



2507021664 Additional Assembly, Test and Ship Site for Si4xxx & C8051F3xx and PFAS-Free Qual

PCN Issue Date: Jul 02, 2025

Effective Date: Oct 08, 2025

PCN Type: Assembly; Test

Description of Change

Silicon Labs is pleased to announce the successful qualification of Unisem's new assembly, test and ship site "Gopeng" which is located in the same city as the current site "Simpang Pulau" for Si4x5x products (20-QFN-3x3), Si4x6x/Si4x3x products (20-QFN-4x4), C8051F30x/CF30x products (10-QFN-3x3) and C8051F33x/CF33x products (20-QFN-4x4). There is no change in equipment, process and recipe. Unisem Gopeng site is certified to ISO9001 and ISO14001.

As of the effective date of this PCN, Silicon Labs will phase in the shipments of above-stated products assembled, tested and shipped from Gopeng site.

Unisem Gopeng site address:
UNISEM (M) BHD
LOT 302285, JALAN INDUSTRI 1/1,
KAWASAN PERINDUSTRIAN GOPENG,
GOPENG, PERAK, 31600
MALAYSIA.

Additionally, Silicon Labs is pleased to announce the successful qualification of die attach epoxy material Resonac EN4900GC. For C8051F33x/CF33x products (20-QFN-4x4), the die attach epoxy will change from Henkel Ablebond 8290 (contains PFAS) to Resonac EN4900GC (PFAS-Free).

As of the effective date of this PCN, Silicon Labs will phase in the products built with new die attach epoxy material.

Reason for Change

Capacity expansion & PFAS-Free initiative

Impact on Form, Fit, Function, Quality, Reliability

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

Product Identification

Existing Part #
C8051F300-GM
C8051F300-GMR
C8051F301-GM
C8051F301-GMR
C8051F302-GM
C8051F302-GMR
C8051F303-GM
C8051F303-GMR
C8051F304-GM
C8051F304-GMR
C8051F305-GM
C8051F305-GMR
C8051F330-GM
C8051F330-GMR
C8051F331-GM

C8051F331-GMR
C8051F332-GM
C8051F332-GMR
C8051F333-GM
C8051F333-GMR
C8051F334-GM
C8051F334-GMR
C8051F335-GM
C8051F335-GMR
C8051F336-GM
C8051F336-GMR
C8051F337-GM
C8051F337-GMR
CF305-PX0342GM
CF305-PX0342GMR
CF330-XX0630GM
CF330-XX0630GMR
CF332P1755BGM
CF332P1755BGMR
SI4055-C2A-GM
SI4055-C2A-GMR
SI4060-C2A-GM
SI4060-C2A-GMR
SI4063-C2A-GM
SI4063-C2A-GMR
SI4355-C2A-GM
SI4355-C2A-GMR
SI4362-C2A-GM
SI4362-C2A-GMR
SI4438-C2A-GM
SI4438-C2A-GMR
SI4455-C2A-GM
SI4455-C2A-GMR
SI4460-C2A-GM
SI4460-C2A-GMR
SI4461-C2A-GM
SI4461-C2A-GMR
SI4463-C2A-GM
SI4463-C2A-GMR
SI4463-C2A-ZM0
SI4463-C2A-ZM0R
SI4467-A2A-IM
SI4467-A2A-IMR
SI4468-A2A-IM
SI4468-A2A-IMR

Last Date of Unchanged Product: Oct 08, 2025

Qualification Samples

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 <https://www.silabs.com>.

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

User Registration

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Qualification Data

See attached



Si4xxx-C2A / Si446x-A2A Qualification Report

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Part Rev C2, TSMC Fabrication, ASECL 20-QFN-4x4 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=3.8V, 96 hours	3 lots, N=>77	Q035030	0/80	1	6 lots 0/479	Pass
			Q035235	0/80	1		
			Q035240	0/79	1		
			Q049640	0/80	1, 6		
			Q049641	0/80	1, 6		
UHAST	JA110 130°C, 85%RH 96 hours	3 lots, N=>77	Q049642	0/80	1, 6	6 lots 0/480	Pass
			Q035032	0/80	1		
			Q035237	0/80	1		
			Q035238	0/80	1		
			Q049808	0/80	1, 2, 6		
Temp Cycle	JA104 Cond C: -65°C to 150°C 500 cycles	3 lots, N=>77	Q049809	0/80	1, 2, 6	12 lots 0/1045	Pass
			Q049810	0/80	1, 2, 6		
			Q035031	0/80	1		
			Q035236	0/80	1		
			Q035239	0/80	1		
			Q035279	0/90	1, 2		
			Q035280	0/90	1, 2		
			Q035281	0/90	1, 2		
			Q049662	0/80	1, 6		
			Q049663	0/80	1, 6		
HTSL	JA103 150°C, 1000hr	1 lot, N=>45	Q049664	0/80	1, 6	3 lots 0/175	Pass
			Q049807	0/98	1, 2, 6		
			Q049808	0/100	1, 2, 6		
			Q049805	0/97	1, 2, 6		
			Q035033	0/78	1		
Test Group A – Accelerated Environment Stress Tests (UNISEM)							
HAST	JA110 130°C, 85%RH Vcc=3.8V, 96 hours	3 lots, N=>77	Q035241	0/48	1	3 lots 0/175	Pass
			Q035242	0/49	1		
			Q049728	0/80	1		
UHAST	JA110 130°C, 85%RH 96 hours	3 lots, N=>77	Q049727	0/80	1	9 lots 0/746	Pass
			Q049728	0/80	1		
			Q049749	0/80	1		
			Q049752	0/80	1		
			Q049754	0/80	1		
			Q049842	0/90	1, 2		
			Q049845	0/88	1, 2		
			Q049848	0/90	1, 2		
			Q052143	0/80	1, 5, 7		
			Q052147	0/80	1, 5, 7		
Q052151	0/80	1, 5, 7					

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Prepared on: 2025-06-18 by Kelvin L...



Si4xxx-C2A / Si446x-A2A Qualification Report

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Part Rev C2, TSMC Fabrication, ASECL 20-QFN-4x4 Assembly except as noted							
Test Name	Test Condition	Qualification	Lot ID or Start	Fail/Pass or End	Notes	Summary	Status
Temp Cycle	JA104 Cond C: -85°C to 150°C 500 cycles	3 lots, N=>77	Q049850	0/85	1	9 lots 0/793	Pass
			Q049851	0/85	1		
			Q049852	0/84	1		
			Q049843	0/94	1, 2		
			Q049846	0/95	1, 2		
			Q049849	0/95	1, 2		
			Q052144	0/85	1,5,7		
			Q052148	0/85	1,5,7		
			Q052152	0/85	1,5,7		
HTSL	JA103 150°C, 1000hr	1 lot, N=>45	Q049925	0/80	1	9 lots 0/748	Pass
			Q049926	0/80	1		
			Q049927	0/78	1		
			Q050053	0/90	1, 2		
			Q050054	0/90	1, 2		
			Q050055	0/90	1, 2		
			Q052145	0/80	1,5,7		
			Q052149	0/80	1,5,7		
			Q052153	0/80	1,5,7		
Test Group B – Accelerated Lifetime Simulation Tests							
HTOL	JA108 T _J ≥ 125°C, Dynamic V _{cc} =3.8V, 1000 hours	3 lots, N=>77	Q035137	0/85		3 lots 0/249	Pass
			Q035721	0/81			
			Q035945	0/83			
LTOL	JA108 -10°C, Dynamic V _{cc} =3.8V, 1000 hours	1 lot, N=>77	Q030413	0/80		1 lot 0/80	Pass
ELFR	AEC-Q100-008 T _J ≥ 125°C, Dynamic V _{cc} =3.8V, 48 hours	3 lots, N=>800	Q035612	0/814		3 lots 0/2444	Pass
			Q035671	0/818			
			Q035944	0/812			
Test Group C – Package Assembly Integrity Tests							
Wire Bond Shear	AEC-Q100-001	5 units, N=>30	630749	0/30		9 lots 0/270	Pass
			630750	0/30			
			634080	0/30			
			1162036	0/30	6		
			1162307	0/30	6		
			1162038	0/30	6		
			1162040	0/30	2, 6		
			1162041	0/30	2, 6		
			1175623	0/30	2, 6		
Wire Bond Pull	M-STD-883 Performed post-TC	5 units, N=>30	630749	0/30		9 lots 0/270	Pass
			630750	0/30			
			634080	0/30			



Si4xxx-C2A / Si446x-A2A Qualification Report

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Part Rev C2, TSMC Fabrication, ASECL 20-QFN-4x4 Assembly except as noted								
Test Name	Test Condition	Qualification	Lot ID or Start	Fail/Pass or End	Notes	Summary	Status	
			Q050011	0/30	6			
			Q050012	0/30	6			
			Q050013	0/30	6			
			Q050015	0/30	2, 6			
			Q050016	0/30	2, 6			
			Q050017	0/30	2, 6			
Physical Dimensions	JB100	3 lots, N=>10	630749	0/30		9 lots 0/270	Pass	
			630750	0/30				
			634080	0/30				
			1162036	0/30	6			
			1162307	0/30	6			
			1162038	0/30	6			
			1162040	0/30	2, 6			
			1162041	0/30	2, 6			
Solderability	J-STD-002	1 lot, N=>15	630749	0/10		9 lots 0/90	Pass	
			630750	0/10				
			634080	0/10				
			1162036	0/10	6			
			1162307	0/10	6			
			1162038	0/10	6			
			1162040	0/10	2, 6			
			1162041	0/10	2, 6			
Test Group C – Package Assembly Integrity Tests (UNISEM)								
Wire Bond Shear	AEC-Q100-001	5 units, N=>30	1166864	0/30		5 lots	Pass	
			1166867	0/30	2			
			1225218	0/30	5,7			
			1225219	0/30	5,7			
			1225220	0/30	5,7			
Wire Bond Pull	M-STD-883 Performed post-TC	5 units, N=>30	Q049943	0/30		5 lots	Pass	
			Q050052	0/30	2			
			1225218	0/30	5,7			
			1225219	0/30	5,7			
			1225220	0/30	5,7	0/150		
Physical Dimensions	JB100	3 lots, N=>10	1166864	0/30		5 lots	Pass	
			1166867	0/30	2			
			1225218	0/30	5,7			
			1225219	0/30	5,7			
			1225220	0/30	5,7			
Solderability	J-STD-002		1166864	0/10				



Si4xxx-C2A / Si446x-A2A Qualification Report

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Part Rev C2, TSMC Fabrication, ASECL 20-QFN-4x4 Assembly except as noted							
Test Name	Test Condition	Qualification	Lot ID or Start	Fail/Pass or End	Notes	Summary	Status
		1 lot, N=>15	1166867	0/10	2	5 lots	Pass
			1225218	0/10	5,7		
			1225219	0/10	5,7		
			1225220	0/10	5,7	0/50	
Test Group E – Electrical Verification							
ESD-HBM	AEC-Q100-002	1 lot, N=>3	Q035921		5		±2 kV
			Q035948		4		±2 kV
			Q035953		2, 3		±2 kV
ESD-MM	AEC-Q100-003	1 lot, N=>3	Q035927		5		±200 V
			Q035949		4		±150 V
			Q035954		2, 3		±150 V
ESD-CDM	AEC-Q100-011	1 lot, N=>3	Q035919		5		±500 V
			Q036260		4		±400 V
			Q035955		3		±500 V
			Q035955		2		±500 V
Latch Up	AEC-Q100-004 ±200mA Overvoltage = 5.7V	1 lot, N=>6	Q035947	25C	5		Pass
			Q035948	125C	5		
			Q035951	25C	4		
			Q035952	125C	4		
			Q035956	25C	2, 3		
			Q035957	125C	2, 3		
Gate Leakage	AEC-Q100-008	1 lot, N=>6	Q035959	0/6		1 lot	Pass
Electromagnetic Compatibility	SAE J1752	1 lot, N=>1	Q035960	0/1		1 lot	Pass

Notes:

1. Parts are Pre-conditioned at MSL1/260°C
2. Qualification applies to Si4x5x (3x3 QFN package)
3. Qualification applies to Si4461
4. Qualification applies to Si4060, Si4460, Si4467
5. Qualification applies to Si4063, Si4362, Si4438, Si4463, Si4468
6. Qualification applies to streamline BOM update at ASECL
7. Qualification applies to assemble plant at UNISEM Gopeng

This report applies to the following part numbers:

Si4055-B1A-FM	Si4355-B1A-FM	Si4438-B1C-FDI	Si4460-B1B-FDI
Si4055-C2A-GM	Si4355-C2A-GM	Si4438-B1C-FM	Si4460-B1B-FM
Si4060-B1B-FM	Si4356-B1A-FM	Si4438-C2A-GM	Si4460-C2A-GM
Si4060-C2A-GM	Si4356-C2A-GM	Si4455-B1A-FM	Si4461-B1B-FM
Si4063-B1B-FM	Si4362-B1B-FM	Si4455-C2A-GM	Si4461-C2A-GM
Si4063-C2A-GM	Si4362-C2A-GM		Si4463-B1B-FM
		Si4467-A2A-IM	Si4463-C2A-GM
		Si4468-A2A-IM	Si4464-B1B-FM



C8051F33x Qualification Report

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Part Rev A, TSMC Fabrication, Unisem Gopeng 20-SLP-4x4 Assembly

Test Name	Test Condition	Qualification	Lot ID or Start	Fail/Pass or End	Notes	Summary	Status
Test Group A – Accelerated Environment Stress Tests							
UHAST	JA118 Cond A: 130°C, 85%RH 96 hours	3 lots, N=>25	Q052282	0/30	1, 2, 3	3 lots 0/90	Pass
			Q052286	0/30	1, 2, 3		
			Q052290	0/30	1, 2, 3		
Temp Cycle	JA104 Cond C: -65°C to 150°C 500 cycles	3 lots, N=>25	Q052283	0/30	1, 2, 3	3 lots 0/90	Pass
			Q052287	0/30	1, 2, 3		
			Q052291	0/30	1, 2, 3		
HTSL	JA103 150°C, 1000hr	3 lots, N=>25	Q052284	0/30	1, 2, 3	3 lots 0/90	Pass
			Q052288	0/30	1, 2, 3		
			Q052292	0/30	1, 2, 3		

Notes:

1. Parts are Pre-conditioned at MSL1/260°C
2. Assembled in Unisem Gopeng Plant
3. Uses PFAS-free Resonac EN4900GC die attach epoxy

This report applies to the following part numbers:

C8051F336-GM
C8051F337-GM

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Part Rev B, TSMC Fabrication, Unisem 20-SLP-4x4 Assembly							
Test Name	Test Condition	Qualification	Lot ID or Start	Fail/Pass or End	Notes	Summary	Status
Test Group A – Accelerated Environment Stress Tests							
UHAST	JA118 Cond A: 130°C, 85%RH 96 hours	3 lots, N=>25	Q052282	0/30	1, 2, 3	3 lots 0/90	Pass
			Q052286	0/30	1, 2, 3		
			Q052290	0/30	1, 2, 3		
Temp Cycle	JA104 Cond C: -65°C to 150°C 500 cycles	3 lots, N=>25	Q052283	0/30	1, 2, 3	3 lots 0/90	Pass
			Q052287	0/30	1, 2, 3		
			Q052291	0/30	1, 2, 3		
HTSL	JA103 150°C, 1000hr	3 lots, N=>25	Q052284	0/30	1, 2, 3	3 lots 0/90	Pass
			Q052288	0/30	1, 2, 3		
			Q052292	0/30	1, 2, 3		
Notes: 1. Parts are Pre-conditioned at MSL1/260°C 2. Assembled in Unisem Gopeng Plant 3. Uses PFAS-free Resonac EN4900GC die attach epoxy							
This report applies to the following part numbers:							
C8051F330-GM	C8051F332-GM	C8051F334-GM					
C8051F331-GM	C8051F333-GM	C8051F335-GM					



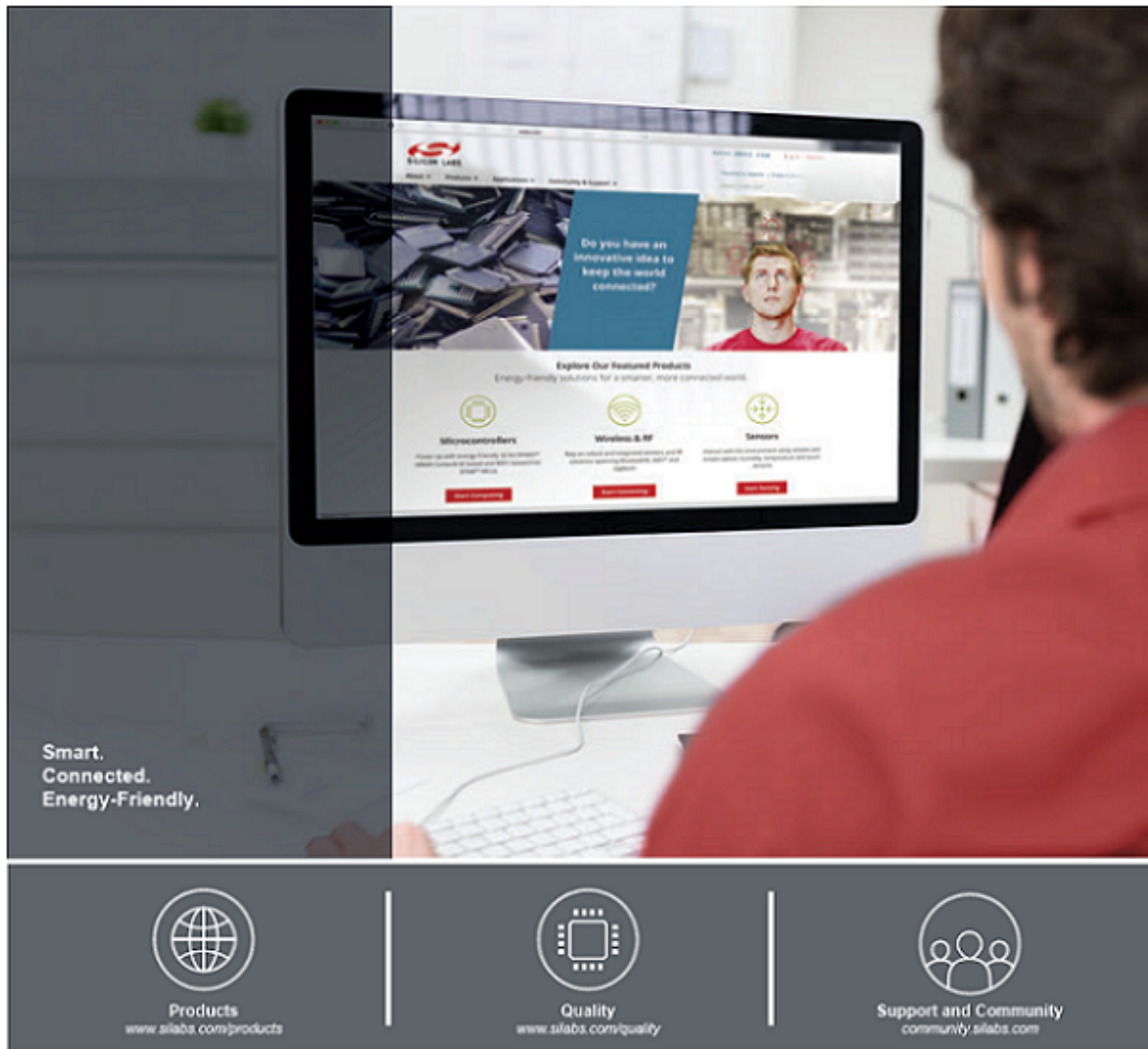
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C8051F30x Qualification Report

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Part Rev E, TSMC Fabrication, Unisem 10-DFN-3x3 Assembly

Test Name	Test Condition	Qualification	Lot ID or Start	Fail/Pass or End	Notes	Summary	Status
Test Group A – Accelerated Environment Stress Tests							
UHAST	JA118	3 lots, N=>25	Q052282	0/30	1,2	3 lots	Pass
	Cond A: 130°C, 85%RH		Q052286	0/30	1,2		
	96 hours		Q052290	0/30	1,2		
Temp Cycle	JA104	3 lots, N=>25	Q052283	0/30	1, 2	3 lots	Pass
	Cond C: -65°C to 150°C		Q052287	0/30	1, 2		
	500 cycles		Q052291	0/30	1, 2		
HTSL	JA103	3 lots, N=>25	Q052284	0/30	1,2	3 lots	Pass
	150°C, 1000hr		Q052288	0/30	1,2		
			Q052292	0/30	1,2		
Notes:							
1. Parts are Pre-conditioned at MSL1/260°C							
2. Assembled in Unisem Gopeng Plant							
This report applies to the following part numbers:							
C8051F300-GM	C8051F302-GM	C8051F304-GM					
C8051F301-GM	C8051F303-GM	C8051F305-GM					



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