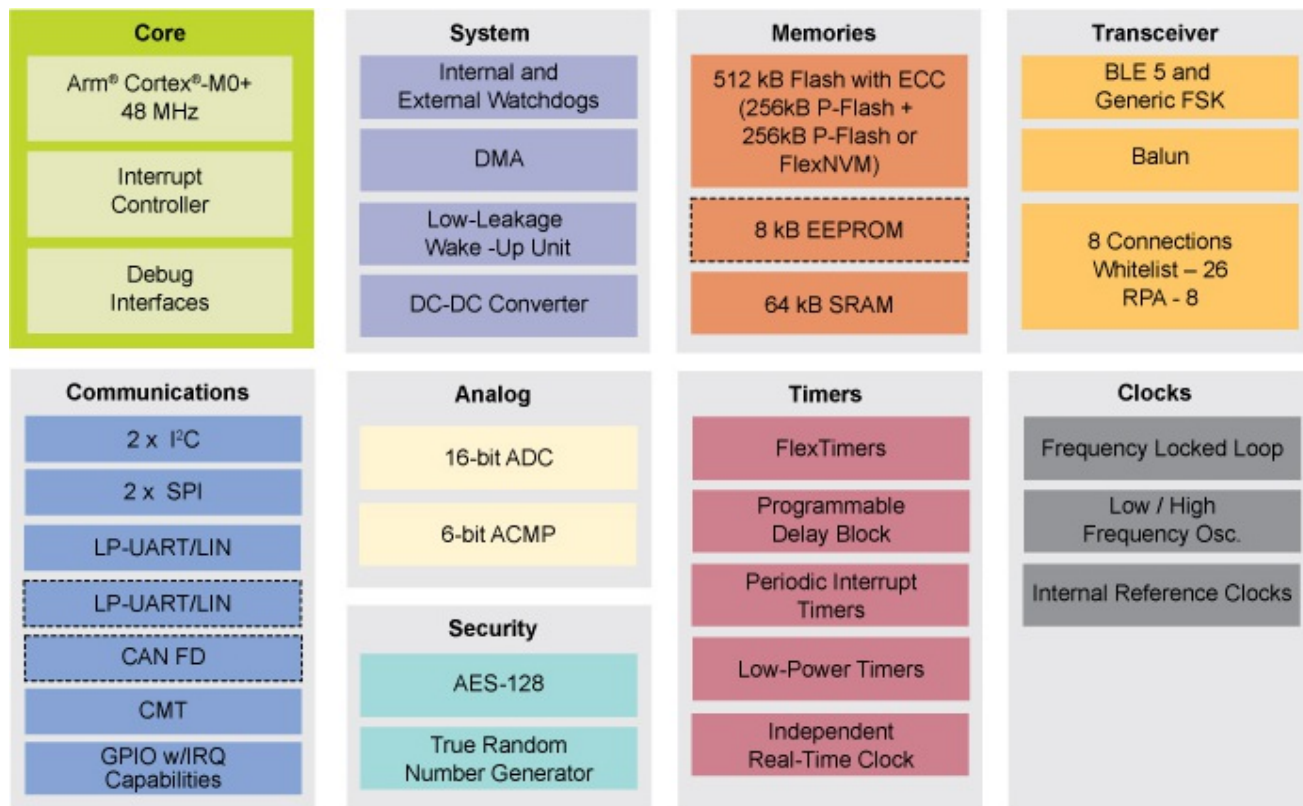


CORTEX-M0+ MICRO-CONTROLLER

Features bluetooth and CAN FD connectivity

NXP has launched the Kinetis KW36 family of MCUs. It is AEC Q100-Grade 2 temperature range qualified.



Proprietary Technology Kinetis KW36 MCU only

The MCU integrates ARM Cortex-M0+ CPU, up to 512 KiB flash memory, and up to 64 KiB SRAM, BLE Link Layer hardware and peripherals including a CAN FD module (Photo: NXP)

The MCUs are intended for automotive applications. They are designed to simplify integration of Bluetooth devices to the CAN FD and LIN-based in-vehicle networks. The CAN FD complies with ISO 11898-1:2015 (also known as ISO CAN FD). The Bluetooth interface (version 5.0) supports bit-rates up to 1 Mbit/s on eight simultaneous BLE (Bluetooth Low Energy) connections as either a master, a slave, or any combination. The micro-controllers are suitable for applications that center on bridging the embedded world to smartphones to enhance the human interface experience, share embedded data with the cloud, or enable wireless firmware updates. Leading the automotive applications is the digital key, in which the smartphone not only can be used as an alternative to the key FOB for unlocking and personalizing the driving experience, but also to provide select and authorized access. This is the case, when a key is not needed like you might see in car sharing.

Emerging BLE smartphone car access systems typically come with an NFC backup option to cover low-battery situations. The MCU's Bluetooth connectivity can also be used to communicate car diagnostics such as tire pressure monitoring systems (TPMS) as well as battery and fuel levels. "With our deep customer intimacy and leadership in automotive, the Kinetis KW35/36 wireless MCU family represents our commitment to deliver innovative solutions that drive better experiences for drivers around the world. This family is the industry's first automotive-qualified BLE family of MCUs with CAN FD allowing for easy integration into an auto in-vehicle communication network," said Emmanuel Sambuis from NXP. "Our goal has always been to provide more secure, connected experiences for drivers. Combining our connectivity technology with automotive grade expectations opens up new opportunities for car manufacturers and drivers." The MCUs enabling automotive manufacturers to deliver added convenience for consumers to control many features using their smartphones, for example unlocking a car, remotely sharing keys with a friend or relative, personalizing seat positions as well as temperature and infotainment settings and controlling interior and/or exterior lighting.

The chips come in a 6 mm x 6 mm QFN package. They are available in samples. Volume production is planned for the second quarter in 2018. Development boards with 2,4-GHz BLE interfaces and generic FSK wireless connectivity are available. The availability of CAN FD and LIN low-level driver software simplifies integration into in-vehicle networks.

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