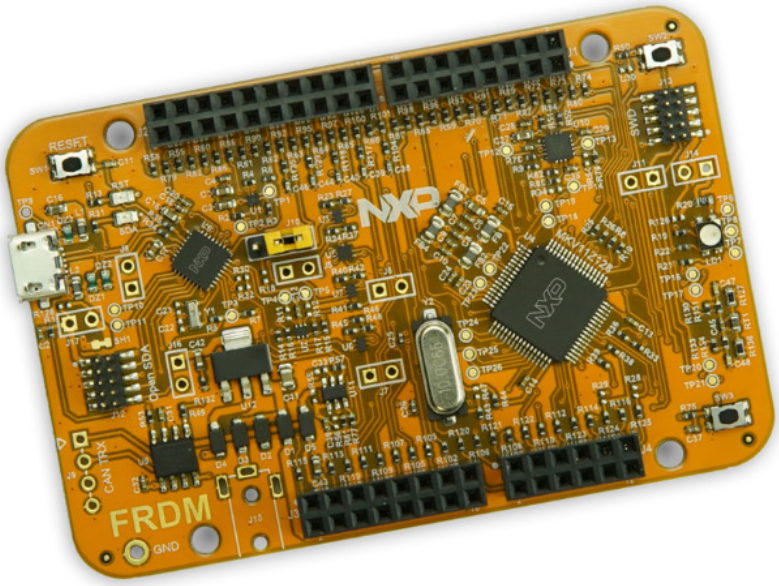
FRDM-KV11Z: Freedom Development Platform for Kinetis® KV1x Family 128 KB, 64 KB, 32 KB and 16 KB Flash MCUs



Overview

The FRDM-KV11Z is a low-cost development tool for the Kinetis® V series KV1x MCU family built on the ARM®Cortex®-M0+ processor. The FRDM-KV11Z hardware is form-factor compatible with the Arduino™ R3 pin layout, providing a broad range of expansion board options. The FRDM-KV11Z platform features OpenSDA, the NXP®open source hardware embedded serial and debug adapter running an open source bootloader. This circuit offers several options for serial communication, flash programming, and run-control debugging. The FRDM-KV11Z is supported by a range of NXP and third-party development software including the Kinetis Motor Suitefor rapid development of motor control applications.

Features

- MKV11Z128VLF7 MCU (ARM® Cortex®M0+ 75 MHz, 128 KB Flash, 16 KB SRAM, 1xFlexCAN, 16-bit ADC and FlexTimers with quadrature decoder dedicated to motor and power control, 48 LQFP)
- Enabled with Kinetis® Motor Suite, software solution that enables the rapid configuration of motor drive systems, and accelerates development of the final motor drive application, whilst improving overall motor system performance
- Six axis sensor combining accelerometer and magnetometer (FXOS8700CQ)
- Tri-color user-controllerable LEDs
- User controlled push-button switches
- FlexCAN I/O supported
- Thermistor sensor to measuring temperature
- Motor control auxiliary connector
- Form factor compatible with Arduino™ R3 pin layout
- New, OpenSDA debug interface from P&E
  - FRDM-KV11Z Mass storage device flash programming interface (default) – no tool installation required to evaluate demo apps
  - P&E Debug interface provides run-control debugging and compatibility with IDE tools
- Power selectable 3.3 V/1.8 V

Kit Contains

- FRDM-KV11Z Freedom Development Platform
- Quick Start Guide
- USB A-to-MicroB cable

Supported Devices

- KV1x: Kinetis® KV1x-75 MHz, Entry-level 3ph FOC / Sensorless Motor Control MCUs based on Arm® Cortex®-M0+