



Process Change Notice #1411211

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PCN Date: 11/21/2014		Effective Date: 2/27/2015	
Title: Si7006/7/13/20/21/22/23 Assembly Site Addition - ASECL			
Originator: Bill Simcoe		Phone: 1-512-532-5810	Dept: APS Marketing
Customer Contact: Kathy Haggar		Phone: 1-512-532-5261	Dept: Sales
PCN Type:			
<input type="checkbox"/> Datasheet	<input type="checkbox"/> Foundry	<input type="checkbox"/> Packing	
<input type="checkbox"/> Product Revision	<input checked="" 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 ASECL (Advanced Semiconductor Engineering Chung Li) as an additional assembly site for the Si7006, Si7007, Si7013, Si7020, Si7021, Si7022, and Si7023 products. ASECL is an existing assembly site for Silicon Labs, and is certified to ISO9001 and ISO14001. As of the effective date of the PCN, Silicon Labs will fulfill orders from either of the qualified assembly suppliers.			
Reason for Change: Increase assembly capacity and provide dual sourcing.			
Impact on Form, Fit, Function, Quality, Reliability: There is no impact to form, fit, function, quality or reliability.			

Product Identification:

This change notification applies to the following part numbers:

Si7006-A10-IM
Si7006-A10-IMR
Si7006-A10-IM1
Si7006-A10-IM1R
Si7007-A10-IM
Si7007-A10-IMR
Si7007-A10-IM1
Si7007-A10-IM1R
Si7013-A10-GM
Si7013-A10-GMR
Si7013-A10-GM1
Si7013-A10-GM1R
Si7013-A10-IM
Si7013-A10-IMR
Si7013-A10-IM1
Si7013-A10-IM1R
Si7020-A10-GM
Si7020-A10-GMR
Si7020-A10-GM1
Si7020-A10-GM1R
Si7020-A10-IM
Si7020-A10-IMR
Si7020-A10-IM1
Si7020-A10-IM1R
Si7021-A10-GM
Si7021-A10-GMR
Si7021-A10-GM1
Si7021-A10-GM1R
Si7021-A10-IM
Si7021-A10-IMR
Si7021-A10-IM1
Si7021-A10-IM1R
Si7022-A10-IM
Si7022-A10-IMR
Si7022-A10-IM1
Si7022-A10-IM1R
Si7023-A10-IM
Si7023-A10-IMR
Si7023-A10-IM1
Si7023-A10-IM1R
Si7006-A20-IM
Si7006-A20-IMR
Si7006-A20-IM1
Si7006-A20-IM1R
Si7007-A20-IM
Si7007-A20-IMR
Si7007-A20-IM1
Si7007-A20-IM1R
Si7013-A20-GM
Si7013-A20-GMR
Si7013-A20-GM1
Si7013-A20-GM1R
Si7013-A20-IM

Appendix

Si700x/Si701x/Si702x AEC-Q100 Qualification Report



W7 101F1 Product Qualification Plan and Report Rev. E

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Part Rev A, 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							
HAST	JA110 130 °C, 85%RH Vcc=3.6V, 96 hours	3 lots, N=>77	Q35916	0/80	1	3 lots 0/240	Pass
			Q35917	0/80	1		
			Q35918	0/80	1		
UHAST	JA110 130 °C, 85%RH Vcc=3.6V, 96 hours	3 lots, N=>77	Q35897	0/79	1	3 lots 0/239	Pass
			Q35896	0/80	1		
			Q35894	0/80	1		
Temp Cycle	JA104 Cond C: -65°C to 150°C 500 cycles, Wire pull	3 lots, N=>77 Cpk > 1.33	Q35903	0/79	1	3 lots 0/239	Pass Cpk > 1.33
			Q35900	0/80	1		
			Q35901	0/80	1		
HTSL	JA103 150 °C, 1000hr	1 lot, N=>45	Q35902	0/50	1	3 lots 0/149	Pass
			Q35898	0/49	1		
			Q35899	0/50	1		
Test Group B - Accelerated Lifetime Simulation Tests							
HTOL	JA108 125 °C, Dynamic Vcc=3.6V, 1000 hours	3 lots, N=>77	Q34929	0/90	2	3 lots 0/265	Pass
			Q34928	0/90	2		
			Q34007	0/85	2		
ELFR	AEC-Q100-008 125 °C, Dynamic Vcc=3.6V, 48 hours	3 lots, N=>800	Q35034	0/900	2	3 lots 0/2500	Pass
			Q34180	0/800	2		
			Q33873	0/800	2		
Test Group C - Package Assembly Integrity Tests							
Wire Bond Shear	AEC-Q100-001	5 units, N=>30 Cpk > 1.33	P3520C570E	0/6	3 lots 0/18	Pass Cpk > 1.33	
			P3520C560E	0/6			
			P3520C550E	0/6			
Wire Bond Pull	W-STD-883	5 units, N=>30 Cpk > 1.33	P3520C570E	0/6	3 lots 0/18	Pass Cpk > 1.33	
			P3520C560E	0/6			
			P3520C550E	0/6			
Physical Dimensions	JB100	3 lots, N=>10 Cpk > 1.33	P3520C570E	0/30	3 lots 0/90	Pass Cpk > 1.33	
			P3520C560E	0/30			
			P3520C550E	0/30			
Solderability	JB102	1 lot, N=>15	P3520C570E	0/10	3 lots 0/30	Pass	
			P3520C560E	0/10			
			P3520C550E	0/10			
Test Group E - Electrical Verification							
ESD-HBM	AEC-Q100-002	1 lot, N=>3	Q33875		2kV		Pass

Si700x/Si701x/Si702x AEC-Q100 Qualification Report



W7101F1 Product Qualification Plan and Report Rev. E

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Part Rev A, TSMC Fabrication, ASECL Assembly except as noted							
Test Name	Test Condition	Qualification	Lot ID or Start	Fail/Pass or End	Notes	Summary	Status
ESD-MMM	AEC-Q100-003	1 lot, N=>3	Q33876		250V		Pass
ESD-CDM	AEC-Q100-011	1 lot, N=>3	Q36463		1.25kV		Pass
Latch Up	AEC-Q100-004 ±200mA Overvoltage = 5.4V	1 lot, N=>6	Q34161 Q34160	93 C 25 C	2 2		Pass
Gate Leakage	AEC-Q100-006	1 lot, N=>6	Q35092		2		Pass

- Notes:
1. Parts are Pre-conditioned at MSL2/260°C
 2. Leveraged die family qualification data

This report applies to the following part numbers:				
Si7006-A10-IM	Si7013-A10-GM	Si7020-A10-GM	Si7021-A10-GM	Si7022-A10-IM
Si7006-A10-IMR	Si7013-A10-GMR	Si7020-A10-GMR	Si7021-A10-GMR	Si7022-A10-IMR
Si7006-A10-IM1	Si7013-A10-GM1	Si7020-A10-GM1	Si7021-A10-GM1	Si7022-A10-IM1
Si7006-A10-IM1R	Si7013-A10-GM1R	Si7020-A10-GM1R	Si7021-A10-GM1R	Si7022-A10-IM1R
Si7007-A10-IM	Si7013-A10-IM	Si7020-A10-IM	Si7021-A10-IM	Si7023-A10-IM
Si7007-A10-IMR	Si7013-A10-IMR	Si7020-A10-IMR	Si7021-A10-IMR	Si7023-A10-IMR
Si7007-A10-IM1	Si7013-A10-IM1	Si7020-A10-IM1	Si7021-A10-IM1	Si7023-A10-IM1
Si7007-A10-IM1R	Si7013-A10-IM1R	Si7020-A10-IM1R	Si7021-A10-IM1R	Si7023-A10-IM1R
Si7006-A20-IM	Si7013-A20-GM	Si7020-A20-GM	Si7021-A20-GM	Si7022-A20-IM
Si7006-A20-IMR	Si7013-A20-GMR	Si7020-A20-GMR	Si7021-A20-GMR	Si7022-A20-IMR
Si7006-A20-IM1	Si7013-A20-GM1	Si7020-A20-GM1	Si7021-A20-GM1	Si7022-A20-IM1
Si7006-A20-IM1R	Si7013-A20-GM1R	Si7020-A20-GM1R	Si7021-A20-GM1R	Si7022-A20-IM1R
Si7007-A20-IM	Si7013-A20-IM	Si7020-A20-IM	Si7021-A20-IM	Si7023-A20-IM
Si7007-A20-IMR	Si7013-A20-IMR	Si7020-A20-IMR	Si7021-A20-IMR	Si7023-A20-IMR
Si7007-A20-IM1	Si7013-A20-IM1	Si7020-A20-IM1	Si7021-A20-IM1	Si7023-A20-IM1
Si7007-A20-IM1R	Si7013-A20-IM1R	Si7020-A20-IM1R	Si7021-A20-IM1R	Si7023-A20-IM1R