# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



# Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832 Email & Skype: info@chipsmall.com Web: www.chipsmall.com Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





# EFM8 Sleepy Bee Family QSG130: EFM8SB2-SLSTK2011A Quick Start Guide

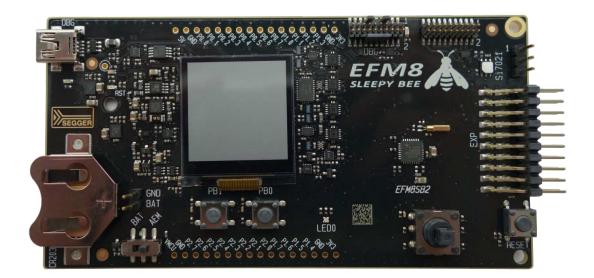


The EFM8SB2-SLSTK2011A is an excellent starting point to get familiar with the EFM8 Sleepy Bee microcontrollers.

The kit contains sensors and peripherals demonstrating some of the MCU's many capabilities. The kit can also serve as a starting point for application development.

#### KIT CONTENTS

- EFM8SB2 Sleepy Bee Starter Kit Board
  1 x mini USB cable
- 1 x CR2032 coin cell battery
- Getting Started card



### 1. Getting Started

Install Simplicity Studio

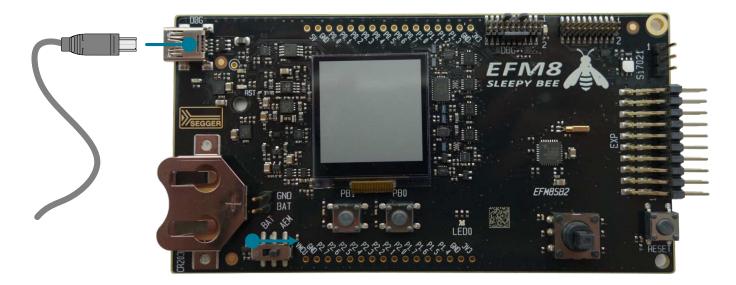
Simplicity Studio is a free software suite needed to start developing your application. Download the latest version of Simplicity Studio from the Silicon Labs website:

http://www.silabs.com/simplicity-studio

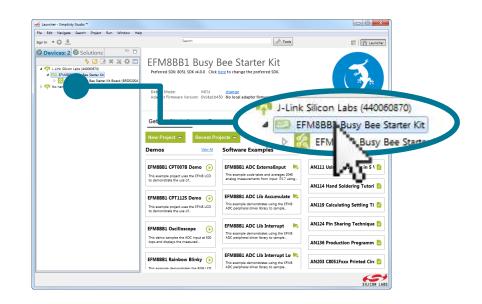
🛃 Launcher - Simplicity Studio ~			- D - X-
File Edit Navigate Search Project Run Window Help			
Sgnin 👻 🔅 🚊	Search	🖌 Tools	😰 📄 Launcher
Devices: 2 Solutions     Solutions	EFM8BB1 Busy Preferred SDK: 8051 SDK v4.0.0 Click Debug Mode: MCU Adapter Firmware Version: 0v14p1b4		erer to downk
	Getting Started Doo New Project  Recent Pro Demos View All	eumentation Compatible Tr ojects • Software Examples View Al	ools Resources
	EFM8BB1 CPT007B Demo   This example project uses the EFM8 LCD to demonstrate the use of	EFM8BB1 ADC ExternalInput	AN111 Using C8051Fxxx in 5 \
	EFM8BB1 CPT112S Demo	EFM8BB1 ADC Lib Accumulate	AN119 Calculating Settling Ti
	EFM8BB1 Oscilloscope (>) This demo samples the ADC input at 500 ksps and displays the measured	EFM8BB1 ADC Lib Interrupt	AN124 Pin Sharing Technique 🖺 AN136 Production Programm 🎦
	EFM8BB1 Rainbow Blinky () This example demonstrates the RGB IFD	EFM8BB1 ADC Lib Interrupt Lo	AN203 C8051Fxxx Printed Circ 造
			SILICON LABS

Note: The board comes pre-loaded with a default application, Clock, to play with while the software downloads.

- · Set Up Your Kit
  - 1. Provide power to the board by connecting the DBG USB connector to the PC using the provided USB cable.

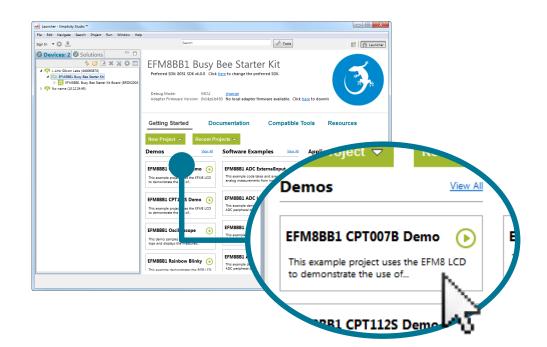


- · Detect Your Device
  - 1. Wait for the J-Link debug adapter to appear in the [**Devices**] area. The board may take some time to appear due to driver installations for the debug adapter.
  - 2. Click the J-Link debug adapter or the board information corresponding to the board. This will verify that the installation was successful, identify the MCU on the kit hardware, and automatically configure the software tools for use with your device.



#### Run Blinky

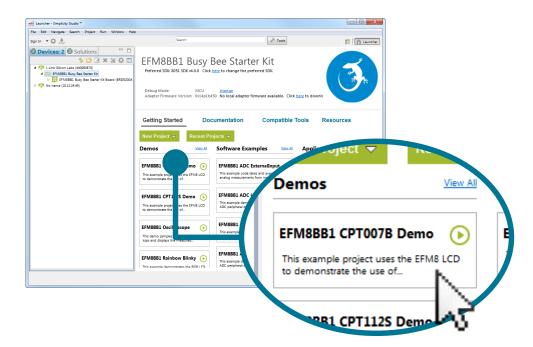
Click the [Demos] tile to load the available demos. Select [Rainbow Blinky] and click [Start] to download and run the demo. Follow the instructions on the kit LCD screen to run the demo.



### 2. Resources

#### Demos

Demos are a quick and easy way to evaluate a device without compiling or debugging code. Demos can be accessed using the [Get-ting Started]>[Demos] area in the launcher.



#### **Software Examples**

Software examples can be imported, compiled, and downloaded using the [Getting Started]>[Software Examples] area in the launcher.

File Edit Navigate Search Project Run Window Help			
Sign In 👻 😓	Search	F Tools	
Devices: 2      Solutions     Solution	Preferred SDK: 8051 SDK v4/ Debug Mode:	USY Bee Starter Kit LOC Click here to change the preferred SDK. MCU change 0134p1D450 No local adapter firmware available.	Click here to downic
	Getting Started		ble Tools Resour
	New Project  Re Demos	cent Projects 🗢 View All Software Examples 🤒	Application No
	MBBB1 CP1007B Demo		
	FM8BB1 CPT112S Demo	This example demonstrates using the EEM	
	FM8BB1 Oscilloscope his demo samples the ADC inputions and displays the measured	EFM88B1 ADC Lib Interrupt This example demonstrates using the EFM ADC peripheral driver library to sample	AN124 Pin Sharin
		EFM8BB1 ADC Lib Interrupt Lo This example demonstrates using the EFM Decembreal driver library to sample	<b>I</b> 4
Software Exa	mples	View Ax	
EFM8BB1 ADC I This example code ta analog measurement using	kes and aver	ages 2048	
APRI ADC I		- AS	

#### Software Documentation

Software documentation provides more information on the firmware libraries available for the selected device. Access these documents using the [**Documentation**] area in the launcher.

🕶 Launcher - Simplicity Studio 🀃				
File Edit Navigate Search Project Run Window Help				
Sign In ເ≖ 🗘 🟝	Search	F Tools	😰 🕅 Launcher	
Devices: 2 Solutions     Output     Solutions     Solutions	EFM8BB1 Busy Be Preterred SDK: 8051 SDK v4.0.0 Click <u>her</u> Debug Mode: MCU Adapter Firmware Version: 014.4p15450		ere to de	
	Getting Started Docur IPMB81 Bury See Stater KX BRD5200A, A01 assy, draw	BRD5200A A01 bom	EFM8 4.0.0 Documer	ntation 📑
	EFM8881_datasheet	EFM8BB1-SLSTK2020A-Quick!	EFM8BB1-SLSTK2020A-UserGi 뒅	3
				-
			SILICON LABS	

#### Kit Documentation and User's Guide

Kit documentation like the schematic and detailed board user guide can be found using the [Documentation] area of the launcher.

Launcher - Simplicity Studio 🀃				
le Edit Navigate Search Project Run Window Help				
an In 🔻 🛱 📩	Search	F Tools		😰 👘 Launc
Devices: 2 🏶 Solutions 👘 🗖				
\$ © X X Q □	FEMODD1 D	an Chambers IV:4		
Link Sticon Lets (#000017)     Link Sticon Lets (#000017)     DE FM881 Bury Bes Stater K2     DE FM881 Bury Bes Stater K2 Board (BRDS2004     No name (ID122446)	EFM8BB1 Busy B Preterred SDI: 8051 SDK v4.0.0 Click <u>ha</u> Debug Mode: MCU Adapter Firmware Version: 0v14p1b450		ick <u>here</u> to downik	<b>A</b>
	Getting Started Docu EFM8BB1 Busy Bee Starter Kit	mentation Compatibl	e Tools Reso	ources
	BRD5200A_A01_assy_draw	BRD5200A_A01_bom	BRD52004	atic 🚦
	EFM8BB1_datasheet	EFM8BB1-SLSTK2020A-Quick	EFM8BB1-SLST	020A-UserGi
BRD5200A	_A01_schema	tic 皆	)	
		6		SILICON

#### **Application Notes**

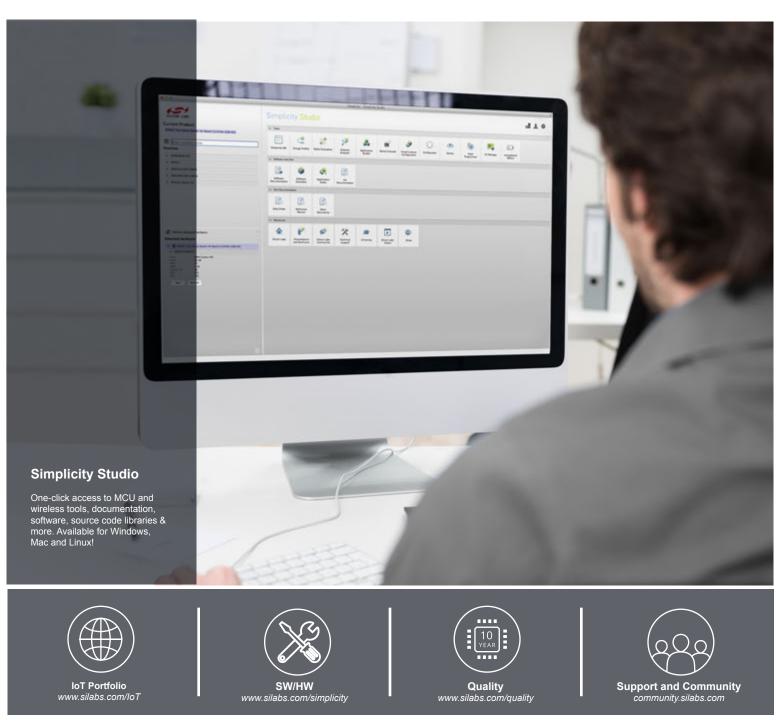
Application Notes on peripherals and other various topics can be accessed using the [Getting Started]>[Software Examples] area of the launcher.



#### **Community and Support**

Have a question? Visit the community by clicking the [Resources]>[Silicon Labs Community] area of the launcher.

Launcher - Simplicity Studio **		
File Edit Navigate Search Project Run Window Help	Search Froots	
Sign în 🔻 🔅 📩	Swarch Tools	1 I I I I I I I I I I I I I I I I I I I
Devices: 2 Solutions     Compared and the second and the seco	EFM8BB1 Busy Bee Starter Kit Pretered SOK 8051 SOK 44.0.0 Click <u>here</u> to change the pretered SOK. Debug Mode: MCU <u>change</u> Adipter Firmware Version: 0x44p18450 No local adapter firmware available. Click <u>here</u> to downice	I
	Getting Started Documentation Compatible Tools R	esources
	Technical Support	Con
Silicon Labs Con	nmunit	
	2	5



#### Disclaimer

Silicon Laboratories intends to provide customers with the latest, accurate, and in-depth documentation of all peripherals and modules available for system and software implementers using or intending to use the Silicon Laboratories products. Characterization data, available modules and peripherals, memory sizes and memory addresses refer to each specific device, and "Typical" parameters provided can and do vary in different applications. Application examples described herein are for illustrative purposes only. Silicon Laboratories reserves the right to make changes without further notice and limitation to product information, specifications, and descriptions herein, and does not give warranties as to the accuracy or completeness of the included information. Silicon Laboratories shall have no liability for the consequences of use of the information supplied herein. This document does not imply or express copyright licenses granted hereunder to design or fabricate any integrated circuits. The products are not designed or authorized to be used within any Life Support System without the specific written consent of Silicon Laboratories. A "Life Support System" is any product or system intended to support or sustain life and/or health, which, if it fails, can be reasonably expected to result in significant personal injury or death. Silicon Laboratories products are not designed or authorized for military applications. Silicon Laboratories shall under no circumstances be used in weapons of mass destruction including (but not limited to) nuclear, biological or chemical weapons, or missiles capable of delivering such weapons.

#### **Trademark Information**

Silicon Laboratories Inc.®, Silicon Laboratories®, Silicon Labs®, SiLabs® and the Silicon Labs logo®, Bluegiga®, Bluegiga Logo®, Clockbuilder®, CMEMS®, DSPLL®, EFM®, EFM32®, EFR, Ember®, Energy Micro, Energy Micro logo and combinations thereof, "the world's most energy friendly microcontrollers", Ember®, EZLink®, EZRadio®, EZRadio®, Gecko®, ISOmodem®, Precision32®, ProSLIC®, Simplicity Studio®, SiPHY®, Telegesis, the Telegesis Logo®, USBXpress® and others are trademarks or registered trademarks of Silicon Laboratories Inc. ARM, CORTEX, Cortex-M3 and THUMB are trademarks or registered trademarks of ARM Holdings. Keil is a registered trademark of ARM Limited. All other products or brand names mentioned herein are trademarks of their respective holders.



Silicon Laboratories Inc. 400 West Cesar Chavez Austin, TX 78701 USA

## http://www.silabs.com