KE1xZ: Arm® Cortex®-M0+ 5V Main Stream MCU with NXP Touch and CAN Control
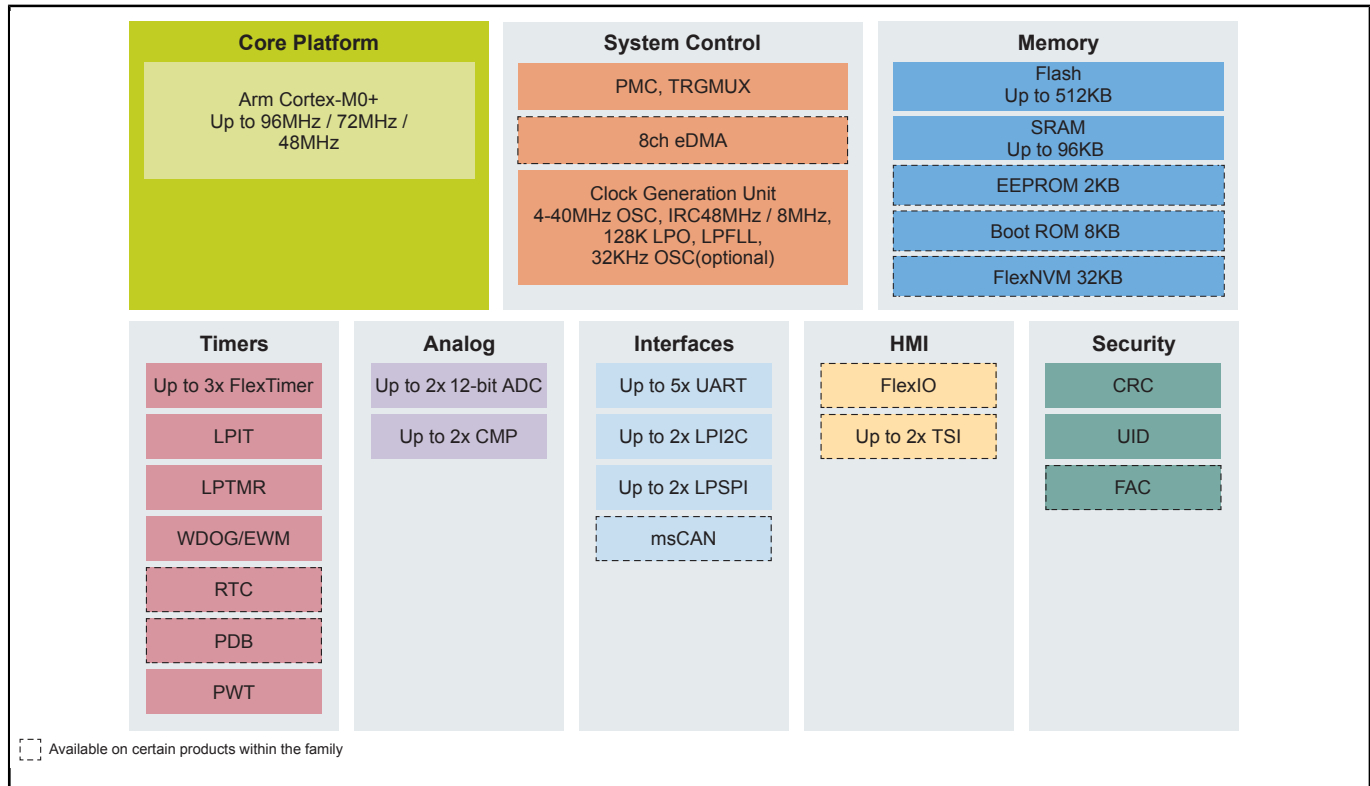
KE1xZ

Last Updated: May 2, 2024

KE1xZ MCUs are based on the Arm®Cortex®-M0+ core, running up to 96 MHz. These MCUs support up to 512 KB flash, 96 KB RAM, and a complete set of analog/digital features. The robust TSI module with up to 50 channels provides a high level of stability and accuracy to any HMI system. The 1-Msps ADC and FlexTimer modules provide an ideal solution for BLDC motor-control systems.

The MSCAN IP is ideal for the CAN node control and auto after car market applications.

This device is fully supported by NXP's MCUXpresso Software and Tools, a comprehensive and cohesive set of free software development tools for Kinetis, LPC and i.MX RT microcontrollers. MCUXpresso SDK also includes project files for Keil MDK and IAR Embedded Workbench for Arm.

Kinetis KE1xZ MCU Family Block Diagram

Core Platform

Arm Cortex-M0+
Up to 96MHz / 72MHz /
48MHz

System Control

PMC, TRGMUX

8ch eDMA

Clock Generation Unit
4-40MHz OSC, IRC48MHz / 8MHz,
128K LPO, LPFLL,
32KHz OSC(optional)

Memory

Flash
Up to 512KB

SRAM
Up to 96KB

EEPROM 2KB

Boot ROM 8KB

FlexNVM 32KB

Timers

Up to 3x FlexTimer

LPIT

LPTMR

WDOG/EWM

RTC

PDB

PWT

Analog

Up to 2x 12-bit ADC

Up to 2x CMP

Interfaces

Up to 5x UART

Up to 2x LPI2C

Up to 2x LPSPI

msCAN

HMI

FlexIO

Up to 2x TSI

Security

CRC

UID

FAC

Available on certain products within the family

View additional information for KE1xZ: Arm® Cortex®-M0+ 5V Main Stream MCU with NXP Touch and CAN Control.

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