

2406191540 Additional Source for MGM210L Modules, Datasheet, Errata, SE FW Updates

PCN Issue Date: Jun 19, 2024

Effective Date: Sep 25, 2024

PCN Type: Datasheet; Errata; Firmware - Secure Engine Software Catalog OPN; Foundry

Description of Change

Silicon Labs is pleased to announce that the MGM210L Modules will be available with EFR32MG21 rev D ICs manufactured at the Semiconductor Manufacturing International Corporation (SMIC) in addition to the existing MGM210L Modules with ICs from the Taiwan Semiconductor Manufacturing Company (TSMC). This added manufacturing capability is needed to increase capacity to ensure supply continuity due to increased demand for our Wireless SoCs and MCUs.

As of the effective date of this PCN, customers will be able to order two revisions of the MGM210L Module.

1. The existing MGM210L revision "2" which will contain the EFR32MG21 rev B (TSMC)

2. The new MGM210L revision "3" which contains the EFR32MG21 rev D (SMIC)

Silicon Labs will ship both the MGM210L revision "2" and revision "3" modules based on orderable part number (OPN) selected.

The last character of the OPN represents the revision of the module.

Silicon Labs is also announcing an upgrade to the Secure Engine firmware version from 1.2.13 to 1.2.16 for MGM210L revision 2 modules.

Updated datasheet:

MGM210L v1.5: https://www.silabs.com/documents/public/data-sheets/mgm210l-datasheet.pdf

The main changes:

Added all Revision 3 OPNs.

Please refer to the datasheet revision history for a complete list of changes.

The Secure Engine firmware release notes can be found here: https://github.com/SiliconLabs/gecko_sdk/blob/gsdk_4.1/util/se_release/public/s2c1_se_fw_release_notes.pdf

Updated errata:

MGM210L v0.4: https://www.silabs.com/documents/public/errata/mgm210I-errata.pdf

Updated to module revision 3.

Added IADC E307 (Immediate Conversion When Enabling IADC Configured for PRS Trigger).

Reason for Change

Alternate foundry for capacity expansion.

Impact on Form, Fit, Function, Quality, Reliability

No impact on form, fit, quality or reliability. Impact on function will be explained in errata and an update to the new software that will need to be ported which is explained in the application note "AN1377: EFR32xG21 Revision B to Revision C+ Compatibility and Migration Guide" available at: https://www.silabs.com/documents/public/application-notes/an1377-xg21-revb-to-revcmigration.pdf

Product Identification

Revision 2 (TSMC) and 3 (SMIC) will both be available for order.

Existing Part # MGM210LA22JIF2 MGM210LA22JIF2R MGM210LA22JNF2 MGM210LA22JNF2R MGM210LA22JIF3 MGM210LA22JIF3R MGM210LA22JNF3 MGM210LA22JNF3R

Last Date of Unchanged Product: Sep 25, 2024

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 http://www.silabs.com.

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

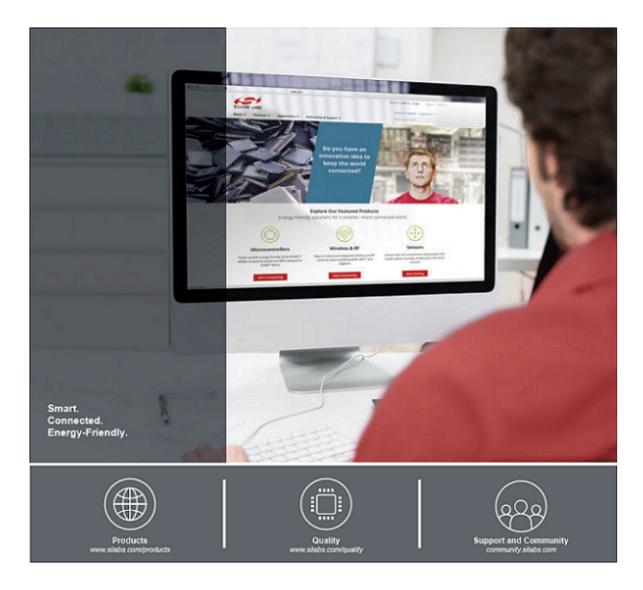
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Qualification Data

See attached.

ALCOS STREET,	MGM210L PCBA Modu	lle			_		
Fest Name	Test Condition	Qualification	Lot ID or F	End	Notes	Summary	Status
	- Accelerated Environment \$		Start	LING	notes	Summary	Status
COMPACT OF CONTRACTOR	JESD22-A113	1000	Q043763	0/22	2	1 1	
recordination	MSL3: 260°C	1 lot, N=>10	Q043986	0/12	2	6 lots	Pass
	30°C / 60%RH / 192 Hr		Q044614	0/10	3	0/80	
			Q046224	0/12	4		
			Q048912 Q049041	0/12 0/12	57		
Temp Cycle	JESD22-A104		Q043769	0/11	1,2		
	Cond G: -40°C to 125°C	1 lot, N=>10	Q044617	0/10	1,3	5 lots	Pass
	850 cycles	1100,11 - 10	Q046287	0/12	1,4	0/55	1 455
	oov cyclos		Q048913	0/10	1,5	0.00	
			Q049042	0/12	1,7		
Temp Cycle	JESD22-A104		4043042	0112	1,1		
	Cond N: -40°C to 85°C	1 lot, N=>10	Q043764	0/11	1.2	1 lot 0/11	Pass
	1500 cycles	1100, 14-210	0043704	UTT	1, 2		
est Group C -		tv Tests	<u> </u>		-	U/II	
Mechanical Shock	JESD22-B110, Cond. B (1500g)	1 lot, N=>10	Q043766	0/10	2	5 lots 0/50	Pass
			Q043766	0/10	3		
			Q044818	0/10	4		
	1		Q046350 Q048918		5	UCIU	
				0/10	7		
Mechanical Vibration	JESD22-8103, Cond. 1 (20-2000Hz)	1 lot, N=>10	Q049044 Q043767	0/10	2	5 lots 0/50	Pass
			100000000000000000000000000000000000000	200	10000		
			Q044615	0/10	3		
			Q046351	0/10	4		
			Q048919	0/10	5		
Cleanliness Assessment	IPC-TM-650 2.3.28B	1 lot, N=>10	Q049045	0/10	7	5 lots	Pass
			Q043768	0/10	2		
			Q044618	0/10	3		
			Q046352	0/10	4	0/50	
			Q048920	0/10	5		
Cost Course F	Floatneel Verfaction		Q049046	0/10	7		_
SD-CDM	- Electrical Verification	1 lot, N=>3	Q048917	0/3	6	1 250V I	Class C
-00W	33-002	1101, 14=25	Q048917 Q050171	0/3	67	2507	Ulass C



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