of MMCX connector) pin/lead surface mount device, with low power consumption and power management for the battery applications that requires low power consumption. The module is powered by Atheros AR9341 and supports UART, GPIO, USB, and WAN/LAN communication ports. Configure the device with a user-friendly webpage interface, it can operate as either Access Point (AP) mode, or Infrastructure Station (STA) mode, as well as point-to-point ad-hoc wireless connections.

With the small footprint, low cost, and rich features set, TW-2201 Embedded WiFi module is well suited for Internet of Things (IoT) applications. The module is small enough to be added to most devices.

An Evaluation Kit of TW-2201 Embedded WiFi module also are available for ordering.

Key Features

Very compa
- Based on Atheros AR9341 2x2 MIMO 2.4GHz Radios Platform
- Low cost Embedded IEEE 802.11b/g/n WiFi module as compact wireless networking device
- 2 MMCX connectors option, or 1 external MMCX connector and 1 internal chip antenna options.
- Low power consumption for battery applications.
- High speed and low speed UART, GPIO, USB, and WAN/LAN interfaces
- +3.3VDC power supply
- RoHS compliance

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Specification

Wireless Interface

2.4GHz (2X2) Radio

- Standard IEEE 802.11b/g/n
- Operation Frequency 2.4.12 – 2.4835 GHz (Ch 1-13)
- Transmit Power (average)

802.11b
- 1 Mbps +17 dBm

802.11g
- 54 Mbps +13 dBm
- 6 Mbps +17 dBm

802.11n
- HT20
  - MCS-7 +12 dBm
  - MCS-0 +16 dBm
- HT40
  - MCS-7 +12 dBm
  - MCS-0 +16 dBm

- Receive Sensitivity (Typical)

802.11b
- 1Mbps -93 dBm

802.11g
- 54 Mbps -75 dBm
- 6 Mbps -90 dBm

802.11n
- HT20
  - MCS-7 -71 dBm
  - MCS-0 -90 dBm
- HT40
  - MCS-7 -68 dBm
  - MCS-0 -87 dBm

- 2 MMCX ports; or 1 MMCX port & 1 chip antenna

Interface

- 7 x User defined GPIO
- High speed & low speed UART
- System Reset
- 1 x USB interface
- 1 x WAN interface
- 1 x LAN interface

Memory Size

- SDRAM 32MB
- Flash 8MB

Physical Specification

- PCBA Dimension 47 x 33 x 8 mm
  Including the height of MMCX connector

Power Supply

- +3.3VDC
- Power Consumption 3W (Maximum)

Environmental Specification

- Operating Temp. Ambient 0°C to +50°C
- Storage Temperature -10°C to + 80 °C
- Humidity 0 – 95% (Non-condensing)

Typical value @ 25°C, unless otherwise specified

Specifications are subject to change without prior notice

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