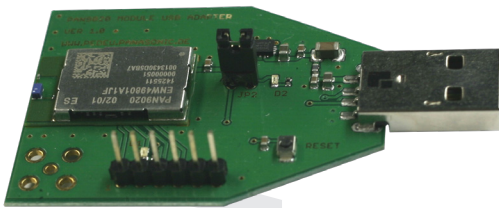


PAN9020/10 Module Wi-Fi Radio 802.11 b/g/n



OUTLINES

PAN9020/10 is a series of 2.4GHz ISM band wireless radio modules for implementing WLAN 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 modules combine an excellent 802.11 wireless radio, baseband processor, medium access controller, encryption unit, boot ROM with patching capability, internal SRAM, in-system programmable flash memory and many other powerful supporting features and peripherals. The low-power operation is supporting deep sleep and standby modes by using the on-board power management unit. Layout design efforts, 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 OFDM)
- High Rx sensitivity -98dBm (IEEE 802.11b DSSS 1Mbps)
- Marvell® 88W8782 WLAN System-on-Chip (SoC) solution inside
- 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

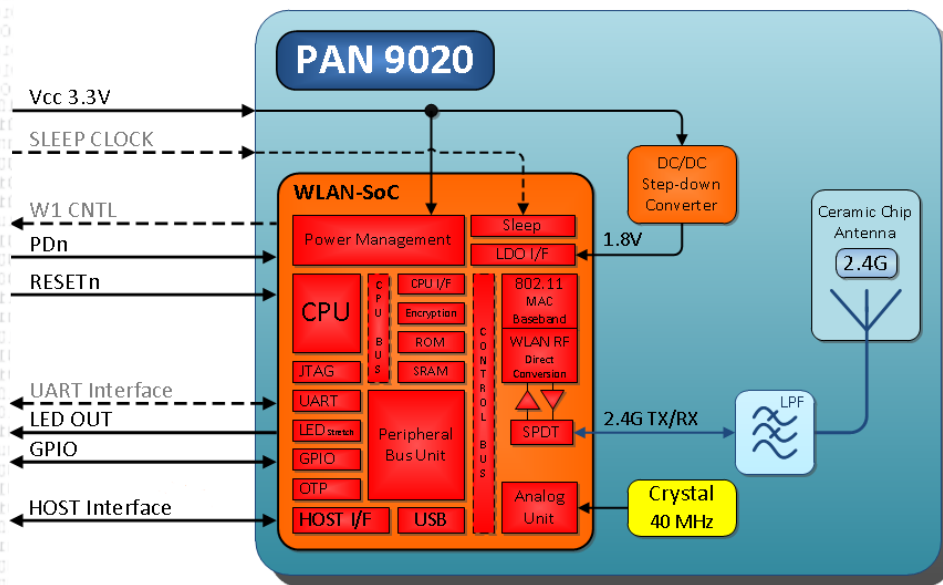
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PAN9020 WiFi Rev. 0.1

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



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	430 mA	@ 11Mbps
Centre Frequency	2.4 GHz	802.11 b/g/n
Operating Temperature Range	0 C / +70C	
Size	22.75x13.5x2.42	mm