



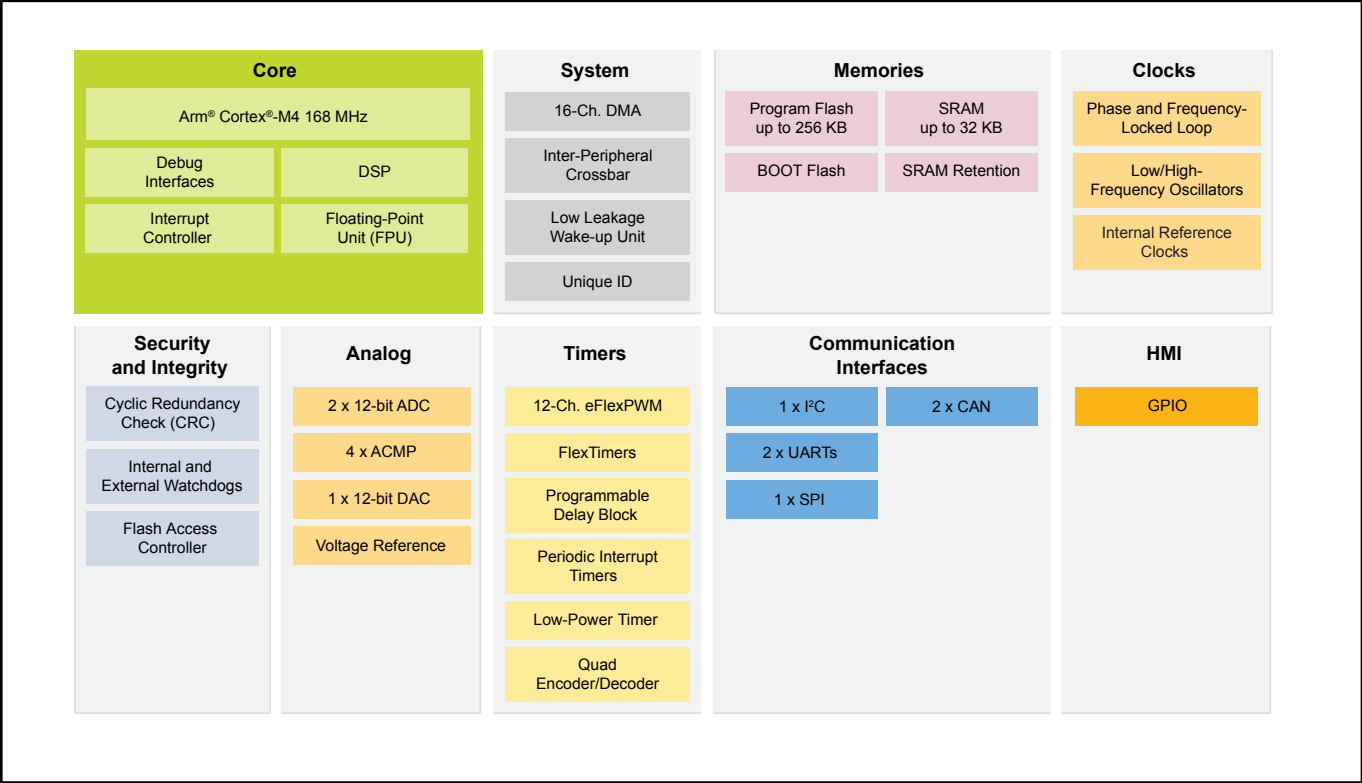
# Kinetis KV4x–168 MHz, High Performance Motor / Power Conversion MCUs based on Arm<sup>®</sup> Cortex<sup>®</sup>–M4

## KV4x

Last Updated: Dec 16, 2024

The Kinetis<sup>®</sup> KV4x family of MCUs is a high-performance solution offering exceptional precision, sensing, and control for some of the most demanding applications in motor and power control. Built upon the Arm<sup>®</sup> Cortex<sup>®</sup>–M4 core running at 168 MHz with DSP and floating point unit, it features advanced high-speed and high-accuracy peripherals such as high-resolution pulse-width modulation (PWM) with 312 picosecond resolution, dual 12-bit analog-to-digital converters (ADCs) sampling at 4.1 mega samples per second (MSPS), a total of 30 PWM channels for support of multi-motor systems and dual FlexCAN modules. To maximize execution performance a 128-bit wide flash interface is utilized. The Kinetis KV4x MCU family is supported by a comprehensive enablement suite from NXP<sup>®</sup> and third-party resources including reference designs, software libraries, and motor configuration tools.

# KV4x MCU Block Diagram



View additional information for [Kinetis KV4x-168 MHz, High Performance Motor / Power Conversion MCUs based on Arm® Cortex®-M4](#).

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