



Flexis™ 32-Bit ColdFire®. V1 Microcontrollers

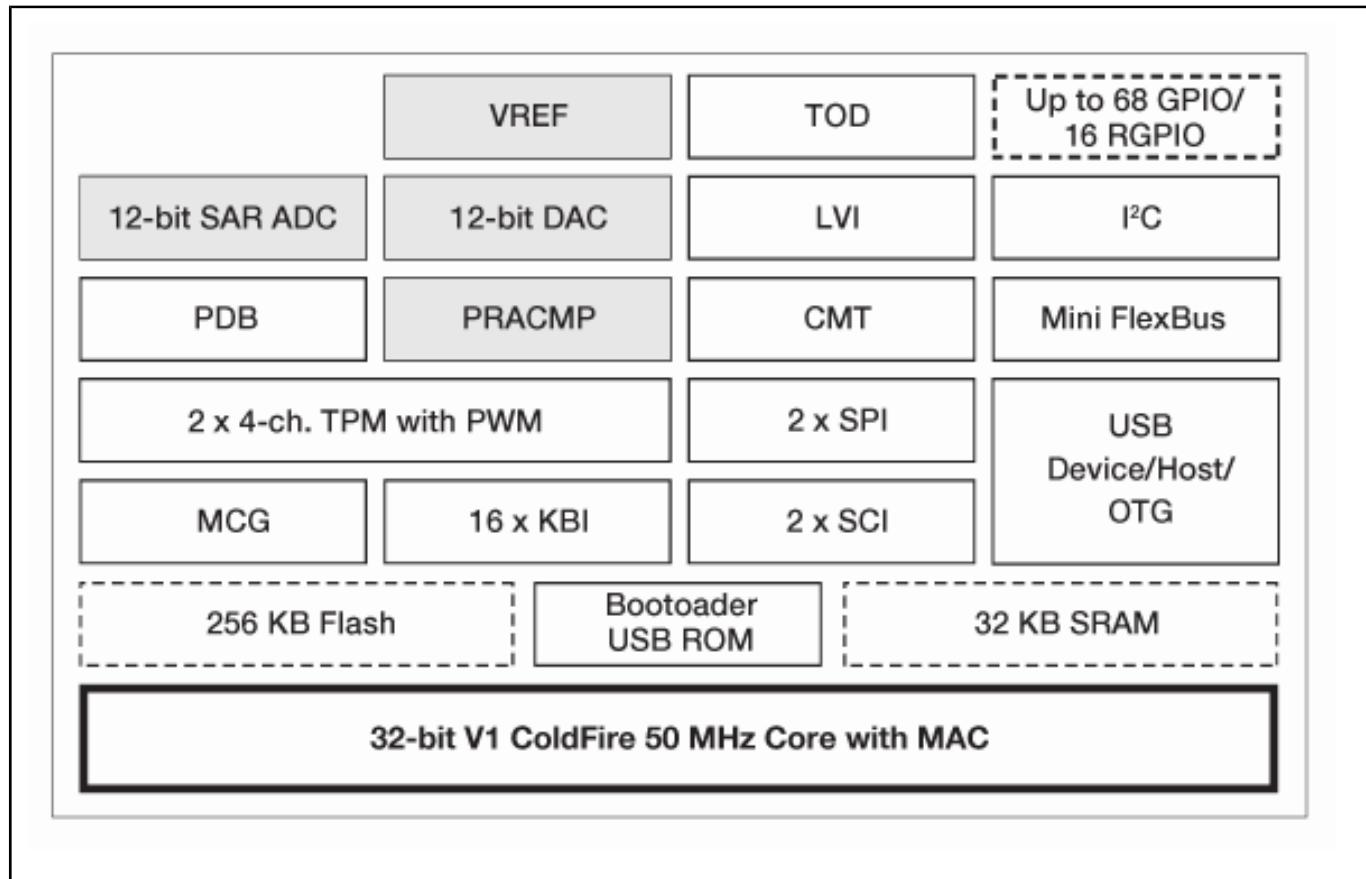
MCF51JE

Last Updated: Jan 8, 2026

The MCF51JE256/128 (JE256/128) provides ultra low-power operation, USB connectivity and high measurement accuracy, all in a single 32-bit microcontroller (MCU), allowing designers to develop a more fully featured system at a lower cost. The JE256/128 integrates high-resolution analog-to-digital converter (ADC) and digital-to-analog converter (DAC) modules, rich peripheral set including a USB 2.0 host/device/on-the-go controller, multiple serial interfaces and an external bus interface.

The JE256/128 is part of Our Flexis® MCU series, which includes both 8-bit S08 and 32-bit V1 ColdFire® MCUs that have a common set of peripherals and development tools to deliver the ultimate in migration flexibility. NXP® provides a comprehensive suite of development tools and software to help developers design quickly and easily.

ColdFire MCF51JE Microcontroller Block Diagram



View additional information for [Flexis™ 32-Bit ColdFire®. V1 Microcontrollers](#).

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. © 2026 NXP B.V.