

PAN9320

Fully Embedded Stand-Alone Wi-Fi Module

Panasonic

[OVERVIEW]

The PAN9320 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 module 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 module 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 module's 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 module to smart devices and home network routers. The pre-programmed Wi-Fi SoC firmware enables client (STA) and micro access point (μ AP) 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.

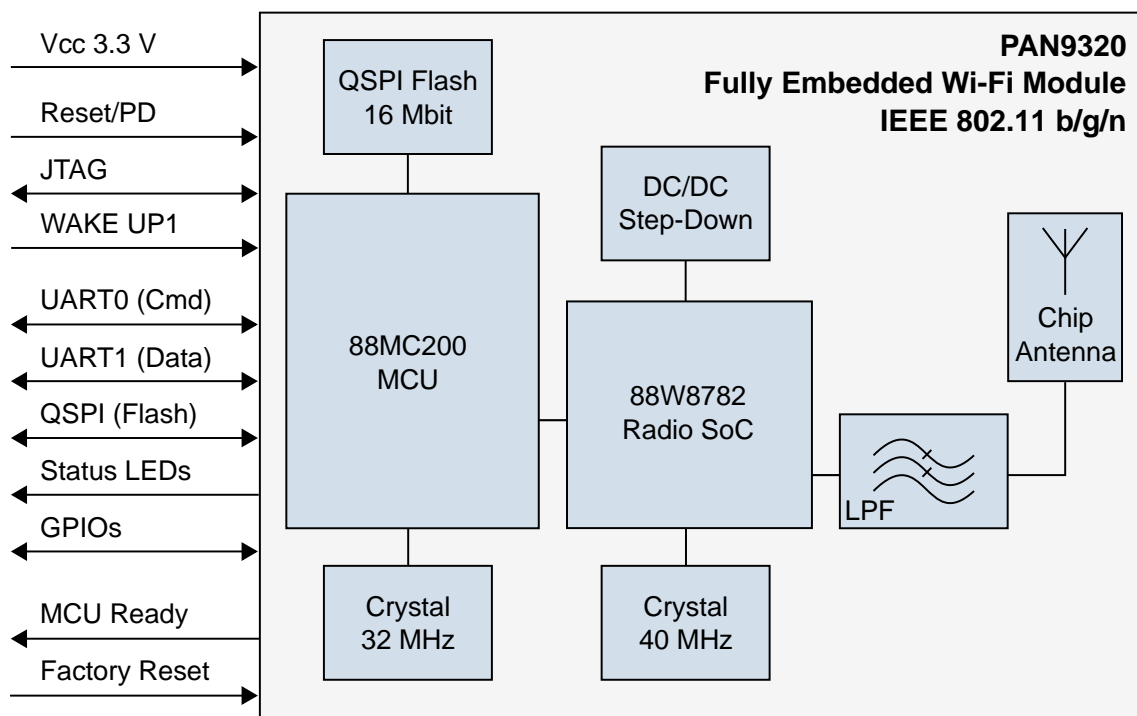
[FEATURES]

- 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- & Infrastructure mode
- Fully automatical 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 (externally extendable with additional 2 MByte)
- Coexistence interface for external co-located 2.4 GHz radios (e. g. Bluetooth)
- 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 range of -30 °C to +70 °C
- FCC-/IC-/CE-certified



WIREFLESS MODULES
Panasonic Industrial Devices Europe GmbH

[BLOCK DIAGRAM]



[CHARACTERISTICS]

- Surface Mount Type (SMT) 29.0 mm x 13.5 mm x 2.66 mm
- Marvell® 88W8782 WLAN System-on-Chip (SoC) and 88MC200 (MCU) inside
- Tx power up to +18 dBm @ IEEE 802.11b
- Rx sensitivity of -98 dBm @ IEEE 802.11b DSSS 1 Mbps
- 40 MHz channels up to 150 Mbps
- Power supply 3.0 to 3.6 V
- Current consumption 430 mA (Tx @ 11b, 11 Mbps) and 145 mA Rx
- Low power mode available