Solution Highlights

Tri-mode intelligent connectivity with advanced smart coexistence

QCA4020 supports integrated Bluetooth 5 and Qualcomm® Mesh connectivity; low power Wi-Fi 802.11n in 2.4GHz/5GHz bands and 802.15.4 which supports ZigBee3.0 and Thread via OpenThread.

Multi-core processing for optimized performance

Dedicated Arm Cortex-M4F CPU for customer applications and low power Arm Cortex-M0 CPU for BLE/802.15.4 protocol and Xtensa-based Wi-Fi CPU (QCA4020 only) to offload Wi-Fi stack.

Advanced hardware-based security features

QCA4020/4 includes hardware-based security features and functions integrated in a single IC, and provides OEMs with the option of replacing external security chips for potential cost savings.

Pre-integrated support for cloud services and multiple protocols

The Qualcomm Network IoT Connectivity Platform provides a full network stack with pre-integrated software for HomeKit and OCF specifications as well as support for AWS IoT SDK and for Microsoft Azure IoT Device SDK to connect devices with the Azure IoT Hub.
Features

- QCA4020 tri-mode SoC integrates Bluetooth 5, dual-band Wi-Fi, and 802.15.4 technologies
- QCA4024 dual-mode SoC integrates Bluetooth 5 and 802.15.4
- Isolated low power processors for connectivity
  - 15.4 SW MAC, 15.4 and BLE drivers, coex management
  - Wi-Fi operations (QCA4020 only)
- Advanced hardware-based security featuring secure boot, trusted execution environment, encrypted storage, key provisioning and wireless protocol security
- Comprehensive set of peripherals and interfaces: SPI, UART, PWM, I²S, I²C, SDIO, ADC and GPIOs
- Integrated sensor hub for post-processing designed to enable low power sensor use cases
- Small package size allows for optimized form factors

Ordering Information

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<tr>
<th>Product Description</th>
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<tr>
<td>QCA4020 SoC /C-Temp</td>
<td>QCA-4020-0-217MSP</td>
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<tr>
<td>QCA4020 SoC /I-Temp</td>
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<td>QCA4024 SoC /C-Temp</td>
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