

Wi-Fi & BLE Module

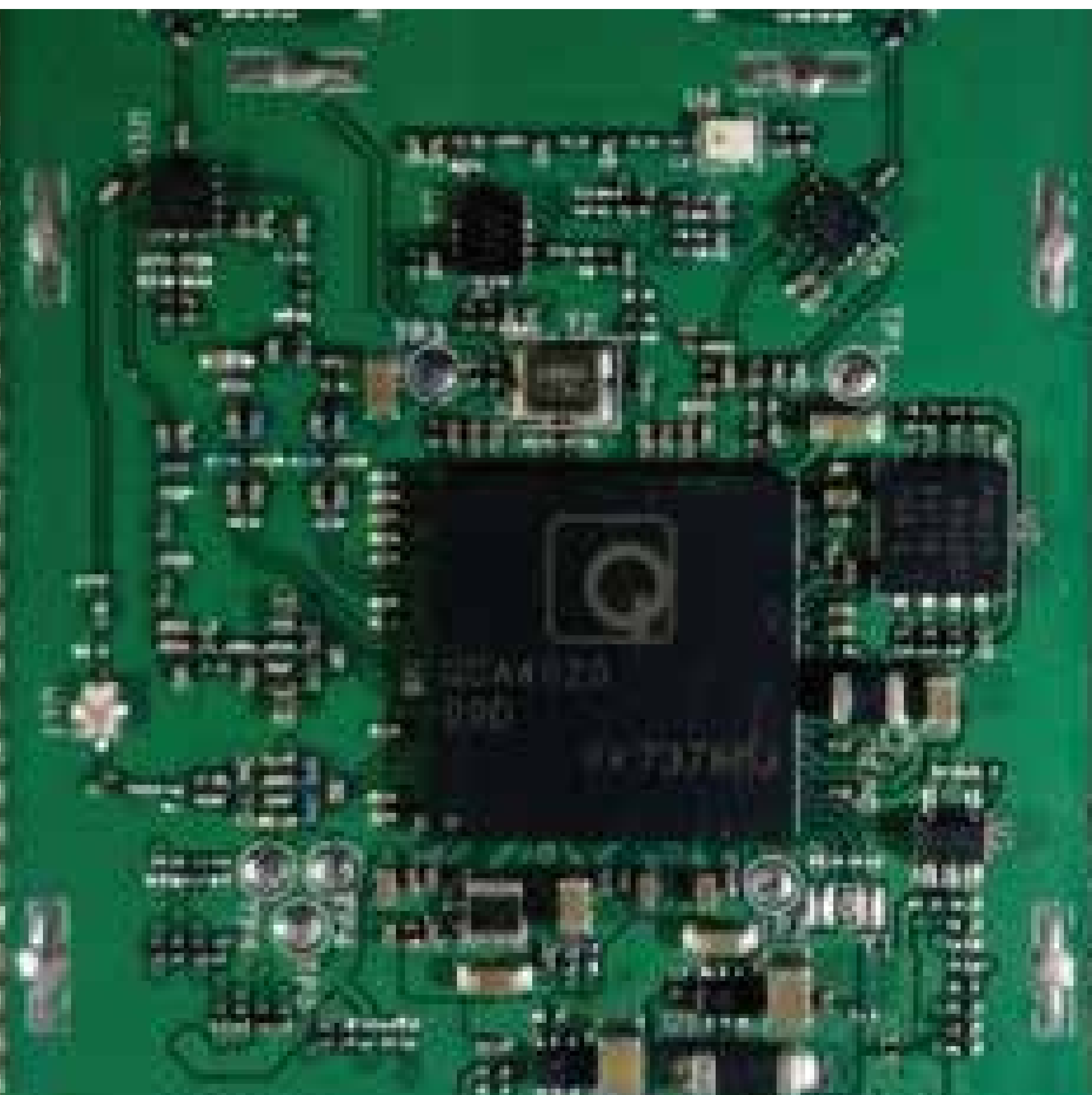


Kemsys KT4020 Module is designed and developed to meet various IoT based applications like Smart Health care, Smart Home & building, Security, Smart retail etc. The product has been designed considering the techno-operational aspects of various end applications and, ease of installation and operation of the product.

IoT hardware,
software and
smart product
development

Specifications:

- Operating Voltage: 3.3V Supply Voltage
- RFin: Maximum RF input (reference to 50-ohm input): +10 dBm
- Operating Temperature: -40°C to +115 °C
- Operating Frequency:
 - BLE: 2.412 to 2.484 GHz
 - Wi-Fi: Dual Band (2.4GHz/5 GHz)
- Module package type: Surface Mount
- Antenna: PCB
- Module Size: 34 x50 mm, 80 PINs



Inside KT4020 Module:

The QCA4020 Chip contains three processors:

- ARM Cortex-M4F @ up to 128 MHz is used as an application processor
- ARM Cortex-M0 @ 64 MHz, which is utilized as the connectivity processor for the BLE system
- XTENSA7 running at 130MHz, which is a dedicated processor to run the Wi-Fi dual band function

Additional Interfaces

- Up to 2 I2C interface
- Up to 1 SPI Master interface
- Up to 1 SD master for memory card interface (SDIO)
- Up to 6 Sensor ADC inputs
- Up to 2 high speed UART interface
- Up to 6 Sensor ADC (up to 8-channels, 12-bit, 1Msps) for sensor application
- Up to 8 PWM for LED lighting application
- Extra GPIOs for application-specific use
- 3 JTAG debug port
- I2S & Keypad Interface

System Cost Optimization:

- Highly-Integrated Wi-Fi solution
- Matching components to complete the RF link
- Integrated IPv4/IPv6 TCP/IP stack
- Integrated Network services such as HTTP, DNS, FTP
- KT4020 patch firmware is stored and automatically loaded from a low cost serial flash memory of 64Mb (8Mx8).

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Contact Us

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Wi-Fi & BLE Module Features



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Wi-Fi Features:

- Integrated WLAN PA and LNA (Low Noise Amplifier)
- Dedicated WLAN antenna
- 18dBm Tx Power
- -90dBm Rx sensitivity



Bluetooth LE Features:

- Dedicated Antenna & PA (Power Amplifier)
- 4.3dBm Tx Power
- -99dBm Rx sensitivity @ 1Mbps
- RSSI Range 120dBm @ 1Mbps

Configuration Support

- 1x1 dual band 802.11a/b/g/n Wi-Fi Function.
- Bluetooth Low Energy (BLE) compliant to the SIG v5.0 specification.
- Listing (CSL) from the 802.15-2015 specification.

Applications:

- BLE 5.0 to Wi-Fi gateway
- Smart Health care
- Smart Home & building
- Security
- Industrial Applications
- Lighting Applications
- Remote Control
- Smart retail

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