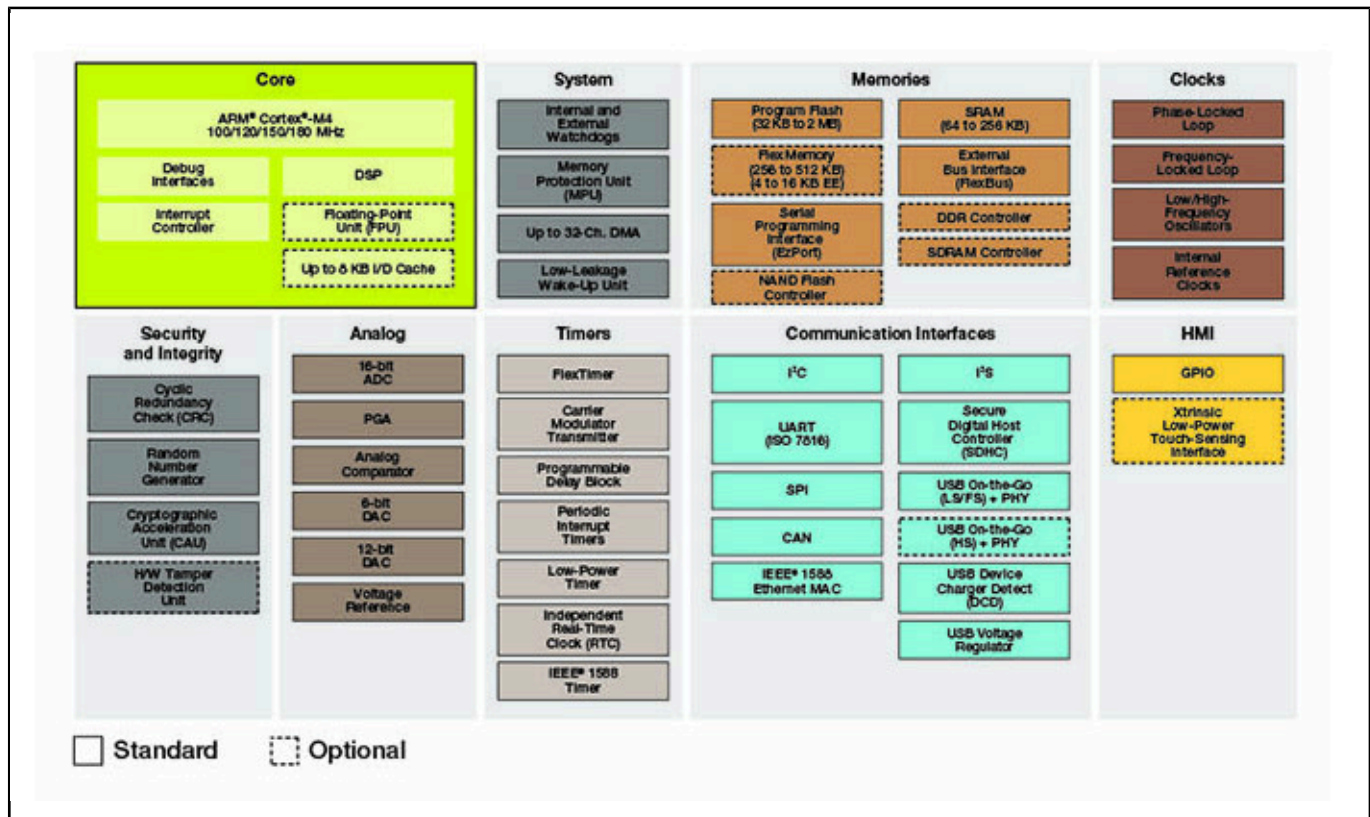# Kinetis® K60-100 MHz, Mixed-Signal Integration Microcontrollers based on Arm® Cortex®-M4 Core

K60_100

Last Updated: Mar 5, 2025

The Kinetis® K60 100 MHz IEEE® 1588 Ethernet MCUs are built on the Arm® Cortex®-M4 core and feature advanced analog integration and serial communication. Available down to a 5 mm x 5 mm wafer-level chip-scale package (WLCSP), these devices maximize board space and enhance performance with minimum-length interconnections, allowing the miniaturization of existing applications. This family shares the comprehensive enablement and scalability of the Kinetis portfolio.

Kinetis K6x MCU Family Block Diagram Block Diagram

Core
ARM® Cortex®-M4 100/120/150/180 MHz
Debug Interfaces
DSP
Interrupt Controller
Floating-Point Unit (FPU)
Up to 8 KB I/D Cache

System
Internal and External Watchdogs
Memory Protection Unit (MPU)
Up to 32-Ch. DMA
Low-Leakage Wake-Up Unit

Memories
Program Flash (32 KB to 2 MB)
SRAM (64 to 256 KB)
Flex Memory (256 to 512 KB) (4 to 16 KB EE)
External Bus Interface (FlexBus)
Serial Programming Interface (EzPort)
DDR Controller
SDRAM Controller
NAND Flash Controller

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

Security and Integrity
Cyclic Redundancy Check (CRC)
Random Number Generator
Cryptographic Acceleration Unit (CAU)
H/W Tamper Detection Unit

Analog
16-bit ADC
PGA
Analog Comparator
6-bit DAC
12-bit DAC
Voltage Reference

Timers
FlexTimer
Carrier Modulator Transmitter
Programmable Delay Block
Periodic Interrupt Timers
Low-Power Timer
Independent Real-Time Clock (RTC)
IEEE® 1588 Timer

Communication Interfaces
I²C
I²S
UART (ISO 7816)
Secure Digital Host Controller (SDHC)
SPI
USB On-the-Go (LS/FS) + PHY
CAN
USB On-the-Go (HS) + PHY
IEEE® 1588 Ethernet MAC
USB Device Charger Detect (DCD)
USB Voltage Regulator

HMI
GPIO
Xtrinsic Low-Power Touch-Sensing Interface

☐ Standard   ⌐ ¬ Optional

View additional information for Kinetis® K60-100 MHz, Mixed-Signal Integration Microcontrollers based on Arm® Cortex®-M4 Core.

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