

 **TEXAS INSTRUMENTS**

# Welcome to the Tiva DK-TM4C123G

# Tiva™ DK-TM4C123G Getting Started Guide



Welcome to the Tiva TM4C123G Development Kit. The DK-TM4C123G is a complete development platform that provides everything you need to develop applications for the Tiva C Series TM4C123x microcontrollers.

## 1. Board Setup

Install Power Select jumper J6 (top left corner) to the In-Circuit Debug Interface (ICDI) for debug power select mode. Connect the included USB cable from a Windows®-enabled PC to the ICDI Debug USB Port (top right corner) on the Tiva TM4C123G development kit. This USB port provides JTAG debug and Virtual COM Port connectivity via the ICDI.

Note: If the Found New Hardware dialog box appears on your PC, ignore it until it is time to install the drivers.

## 2. Quickstart Application

The DK-TM4C123G comes preprogrammed with the data logger quickstart application. This application demonstrates the 9-axis Digital Motion Sensor (Accelerometer, Gyroscope, Magnetometer), the internal and external temperature sensors, current measurement, and analog-to-digital converter (ADC) sampling.

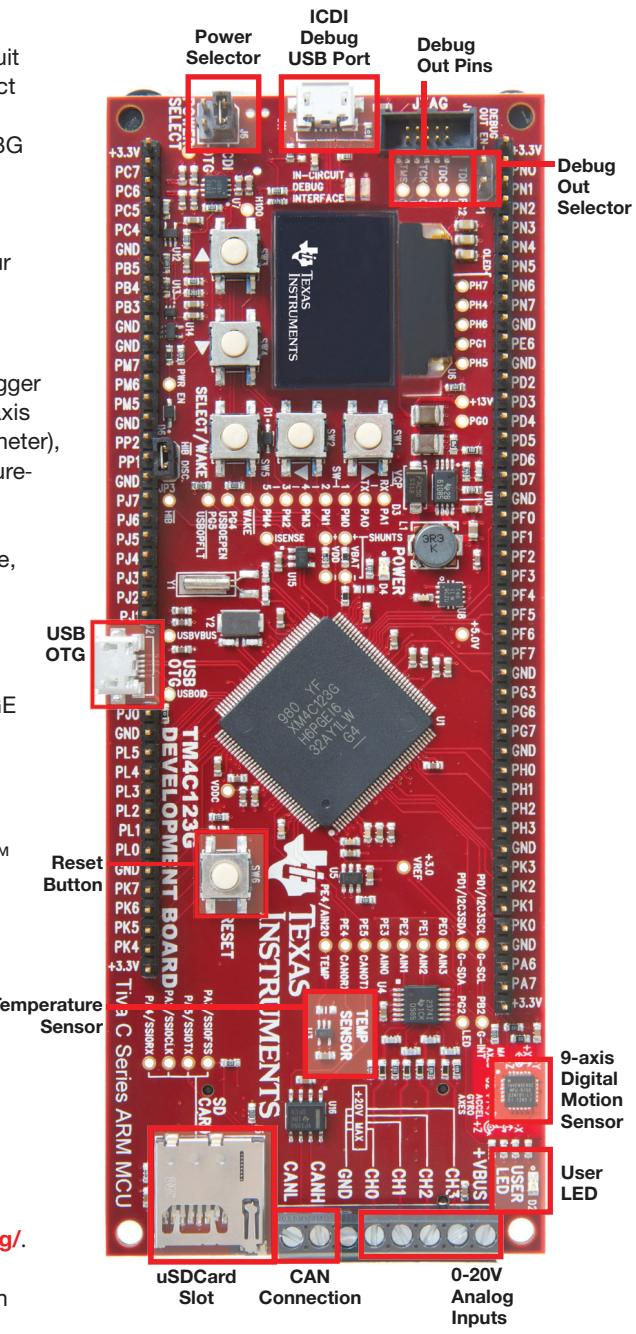
You can select which sources to display, how often to sample, and where to save the results by using the five push buttons around the graphic display. When you have made your selections under the CONFIG menu you may start the application by selecting START at the top level. In addition, you can view samples on your computer by setting STORAGE to HOST PC and using the Windows application logger.exe located in [C:/ti/TivaWare\\_C\\_Series-\\*/tools/bin](C:/ti/TivaWare_C_Series-*/tools/bin).

## 3. Software, Drivers, and Documentation

Insert the USB flash drive into your PC. Install the TivaWare™ software library from [/Tivaware/SW-DK-TM4C123G\\*.exe](/Tivaware/SW-DK-TM4C123G*.exe). The drivers for the board are located in the /Drivers folder, these should be installed via the Found New Hardware wizard in Windows. Documentation can be found in the /Documentation folder. IDE tools and the LMFlash Programmer tool can be found in the /Tools directory. For additional assistance, or if you have any questions, please visit the Tiva C Series e2e™ forums at <http://e2e.ti.com>

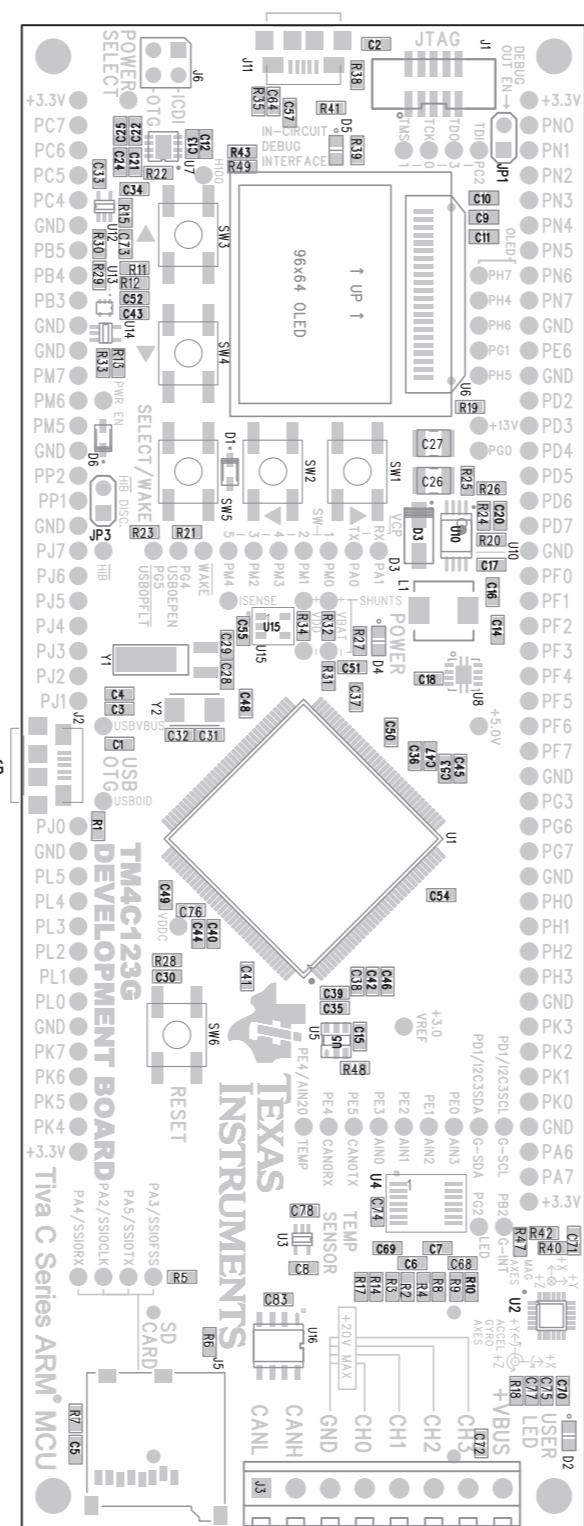
## 4. Further Reading

When you are ready, take a look at the other examples for the DK-TM4C123G installed as part of TivaWare to [C:/ti/TivaWare\\_C\\_Series-\\*/examples/boards/dk-tm4c123g/](C:/ti/TivaWare_C_Series-*/examples/boards/dk-tm4c123g/). In addition, please review the Read Me First file (located on the USB flash drive) as well as the graphical pin configuration shown on the back of this page.



# Tiva DK-TM4C123G Pin Configurations

PIN NUMBER	PIN NAME
33	+3.3V
34	PC7
35	PC6
36	PC5
	PC4
	GND
135	USB0PFLT
	USB0EPEN
	PhB1
	U3Tx
	WT1CCP1
	C0
	U3Rx
	WT1CCP0
	C0+
	M0PWM7
	U1CTS
	U1Tx
	PhA1
	U4Tx
	WT0CCP1
	C1+
	M0PWM6
	U1RTS
	U1Rx
	IDX1
	U4Rx
	WT0CCP0
	C1
136	GND
100	GND
	GND
82	WT0CCP1
	M0PWM5
83	WT0CCP0
	M0PWM4
84	GND
11	PP2
132	PP1
	GND
130	PM7
129	PM6
128	PM5
127	PP2
126	PP1
125	GND
123	PP1
122	PP2
121	PP3
	GND
120	PJ7
	PJ6
	PJ5
	PJ4
	PJ3
	PJ2
	PJ1
	GND
103	T1CCP0
	U4Rx
104	T2CCP1
	WT2CCP1
105	T2CCP0
	WT2CCP0
106	T1CCP1
	WT1CCP1
107	T1CCP0
	WT1CCP0
108	T0CCP1
	WT0CCP1
	T0CCP0
	WT0CCP0
109	WT1CCP1
	M0FAULT3
110	WT1CCP0
	M0FAULT2
111	C2o
	WT1CCP0
	M0FAULT1
112	C1o
	U7Tx
	M0FAULT1
	RTCCLK
	C0o
	U7Rx
	M0FAULT0
	+3.3V



PIN NAME	PIN NUMBER
+3.3V	81
PN0	80
PN1	20
PN2	119
PN3	71
PN4	70
PN5	69
PN6	68
PN7	
GND	
PE6	133
GND	
PD2	WT3CCP0
PD3	AIN13
PD4	USB0EPEN
PD5	SSI3Rx
PD6	SSI3Tx
PD7	SS1RxF
GND	
PF0	WT3CCP1
PF1	AIN12
PF2	USB0PFLT
PF3	SSI3Clk
PF4	WT4CCP0
PF5	AIN7
PF6	U6Rx
PF7	
GND	
PG0	WT4CCP1
PG1	AIN6
PG2	U6Tx
PG3	WT5CCP0
PG4	AIN5
PG5	U2Rx
PG6	M0FAULT0
PG7	PhA0
GND	
PF0	WT5CCP1
PF1	AIN4
PF2	U2Tx
PF3	M0FAULT1
PF4	PhB0
PF5	NMI
GND	
PG0	T0CCP0
PG1	TRD2
PG2	U1RTS
PG3	SSI1Rx
PG4	M1PWM4
PG5	PhA0
PG6	C0o
PG7	CAN0Rx
GND	
PF0	T0CCP1
PF1	TRD1
PF2	U1CTS
PF3	SSI1Tx
PF4	M1PWM5
PF5	PhB0
PF6	C1o
PF7	C2o
GND	
PH0	T1CCP0
PH1	TRD0
PH2	U1DCD
PH3	SSI1Clk
PH4	M0FAULT0
PH5	M1PWM6
PH6	CAN0Tx
GND	
PF0	T1CCP1
PF1	TRDCLK
PF2	U1DSR
PF3	SSI1Fss
PF4	M0PWM7
PF5	M0FAULT1
PF6	CAN0Tx
GND	
PF0	T2CCP0
PF1	TRD3
PF2	U1DTR
PF3	M0FAULT2
PF4	M1FAULT0
PF5	IDX0
PF6	USB0EPEN
GND	
PF0	T2CCP1
PF1	USB0PFLT
PF2	M0FAULT3
GND	
PF0	T3CCP0
PF1	I2C2SCL
PF2	M1FAULT0
GND	
PF0	T3CCP1
PF1	I2C2SDA
PF2	M1FAULT0
GND	
PG3	T5CCP1
PG4	I2C4SDA
PG5	M0FAULT2
PG6	M1PWM1
PG7	PhA1
GND	
PF0	WT1CCP0
PF1	I2C5SCL
PF2	M0PWM6
GND	
PF0	WT1CCP1
PF1	I2C5SDA
PF2	M0PWM7
PF3	IDX1
GND	
PH0	WT2CCP0
PH1	SSI3Clk
PH2	M0PWM0
PH3	M0FAULT0
GND	
PF0	WT2CCP1
PF1	SSI3Fss
PF2	M0PWM1
PF3	IDX0
PF4	M0FAULT1
GND	
PH0	WT5CCP0
PH1	SSI3Rx
PH2	M0PWM2
PH3	M0FAULT2
GND	
PF0	WT5CCP1
PF1	SSI3Tx
PF2	M0PWM3
PF3	M0FAULT3
GND	
PK3	AIN19
PK4	SSI3Tx
PK5	M1FAULT3
PK6	AIN18
PK7	SSI3Rx
PK8	M1FAULT2
GND	
PK0	AIN17
PK1	SSI3Fss
PK2	M1FAULT1
PK3	AIN16
PK4	SSI3Clk
PK5	M1FAULT0
GND	
PA6	I2C1SCL
PA7	M1PWM2
GND	
PA6	I2C1SDA
PA7	M1PWM3
GND	
+3.3V	

## LEGEND

UART	Power
PWM	Hibernate
I2C	General-Purpose Timers
SSI	Analog Comparator
CAN	Core
QEI	System Control & Clocks
USB	