



Process Change Notice #1403051

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PCN Date: 3/5/2014		Effective Date: 6/9/2014	
Title: Transition to Rev D for Si841x_2x			
Originator: Ashish Gokhale		Phone: 512 532 5379	Dept: Marketing
Customer Contact: Kathy Haggar		Phone: 512 532 5261	Dept: Sales
PCN Type: <input type="checkbox"/> Datasheet <input checked="" 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, in order to maintain continuity of supply and the same levels of lead time responsiveness and service our customers expect, is pleased to announce a polyimide change for these digital isolator products. The change replaces the current polyimide with a new polyimide used as a passivation layer within the package.			
Reason for Change: The previous polyimide has been discontinued and replaced with a revised polyimide by the current supplier.			
Impact on Form, Fit, Function, Quality, Reliability: There is no impact to form, fit, function, quality or reliability. The new polyimide material supports the same form, fit, functionality, reliability and performance attributes as the previous polyimide material.			
Product Identification: Si8422AB-D-IS Si8422BB-D-IS Si8423AB-D-IS Si8423BB-D-IS Si8410AD-D-IS Si8410BD-D-IS Si8420AD-D-IS Si8420BD-D-IS Si8421AD-D-IS Si8421BD-D-IS Si8422AD-D-IS Si8422BD-D-IS Si8423AD-D-IS Si8423BD-D-IS Si8422AB-D-YS1			
Last Date of Unchanged Product: 6/9/2014			

Appendix - Qualification Report

Si841X/2X-A/B 5KV Isolator Qualification Report



W7101F1 Product Qualification Plan and Report Rev. D

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Part Rev Si841X/2X-A/B-IS 5KV Isolator, Vanguard Fabrication, ASE 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							
Moisture/Reflow Sensitivity	JA113 Reflow 3x @260C, 22 pc CSAM per qual	3 lots, N=>231	Q30804	0/320		3 lots 0/960	Pass
			Q30806	0/320			
			Q30808	0/320			
HAST	JA110 130°C, 85%RH Vcc=5.0V, 96 hours	3 lots, N=>77	Q29646	0/80		3 lots 0/240	Pass
			Q31009	0/80			
			Q30951	0/80			
Temp Cycle	JA104 Cond C: -65°C to 150°C 500 cycles	3 lots, N=>77	Q31007	0/80		3 lots 0/240	Pass
			Q31008	0/80			
			Q31411	0/80			
HTSL	JA103 150°C, 1000hrs	1 lot, N=>45	Q28942	0/80		3 lots 0/240	Pass
			Q29641	0/80			
			Q31008	0/80			
Test Group B - Accelerated Lifetime Simulation Tests							
HTOL	JA108 125°C, Dynamic Vcc=5.0V, 1000 hours	3 lots, N=>77	Q26679	0/78		4 lots 0/318	Pass
			Q26916	0/80			
			Q27058	0/80			
			Q27144	0/80			
ELFR	AEC-Q100-008 125°C, Dynamic Vcc=5.0V, 48 hours	3 lots, N=>800	Q30805	0/805		3 lots 0/2415	Pass
			Q30807	0/805			
			Q30809	0/805			
Test Group C - Package Assembly Integrity Tests							
Wire Bond Shear	AEC-Q100-001	5 units, N=>30	388266	0/30		2 lots 0/60	Pass
			388267	0/30			
Wire Bond Pull	M-STD-883 Performed post-TC	5 units, N=>30	388266	0/30		2 lots 0/60	Pass
			388267	0/30			
Physical Dimensions	JB100	3 lots, N=>10	388266	0/30		2 los 2 lots	Pass
			388267	0/30			
Solderability	JB102	1 lot, N=>15	388266	0/10		2 lots 0/20	Pass
			388267	0/10			
Test Group E - Electrical Verification							
ESD-HBM	AEC-Q100-002	1 lot, N=>3	Q29757	0/3		±5000V	Pass
ESD-MM	AEC-Q100-003	1 lot, N=>3	Q28487	0/3		±500V	Pass
ESD-CDM	AEC-Q100-011	1 lot, N=>3	Q28485	0/3		±2000V	Pass
Latch Up	AEC-Q100-004		Q28489	0/6		25°C	Pass

Approved by: Quang Ngo

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Prepared on: 24-Mar-11

Si841X/2X-A/B 5KV Isolator Qualification Report



W7101F1 Product Qualification Plan and Report Rev. D

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Test Name	Test Condition	Qualification	Lot ID or Start	Fail/Pass or End	Notes	Summary	Status
	±200mA	1 lot, N=>6	Q28488	0/6		85 °C	Pass
Gate Leakage	AEC-Q100-006	1 lot, N=>6	Q29613	0/6		1 lot 0/6	Pass
Electromagnetic Compatibility	SAE J1752	1 lot, N=>1	04911-10	0/1		0/1	Pass

Notes:

1. Devices subjected to moisture preconditioning at MSL2A @260 °C