Bulletin #1407033

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Bulletin Date: 7/3/2014	**Bulletin Effective Date:** 7/3/2014	
Title: EFM32G Datasheet Revision Notification		
Originator: Ted Batey	**Phone:** 512-532-5279	**Dept:** Marketing
Customer Contact: Kathy Haggar	**Phone:** 512-532-5261	**Dept:** Sales

Bulletin Details

Description:
Silicon Labs is pleased to announce that version 1.80 of the EFM32G (Gecko family) datasheets and version 1.10 of the EFM32G reference manual are now available. The affected datasheets are: EFM32G200, EFM32G210, EFM32G222, EFM32G230, EFM32G232, EFM32G280, EFM32G290, EFM32G840, EFM32G842, EFM32G880, EFM32G890. The affected reference manual is: EFM32G-RM.

The datasheet revision includes a number of key changes to existing Min/Max/Typ values that more accurately reflect the performance of the part. These changes are summarized in Table 1 at the end of this document. In addition, Table 3.12 HFRCO has a new Footnote 5, ensuring frequency bands above 7MHz will always have some overlap across supply voltage and temperature.

In addition, new min/max data has been added and other minor updates have been made as follows:

- Updated Current Consumption information
- Updated Power Management information
- Updated GPIO information
- Updated LFXO information
- Updated HFXO information
- Updated HFRCO information and figures
- Updated ULFRCO information
- Updated ACMP information

See Table 1 at the end of this document for additional details.

The reference manual has also been changed to reflect the updated operating voltage range and current consumption information.

Reason:
Updated specifications based on the results of additional silicon characterization. There are no physical or software changes to the devices.

Product Identification:

Affected Part Numbers
EFM32G200F16-QFN32
EFM32G200F32-QFN32
EFM32G200F64-QFN32
EFM32G210F128-QFN32
EFM32G222F32-QFP48
EFM32G222F64-QFP48
EFM32G222F128-QFP48
EFM32G230F32-QFN64
EFM32G230F64-QFN64
EFM32G230F128-QFN64

Affected Part Numbers
EFM32G232F32-QFP64
EFM32G232F64-QFP64
EFM32G232F128-QFP64
EFM32G280F32-QFP100
EFM32G280F64-QFP100
EFM32G280F128-QFP100
EFM32G290F32-BGA112
EFM32G290F64-BGA112
EFM32G290F128-BGA112

Affected Part Numbers
EFM32G840F32-QFN64
EFM32G840F64-QFN64
EFM32G840F128-QFN64
EFM32G842F32-QFP64
EFM32G842F64-QFP64
EFM32G842F128-QFP64
EFM32G880F32-QFP100
EFM32G880F64-QFP100
EFM32G880F128-QFP100
EFM32G890F32-BGA112
EFM32G890F64-BGA112
EFM32G890F128-BGA112

This change is considered a minor change which does not affect form, fit, function, quality, or reliability. The information is being provided as a customer courtesy.

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Customer Actions Needed:
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Table 1: EFM32Gxxx Datasheet Rev 1.80 - Summary of Key Changes

				Datasheet Rev 1.71			Datasheet Rev 1.80			
Table*	**Symbol**	**Parameter**	**Condition**	**Min**	**Typ**	**Max**	**Min**	**Typ**	**Max**	**Unit**
3.2 General Operating Conditions	V_{DDOP}	Operating Supply Voltage		1.85		3.8	1.98		3.8	V
3.6 Power Management	$V_{BODextthr-}$	BOD threshold, falling external supply		1.82		1.85	1.74		1.96	V
3.7 Flash	V_{FLASH}	Flash erase/write supply voltage		1.8		3.8	1.98		3.8	V
3.8 GPIO	V_{IOOH}	Output high voltage	Sourcing 6 mA, V_{DD} = 1.98V	$0.75V_{DD}$			$0.75V_{DD}$			V
			Sourcing 6 mA, V_{DD} = 3.0V	$0.95V_{DD}$			$0.85V_{DD}$			V
			Sourcing 20 mA, V_{DD} = 1.98V	$0.7V_{DD}$			$0.6V_{DD}$			V
			Sourcing 20 mA, V_{DD} = 3.0V	$0.9V_{DD}$			$0.8V_{DD}$			V
	V_{IOOL}	Output low voltage	Sinking 6 mA, V_{DD} = 1.98V			$0.25V_{DD}$			$0.3V_{DD}$	V
			Sinking 6 mA, V_{DD} = 3.0V			$0.05V_{DD}$			$0.2V_{DD}$	V
			Sinking 20 mA, V_{DD} = 1.98V			$0.3V_{DD}$			$0.35V_{DD}$	V
			Sinking 20 mA, V_{DD} = 3.0V			$0.1V_{DD}$			$0.2V_{DD}$	V
	I_{IOLEAK}	Input leakage current				±25		±0.1	±100	nA
3.13 ULFRCO	f_{ULFRCO}	Oscillation frequency		0.8		1.5	0.7		1.75	kHz
3.16 ACMP	$V_{ACMPOFFSET}$	Offset voltage			10			0		mV

* Note: Table numbers may vary by datasheet. Numbers listed refer to EFM32G890.

