

Product One-Sheet

Freescale Freedom FRDM-KEA Development Platform

Rapidly develop & prototype your
Ultra-Reliable applications

Overview

The Freescale Freedom development platform is a small, cost effective evaluation and development system for quick application prototyping and demonstration of Ultra-Reliable Industrial and Automotive Microcontroller (MCU) families.

Each platform offers an easy-to-use mass-storage device mode flash programmer, virtual serial port and classic programming and run-control capabilities.

FRDM-KEA Features

- Kinetis EA microcontroller based on ARM® Cortex® -M0+, up to 48 MHz
- Cost-effective—starting at \$29.00 resale
- Small form factor size
- Arduino™ UNO footprint-compatible with expansion “shield” support
- Easy access to the MCU I/O pins
- Integrated open-standard serial and debug adapter (OpenSDA) with support for several industry-standard debug interfaces.
- On-chip connectivity for CAN, LIN and Ethernet
- Potentiometer for voltage and analog measurement
- Tri-color RGB LED
- Flexible power supply options—microUSB or external 12V power supply
- Similar hardware platform across Kinetis, S12 and Power Architecture MCU products

Features

 Supports KEA MCUs	 Potentiometer and RGB LED
 CAN/LIN/Ethernet Connectivity	 Ultra-Reliable MCUs

Example Freescale Freedom Platform:
FRDM-KEAZ128



KEA

Part Number	Flash	ARM Core	Communication	Package
FRDM-KEAZ128Q80	128 KB	Cortex M0+	CAN and LIN/UART	80 LQFP
FRDM-KEAZ64Q64	64 KB	Cortex M0+	CAN and LIN/UART	64 LQFP
FRDM-KEAZN32Q64	32 KB	Cortex M0+	LIN/UART	64 LQFP

For more information, visit
freescale.com/FRDM-KEA

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Software Enablement and Support

- Full featured, complimentary IDE S32 Design Studio
- Support in Kinetis Design Studio, CodeWarrior, ARM Keil® tool and IAR
- Freescale Software Development Kit (SDK) incl. bare metal drivers for CAN, LIN, Flash, PWM and peripherals
- P&E Multilink enabled through the built-in USB flash programming interface (OpenSDA).
- Simply plug it in, drop on a binary program and it's up and running
- Step-by-step guide with many demo code examples

OpenSDA: Open-Standard Serial And Debug Adapter

- Bridges serial and debug communications between a USB host and an embedded target processor
- Features a mass storage device bootloader that provides a quick and easy mechanism for loading OpenSDA enabled applications:
 - Flash programmers
 - Run-control debug interfaces
 - Serial-to-USB converters
 - SEGGER OpenSDA firmware (makes OpenSDA compatible to J-Link Lite)