200630810 Change Die Attach Epoxy for 48-pin QFN Video Products

PCN Issue Date: 6/30/2020   **Effective Date:** 10/6/2020

PCN Type: Assembly

Description of Change

Silicon Labs is pleased to announce the successful qualification of die attach material of EN-4900GC for 4x4 TV Tuner. Die attach epoxy will change from Henkel 8290 to Hitachi EN-4900GC for material standardization with TV demod 7x7QFN built in JCET.

As of the effective date, Silicon Labs will phase in the new die attach material once the current assembly materials are depleted.

Reason for Change

Material standardization for die attach epoxy at JCET

Impact on Form, Fit, Function, Quality, Reliability

There is no change on form, fit, function, quality or reliability.

Product Identification

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Existing Part #
SI2137-A30-GM
SI2137-A30-GMR
SI2147-A30-GM
SI2147-A30-GMR
SI2157-A30-GM
SI2157-A30-GMR
SI2158-B45-ZM3
SI2158-B45-ZM3R
SI2158-B50-ZM3
SI2158-B50-ZM3R
SI2177-A30-GM
SI2177-A30-GMR
SI2178-B50-GM
SI2178-B50-GMR
SI2190-B30-ZM7
SI2190-B30-ZM7R
SI2190-B30-ZM8
SI2190-B30-ZM8R
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Last Date of Unchanged Product: 10/6/2020

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 PCNEarlyAcceptance@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

See attached Qualification Report.

Si2127, Si2137, Si2147, Si2157, Si2158, Si2177, Si2178 Qualification Report

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Part Rev B, SMIC Fabrication, JCET 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							
HAST	JA110		Q041867	0/25	1		
	130°C, 85%RH	3 lots, N=>25	Q041865	0/25	1	3 lots	Pass
	Vcc=3.6V, 96 hours		Q041866	0/25	1	0/75	
Temp Cycle	JA104		Q046212	0/25	1		
	Cond C: -65°C to 150°C	3 lots, N=>25	Q046262	0/25	1	3 lots	Pass
	500 cycles		Q046263	0/25	1	0/75	
HTSL	JA103		Q041891	0/25	1		
	150°C, 1000hr	3 lots, N=>25	Q041892	0/25	1	3 lots	Pass
			Q041893	0/25	1	0/75	
uHAST	JA110		Q046213	0/25	1		
	130°C, 85%RH	3 lots, N=>25	Q046260	0/25	1	3 lots	Pass
	96 hours		Q046261	0/25	1	0/75	
Test Group E – Electrical Verification							
ESD-CDM	JESD22-C101	1 lot, N=>3	Q041525	0/3		750 V	Class III

Notes:
1. Parts are Pre-conditioned at MSL2/260°C

This report applies to the following part numbers:	
Si2127-A30-GM	Si2127-A30-GMR
Si2137-A30-GM	Si2137-A30-GMR
Si2147-A30-GM	Si2147-A30-GMR
Si2157-A30-GM	Si2157-A30-GMR
Si2177-A30-GM	Si2177-A30-GMR
Si2158-B40-GM	Si2158-B40-GMR
Si2178-B40-GM	Si2178-B40-GMR
Si2178-B50-GM	Si2178-B50-GMR

Prepared on: 18-Jun-2020 by Richard Chia

Si2158 Qualification Report

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Test Name	Test Condition	Qualification	Lot ID or Start	Fail/Pass or End	Notes	Summary	Status
Test Group A – Accelerated Environment Stress Tests							
HAST	JA110		Q041867	0/25	1		
	130°C, 85%RH	3 lots, N=>25	Q041865	0/25	1	3 lots	Pass
	Vcc=3.6V, 96 hours		Q041866	0/25	1	0/75	
Temp Cycle	JA104		Q046212	0/25	1		
	Cond C: -65°C to 150°C	3 lots, N=>25	Q046262	0/25	1	3 lots	Pass
	500 cycles		Q046263	0/25	1	0/75	
HTSL	JA103		Q041891	0/25	1		
	150°C, 1000hr	3 lots, N=>25	Q041892	0/25	1	3 lots	Pass
			Q041893	0/25	1	0/75	
uHAST	JA110		Q046213	0/25	1		
	130°C, 85%RH	3 lots, N=>25	Q046260	0/25	1	3 lots	Pass
	96 hours		Q046261	0/25	1	0/75	
Test Group E – Electrical Verification							
ESD-CDM	JESD22-C101	1 lot, N=>3	Q041525	0/3		750 V	Class III

Notes:
1. Parts are Pre-conditioned at MSL2/260°C

This report applies to the following part numbers:	
Si2158-B45-ZM3	Si2158-B45-ZM3R
Si2158-B50-ZM3	Si2158-B50-ZM3R

Prepared on: 18-Jun-2020 by Richard Chia

Si2190 Qualification Report

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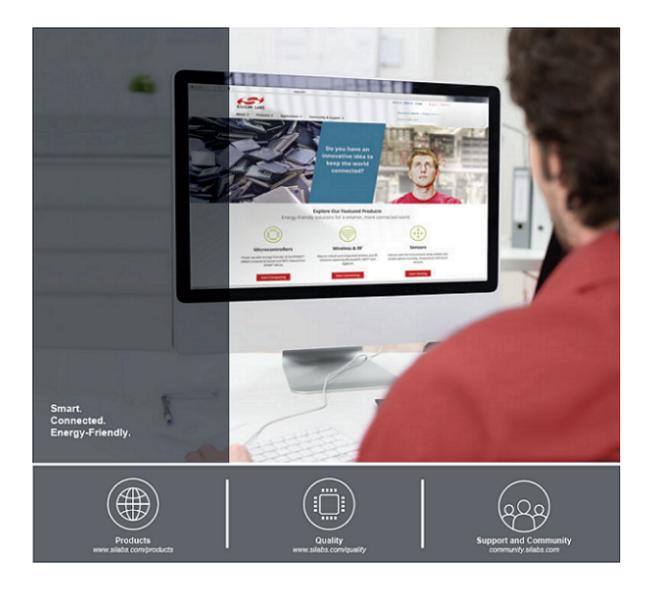| Test Name	Test Condition	Qualification	Lot ID or Start	Fail/Pass or End	Notes	Summary	Status
Test Group A – Accelerated Environment Stress Tests							
HAST	JA110		Q041860	0/25	1		
	130°C, 85%RH	3 lots, N=>25	Q041859	0/25	1	3 lots	Pass
	Vcc=3.45V, 96 hours		Q041861	0/25	1	0/75	
Temp Cycle	JA104		Q046212	0/25	1		
	Cond C: -65°C to 150°C	3 lots, N=>25	Q046262	0/25	1	3 lots	Pass
	500 cycles		Q046263	0/25	1	0/75	
HTSL	JA103		Q041889	0/25	1		
	150°C, 1000hr	3 lots, N=>25	Q041890	0/25	1	3 lots	Pass
			Q041862	0/25	1	0/75	
uHAST	JA110		Q046213	0/25	1		
	130°C, 85%RH	3 lots, N=>25	Q046260	0/25	1	3 lots	Pass
	96 hours		Q046261	0/25	1	0/75	
Test Group E – Electrical Verification							
ESD-CDM	JESD22-C101	1 lot, N=>3	Q041525	0/3		750 V	Class III

Notes:
1. Parts are Pre-conditioned at MSL2/260°C

This report applies to the following part numbers:	
Si2190-B30-ZM7	Si2190-B30-ZM7R
Si2190-B30-ZM8	Si2190-B30-ZM8R

Prepared on: 18 Jun 2020 by Richard Chia

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