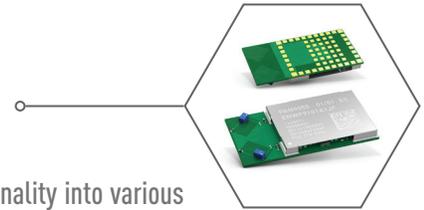


New Product Introduction

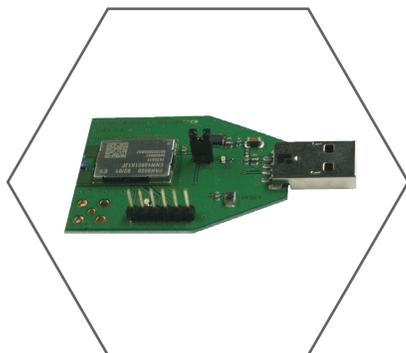
PAN9055/9045 Multi-Mode WiFi Radio Module MIMO 2x2, 802.11 b/g/n, BT Smart



PAN9055/9045 is a 2.4GHz ISM band wireless radio module for implementing WLAN and Bluetooth functionality into various electronic devices. The cost-effective, low-power operation, system-on-chip (SoC) solutions enable wireless network applications to be built with low total bill-of-material costs. The radio module combines an excellent 802.11 and BT wireless radio, baseband processor and many other powerful supporting features and peripherals. MIMO 2x2 technology allows simultaneous data transmission over multiple streams using the same frequency. This results in greater range, higher throughput and is fully backwards compatible. The low-power operation is supporting deep sleep and standby modes by using the on-board power management unit. Layout design, calibration, and test efforts in production are reduced compared to discrete solutions resulting in precious advantage in terms of time-to-market. Panasonic offers a software package supporting various Fedora Core Kernel versions. The Hardware Interface Driver controls the hardware interface on the HOST side. Furthermore, the software package from Marvell® consists of various applications, demonstrations and utilities.

Features

- Surface Mount Type 22.75 x 13.5 x 2.4 mm³
- Wireless Local Area Network (WiFi) Technology
- Supports IEEE 802.11
 - IEEE 802.11b/g Payload Data Rates
 - IEEE 802.11n High-Throughput Data Rates
 - IEEE 802.11i Security Standards AES-CCMP, WEP, TKIP, AES-CMAC and WAPI
 - IEEE 802.11e Quality of Service (QoS)
- Coexistence Interface for External Co-Located 2.4GHz Radios (e.g. Bluetooth)
- Tx Power up to +18 dBm (IEEE 802.11b CCK) and 14dBm (IEEE 802.11g ODFM)
- High Rx Sensitivity -98dBm (IEEE 802.11b DSSS 1Mbps)
- Integrated Marvell® 88W8782 WLAN System-on-Chip (SoC) Solution
- High-Performance, Low-Power CPU Core
- Two Powerful, Independent DMA Channels
- Power Management Unit Sleep Clock (for Power Save Mode)
- Internal Crystal Oscillator (40MHz)
- USB2.0 or SDIO Interface
- Integrated Shielding to Resist EMI



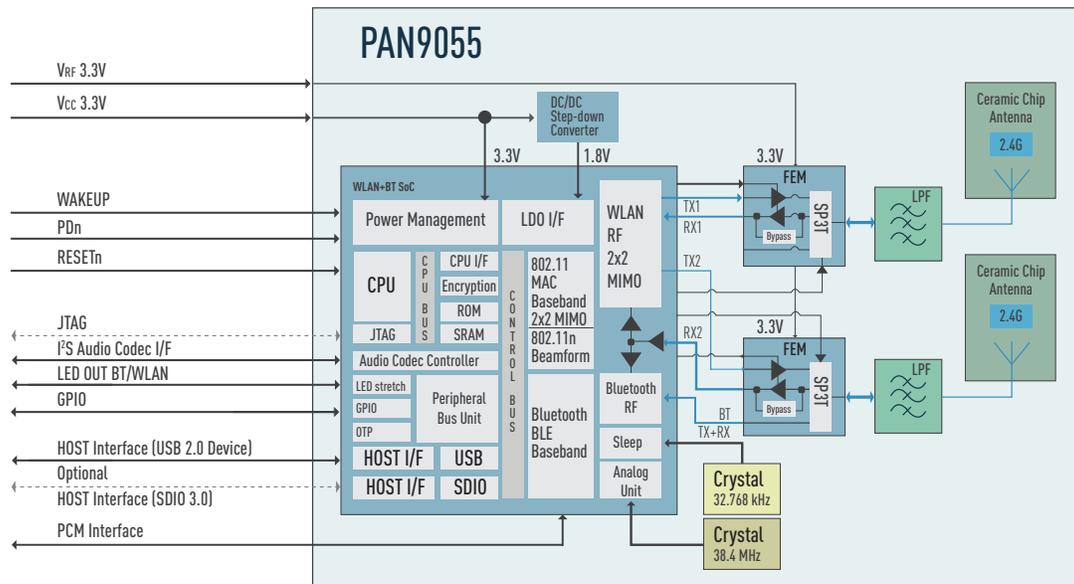
Development Kits

Panasonic's designer friendly ETU – Easy to Use – development kits reduce design efforts and critical time to market by providing the target module on USB stick, free development-ware, reference designs and PCB layout.

Applications

- Imaging Platform
- Digital Picture Frame
- Gaming Platform
- Consumer Electronic
- Portable Application
- Smart Energy
- Thermostat, Control panels
- Printer
- Game Console
- Media Player
- Tablet, eBook
- Health&Fitness
- Home Gateways

Block Diagram



Part Number

Part Number	Description
ENWF9101A1JF	PAN9055 0~70°C, chip antenna
ENWF9101C1JF	PAN9045 0~70°C, 50 Ohm pad
ENWF9101A1EF	PAN9055 -30~85°C, chip antenna
ENWF9101C1EF	PAN9045 -30~85°C, 50 Ohm pad

Technical Characteristics

Parameter	Value	Condition / Note
Software		Linux / Android Driver
Receiver Sensitivity	-98 dBm	@1M-DSSS (Details see Datasheet)
Tx Power	+18 dBm	@ 11b
Power Supply	3.0 to 3.6 V	
Current Consumption	tbd	
Centre Frequency	2.4 GHz	802.11 b/g/n
Operating Temperature Range	0~70°C / -30~85°C	
Size	26.0x13.5x2.40	mm

For detailed specification information on the PAN9055/9045 Series, visit our website at: na.industrial.panasonic.com/products/wireless-connectivity/wi-fi

