

# Eval Basic 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<sub>VIN</sub> 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:

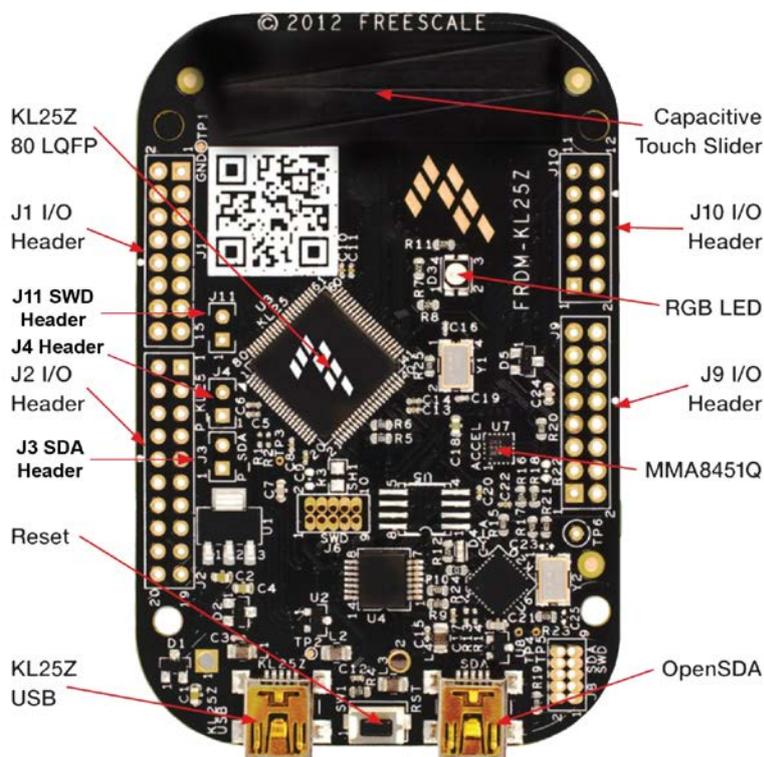
Description	Qty	Part Number
Samtec Socket, 2.54mm, 1 × 6 Pos	1	SSW-106-01-T-S
Samtec Socket, 2.54mm, 1 × 8 Pos	2	SSW-108-01-T-S
Samtec Socket, 2.54mm, 1 × 10 Pos	1	SSW-110-01-T-S
Samtec Header, 2.54mm, THT VERT, 2 Pos	3	TSW-102-07-T-S
Multicomp Mini USB cable	1	SPC20060
Freescale Freedom Platform	1	FRDM-KL25Z

### Ordering Information

Description	Part Number
Eval Basic Kit, Kinetis KL25Z Freescale Freedom Platform	FRDMKL25Z BASIC BUNDLE

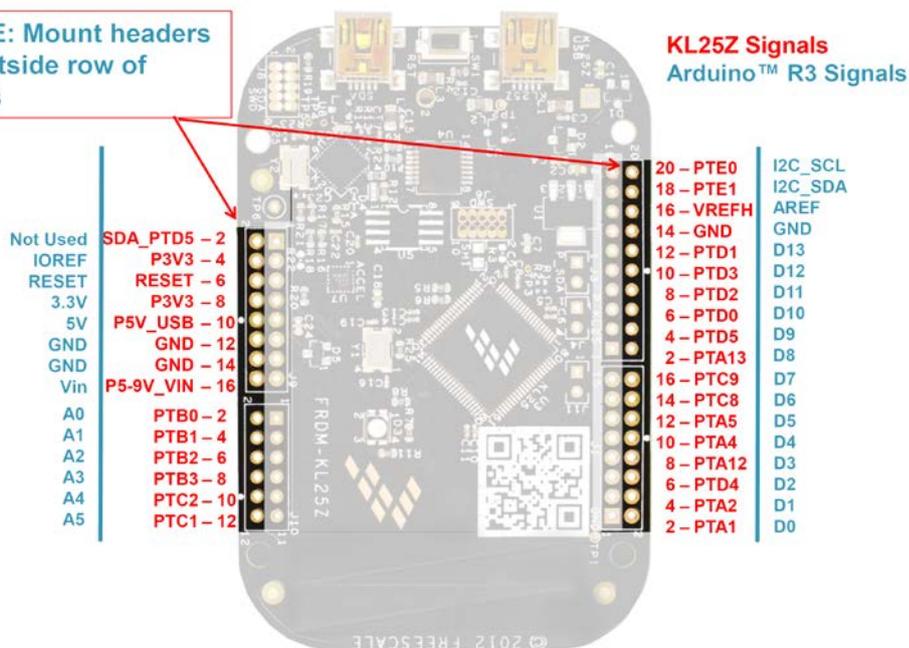
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### FRDM-KL25Z Single Row/Arduino Header Layout

**NOTE:** Mount headers to outside row of holes



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### 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.

#### 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