Kinetis® K64-120 MHz, 256 KB SRAM Microcontrollers (MCUs) Based on Arm® Cortex®-M4 Core

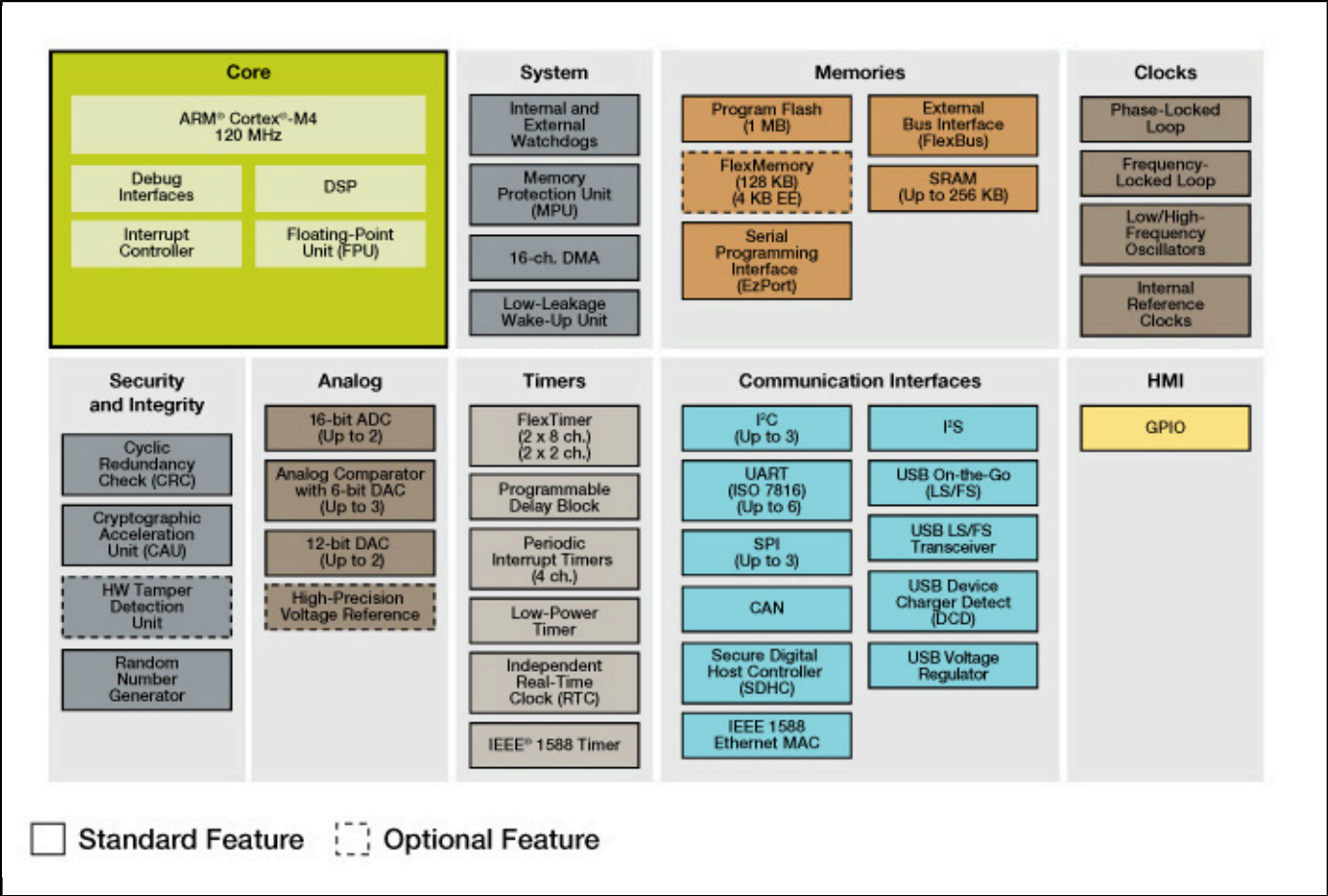## K64_120

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The Kinetis® K series MCU portfolio offers the broadest selection of pin, peripheral- and software-compatible MCU families based on the Arm® Cortex®-M4 core. The Kinetis K64 120 MHz MCUs feature:

- IEEE® 1588 Ethernet MCUs
- Optimization for applications requiring large memory densities and low-power processing efficiency
- Crystal-less USB design for reduced system cost and board space
- The comprehensive enablement and scalability of the Kinetis portfolio

Kinetis K63/K64 MCU Family Block Diagram Block Diagram

Core
- ARM® Cortex®-M4 120 MHz
- Debug Interfaces
- DSP
- Interrupt Controller
- Floating-Point Unit (FPU)

System
- Internal and External Watchdogs
- Memory Protection Unit (MPU)
- 16-ch. DMA
- Low-Leakage Wake-Up Unit

Memories
- Program Flash (1 MB)
- External Bus Interface (FlexBus)
- FlexMemory (128 KB) (4 KB EE)
- SRAM (Up to 256 KB)
- Serial Programming Interface (EzPort)

Clocks
- Phase-Locked Loop
- Frequency-Locked Loop
- Low/High-Frequency Oscillators
- Internal Reference Clocks

Security and Integrity
- Cyclic Redundancy Check (CRC)
- Cryptographic Acceleration Unit (CAU)
- HW Tamper Detection Unit
- Random Number Generator

Analog
- 16-bit ADC (Up to 2)
- Analog Comparator with 6-bit DAC (Up to 3)
- 12-bit DAC (Up to 2)
- High-Precision Voltage Reference

Timers
- FlexTimer (2 x 8 ch.) (2 x 2 ch.)
- Programmable Delay Block
- Periodic Interrupt Timers (4 ch.)
- Low-Power Timer
- Independent Real-Time Clock (RTC)
- IEEE® 1588 Timer

Communication Interfaces
- I²C (Up to 3)
- I²S
- UART (ISO 7816) (Up to 6)
- USB On-the-Go (LS/FS)
- SPI (Up to 3)
- USB LS/FS Transceiver
- CAN
- USB Device Charger Detect (DCD)
- Secure Digital Host Controller (SDHC)
- USB Voltage Regulator
- IEEE 1588 Ethernet MAC

HMI
- GPIO

☐ Standard Feature   ⬚ Optional Feature

View additional information for Kinetis® K64-120 MHz, 256 KB SRAM Microcontrollers (MCUs) Based on Arm® Cortex®-M4 Core.

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