



2606241827 SixG301 Minor Product update, SE FW revision update & Data Sheet rev 1.0 release

PCN Issue Date: Jun 24, 2026

Effective Date: Sep 30, 2026

PCN Type: Datasheet; Foundry; Firmware / Software : Other

Description of Change

Silicon Labs is introducing a minor product update to the SiBG301 and SiMG301 products as part of ongoing improvements. No impact to form, fit, quality, or reliability. The boot time function of the product will improve. Material incorporating this change will report updated register values, including SYSCFG->CHIPRELVHW.MINOR = 1 and SYSCFG->ROMRELVHW.SEROMREV = 8. The ordering part number remains unchanged.

In support of this minor product update, Silicon Labs will program production material with Secure Engine firmware (SEFW) version 3.3.7.

Customer using Silicon Labs radio software must use RAIL 3.0.0 or later (SiSDK 2025.12.0 or later) for the above-mentioned changes.

The existing material will continue to ship to customers until depletion before transition to the updated material which is expected to occur after the PCN effective date. Please note that only the updated materials will be programmed to SEFW 3.3.7.

Data sheet revision 1.0 update will be released on PCN issuance date.

Links to data sheets:

SiBG301 v1.0: <https://www.silabs.com/documents/public/data-sheets/sibg301-datasheet.pdf>

SiMG301 v1.0: <https://www.silabs.com/documents/public/data-sheets/simg301-datasheet.pdf>

Software Impact Description

Updated Secure Engine firmware (SEFW) version 3.3.7.

Customer using Silicon Labs radio software must use RAIL 3.0.0 (SiSDK 2025.12.0 or later) or later for the above-mentioned changes.

Reason for Change

This change is made as part of ongoing improvements.

Impact on Form, Fit, Function, Quality, Reliability

No impact to form, fit, quality, or reliability. The boot time function of the product will improve.

Product Identification

Existing Part #
SiMG301M103LIHB0
SiMG301M103LIHB0R
SiMG301M103WIHB0
SiMG301M103WIHB0R
SiMG301M104LGH0
SiMG301M104LGH0R
SiMG301M104LIHB0

SIMG301M104LIHB0R
SIMG301M113WIHB0
SIMG301M113WIHB0R
SIMG301M114KGHB0
SIMG301M114KGHB0R
SIMG301M114KIHB0
SIMG301M114KIHB0R
SIMG301M114LGHB0
SIMG301M114LGHB0R
SIMG301M114LIHB0
SIMG301M114LIHB0R
SIMG301M104XILB0
SIMG301M104XILB0R
SIMG301M104LGLB0
SIMG301M104LGLB0R
SIMG301M104LILB0
SIMG301M104LILB0R
SIBG301M104LGH0
SIBG301M104LGH0R
SIBG301M104LIHB0
SIBG301M104LIHB0R
SIBG301M114KGHB0
SIBG301M114KGHB0R
SIBG301M114KIHB0
SIBG301M114KIHB0R
SIBG301M104XILB0
SIBG301M104XILB0R
SIBG301M104LGLB0
SIBG301M104LGLB0R
SIBG301M104LILB0
SIBG301M104LILB0R

Last Date of Unchanged Product: Sep 30, 2026

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 Appendix



SixG301 Qualification Report

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Part Rev B, 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 32-QFN-MCM-4x4 (125C variant of OPNs)							
UHASt	JA118	3 lots, N=>25	Q051504	0/80	1,12	3 lots 0/240	Pass
	Cond A: 130°C, 85%RH		Q051505	0/80	1,12		
	96 hours		Q051506	0/80	1,12		
HAST	JA110	3 lots, N=>25	Q051818	0/80	1,12	3 lots 0/240	Pass
	Cond B: 110°C, 85%RH		Q051651	0/80	1,12		
	Vcc=3.6V, 264 hours		Q051503	0/80	1,12		
Temp Cycle	JA104	3 lots, N=>25	Q051507	0/80	1,12	4 lots 0/270	Pass
	Cond C: -65°C to 150°C		Q051508	0/80	1,12		
	500 cycles		Q051509	0/80	1,12		
HTSL	JA103	3 lots, N=>25	Q051510	0/28	1	3 lots 0/84	Pass
	150°C, 1000hr		Q051511	0/28	1		
			Q051512	0/28	1		
Test Group A – Accelerated Environment Stress Tests 32-QFN-MCM-4x4 (85C variant of OPNs)							
HAST	JA110	3 lots, N=>25	Q052268	0/30	1	3 lots 0/90	Pass
	Cond B: 110°C, 85%RH		Q052269	0/30	1		
	Vcc=3.6V, 264 hours		Q052270	0/30	1		
Temp Cycle	JA104	3 lots, N=>25	Q052271	0/30	1	4 lots 0/270	Pass
	Cond C: -65°C to 150°C		Q052272	0/30	1		
	500 cycles		Q052273	0/30	1		
HTSL	JA103	3 lots, N=>25	Q052274	0/28	1	3 lots 0/82	Pass
	150°C, 1000hr		Q052323	0/27	1		
			Q052324	0/27	1		
Test Group A – Accelerated Environment Stress Tests 40-QFN-MCM-5x5 (125C variant of OPNs)							
UHASt	JA118	3 lots, N=>25	Q051938	0/80	1	3 lots 0/240	Pass
	Cond A: 130°C, 85%RH		Q051937	0/80	1		
	96 hours		Q051938	0/80	1		
HAST	JA110	3 lots, N=>25	Q051933	0/77	1	3 lots 0/231	Pass
	Cond B: 110°C, 85%RH		Q051934	0/77	1		
	Vcc=3.6V, 264 hours		Q051935	0/77	1		
Temp Cycle	JA104	3 lots, N=>25	Q051852	0/80	1	3 lots 0/270	Pass
	Cond C: -65°C to 150°C		Q051930	0/80	1		
	500 cycles		Q051931	0/80	1		
HTSL	JA103	3 lots, N=>25	Q051939	0/28	1	3 lots 0/84	Pass
	150°C, 1000hr		Q051940	0/28	1		
			Q051941	0/28	1		
Test Group A – Accelerated Environment Stress Tests 40-QFN-MCM-5x5 (85C variant of OPNs)							



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HAST	JA110		Q052257	0/30	1		
	Cond B: 110°C, 85%RH	3 lots, N=>25	Q052260	0/30	1	3 lots	Pass
	Voc=3.6V, 264 hours		Q052277	0/30	1	0/90	
Temp Cycle	JA104		Q052258	0/30	1		
	Cond C: -65°C to 150°C	3 lots, N=>25	Q052261	0/30	1	3 lots	Pass
	500 cycles		Q052278	0/30	1	0/270	
HTSL	JA103		Q052259	0/28	1		
	150°C, 1000hr	3 lots, N=>25	Q052262	0/28	1	3 lots	Pass
			Q052279	0/28	1	0/84	
Test Group A – Accelerated Environment Stress Tests 40-QFN-5x5 (125C variant of OPNs, external flash)							
HAST	JA110		Q051688	0/30	2		
	Cond B: 110°C, 85%RH	3 lots, N=>25	Q051689	0/30	2	3 lots	Pass
	Voc=3.6V, 264 hours		Q051690	0/30	2	0/90	
Temp Cycle	JA104		Q051684	0/30	2		
	Cond C: -65°C to 150°C	3 lots, N=>25	Q051685	0/30	2	3 lots	Pass
	500 cycles		Q051686	0/30	2	0/270	
HTSL	JA103		Q051681	0/30	2		
	150°C, 1000hr	3 lots, N=>25	Q051682	0/30	2	3 lots	Pass
			Q051683	0/30	2	0/90	
Test Group A – Accelerated Environment Stress Tests 32-QFN-MCM-4x4 (125C variant of OPNs) - UTL							
UHAST	JA118		Q051974	0/80	1,12		
	Cond A: 130°C, 85%RH	3 lots, N=>25	Q051975	0/80	1,12	3 lots	Pass
	96 hours		Q051976	0/80	1,12	0/240	
HAST	JA110		Q051971	0/80	1,12		
	Cond B: 110°C, 85%RH	3 lots, N=>25	Q051972	0/80	1,12	3 lots	Pass
	Voc=3.6V, 264 hours		Q051973	0/80	1,12	0/240	
Temp Cycle	JA104		Q051977	0/80	1,12		
	Cond C: -65°C to 150°C	3 lots, N=>25	Q051978	0/80	1,12	3 lots	Pass
	500 cycles		Q051979	0/80	1,12	0/270	
HTSL	JA103		Q051980	0/28	1		
	150°C, 1000hr	3 lots, N=>25	Q051981	0/28	1	3 lots	Pass
			Q051982	0/28	1	0/84	
Test Group A – Accelerated Environment Stress Tests 40-QFN-5x5 (125C variant of OPNs, external flash) - UTL							
HAST	JA110		Q051842	0/30	2		
	Cond B: 110°C, 85%RH	3 lots, N=>25	Q051843	0/30	2	3 lots	Pass
	Voc=3.6V, 264 hours		Q051844	0/30	2	0/90	
Temp Cycle	JA104		Q051845	0/30	2		
	Cond C: -65°C to 150°C	3 lots, N=>25	Q051846	0/30	2	3 lots	Pass
	500 cycles		Q051847	0/30	2	0/270	



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HTSL	JA103 150°C, 1000hr	3 lots, N=>25	Q051848 Q051849 Q051850	0/30 0/30 0/30	2 2 2	3 lots 0/80	Pass
Test Group B – Accelerated Lifetime Simulation Tests							
HTOL	JA108 T _J ≥ 125°C, Dynamic V _{CC} =3.8V, 1000 hours	3 lots, N=>77	Q051566 Q051724 Q051984	0/80 0/80 0/80	11	3 lots 0/240	Pass
LTOL	JA108 T _A = -40°C, Dynamic V _{CC} =3.8V, 1000 hours	1 lot, N=>32	Q051613	0/35		1 lot 0/35	Pass
ELFR	JA108 T _J ≥ 125°C, Dynamic V _{CC} =3.8V, 48 hours	3 lots, N=>500	Q051612 Q051685 Q051983 Q052053	0/557 0/547 0/463 0/80		4 lots 0/1647	Pass
NVM Endurance, Retention and Operating Life	JESD22-A117 25°C 500 hours	3 lots, N=>38		0/38 0/38 0/38	3 3 3	3 lots 0/114	Pass
NVM Endurance, Retention and Operating Life	JESD22-A117 + JESD22-A103 150°C, 1000 hours	3 lots, N=>39		0/39 0/39 0/39	4 4 4	3 lots 0/117	Pass
NVM Endurance, Retention and Operating Life	JESD22-A117 + JESD22-A103 125°C, 100 hours	3 lots, N=>39		0/39 0/39 0/39	5 5 5	3 lots 0/117	Pass
Test Group E – Electrical Verification							
ESD-HBM	JS-001	1 lot, N=>3	Q052023			2 kV	Class 2
ESD-CDM	JS-002	1 lot, N=>3	Q052022		6	TC 1000V	Class C3
			Q052181		8	TC 1000V	Class C3
			Q051988		7	TC 1000V	Class C3
			Q052076		10	TC 1000V	Class C3
			Q052060		9	TC 1000V	Class C3
			Q053238		13	TC 1000V	Class C3
Latch Up	JESD78 ±100mA	1 lot, N=>3	Q052024 Q052392 Q052025	25 °C 105 °C 125 °C			Level A Level A Level A

Notes:

1. Parts are Pre-conditioned at MSL3/260°C for 32-QFN-MCM-4x4 and 40-QFN-MCM-5x5
2. Parts are Pre-conditioned at MSL2/260°C for 40-QFN-5x5
3. Preconditioned with 10K write/erase cycles at 25°C; Referenced from Co-packaged flash supplier



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4. Preconditioned with 10K write/erase cycles at 125°C; Referenced from Co-packaged flash supplier (125C variant of OPNs)
5. Preconditioned with 10K write/erase cycles at 85°C; Referenced from Co-packaged flash supplier (85C variant of OPNs)
6. 32-QFN-MCM-4x4 ASECL
7. 32-QFN-MCM-4x4 UTL
8. 40-QFN-MCM-5x5 ASECL
9. 40-QFN-5x5 ASECL
10. 40-QFN-5x5 UTL
11. Extended HTOL stress to 1700 hours and HOT functional test for customer special requirement
12. Increased sample size for customer special requirement
13. B1 minor revision update

This report applies to the following part numbers:

SiMG301M114LIHB0	SiMG301M104LILB0
SiMG301M114LGH0	SiMG301M104LGLB0
SiMG301M114KIHB0	SiBG301M104LILB0
SiMG301M114KGHB0	SiBG301M104LGLB0
SiMG301M104LIHB0	
SiMG301M104LGH0	SiMG301M104XILB0
SiMG301M103WIHB0	SiBG301M104XILB0
SiMG301M103LIHB0	
SiBG301M114KIHB0	SIMG301M113WIHB0
SiBG301M114KGHB0	
SiBG301M104LIHB0	
SiBG301M104LGH0	

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