Freedom KL03Z Platform Pin-Out Connections

The Freescale Freedom development platform is a set of software and hardware tools for evaluation and development. It is ideal for rapid prototyping of microcontroller-based applications. The Freescale Freedom KL03Z hardware, FRDM-KL03Z, is a simple, yet sophisticated design featuring a Kinetis L Series microcontroller, built on the ARM® Cortex®-M0+ core.

This engineering bulletin provides the pin connections for all MCU pins, the FRDM-KL03Z I/O pinouts, headers, Arduino R3 compatibility chart, and the OpenSDA MCU pinout.

Table 1 contains the pin-out assignments for the platform board.

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Table 1. Freedom KL03Z Platform Board Pin-Out Connections

Pin	Board	UART	PWM	GPIO	Interrupt	I2C	SPI	A/D	Input Capture	Comparator	LED
D0	Arduino Uno	RX		✓	✓						
	FREEDOM-KL03Z (PTB2)	UART0_RX		✓	✓						
D1	Arduino Uno	TX		✓	✓						
	FREEDOM-KL03Z (PTB1)	UART0_TX		✓	✓						
D2	Arduino Uno			✓	✓						
				✓	✓						
D3	Arduino Uno		✓	✓	✓						
	FREEDOM-KL03Z (PTB6)		FTM1_CH1	✓	✓						
D4	Arduino Uno			✓	✓						
D5	Arduino Uno		✓	✓	✓						
	FREEDOM-KL03Z (PTB7)		FTM1_CH0	✓	✓						
D6	Arduino Uno		✓	✓	✓					✓	
	FREEDOM-KL03Z (PTB5)		FTM1_CH1	✓	✓			ADC0_SE1	FTM0_CH1	COMP0_IN1	
D7	Arduino Uno			✓	✓					✓	
	FREEDOM-KL03Z (PTA0)		FTM1_CH0	✓	✓			ADC0_SE15	FTM1_CH0	COMP0_IN2	
D8	Arduino Uno			✓	✓				✓		
	FREEDOM-KL03Z (PTB10)		FTM0_CH1	✓	✗				FTM0_CH1		
D9	Arduino Uno		✓	✓	✓						
	FREEDOM-KL03Z (PTB11)		FTM0_CH0	✓	✗						
D10	Arduino Uno		✓	✓	✓		✓				
	FREEDOM-KL03Z (PTA5)		FTM0_CH1	✓	✗		SPI0_PCS0		FTM0_CH1		
D11	Arduino Uno			✓	✓		✓				
	FREEDOM-KL03Z (PTA7)			✓	✓		SPI0_MOSI				
D12	Arduino Uno			✓	✓		✓				
	FREEDOM-KL03Z (PTA6)		FTM0_CH0	✓	✗		SPI0_MISO		FTM0_CH0		
D13	Arduino Uno			✓	✓						✓
	FREEDOM-KL03Z (PTB0)			✓	✓		SPI0_SCK	ADC0_SE9			
D14	Arduino Uno			✓	✓	SDA		A4			
	FREEDOM-KL03Z (PTB4)	UART0_TX		✓	✓	I2C1_SDA					
D15	Arduino Uno			✓	✓	SCL		A5			
	FREEDOM-KL03Z (PTB3)			✓	✓	I2C1_SCL					
A0	Arduino Uno			✓	✓			A0			
	FREEDOM-KL03Z (PTA9)			✓	✗			ADC0_SE2			
A1	Arduino Uno			✓	✓			A1			
	FREEDOM-KL03Z (PTA8)			✓	✗			ADC0_SE3			
A2	Arduino Uno			✓	✓			A2			
	FREEDOM-KL03Z (PTA12)			✓	✓			ADC0_SE0			
A3	Arduino Uno			✓	✓			A3			
	FREEDOM-KL03Z (PTA2)										
A4	Arduino Uno			✓	✓	SDA		A4			
	FREEDOM-KL03Z (PTB13)										
A5	Arduino Uno			✓	✓	SCL		A5			

Revision History

Rev. number	Date	Substantive change(s)
0	07/2014	Document created.
1	08/2014	Changes to A/D connections for D7, D13, D14, D15.

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