

New Product Introduction

PAN9026 Series Wi-Fi Dual Band 2.4/5 GHz And *Bluetooth*® Module

Simultaneous And Independent Operation Of Two Standards Specifically Designed For Highly Integrated And Cost-Effective Applications!



Introducing Panasonic's Wi-Fi Dual Band 2.4/5 GHz And Bluetooth Combo Module, the **NEW PAN9026 Series!** The **PAN9026 Series** is a dual band 2.4/5 GHz 802.11 a/b/g/n Wi-Fi radio Module with integrated Bluetooth BDR/EDR/LE, specifically designed for highly integrated and cost-effective applications. The simultaneous and independent operation of the two standards enables high data rates (802.11n) and low-power operation (Bluetooth Low Energy). Integrated power management, a fast dual-core CPU, 802.11i security standard support and high-speed data interfaces deliver the performance for the speed, reliability and quality requirements of next generation products. TX power calibration data and Wi-Fi/Bluetooth system parameters are pre-stored on the one-time-programmable memory of the **New PAN9026** during production at Panasonic. This simplifies passing the certification process for **PAN9026** customers. **The New PAN9026 Series** reduces design, test and calibration effort resulting in reduced time-to-market compared to discrete solutions.

Integrating Wi-Fi and Bluetooth Wireless Connectivity allows applications such as Smart Energy and home gateways to manage multiple devices and appliances. The combination of Wi-Fi and Bluetooth provides the highest flexibility for connectivity.

General Features And Benefits

- Dual Band 2.4/5 GHz 802.11 a/b/g/n Wi-Fi/BT Combo Module
- Supports 802.11i Security Standards Through AES, CCMP And More Security Mechanisms
- 802.11e Quality Of Service Is Supported For Multimedia Applications
- IEEE 802.11n-Compliant, 1x1 Spatial Stream With Data Rates Up To MCS7 150 Mbps
- Bluetooth 4.2 (Includes LE) As Well As Future Bluetooth 5.0 Features
- Dual Simultaneous And Independent WLAN And Bluetooth Operation
- Indoor Location And Navigation With IEEE 802.11mc
- Power Management With Sleep Clock
- Coexistence Interface For Arbitration Of Co-Located WLAN, Bluetooth, Or Mobile Wireless System (e.g. LTE)
- Generic Interfaces Include SDIO 3.0 And High-Speed UART For Host Processor Connection
- Software Linux/Android Driver
- Wide Temperature Range Of -30 to +85°C
- RoHS and REACH Compliant

PAN9026 Additional Features

- Surface Mount Type (SMT) 17.5 mm x 10.0 mm x 2.6 mm
- Marvell® 88W8977 WLAN 2.4/5 GHz and Bluetooth single-chip solution inside
- TX Power +17 dBm @ 802.11b
- RX Sensitivity -98 dBm @ 802.11b DSSS 1 Mbps
- IEEE 802.11n 20 MHz and 40 MHz channel bandwidth
- Long and Short Guard Interval support
- Power supply 3.3 V, 2.2 V, 1.8 V
- Current consumption Wi-Fi typical 400 mA @ TX and 70 mA @ RX
- SDIO 1 bit or 4 bit

PAN9026 Series Evaluation

- PAN9026ETU SDIO Adapter with module ENWF9201A1EF



- PAN9026 Evaluation Kit — US Version — SDIO Evaluation Kit contains two PAN9026 SDIO-Adapters. The adapter has a SDIO interface and allows hardware access to the module pins. It is designed to be used with a Linux / Android system having installed the SW packages and Kernel drivers available at the Marvell XtraNet.



Part Number Information

| Part Numbers | Description | Series Name |
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| ENW-F9201A1EF | Wi-Fi/Bluetooth Radio Module IEEE 802.11 a/b/g/n BT/BLE 5.0 With A Ceramic Chip-Antenna | PAN9026 Series US/Canada Version ¹ |
| ENW-F9202A1EF | Wi-Fi/Bluetooth radio module IEEE 802.11 a/b/g/n BT/BLE 5.0 With A Ceramic Chip-Antenna | PAN9026 Series EU Version² |
| ENWF9201AZEF | PAN9026 SDIO Adapter with module ENWF9201A1EF | PAN9026ETU |
| ENWF9201AXEF | PAN9026 Evaluation Kit, including Wandboard with i.MX 6, imaged SD Card, SD to Micro SD adapter, 9026 SDIO-Adapter (ENWF9201AZEF, PAN9026 ETU), Power Supply Cable – USB A to 5.5mm x 2.5mm coax connector. | PAN9026 Evaluation Kit |

¹ The US/Canada Version is restricted to FCC regulatory domain with blocked country code and Tx power table. The device does not support the channels 12 - 13 in the 2.4 GHz band and any non-US channels.

² The EU Version has preset the country code and Tx power table for European regulatory domain ETSI. The country code and Tx power table are not blocked and additionally the country codes and Tx power tables for Canada and US can be set.

Block Diagram

