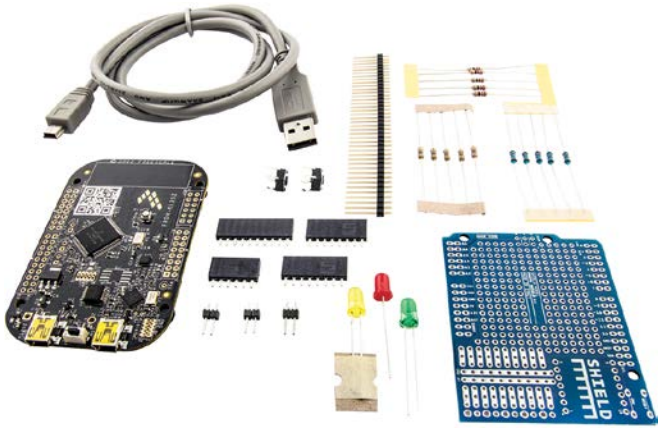
Eval Proto Kit
Kinetis KL25Z Freedom Platform



Description:

The Freescale Freedom development platform is a low-cost evaluation and development platform featuring Freescale's newest ARM® Cortex™-M0+ based Kinetis KL25Z MCUs

Specifications:

Silicon Manufacturer	: Freescale
Core Architecture	: ARM
Core Sub-Architecture	: Cortex - M0+
Silicon Core Number	: MKL2
Silicon Family Name	: Kinetis - KL2

Features:

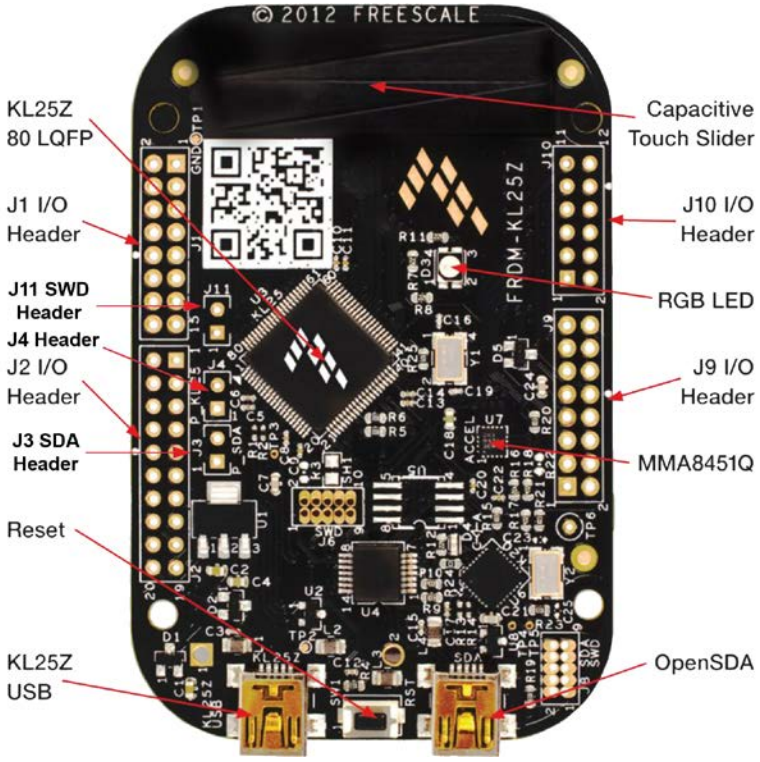
- KL25Z128VLK4-Cortex-M0+ MCU with:
  - 128kB flash, 16kB SRAM
  - Up to 48MHz operation
  - USB full-speed controller
- OpenSDA-sophisticated USB debug interface
- Tri-color LED
- Capacitive touch “slider”
- Freescale MMA8451Q accelerometer
- Flexible power supply options
  - Power from either on-board USB connector
  - Coin cell battery holder (optional population option)
  - 5V to 9V$_{VIN}$ from optional IO header
  - 5V provided to optional IO header
  - 3.3V to or from optional IO header
- Reset button
- Expansion IO form factor accepts peripherals designed for Arduino™-compatible hardware

Kit Contents:

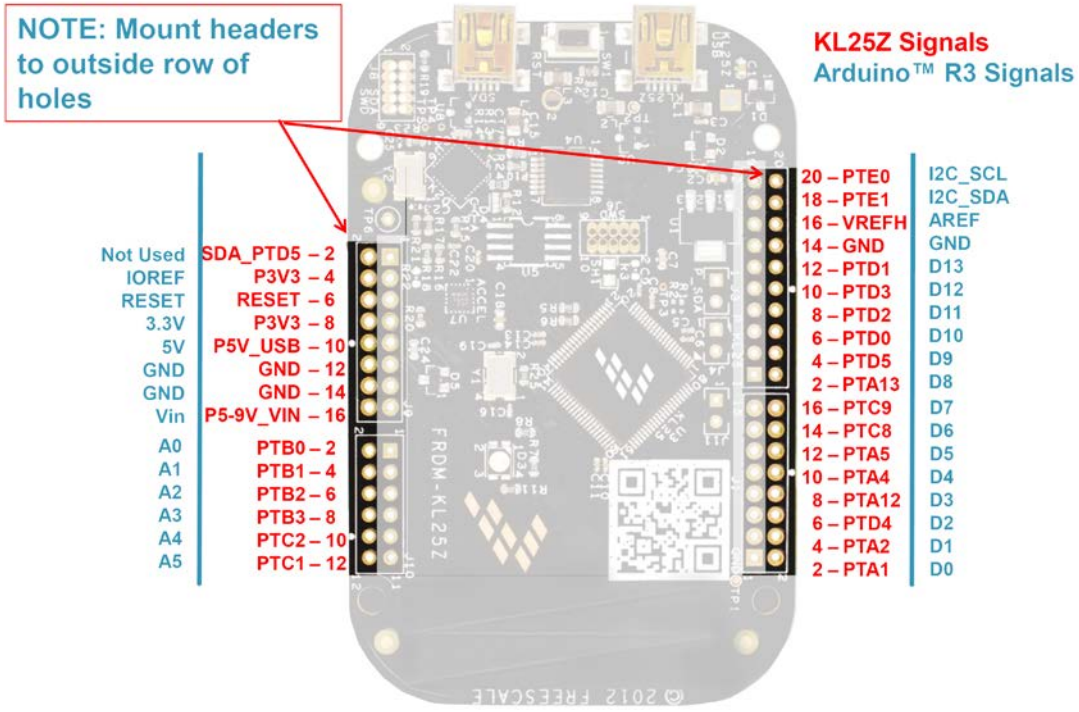
Description	Qty	Part Number
Samtec Socket, 2.54mm, 1 × 6 Pos	1	SSW-106-01-T-S
Samtec Socket, 2.54mm, 1 × 8 Pos	2	SSW-108-01-T-S
Samtec Socket, 2.54mm, 1 × 10 Pos	1	SSW-110-01-T-S
Samtec Header, 2.54mm, THT VERT, 2 Pos	3	TSW-102-07-T-S
Multicomp Mini USB cable	1	SPC20060
Freescale Freedom Platform	1	FRDM-KL25Z
Arduino Proto Shield Kit	1	A000083

Ordering Information

Description	Part Number
Eval Proto Kit, Kinetis KL25Z Freescale Freedom Platform	FRDMKL25Z PROTO BUNDLE



FRDM-KL25Z Single Row/Arduino Header Layout



Attaching Single Row Headers to the Freedom Platform

This special bundle includes headers that can be soldered to the board to give you access to additional Arduino™-compatible hardware – commonly referred to as “Shields”.

To attach the single row headers to the Freedom Platform, please reference the “FRDM-KL25Z Single Row/Arduino Header Layout” diagram. Attaching these headers to the outside row of I/O holes on the board give you access to the unlimited potential of access to peripherals designed for Arduino™-compatible hardware. Using optional dual row headers are also acceptable, but are not needed to use Arduino™-compatible hardware/ shields.

Header	Positions on Board
SAMTEC SSW-106-01-T-S	J10
SAMTEC SSW-108-01-T-S	J1,J9
SAMTEC SSW-110-01-T-S	J2
SAMTEC TSW-102-07-T-S	J3, J4, J11 *

* Three of these headers have been included for additional/ advanced features that are available on positions J3, J4, and J11 and are not necessary for use with Arduino™-compatible hardware/ shields . Details of their functionality can be found in the Freedom Platform documentation.

Arduino Proto Shield Kit Content:

Material	Qty
Straight single line pinhead connectors 40 × 1	1
Straight single line pinhead connectors 3 × 2	1
PCB Pushbutton	2
Red LED	1
Yellow LED	1
Green LED	1
10KΩ Resistors 1/4W	5
220Ω Resistors 1/4W	5
1KΩ Resistors 1/4W	5

On the Proto Shield PCB you will find:

- ICSP header
- Led1 and Led2 headers (with resistor headers)
- S1 Button header
- SOIC prototyping area up to 14-pin SOIC chip, narrow medium or wide package.
- 10 bigger holes for special needs
- Long and easy-to-solder ground / 5V rails

The 1.0 standard pinout consist in 4 additional pins: 2 of them placed near the AREF pin, that are used for TWI communication, and the other 2 are placed near the RESET pin. The IOREF pin is used to adapt the shield to the board on which is mounted. The last one is not connected and is reserved for future uses.

Note:

Also available the supplemental bundle - Newark Order Code 54W6564

The Freescale Freedom development platform is form-factor compatible with popular third-party hardware designed to work with Arduino™ and Arduino-compatible boards, providing engineers the “freedom” to connect to a broader range of expansion boards.

Also available is a case for the Freedom Platform - Newark Order Code 55W6264