

# PAN9026

## Wi-Fi Dual Band 2.4/5 GHz and Bluetooth Module

**Panasonic**



### [OVERVIEW]

The PAN9026 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 PAN9026 during production at Panasonic. This simplifies passing the certification process for PAN9026 customers. Furthermore, the module reduces design, test, and calibration effort resulting in reduced time-to-market compared to discrete solutions.

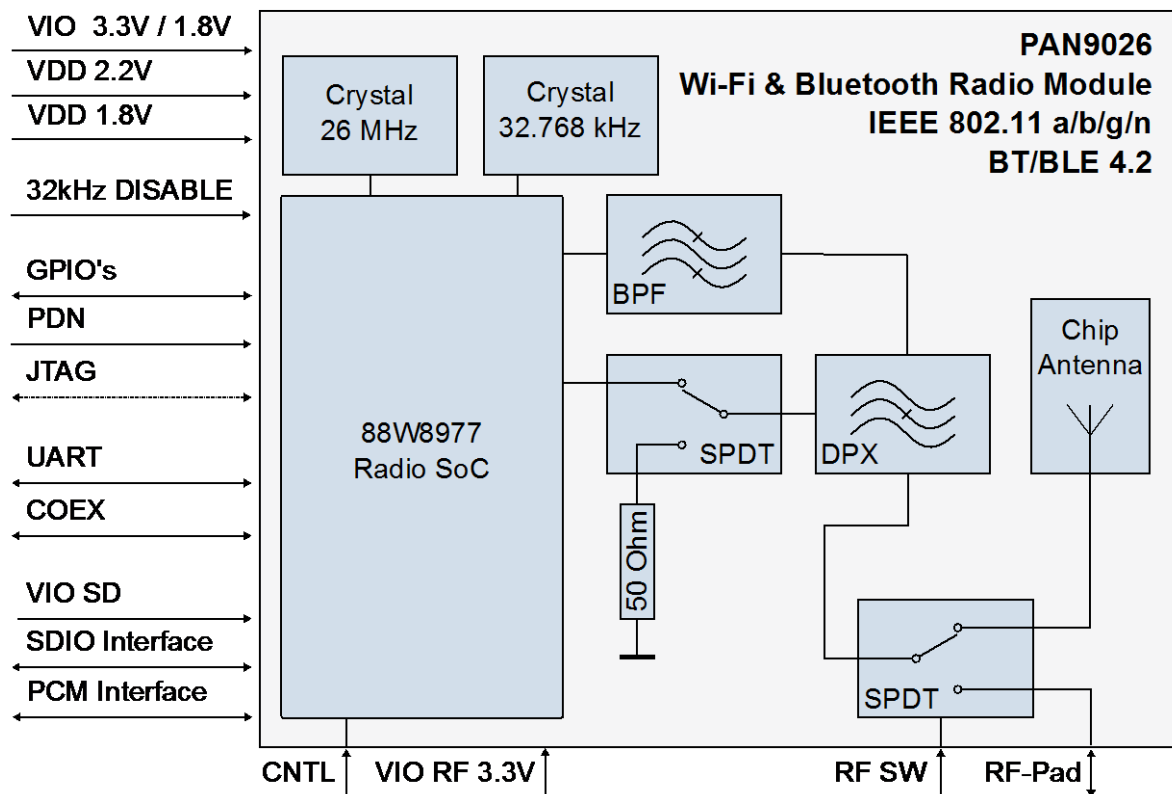
Integrating Wi-Fi and Bluetooth wireless connectivity allows applications such as Smart Energy and home gateways to manage multiple devices and appliances. The combination of Wi-Fi and Bluetooth provides the highest flexibility for connectivity.

### [FEATURES]

- 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

WIRELESS MODULES  
Panasonic Industrial Devices Europe GmbH

## [BLOCK DIAGRAM]



## [TECHNICAL CHARACTERISTICS]

- 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