



Kinetis® KW40Z–2.4 GHz Dual Mode: Bluetooth Low Energy and 802.15.4 Wireless Radio Microcontroller (MCU) based on Arm® Cortex®–M0+ Core

KW40Z

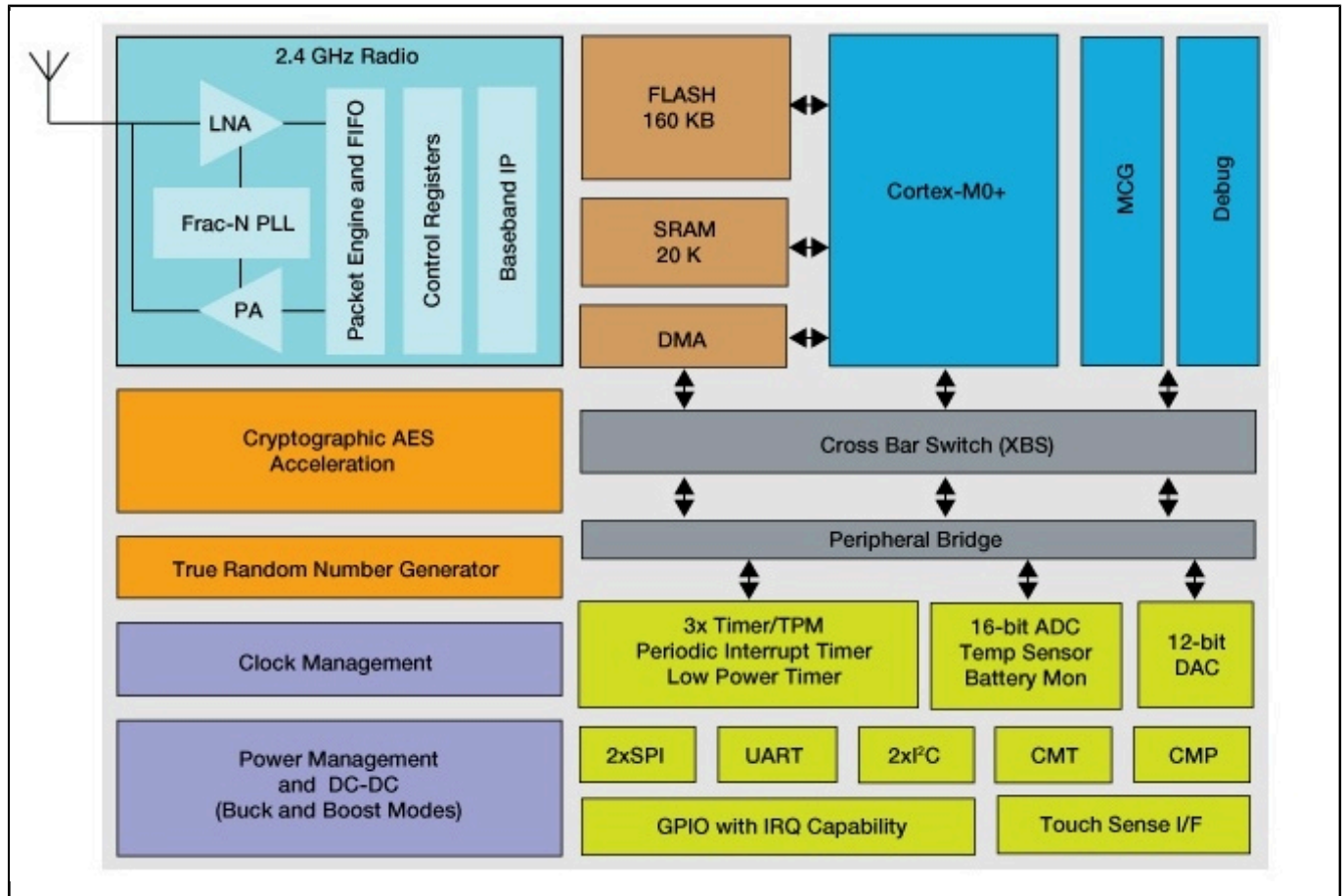
Last Updated: Nov 8, 2022

Note: [K32W061/41](#) is preferred for any new Zigbee®, Thread and Bluetooth® LE 5.0 design. No new software releases planned

The KW40Z is a highly-integrated single-chip device that enables Bluetooth® Smart/Bluetooth® Low Energy v4.1 and IEEE® 802.15.4-2011 RF connectivity for portable, extremely low-power embedded systems. Applications include portable healthcare devices, wearable sports and fitness devices, AV remote controls, computer keyboards and mice, gaming controllers, access control, security systems, smart energy and home area networks.

The KW40Z MCU integrates a 2.4 GHz transceiver supporting a range of FSK/GFSK and O-QPSK modulations, an Arm® Cortex®–M0+ CPU, 160 KB Flash and 20 KB SRAM, Bluetooth Low Energy Link Layer hardware, 802.15.4 packet processor, hardware security and peripherals optimized to meet the requirements of the target applications. The KW40Z has enough on-chip memory to concurrently run both a Bluetooth Low Energy stack and an IEEE 802.15.4 MAC/PHY for multi-mode applications.

Kinetis W Series KW40Z MCUs Block Diagram Block Diagram



View additional information for [Kinetis® KW40Z-2.4 GHz Dual Mode: Bluetooth Low Energy and 802.15.4 Wireless Radio Microcontroller \(MCU\) based on Arm® Cortex®-M0+ Core](#).

Note: The information on this document is subject to change without notice.

www.nxp.com

NXP and the NXP logo are trademarks of NXP B.V. All other product or service names are the property of their respective owners. The related technology may be protected by any or all of patents, copyrights, designs and trade secrets. All rights reserved. © 2024 NXP B.V.