Qualcomm

Qualcomm QCC730
Dual band micro-power Wi-Fi

Ultra-low micro-power Wi-Fi SoC designed to unleash new battery-powered IoT applications and replace traditionally Bluetooth®-only connectivity.

Qualcomm® QCC730 is an industry-leading 1x1 Wi-Fi 4 transceiver built to deliver ultra-low micro-power Wi-Fi, flexibility to scale, and versatility for ease of design. The selectable power modes and innovative power management allows for exponential battery life for battery-powered or energy-harvested IoT. QCC730 will be complemented by an open-source SDK with a software stack that supports cloud connectivity offloading for a comprehensive solution. It's direct cloud connectivity empowers developers with an alternative to traditionally Bluetooth-only applications.

QCC730 will be driven by an open-source software SDK which will be available on CodeLinaro. It will also be equipped with the Qualcomm® Connectivity Integrated Development Environment based on Microsoft Visual Studio Code (VSCode). The QCC730 specific VSCode extension plugin will be available as open-source software to allow customized VSCode specifically for QCC730.

Modules optimized for size and cost, as well as associated development kits, are available from Qualcomm® Authorized Design Centers to allow quick time-to-market productization.

Highlights

Unbelievably low micro-power Wi-Fi for extremely long battery life

Our selectable power modes and innovative power management maximizes savings for extremely long battery life. QCC730 is our lowest-power Wi-Fi for IoT connectivity, delivering up to 88% lower power compared to previous generation products.

Flexibility to scale

QCC730 offers extreme flexibility for developers by operating in either hostless or hosted mode, supporting internal or external power amplifiers, and having integrated, non-volatile memory.

Versatile system for ease of design

QCC730 has full integration of the on-chip microcontroller, NVM, and SRAM for versatility and ease of design. QCC730 empowers developers with the ability to replace or integrate with traditionally Bluetooth-only applications.

Full cloud connectivity stack

QCC730 is a complete solution with an open-source software SDK that will be available on CodeLinaro, a Microsoft VSCode-based IDE supported by modules optimized for size and cost, along with associated development kits.

Target Applications

- Smart Door Locks
- Wireless Cameras
- Video Doorbells
- Smart Sensors
- Smart Buildings
- Smart Tags

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Features

- Dedicated Arm® Cortex®-M4F processor @ 60 MHz is used as the application processor, which can run with or without RTOS

- Dual band 1x1 802.11 a/b/g/n HT20 and up to MCS3 Wi-Fi function

- On-chip RRAM (NVM) to host application without need of an external NOR flash

- Integrated hardware crypto accelerator

- Advanced power management scheme to intelligently minimize power dissipation for each use case

Specifications

CPU	Cortex®-M4F processor with FPU @ 60 MHz 1.5 MB RRAM (600 KB for Applications) 640 KB SRAM (260 KB for Applications) XiP over QSPI Flash
Wi-Fi	1x1, 2.4/5GHz, 802.11a/b/g/n, HT20, up to MCS3
Security	Cryptographic Accelerator, Secure Boot, Qualcomm® Trusted Execution Environment (TEE), Secure debug
Interfaces	15x GPIO (muxed), SPI, Master QSPI, Master I2C, UART (2-wire)
Package Type	3.3 x 3.58 x 0.55 mm, 0.35 mm pitch, 90-ball WLCSP 22ULL process node

Block Diagram
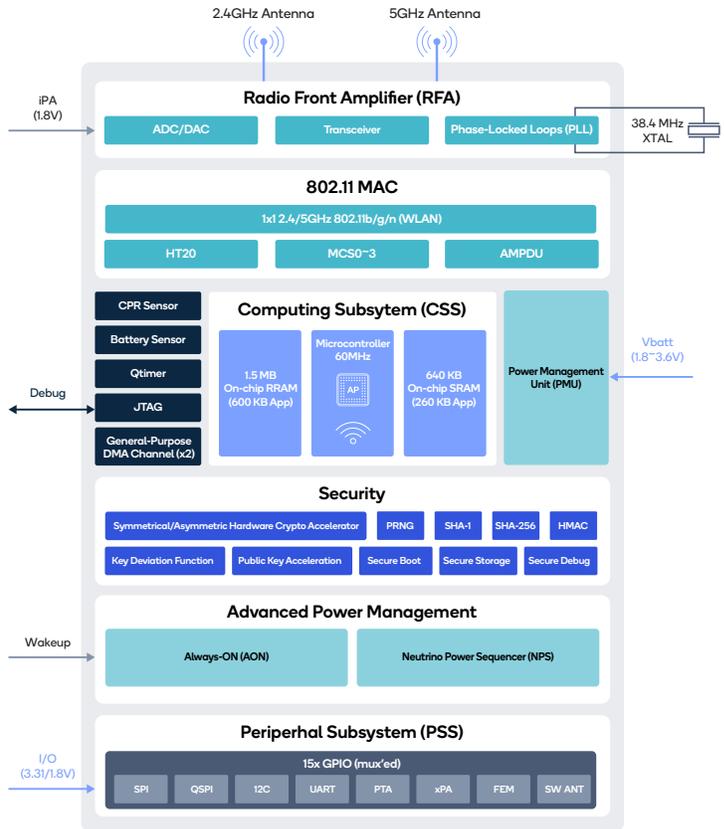
Ordering Information

Product	Part Numbers
QCC730	QCC-730-1-WLPSP90-MT-01-0 (bulk) QCC-730-1-WLPSP90-TR-01-0 (reel)

To learn more visit: qualcomm.com

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