



8-Bit MCU SDK 4.2.2.0 GA

21Q4 8051 SDK

October, 2021

The 8051 SDK provides infrastructure support for applications developed on 8-bit devices, and it provides interfaces with the underlying hardware. It is composed of the following modules:

- 8-Bit Device Header Files
- 8-Bit Peripheral Driver Libraries
- Sample Applications/Examples for 8-Bit Development Kits

This document covers the following SDK version:

8051 SDK 4.2.2.0 released October, 2021

KEY FEATURES

- Updated EFM8BB51 and EFM8BB52 header files
- Updated EFM8BB51 and EFM8BB52 Pro Kit examples from PK520xA to PK520xB
- Added blinky example for EFM8BB52 Explorer Kit (EK2701A) and EFM8BB51 Explorer Kit (EK2700A)

Compatibility and Use Notices

If you are new to the Silicon Labs 8-bit SDK, see [Using This Release](#).

Compatible Compilers:

- Keil v9.60

Contents

- 1 New Items2
 - 1.1 New Device Headers2
 - 1.2 New Peripheral Driver Libraries2
 - 1.3 New Sample Applications2
- 2 Improvements3
 - 2.1 Updated Device Headers3
 - 2.2 Updated Peripheral Driver Libraries3
 - 2.3 Updated Sample Applications3
- 3 Fixed Issues4
- 4 Known Issues in the Current Release5
- 5 Deprecated Items6
- 6 Removed Items7
- 7 Using This Release8
 - 7.1 Installation and Use8
 - 7.2 Support8
- 8 Legal9
 - 8.1 Disclaimer9
 - 8.2 Trademark Information9

1 New Items

1.1 New Device Headers

None

1.2 New Peripheral Driver Libraries

None

1.3 New Sample Applications

The following new sample application was added for EFM8BB51 Explorer Kit (EK2701A) and EFM8BB52 Explorer Kit (EK2700A):

- Blinky

2 Improvements

2.1 Updated Device Headers

- Updated EFM8BB51 device header files to remove code related to
 - P1.7,
 - P2.1-P2.7,
 - P2SKIP,
 - P2MAT,
 - P2MASK,
 - P2MDOUT[7:1],
 - P2MDIN[7:1]

since these don't exist on EFM8BB51.

- Removed SMBus1 enumerations from EFM8BB51 since this device does not have the SMBus1 peripheral.
- Corrected the Flash and RAM sizes in the EFM8BB52 device header files.
- Updated the derivative ID definition for some EFM8BB52 OPNs.
- Updated Flash Read Timing mask (PFE0CN_FLRT__BMASK) from 0x30 to 0x10 in EFM8BB51 and EFM8BB52 register enumeration files.
- Removed I2CSlave0 enumerations from EFM8BB51 and EFM8BB52 since these devices do not have the I2C0Slave peripheral.

2.2 Updated Peripheral Driver Libraries

None

2.3 Updated Sample Applications

Updated all EFM8BB52 Pro Kit examples from PK5206A to PK5206B.

Updated all EFM8BB51 Pro Kit examples from PK5207A to PK5207B.

Updated the slope and offset values in the EFM8BB51 and EFM8BB52 Pro Kit TempSensor examples.

Updated EFM8BB52 and EFM8BB51 PWM singled ended output examples to achieve 0% and 100% duty cycle.

3 Fixed Issues

The table below lists issues resolved in the latest release.

ID #	Description
746419	Fixed minor typos throughout all EFM8BB51 and EFM8BB52 examples.

4 Known Issues in the Current Release

The table below lists known issues in the latest release. Items shown in blue are links to additional information.

ID #	Description	Workaround
355966	Dropped characters on multiple calls to UART1_WriteBuffer()	Insert a short delay between any two bufferWrite calls
354781	Missing autopaging in the efm8_memory_lcd library	Insert SFRPAGE save and restore
344029	Missing autopaging in UART1_writeBuffer()	Insert SFRPAGE save and restore

5 Deprecated Items

None

6 Removed Items

None

7 Using This Release

7.1 Installation and Use

The 8-Bit SDK can be installed through Simplicity Studio. Installation instructions can be found in [AN1211](#).

Use the 8-bit SDK with the Simplicity Studio V5 development platform. Simplicity Studio ensures that most software and tool compatibilities are managed correctly. Install software and board firmware updates promptly when you are notified.

Documentation specific to the SDK version is installed with the SDK. API references and other information about this and earlier releases is available on <http://devtools.silabs.com/studio/doc/EFM8/software/>.

7.2 Support

Development Kit customers are eligible for training and technical support. You can use <https://www.silabs.com/products/mcu/8-bit> to obtain information about all Silicon Labs 8-bit products and services, and to sign up for product support.

You can contact Silicon Laboratories support at http://www.silabs.com/support_

8 Legal

8.1 Disclaimer

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