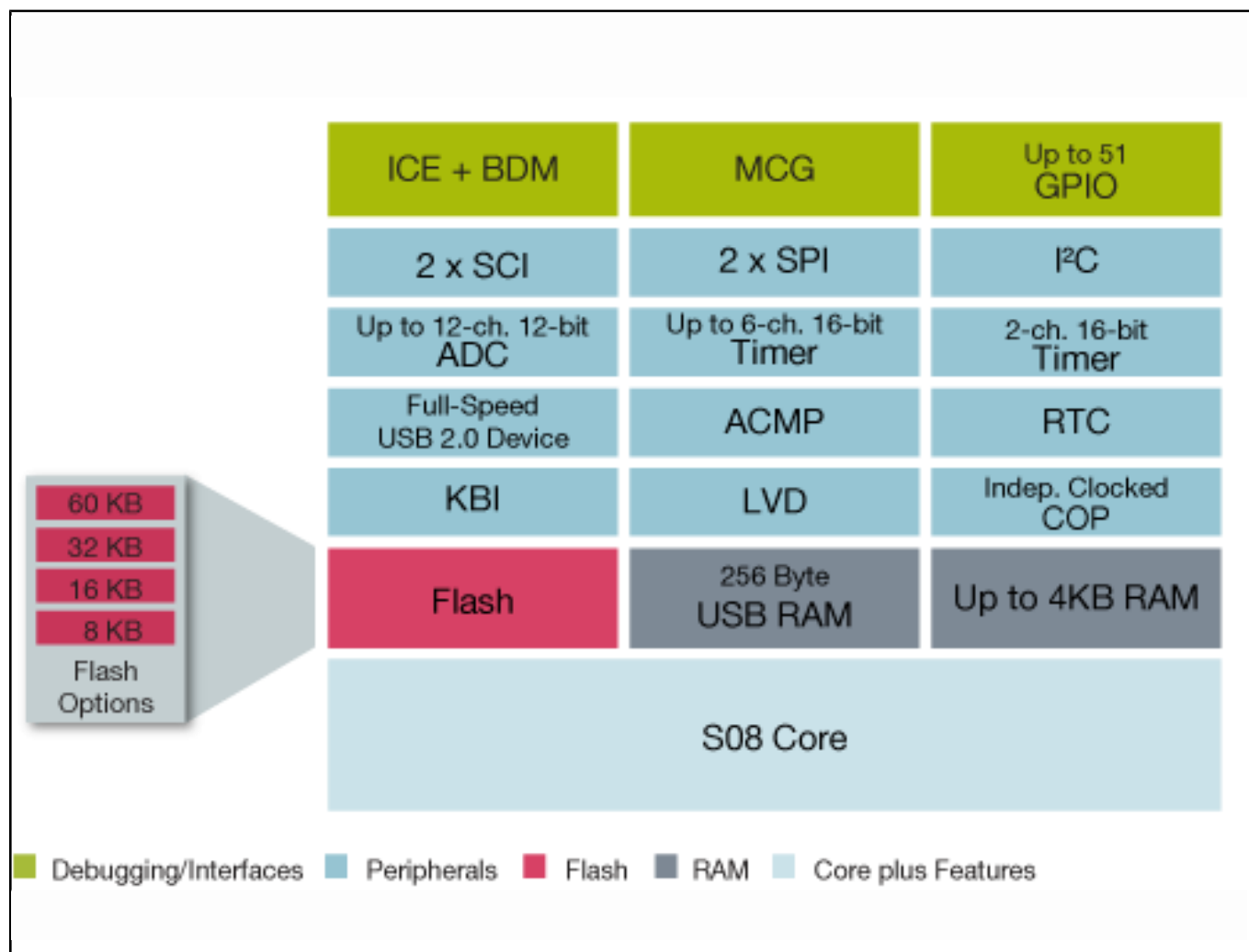# 8-bit USB Cost-Effective JM MCUs

S08JM

Last Updated: Dec 24, 2025

The S08JM family extends NXP's entry-level USB portfolio. Featuring on-chip USB 2.0 full-speed device support, it provides a fast, economical and easy way to standardize serial communications in industrial and consumer applications. All MCUs in the S08JM family use the enhanced S08 core. Additionally, NXP® provides two complimentary USB software stacks to help designers simplify applications with USB functionality: USB-LITE Stack by CMX and the USB-MINI Stack by NXP.

Freescale S08JM Microcontroller Block Diagram Block Diagram

ICE + BDM	MCG	Up to 51 GPIO
2 x SCI	2 x SPI	I²C
Up to 12-ch. 12-bit ADC	Up to 6-ch. 16-bit Timer	2-ch. 16-bit Timer
Full-Speed USB 2.0 Device	ACMP	RTC
KBI	LVD	Indep. Clocked COP
Flash	256 Byte USB RAM	Up to 4KB RAM
S08 Core		

Flash Options: 60 KB, 32 KB, 16 KB, 8 KB

Legend: ■ Debugging/Interfaces ■ Peripherals ■ Flash ■ RAM ■ Core plus Features

View additional information for 8-bit USB Cost-Effective JM MCUs.

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