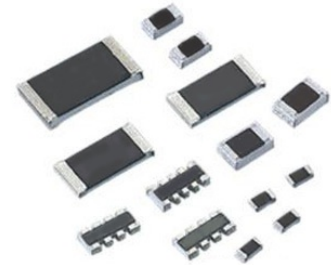


Standalone Wi-Fi MCU Module



Images are for reference only

[Inquiry](#)

Manufacturer: [Microchip Technology, Inc](#)

Package/Case: SMD-54

Product Type: RF Integrated Circuits

Lifecycle: Active

General Description

WFI32E01PE is a standalone and fully certified Wi-Fi module supporting 2.4 GHz 802.11 b/g/n radio modes. Specially designed for industrial IoT applications, WFI32E01PE contains the PIC32MZW1 series Wi-Fi SoC, which is a 200MHz high performance MCU with industrial leading Wi-Fi connectivity and rich peripheral options. PIC32MZW1 has 1MB embedded flash and 256KB SRAM, empowering embedded designers to rapidly build complex IoT software covering WLAN, TCP/IP stack, RTOS, Cloud connectivity, and application. Various types of peripherals, such as Ethernet, USB, ADC, CVD touch buttons, and CAN, make PIC32MZW1 a perfect system core to realize the most application features.

WFI32E01PE has best-in-class WLAN functions covering the latest Wi-Fi security standard, Wi-Fi Protected Access 3 (WPA3) and all the general Wi-Fi functions like AP, STA, SoftAP with 8 connected STAs, TLS, etc. The software development of WFI32E01 module is supported in Microchip MPLAB and Microchip Harmony v3.

Microchip provides total 4 module variants under the same product family, visit the design center of **PIC32MZ-W1 Wi-Fi® SoC and Module Family** for more details.

As a total system solution provider, Microchip offers a broad portfolio that simplifies IoT and IIoT systems when pairing the WFI32E01 module with other Microchip market-leading components, such as **KSZ8081** family of Ethernet PHYs, **MCP2542WFD** family of CAN transceivers, and other Wireless Technologies: **Bluetooth Low Energy (BLE)**, **Long Range (LoRa®)** and **IEEE® 802.15.4**.

Visit www.Microchip.com/MCHPRT for Microchip's Radio Testing Tool - a Windows®-based software tool for RF evaluation and testing of wireless designs during development, certification and production.

Key Features

MCU Features

200 MHz, MIPS32® M-Class Microprocessor Core

1MB Embedded Flash, 256KB SRAM (Program and Data), 64KB Data Buffer

High performance peripheral set including full-speed USB, CAN, CAN-FD, 10/100 MAC, and high accuracy 12-bit dual ADCs.

CVD Touch input

3xUART, I2C, 2xSPI

Wi-Fi and Network Features

Single-band 2.4GHz b/g/n

Wi-Fi Security protocols supported:WPA/WPA2/WPA3 Personal, TLS, SSL

Support AP, STA, SoftAP

Optional Full Featured Hardware Crypto Accelerator

Antenna Type: PCB

Other Features

Certifications: FCC, ISED, CE, WFA (planned)

54-PIN SMD, 24.5 x 20.5 x 2.5 mm

3.0V to 3.6V, -40°C to +85°C

Recommended For You

WFI32E01PC-I

Microchip Technology, Inc

Module54

WFI32E01UE-I

Microchip Technology, Inc

MODULE

WFI32E01UC-I

Microchip Technology, Inc

MODULE-54

ATWINC1500-MR210PB

Microchip Technology, Inc

MODULE

RN171-I/RM

Microchip Technology, Inc

MODULE

ATZB-900-B0

Microchip Technology, Inc

MODULE

ATWINC1510-MR210PB1952

Microchip Technology, Inc

MODULE

RN42-I/RM630

Microchip Technology, Inc

MODULE-35

ATSAMB11-MR510CA

Microchip Technology, Inc

39LMODULE

ATWINC1510-MR210PB1961

Microchip Technology, Inc

MODULE

ATWINC3400-MR210UA122

Microchip Technology, Inc

MODULE-36

RN42XVP-I/RM

Microchip Technology, Inc

MODULE-20

RN4870-V/RM118

Microchip Technology, Inc

MODULE-33

ATWILC1000-MR110PB

Microchip Technology, Inc

MODULE

ATWINC1500-MR210UB1954

Microchip Technology, Inc

MODULE-28