

FRDM-K20D50M: Freescale Freedom Development Platform for the Kinetis K20 USB MCUs ☆

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The FRDM-K20D50M is an ultra-low-cost development platform enabled by the Kinetis [K20 USB MCU](#) family built on the ARM® Cortex™-M4 processor. Features include the Freescale open standard embedded serial and debug adapter (OpenSDA), providing easy access to MCU I/O, battery-ready, low-power operation, a standard-based form factor with expansion board options and a built-in debug interface for flash programming and run-control. The FRDM-K20D50M is supported by a range of Freescale and third-party development software.

This hardware can be purchased through Freescale distribution partners.

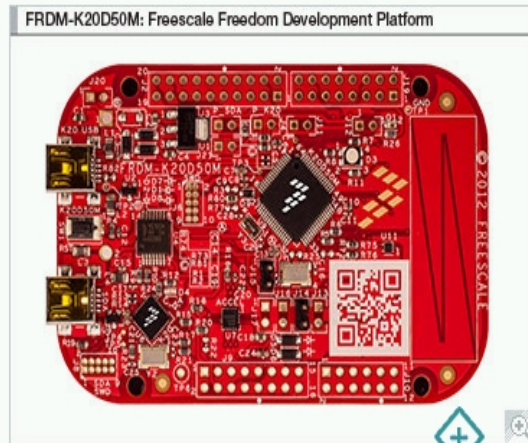
Features

- MK20DX128VLH5 MCU - 50 MHz, 128 KB Flash, 16 KB RAM, 32 KB FlexNVM, low power, 64 LQFP package
- Dual role USB interface with mini-B USB connector
- Open SDA
- Capacitive touch slider
- Ambient light sensor
- MMA8451Q accelerometer
- Tri-color (RGB) LED
- Flexible power supply options – USB, coin cell battery, external source
- Battery-ready, power-measurement access points
- Easy access to MCU I/O via Arduino™ R3 compatible I/O connectors
- Programmable OpenSDA debug interface with multiple applications available including:
 - Mass storage device flash programming interface
 - P&E debug interface provides run-control debugging and compatibility with IDE tools
 - CMSIS-DAP interface: new ARM® standard for embedded debug interface
 - Data logging application
- Arduino R3 compatibility provides broad range of expansion board options

Related Software and Tools

[CW-MCU10](#): CodeWarrior for MCUs (Eclipse IDE) - ColdFire, 56800/E DSC, Kinetis, Qoriva 56xx, RS08/S08, S12Z
[TSS](#): Xtrinsic Touch-Sensing Software
[PE_DRIVER_SUITE](#): Processor Expert Software, Microcontroller Driver Suite

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Supported Devices

[K20 USB MCUs](#)

Featured Documentation

[FRDM-K20D50MUM](#): FRDM-K20D50M User's Manual
[KNTSK20FMLYFS](#): Kinetis K20 Family: Low-power MCUs with USB On-The-Go - Fact Sheet
[FREEDEVPLTOVERFS](#): Freescale Freedom Development Platform - Fact Sheet

Current Updates and Releases

[FRDM-K20D50M_QSP](#): FRDM-K20D50M Quick start package
[FRDM-K20D50M_SCH](#): FRDM-K20D50M Schematic
[KINETIS_50MHZ_SC](#): Kinetis 50MHz bare metal sample code

Jump Start Your Design

Start Here! Quick Start for the FRDM-K20D50M

Get started out of the box with the FRDM-K20D50M.

Get started with the FRDM-K20D50M and IAR EWARM

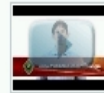
Get started out of the box with the FRDM-K20D50M and IAR ...

Kit Contains

- FRDM-K20D50M Hardware
- Quick Reference Card

Additional hardware required: USB A-to-MiniB cable (not included)

Featured Video



Introducing the Freescale Freedom Development Platform FRDM-

[KL25Z](#)
(04:53 min)