2412181608 New Process & Material Qualification for EFM32LG & EFM8SB1 WLCSP Package

PCN Issue Date: Dec 18, 2024 **Effective Date:** Mar 24, 2025

PCN Type: Assembly

Description of Change

Silicon Labs is pleased to announce the successful qualification of a new bumping process that includes applying plating Re-distribution layer (RDL) and Under-bump metallurgy for EFM32LG & EFM8SB1 WLCSP package.

This bumping process change was initiated due to supplier BASF End of Life (EOL) announcement of copper etchant surfactant R104-B with production stop on Mar 31, 2024. In addition, certain bumping machines for 8inch wafers have already been phased out by the vendor and factory machinery service is limited (FOI Descum, Msetek PBO coating)

As of the effective date of the PCN, Silicon Labs will fulfill orders with either bumping process material until old inventory depletes.

Reason for Change

Supply continuity due to current supplier (BASF) EOL of copper etchant surfactant R-104B.

Impact on Form, Fit, Function, Quality, Reliability

No change to Form, Fit, Function, Quality and Reliability.

Product Identification

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Existing Part #
EFM32LG360F256G-F-CSP81
EFM32LG360F256G-F-CSP81R
EFM8SB10F8G-A-CSP16
EFM8SB10F8G-A-CSP16R
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Last Date of Unchanged Product: Mar 24, 2025

Qualification Samples

Available upon request

Customer Response

Lack of acknowledgment of the PCN within 30 days constitutes acceptance of the change, Ref. JEDEC-J-STD-046.

To request further data or inquire about this notification, please contact your Silicon Labs sales representative. A list of Silicon Labs sales representatives is available at http://www.silabs.com.

Customers may approve early PCN acceptance by emailing approval, along with PCN # to PCN@silabs.com

User Registration

Register today to create your account on Silabs.com. Your personalized profile allows you to receive technical document updates, new product announcements, “how-to” and design documents, product change notices (PCN) and other valuable content available only to registered users. **http://www.silabs.com/profile**

Qualification Data

Attached to this PCN Notification

EFM32LG360F256G-F-CSP81 New Bumping Qualification Report

Part Rev A2, 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 - EFM32WG							
uHAST	JA118		Q051578	0/45	1		
	Cond A: 130°C, 85%RH	3 lots, N=>25	Q051579	0/46	1	3 lots	Pass
	96 hours		Q051580	0/44	1	0/135	
Temp Cycle	JA104		Q051575	0/49	1		
	Cond C: -65°C to 150°C	3 lots, N=>25	Q051576	0/49	1	3 lots	Pass
	500 cycles		Q051577	0/47	1	0/145	
HTSL	JA103		Q051581	0/50			
	150°C, 1000hr	3 lots, N=>25	Q051582	0/50		3 lots	Pass
			Q051583	0/50		0/150	

Notes:
1. Parts are Pre-conditioned at MSL1/260°C

This report applies to the following part numbers:
EFM32LG360F256G-F-CSP81
EFM32LG360F256G-F-CSP81/R

Prepared on: 2024-12-09 by J. Doe

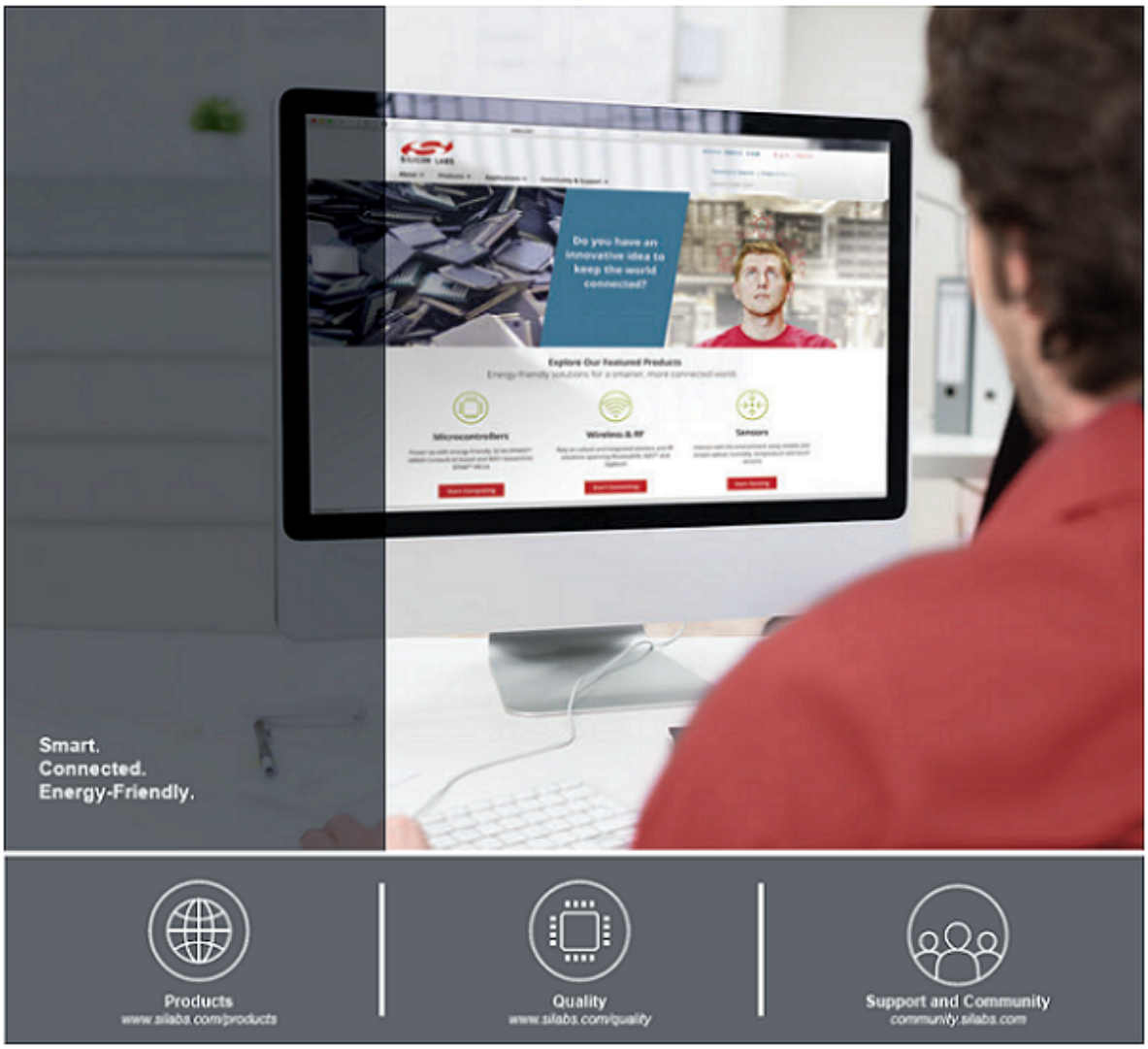
EFM8SB10F8G-A-CSP16 New Bumping Qualification Report

Part Rev C, 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 - EFM32WG							
uHAST	JA118		Q051597	0/49	1		
	Cond A: 130°C, 85%RH	3 lots, N=>25	Q051598	0/50	1	3 lots	Pass
	96 hours		Q051599	0/48	1	0/147	
Temp Cycle	JA104		Q051594	0/50	1		
	Cond C: -65°C to 150°C	3 lots, N=>25	Q051595	0/50	1	3 lots	Pass
	500 cycles		Q051596	0/50	1	0/150	
HTSL	JA103		Q051600	0/50			
	150°C, 1000hr	3 lots, N=>25	Q051601	0/50		3 lots	Pass
			Q051602	0/50		0/150	

Notes:
1. Parts are Pre-conditioned at MSL1/260°C

This report applies to the following part numbers:
EFM8SB10F8G-A-CSP16
EFM8SB10F8G-A-CSP16R

Prepared on: 2024-12-09 by Mark Borlongan



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