



180420289 Additional Assembly and Test Site for Si32182 and Si32192

PCN Issue Date: 4/20/2018

Effective Date: 7/25/2018

PCN Type: Assembly; Test

Description of Change

Silicon Labs is pleased to announce the successful qualification of STATSCHIPAC SEMI-CONDUCTOR JIANGYIN CO., LTD (JSCC) as an additional Assembly, Test and Shipping site for Si32182 and Si32192. JSCC is certified to ISO9001, ISO14001 and ISO/TS16949.

JSCC Ship address:
STATSCHIPPAC SEMI-CONDUCTOR JIANGYIN CO., LTD.
No. 78 Changshan Rd, Jiangyin
Jiangsu, China 214437

As of the effective date of this PCN, Silicon Labs may assemble, test and ship from either of the qualified sites.

Reason for Change

Expand assembly and test capacity.

Impact on Form, Fit, Function, Quality, Reliability

No change to form, fit, function, quality, or reliability.

Product Identification

Existing Part #
Si32182-A-FM
Si32182-A-ZM1
Si32192-A-FM1
Si32192-A-ZM1
Si32192-A-ZM2

Last Date of Unchanged Product: 7/25/2018

Qualification Samples

Samples are 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

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Qualification Data

See qualification report in appendix below.



Si32182/3 Qualification Report

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Part Rev A, Vanguard Fabrication							
Test Name	Test Condition	Qualification	Lot ID or Start	Fail/Pass or End	Notes	Summary	Status
Test Group A – Accelerated Environment Stress Tests, JSCC Assembly - Ag Wire							
HAST	JA110 110°C, 85%RH Vcc=3.6V, 264 hours	3 lots, N=>25	Q042078	0/28	1	3 lots 0/84	Pass
			Q042502	0/28	1		
			Q042675	0/28	1		
Temp Cycle	JA104 Cond C: -65°C to 150°C 500 cycles	3 lots, N=>25	Q042627	0/30	1	3 lots 0/90	Pass
			Q042628	0/30	1		
			Q042629	0/30	1		
HTSL	JA103 150°C, 1000hr	3 lots, N=>25	Q042624	0/30	1	3 lots 0/90	Pass
			Q042625	0/30	1		
			Q042626	0/30	1		
uHAST	JA118 Cond A: 130°C / 85% RH 96 hr	3 lots, N=>25	Q042630	0/30	1	3 lots 0/90	Pass
			Q042631	0/30	1		
			Q042632	0/30	1		
Test Group A – Accelerated Environment Stress Tests, SPIL Assembly - Ag Wire							
HAST	JA110 110°C, 85%RH Vcc=3.6V, 264 hours	3 lots, N=>25	Q039292	0/28	1	3 lots 0/84	Pass
			Q039415	0/28	1		
			Q039440	0/28	1		
Temp Cycle	JA104 Cond C: -65°C to 150°C 500 cycles	3 lots, N=>25	Q039434	0/30	1	3 lots 0/90	Pass
			Q039383	0/30	1		
			Q039320	0/30	1		
HTSL	JA103 150°C, 1000hr	3 lots, N=>25	Q039384	0/30	1	3 lots 0/90	Pass
			Q039321	0/30	1		
			Q039435	0/30	1		
uHAST	JA118 Cond A: 130°C / 85% RH 96 hr	3 lots, N=>25	Q039436	0/29	1	3 lots 0/88	Pass
			Q039385	0/30	1		
			Q039322	0/29	1		
Test Group A – Accelerated Environment Stress Tests, SPIL Assembly - Au Wire							
HAST	JA110 110°C, 85%RH Vcc=3.6V, 264 hours	3 lots, N=>25	Q037598	0/28	1	3 lots 0/84	Pass
			Q037759	0/28	1		
			Q038693	0/28	1		
Temp Cycle	JA104 Cond C: -65°C to 150°C 500 cycles	3 lots, N=>25	Q038887	0/30	1	3 lots 0/90	Pass
			Q039247	0/30	1		
			Q039248	0/30	1		
HTSL	JA103 150°C, 1000hr	3 lots, N=>25	Q037757	0/30	1	3 lots 0/85	Pass
			Q037596	0/30	1		
			Q037823	0/25	1		



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Part Rev A, Vanguard Fabrication							
Test Name	Test Condition	Qualification	Lot ID or Start	Fail/Pass or End	Notes	Summary	Status
Test Group B – Accelerated Lifetime Simulation Tests							
HTOL	JA108	3 lots, N=>77	Q035024	0/85		3 lots	Pass
	$T_j \geq 125^\circ\text{C}$, Dynamic		Q035468	0/80			
	Vcc=3.6V, 1000 hours		Q037668	0/83			
LTOL	JA108	1 lot, N=>32	Q035041	0/38		1 lot	Pass
	$T_A = -10^\circ\text{C}$, Dynamic		0/38				
ELFR	JA108	3 lots, N=>500	Q037667	0/504		3 lots	Pass
	$T_j \geq 125^\circ\text{C}$, Dynamic		Q035670	0/517			
	Vcc=3.6V, 48 hours		Q035660	0/520			
Test Group E – Electrical Verification							
ESD-HBM	JS-001	1 lot, N=>3	Q039894		2, 4	1.5 kV	Class 1C
			Q038805		3, 5	1.6 kV	Class 1C
ESD-CDM	JS-002	1 lot, N=>3	Q039451		4	1500 V	Class C3
			Q038838		5	1500 V	Class C3
			Q042683		6	1500 V	Class C3
Latch Up	JESD78 $\pm 100\text{mA}$	1 lot, N=>3	Q038352 Q038531	85 °C 25 °C			Pass

Notes:

- Parts are Pre-conditioned at MSL2/260°C
- All pins pass 2000V HBM ESD except the RING pin which passes +2000V and -1500V.
- All pins pass 2000V HBM ESD except the RING pin which passes +2000V and -1600V.
- SPIL Assembly - Ag Wire
- SPIL Assembly - Au Wire
- JSCC Assembly - Ag Wire

This report applies to the following part numbers:	
Si32182-A-FM	Si32183-A-FM
Si32182-A-GM	Si32183-A-GM
Si32182-A-ZM1	Si32183-A-ZM1
Si32182-A-ZM2	Si32183-A-ZM2



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Si32192/3 Qualification Report

Part Rev A, Vanguard Fabrication							
Test Name	Test Condition	Qualification	Lot ID or Start	Fail/Pass or End	Notes	Summary	Status
Test Group A – Accelerated Environment Stress Tests, JSCC Assembly - Ag Wire							
HAST	JA110 110°C, 85%RH Vcc=3.6V, 264 hours	3 lots, N=>25	Q042078	0/28	1		Pass
			Q042502	0/28	1	3 lots	
			Q042675	0/28	1	0/84	
Temp Cycle	JA104 Cond C: -65°C to 150°C 500 cycles	3 lots, N=>25	Q042618	0/30	1		Pass
			Q042619	0/30	1	3 lots	
			Q042620	0/30	1	0/90	
HTSL	JA103 150°C, 1000hr	3 lots, N=>25	Q042615	0/30	1		Pass
			Q042616	0/30	1	3 lots	
			Q042617	0/30	1	0/90	
uHAST	JA118 Cond A: 130°C / 85% RH 96 hr	3 lots, N=>25	Q042621	0/30	1		Pass
			Q042622	0/30	1	3 lots	
			Q042623	0/30	1	0/90	
Test Group A – Accelerated Environment Stress Tests, SPIL Assembly - Ag Wire							
HAST	JA110 110°C, 85%RH Vcc=3.6V, 264 hours	3 lots, N=>25	Q039292	0/28	1		Pass
			Q039415	0/28	1	3 lots	
			Q039440	0/28	1	0/84	
Temp Cycle	JA104 Cond C: -65°C to 150°C 500 cycles	3 lots, N=>25	Q040307	0/30	1		Pass
			Q040410	0/30	1	3 lots	
			Q040412	0/30	1	0/90	
HTSL	JA103 150°C, 1000hr	3 lots, N=>25	Q039294	0/30	1		Pass
			Q039417	0/30	1	3 lots	
			Q039438	0/30	1	0/90	
uHAST	JA118 Cond A: 130°C / 85% RH 96 hr	3 lots, N=>25	Q040308	0/30	1		Pass
			Q040409	0/30	1	3 lots	
			Q040411	0/30	1	0/90	
Test Group B – Accelerated Lifetime Simulation Tests							
HTOL	JA108 T _J ≥ 125°C, Dynamic Vcc=3.6V, 1000 hours	3 lots, N=>77	Q035024	0/85			Pass
			Q039589	0/82		3 lots	
			Q037668	0/83		0/250	
LTOL	JA108 T _A = -10°C, Dynamic Vcc=3.6V, 1000 hours	1 lot, N=>32	Q035041	0/38		1 lot	Pass
ELFR	JA108 T _J ≥ 125°C, Dynamic Vcc=3.6V, 48 hours	3 lots, N=>500	Q037667	0/504			Pass
			Q039581	0/84			
			Q035456	0/518		4 lots	
			Q035518	0/519		0/1625	



Si32192/3 Qualification Report

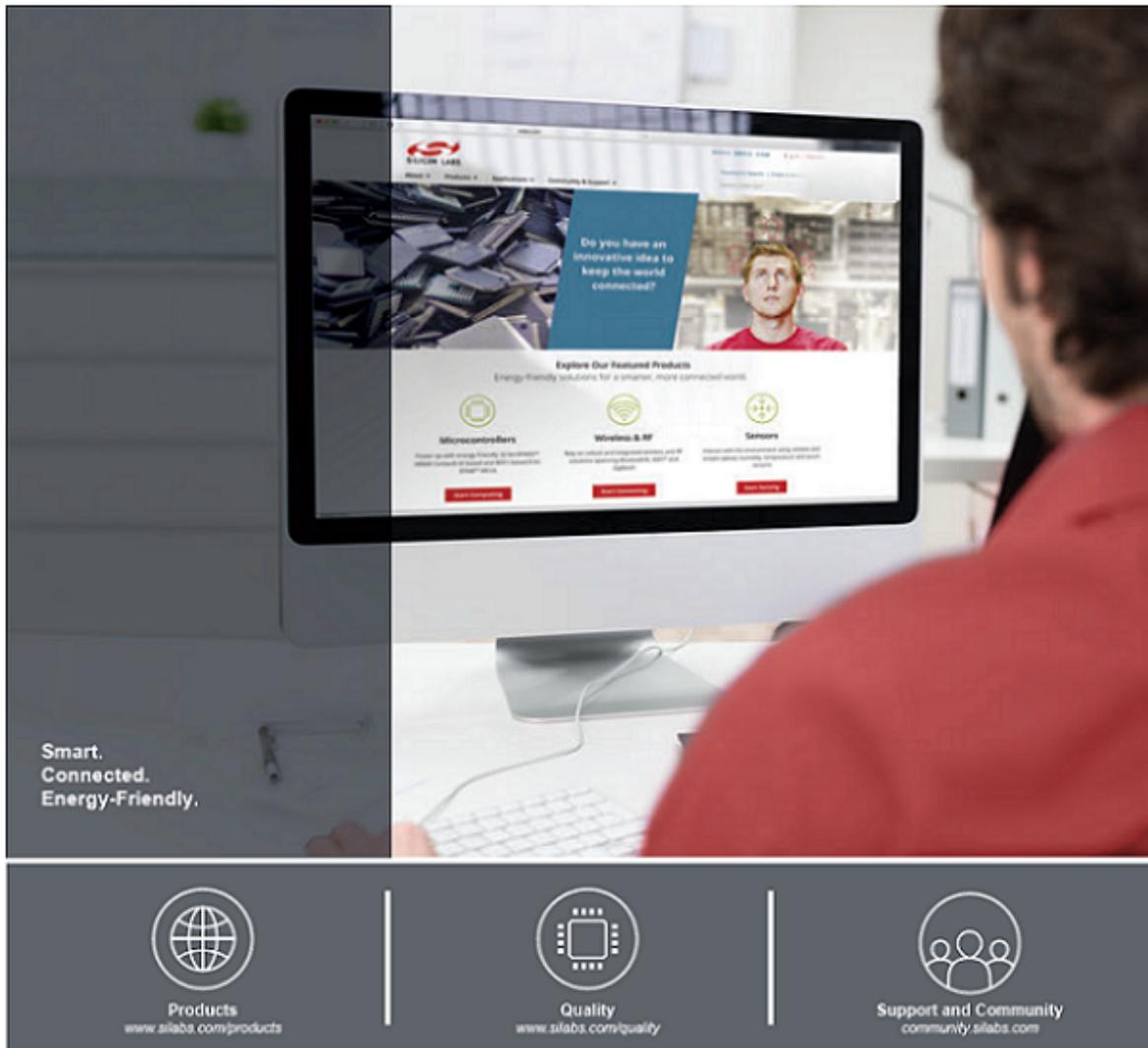
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Part Rev A, Vanguard Fabrication							
Test Name	Test Condition	Qualification	Lot ID or Start	Fail/Pass or End	Notes	Summary	Status
Test Group E – Electrical Verification							
ESD-HBM	JS-001	1 lot, N=>3	Q040263		2	2 kV	Class 2
ESD-CDM	JS-002	1 lot, N=>3	Q040462		2	1500 V	Class C3
			Q042682		3	1500 V	Class C3
Latch Up	JESD78 ±100mA	1 lot, N=>3	Q038352 Q038531	85 °C 25 °C			Pass

Notes:

1. Parts are Pre-conditioned at MSL2/260°C
2. SPIL Assembly - Ag Wire
3. JSCC Assembly - Ag Wire

This report applies to the following part numbers:	
Si32192-A-FM1	Si32193-A-FM1
Si32192-A-GM1	Si32193-A-GM1
Si32192-A-ZM1	Si32193-A-ZM1
Si32192-A-ZM2	Si32193-A-ZM2



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