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Bulletin Date: 3/16/2015		Bulletin Effective Date: 3/16/2015	
Title: EFM32ZG 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:			
<p>Silicon Labs is pleased to announce that version 1.10 of the EFM32ZG (Zero Gecko family) datasheets and version 1.10 of the EFM32ZG reference manual are now available. The affected datasheets are: EFM32ZG108, EFM32ZG110, EFM32ZG210, EFM32ZG222. The affected reference manual is: EFM32ZG-RM.</p> <p>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.</p> <p>In addition, new min/max data has been added and other minor updates have been made as follows:</p> <ul style="list-style-type: none"> • Updated ADC data, updated temperature sensor graph and added clarification on conditions for INL_{ADC} and DNL_{ADC} parameters. • Updated Max ESR_{HFXO} value for Crystal Frequency of 24 MHz. • Updated current consumption. • Updated LFXO and HFXO data. • Updated LFRCO and HFRCO data. • Updated ACMP data. • Updated VCMP data. • Updated Memory Map. • Added DMA current in Digital Peripherals section. • Added AUXHFRCO to block diagram and Electrical Characteristics. • Updated block diagram. <p>See Table 1 at the end of this document for additional details.</p> <p>The reference manual has also been changed in order to provide additional clarity and correct minor errors. Please refer to the Revision History section of the reference manual for additional details.</p>			
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		Affected Part Numbers	
EFM32ZG108F4-QFN24		EFM32ZG108F4-QFN24T	
EFM32ZG108F8-QFN24		EFM32ZG108F8-QFN24T	

EFM32ZG108F16-QFN24	EFM32ZG108F16-QFN24T
EFM32ZG108F32-QFN24	EFM32ZG108F32-QFN24T
EFM32ZG110F4-QFN24	EFM32ZG110F4-QFN24T
EFM32ZG110F8-QFN24	EFM32ZG110F8-QFN24T
EFM32ZG110F16-QFN24	EFM32ZG110F16-QFN24T
EFM32ZG110F32-QFN24	EFM32ZG110F32-QFN24T
EFM32ZG210F4-QFN32	EFM32ZG210F4-QFN32T
EFM32ZG210F8-QFN32	EFM32ZG210F8-QFN32T
EFM32ZG210F16-QFN32	EFM32ZG210F16-QFN32T
EFM32ZG210F32-QFN32	EFM32ZG210F32-QFN32T
EFM32ZG222F4-QFP48	EFM32ZG222F4-QFP48T
EFM32ZG222F8-QFP48	EFM32ZG222F8-QFP48T
EFM32ZG222F16-QFP48	EFM32ZG222F16-QFP48T
EFM32ZG222F32-QFP48	EFM32ZG222F32-QFP48T
EFM32ZG210M0909F32G-A	EFM32ZG210M0909F32G-AR

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:
None.

Table 1

Table 1: EFM32ZGxxx Datasheet Rev 1.10 - Summary of Key Changes

Table*	Symbol	Parameter	Condition	Datasheet Rev 1.00			Datasheet Rev 1.10			Unit
				Min	Typ	Max	Min	Typ	Max	
3.3 Current Consumption	I _{EM0}	EM0 Current T _{AMB} = 25 °C	24 MHz		115			115	132	µA/MHz
			21 MHz		114			114	128	µA/MHz
			14 MHz		117			117	131	µA/MHz
			11 MHz		118			118	133	µA/MHz
			6.6 MHz		124			124	139	µA/MHz
			1.2 MHz		155			155	177	µA/MHz
	I _{EM1}	EM1 Current T _{AMB} = 25 °C	24 MHz		48			48	57	µA/MHz
			21 MHz		48			48	52	µA/MHz
			14 MHz		50			50	54	µA/MHz
			11 MHz		52			52	56	µA/MHz
			6.6 MHz		57			57	63	µA/MHz
			1.2 MHz		89			89	99	µA/MHz
	I _{EM2}	EM2 Current	T _{AMB} = 25 °C		0.9			0.9	1.25	µA
			T _{AMB} = 85 °C		1.7			1.7	2.35	µA
	I _{EM3}	EM3 Current	T _{AMB} = 25 °C		0.5			0.5	0.9	µA
			T _{AMB} = 85 °C		1.3			1.3	2.0	µA
	I _{EM4}	EM4 Current	T _{AMB} = 25 °C		0.02			0.02	0.035	µA
			T _{AMB} = 85 °C		0.29			0.29	0.700	µA
3.8 LFXO	t _{LFXO}	Start-up time		400			1100		ms	
3.9 HFXO	t _{HFXO}	Start-up time		400			785		µs	
3.14 ADC	SNR _{ADC}	Signal-to-Noise Ratio	200 ksps, 12 bit, differential, V _{DD} ref		69		63	66		dB
	SINAD _{ADC}	Signal-to-Noise-and-Distortion Ratio	200 ksps, 12 bit, differential, V _{DD} ref		68		62	66		dB

* Note: Table numbers may vary by datasheet. Numbers listed refer to EFM32ZG222.