New Product Introduction

PAN9420 Fully Embedded Stand-Alone Wi-Fi Module Specifically Designed For Highly Integrated And Cost-Effective Applications.

The NEW PAN9420 Series Includes A Fully Shielded Case, Integrated Crystal Oscillators And A Chip Antenna.

Introducing Panasonic's Fully Embedded Stand-Alone Wi-FI Module, the **NEW PAN9420 Series**! The PAN9420 is a 2.4 GHz 802.11 b/g/n Embedded Wi-Fi Module with integrated stack and API that minimizes firmware development and includes a full security suite. The **NEW PAN9420** is specifically designed for highly integrated and cost-effective applications. The Module includes a fully shielded case, integrated crystal oscillators and a chip antenna. The **NEW PAN9420 Series** combines a high-performance CPU, high-sensitivity wireless radio, baseband processor, medium access controller, encryption unit, boot ROM with patching capability, internal SRAM and in-system programmable flash memory. The Modules' integrated memory is available to the application for storing web content such as HTML pages or image data. Parallel support of access point and infrastructure mode allows easy setup of simultaneous Wi-Fi connections from the **PAN9420** to smart devices and home network routers. The pre-programmed Wi-Fi SoC firmware enables client (STA), micro access point (μAP), and Ad-hoc mode (Wi-Fi Direct) applications. With the transparent mode, raw data can be sent from the UART to the air interface to smart devices, web servers or PC applications.

The **NEW PAN9420 Evaluation Kit** is available with one PAN9420 Mother Board (MB), one PAN9420-ETU daughter board (includes the PAN9420 FCC version module), and one USB-cable packaged in a large case. The PAN9420-ETU daughter board is equipped on the PAN9420-MB, which has two USB to UART converters allowing the hardware access to the two UART module interfaces (command and binary interface). The PAN9420 FCC version module comes pre-loaded with a firmware for IoT applications and a Panasonic Web content example. With a few simple steps the kit is ready to use.

General Features And Benefits

- Fully Embedded: Integrated Full-Featured Network Stack
- Contains All Necessary Iot Functionality (Place & Play)
- Integrated Webserver With AJAX/JSON For Web Applications
- No Stack Or Software Implementation Needed On A Host MCU
- Simultaneous Support Of Access-Point And Infrastructure Mode
- Fully Automatic IP Configuration
- DHCP Server Offers IP Configuration In AP Mode
- Access By Names (Http:/ /Yourdevice)
- Integrated TCP/IP Network Stack: Ipv4, ARP, And Autoip
- Supports Tls/Ssl, Https, And Wi-Fi Security (Wpa2) For Secure Data Connection
- Over-The-Air Firmware Update
- Two Uart Interfaces (Command And Transparent Data)
- Integrated Qspi Flash Memory For Customer Web Contents And Configuration File
- Programming Via Standard Jtag
- Evaluation Kit With Pre-Installed Web Application For Quick Prototyping Available
- Evaluation And Development Tool Wifigurator For Windows
- Getting Started Tutorials, Pc Tool, Quickstart Guide
- Wide Temperature Ranges Of -40 °C To +85 °C
- RoHS And REACH Compliant

PAN9420 Additional Features

- Surface Mount Type (SMT) 29.0 Mm X 13.5 Mm X 2.66 Mm
- Marvell® 88MW300 MCU/WLAN System-On-Chip (Soc) Inside
- Tx Power Up To +16 Dbm @ IEEE 802.11b
- Rx Sensitivity Of -97 Dbm @ IEEE 802.11b DSSS 1 Mbps
- 20 Mhz Channels Up To 72 Mbps
- Power Supply 3.0 To 3.6 V
- Current Consumption 150 Ma (Mix Mode Tx/Rx@11b, 11 Mbps), 75 Ma Rx, 310 Ma Tx Peak
- Power Down Mode Less Than 1 Ma Power Consumption
- Low Power Mode Available

Applications

- White Goods
- Vending Machines
- Home Appliances

Part Number Information

Part Numbers	Description	Series Name
ENW- 49C01A3KF	**Fully embedded stand-alone Wi-Fi module IEEE 802.11 b/g/n** **Regulatory notice: FCC/IC16 in preparation** **Supported channel: Channel 1 ~ 11, 2412 ~ 2462 MHz**	**PAN9420**
ENW- 49C02A3KF	**Fully embedded stand-alone Wi-Fi module IEEE 802.11 b/g/n** **Regulatory notice: ETSI17 in preparation** **Supported channel: Channel 1 ~ 13, 2412 ~ 2472 MHz**	**PAN9420**
ENW49C01AYKF	**1x Motherboard,1xUSB-Stick,Manual,1x USB-Cable in a large Plastic Case FCC Version**	**PAN9420KIT**

Block Diagram: