

KL05Z (32QFx)	Pin Name	On Board	IO header	DEFAULT	ALT0	ALT1	ALT2	ALT3	Legend
1	PTB6/IRQ_2/LPTMR0_ALT3		D6	DISABLED		PTB6/IRQ_2/LPTMR0_ALT3	TPM0_CH3	TPM_CLKIN1	
2	PTB7/IRQ_3		D7	DISABLED		PTB7/IRQ_3	TPM0_CH2		Core Function
3	VDD	VDD	3V3	VDD	VDD				Timer / PWM
4	VREFH	VREFH	AREF	VREFH	VREFH				ADC
5	VREFL	VREFL	—	VREFL	VREFL				ADC / Comp
6	VSS	VSS	GND	VSS	VSS				I2C
7	PTA3	32 KHz XTAL	—	EXTAL0	EXTAL0	PTA3	I2C0_SCL	I2C0_SDA	SPI
8	PTA4/LLWU_P0	32 KHz XTAL	—	XTAL0	XTAL0	PTA4/LLWU_P0	I2C0_SDA	I2C0_SCL	UART
9	PTA5/LLWU_P1/RTC_CLK_IN		D10	DISABLED		PTA5/LLWU_P1/RTC_CLK_IN	TPM0_CH5	SPI0_SS_b	IRQ
10	PTA6/LLWU_P2		D12	DISABLED		PTA6/LLWU_P2	TPM0_CH4	SPI0_MISO	Touch
11	PTB8	Red LED	A0	ADC0_SE11	ADC0_SE11	PTB8	TPM0_CH3		
12	PTB9	Green LED	A1	ADC0_SE10	ADC0_SE10	PTB9	TPM0_CH2		
13	PTB10	Blue LED	D8	ADC0_SE9/TSIO_IN7	ADC0_SE9/TSIO_IN7	PTB10	TPM0_CH1		
14	PTB11		D9	ADC0_SE8/TSIO_IN6	ADC0_SE8/TSIO_IN6	PTB11	TPM0_CH0		
15	PTA7/IRQ_7/LLWU_P3		D11	ADC0_SE7/TSIO_IN5	ADC0_SE7/TSIO_IN5	PTA7/IRQ_7/LLWU_P3	SPI0_MISO	SPI0_MOSI	
16	PTB0/IRQ_8/LLWU_P4		D13	ADC0_SE6/TSIO_IN4	ADC0_SE6/TSIO_IN4	PTB0/IRQ_8/LLWU_P4	EXTRG_IN	SPI0_SCK	
17	PTB1/IRQ_9		D1	ADC0_SE5/TSIO_IN3/DAC0_OUT/CMP0_IN3	ADC0_SE5/TSIO_IN3/DAC0_OUT/CMP0_IN3	PTB1/IRQ_9	UART0_TX	UART0_RX	
18	PTB2/IRQ_10/LLWU_P5		D0	ADC0_SE4/TSIO_IN2	ADC0_SE4/TSIO_IN2	PTB2/IRQ_10/LLWU_P5	UART0_RX	UART0_TX	
19	PTA8		A2	ADC0_SE3/TSIO_IN1	ADC0_SE3/TSIO_IN1	PTA8			
20	PTA9		A4	ADC0_SE2/TSIO_IN0	ADC0_SE2/TSIO_IN0	PTA9			
21	PTA10/IRQ_12	Accel INT2	D4	DISABLED	TSIO_IN11	PTA10/IRQ_12			
22	PTA11/IRQ_13		D2	DISABLED	TSIO_IN10	PTA11/IRQ_13			
23	PTB3/IRQ_14	Accel I2C	D15	DISABLED		PTB3/IRQ_14	I2C0_SCL	UART0_TX	
24	PTB4/IRQ_15/LLWU_P6	Accel I2C	D14	DISABLED		PTB4/IRQ_15/LLWU_P6	I2C0_SDA	UART0_RX	
25	PTB5/IRQ_16		D3	NMI_b	ADC0_SE1/CMP0_IN1	PTB5/IRQ_16	TPM1_CH1	NMI_b	
26	PTA12/IRQ_17		D5	ADC0_SE0/CMP0_IN0	ADC0_SE0/CMP0_IN0	PTA12/IRQ_17/LPTMR0_ALT2	TPM1_CH0	TPM_CLKIN0	
27	PTA13	Touch Slider	—	TSIO_IN9	TSIO_IN9	PTA13			
28	PTB12	Touch Slider	—	TSIO_IN8	TSIO_IN8	PTB12			
29	PTB13		A5	ADC0_SE13	ADC0_SE13	PTB13	TPM1_CH1	RTC_CLKOUT	
30	PTA0/IRQ_0/LLWU_P7	SWD_CLK	A3	SWD_CLK	ADC0_SE12/CMP0_IN2	PTA0/IRQ_0/LLWU_P7	TPM1_CH0	SWD_CLK	
31	PTA1/IRQ_1/LPTMR0_ALT1	RESET	RESET	RESET_b		PTA1/IRQ_1/LPTMR0_ALT1	TPM_CLKIN0	RESET_b	
32	PTA2	SWD_DIO	—	SWD_DIO		PTA2	CMP0_OUT	SWD_DIO	

		UART	PWM	GPIO	Interrupt	I2C	SPI	A/D	Input Capture	Comparator	LED
D0	Arduino Uno FREEDOM-KL05Z	RX UART0_RX		✓ PTB2	✓ IRQ_10/LLWU_P5			ADC0_SE4/TSIO_IN2			
D1	Arduino Uno FREEDOM-KL05Z	TX UART0_TX		✓ PTB1	✓ IRQ_9			ADC0_SE5/TSIO_IN3/DAC0_OUT		CMP0_IN3	
D2	Arduino Uno FREEDOM-KL05Z			✓ PTA11	✓ IRQ_13						
D3	Arduino Uno FREEDOM-KL05Z		✓ TPM1_CH1	✓ PTB5	✓ IRQ_16			ADC0_SE1		CMP0_IN1	
D4	Arduino Uno FREEDOM-KL05Z			✓ PTA10	✓ IRQ_12						
D5	Arduino Uno FREEDOM-KL05Z		✓ TPM1_CH0	✓ PTA12	✓ IRQ_17						
D6	Arduino Uno FREEDOM-KL05Z		✓ TPM0_CH3	✓ PTB6	✓ IRQ_2					✓ X	
D7	Arduino Uno FREEDOM-KL05Z		✓ FTM0_CH2	✓ PTB7	✓ IRQ_3					✓ X	
D8	Arduino Uno FREEDOM-KL05Z			✓	✓			ADC0_SE9/TSIO_IN7			
D9	Arduino Uno FREEDOM-KL05Z		✓ TPM0_CH0	✓ PTB11	✓ X			ADC0_SE8/TSIO_IN6			
D10	Arduino Uno FREEDOM-KL05Z		✓ TPM0_CH5	✓ PTA5	✓ X		CS SPI0_SS_b				
D11	Arduino Uno FREEDOM-KL05Z			✓ PTA7	✓ IRQ_7/LLWU_P3		MOSI SPI0_MOSI	ADC0_SE7/TSIO_IN5			
D12	Arduino Uno FREEDOM-KL05Z		✓ TPM0_CH4	✓ PTA6	✓ X		MISO SPI0_MISO				
D13	Arduino Uno FREEDOM-KL05Z			✓ PTB0	✓ IRQ_8/LLWU_P4		CLK SPI0_SCK	ADC0_SE6/TSIO_IN4			
D14	Arduino Uno FREEDOM-KL05Z	UART0_RX		✓ PTB4	✓ IRQ_15/LLWU_P6	SDA I2C0_SDA					
D15	Arduino Uno FREEDOM-KL05Z	UART0_TX		✓ PTB3	✓ IRQ_14	SCL I2C0_SCL					
A0	Arduino Uno FREEDOM-KL05Z			✓ PTB8	✓ X			✓ ADC0_SE11			
A1	Arduino Uno FREEDOM-KL05Z			✓ PTB9	✓ X			✓ ADC0_SE10			
A2	Arduino Uno FREEDOM-KL05Z			✓ PTA8	✓ X			✓ ADC0_SE3/TSIO_IN1			
A3	Arduino Uno FREEDOM-KL05Z			✓ PTA0	✓ IRQ_0/LLWU_P7			✓ ADC0_SE12/CMP0_IN2		CMP0_IN2	
A4	Arduino Uno FREEDOM-KL05Z			✓ PTA9	✓ X	SDA X		✓ ADC0_SE2/TSIO_IN0			
A5	Arduino Uno FREEDOM-KL05Z		✓ TPM1_CH1	✓ PTB13	✓ X	SCL X		✓ ADC0_SE13			