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PCN Date: 4/29/2014		Effective Date: 8/4/2014	
Title: EM358x rev A3 die			
Originator: David Egan		Phone: +44 7840 309039	Dept: Marketing
Customer Contact: Kathy Haggar		Phone: 512 532 5261	Dept: Inside Sales
PCN Type: <input type="checkbox"/> Datasheet <input type="checkbox"/> Foundry <input type="checkbox"/> Packing <input checked="" type="checkbox"/> Product Revision <input type="checkbox"/> Assembly <input type="checkbox"/> Labeling <input type="checkbox"/> Discontinuance <input type="checkbox"/> Test <input type="checkbox"/> Other			
Last Order Date: Not Applicable			
PCN Details			
Description of Change: Silicon Labs is pleased to announce the successful qualification of revision A3 silicon for the 48-QFN-7x7mm EM3581, EM3582, EM3585, EM3586, EM3587, and EM3588 products, which reduces the sleep mode current consumption and improves the performance of the USB. Upon the Effective Date of this PCN, Silicon Labs may ship either revision A1 or A3 to customers using EM3581, EM3585 and EM3587. Silicon Labs will only ship revision A3 to customers using the EM3582, EM3586 and EM3588. All new wafer starts will use revision A3.			
Reason for Change: 1. For designs that are battery powered, revision A3 has improved sleep mode power consumption. 2. To fix a minor issue with USB that could affect USB certification. Note that this does not apply to EM3581, EM3585 or EM3587 as these parts do not support USB.			
Impact on Form, Fit, Function, Quality, Reliability: No impact on Form, Fit, Quality or Reliability. Functionality improvements are listed above.			
Product Identification: Product identification will not be changed; EM3581 EM3582 EM3585 EM3586 EM3587 EM3588			
Last Date of Unchanged Product: 8/4/2014			
Qualification Samples: Samples are available now. Please place a sample order, specifically requesting revision A3 silicon. If you have questions about this notification, please see your Silicon Labs sales representative. A list of Silicon Labs sales representatives is available at www.silabs.com			



Process Change Notice #1404291

Specific conditions of acceptance of this change will be considered on a case by case basis if written notice is submitted within 30 days of this notice. To request further data or inquire about this notification, please contact your local Silicon Labs sales representative. A list of Silicon Labs sales representatives is available at www.silabs.com.

In some cases rejection of a change notice may impact Silicon Labs product pricing, delivery, quality, or reliability.

Customer Early Acceptance Sign Off:

Customers may approve early PCN acceptance by completing the information below:

Early Acceptance: Date: _____

 Name: _____

 Company: _____

Email your early Acceptance approval to: katherine.haggard@silabs.com

Qualification Data:

Please see Qualification Report below.

Qualification Report

EM358x Qualification Report



W7101F1 - Product Qualification Plan and Report Record Rev. F

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Part Rev A3, TSMC Fabrication, ASECL Assembly except as noted							
Test Name	Test Condition	Qualification	Lot ID or Start	Fail/Pass or End	Notes	Summary	Status
Test Group A - Accelerated Environment Stress Tests							
THB	JA 101 85°C, 85%RH Vcc=VccV, 1000 hours	3 lots, N=>25	Q34280	0/25		3 lots 0/80	Pass
			Q34279	0/25			
			Q34085	0/30			
Temp Cycle	JA 104 Cond C: -65°C to 150°C 500 cycles	3 lots, N=>25	Q33928	0/30		3 lots 0/90	Pass
			Q33896	0/30			
			Q34083	0/30			
HTSL	JA 103 150°C, 1000hr	3 lots, N=>25	Q33929	0/30		3 lots 0/90	Pass
			Q33897	0/30			
			Q34084	0/30			
Test Group B - Accelerated Lifetime Simulation Tests							
HTOL	JA 108 125°C, Dynamic Vcc=VccV, 1000 hours	3 lots, N=>77	Q34339	0/84		3 lots 0/245	Pass
			Q34741	0/80			
			Q34797	0/81			
LTOL	JA 108 -10°C, Dynamic Vcc=VccV, 1000 hours	1 lot, N=>32	Q34281	0/40		1 lots 0/40	Pass
ELFR	JA 108 125°C, Dynamic Vcc=VccV, 48 hours	3 lots, N=>500	Q35188	0/541		4 lots 0/2041	Pass
			Q34358	0/500			
			Q33985	0/500			
Test Group E - Electrical Verification							
ESD-HBM	JA 114	1 lot, N=>3	Q33812	0/13		2 lots 0/28	Max Pass 2kV
			Q35089	0/15			
ESD-CDM	JC 101	1 lot, N=>3	Q33811	0/12		2 lots 0/27	Max Pass 2kV
			Q35090	0/15			
Latch Up	JESD78 ±200mA	1 lot, N=>3	Q33813	0/6		2 lots 0/12	Pass
			Q35091	0/6			

Notes:

- Parts are Pre-conditioned at MSL2 /260 °C

This report applies to the following part numbers:	
EM3581-RT/RTR	EM3586-RT/RTR
EM3582-RT/RTR	EM3587-RT/RTR
EM3585-RT/RTR	EM3588-RT/RTR