



# 2208031317 ZGM230S New Revision 3 Parts and Datasheet Update

**PRCN Issue Date:** Aug 03, 2022

**Effective Date:** Nov 09, 2022

**PCN Type:** Datasheet; Product Revision

## Description of Change

Silicon Labs is pleased to announce revision V3 for ZGM230S Z-Wave 800 SiP module family, updating the embedded SoC to EFR32ZG23 revC (PRCN# 2206211261 dated 6/21/2022).

The new module revision are pin-compatible replacements for the previous revision devices.

The datasheet is updated to revision 1.0 to update new revision part numbers.

Link to datasheet: <https://www.silabs.com/documents/public/data-sheets/zgm230s-datasheet.pdf>

See the datasheet revision history below for a complete list of changes:

Revision 1.0

July, 2022

- Corrected OPNs in Section 2. Ordering Information
- Corrected RX current consumption in Table 4.5 Z-Wave Radio Current Consumption at 3.3 V on page 14
- Added TX output power and current consumption figures for 868MHz band for
  - Table 4.5 Z-Wave Radio Current Consumption at 3.3 V on page 14
  - Table 4.6 Z-Wave Radio Current Consumption at 1.8 V on page 15
- Corrected and added FCC PSD measurements for peak and average method in Table 4.9 915 MHz Band +14 dBm RF Transmitter Characteristics for Z-Wave on page 18
- Corrected sensitivity figures for
  - Table 4.10 868 MHz Band RF Receiver Characteristics for Z-Wave on page 20
  - Table 4.11 915 MHz Band RF Receiver Characteristics for Z-Wave on page 22

Note: After the effective date of the PRCN, Silicon Labs will not accept orders for the prior revision.

## Reason for Change

Product revision and datasheet update to version 1.0.

## Impact on Form, Fit, Function, Quality, Reliability

No change to Form, Fit, Quality or Reliability. Improved Function, fixed CUR\_E303 on the SoC.

## Product Identification

Existing Part #	Replacement Part #	DropInCompInd.
ZGM230SA27HGN2	ZGM230SA27HGN3	Yes
ZGM230SA27HGN2R	ZGM230SA27HGN3R	Yes
ZGM230SB27HGN2	ZGM230SB27HGN3	Yes
ZGM230SB27HGN2R	ZGM230SB27HGN3R	Yes

## Kit Identification

Kits impacted by the above product are listed below.

Orders for the following obsolete kits will no longer be accepted.

**Last Date of Unchanged Product:** Nov 09, 2022

### **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 [PCNEarlyAcceptance@silabs.com](mailto:PCNEarlyAcceptance@silabs.com)

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### **Qualification Data**

See attached.



## ZGM230s Qualification Report

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Part Rev A2, TSMC Fabrication, ASEKr 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							
Preconditioning	JA113		Q047079	0/30	1		
	MSL3@260°C, 30°C/60%RH	3 lots, N=>25	Q047080	0/30	1	3 lots	Pass
	192 hours		Q047081	0/30	1	0/90	
Temp Cycle	JA104		Q047453	0/25	1		
	Cond C: -65°C to 150°C	3 lots, N=>25	Q047454	0/25	1	3 lots	Pass
	500 cycles		Q047455	0/25	1	0/75	
HTSL	JA103		Q046921	0/25	1		
	150°C, 1000hr	3 lots, N=>25	Q046922	0/25	1	3 lots	Pass
			Q046923	0/25	1	0/75	
THB	JA101		Q046927	0/25	1		
	85°C / 85%RH	3 lots, N=>25	Q046928	0/25	1	3 lots	Pass
	1000 hours		Q046929	0/25	1	0/75	
Test Group B – Accelerated Lifetime Simulation Tests							
HTOL	JA108		Q047202	0/79	2		
	T <sub>J</sub> ≥ 125°C, Dynamic Vcc=VccV, 1000 hours	3 lots, N=>77	Q047506	0/79	2	2 lots 0/158	Pass
HTOL	JA108						
	T <sub>J</sub> ≥ 125°C, Dynamic Vcc=VccV, 100 hours	3 lots, N=>77	Q048111	0/85	3	1 lots 0/85	Pass
LTOL	JA108						
	T <sub>A</sub> = -10°C, Dynamic Vcc=VccV, 1000 hours	1 lot, N=>32	Q042871	0/32	2	1 lots 0/32	Pass
ELFR	JA108						
	T <sub>J</sub> ≥ 125°C, Dynamic Vcc=VccV, 48 hours	3 lots, N=>500	Q047229 Q047696	0/505 0/504	2 2	2 lots 0/1009	On-going
Data Retention High Temp	JA117		Q047314	0/40	2		
	TA = 100°C, 96 hours	3 lot, N=>39	Q047499	0/40	2	3 lots	Pass
	100% cycling spec		Q047787	0/40	2	0/120	
Data Retention Low Temp	JA117		Q047329	0/40	2		
	TA = 25°C, 500 hours	3 lots, N=>500	Q047522	0/40	2	3 lots	Pass
	Op Life		Q047673	0/39	2	0/119	
Test Group E – Electrical Verification							
ESD-HBM	JS-001						
		1 lot, N=>3	Q046940			2.5 kV	Class 2



## ZGM230s Qualification Report

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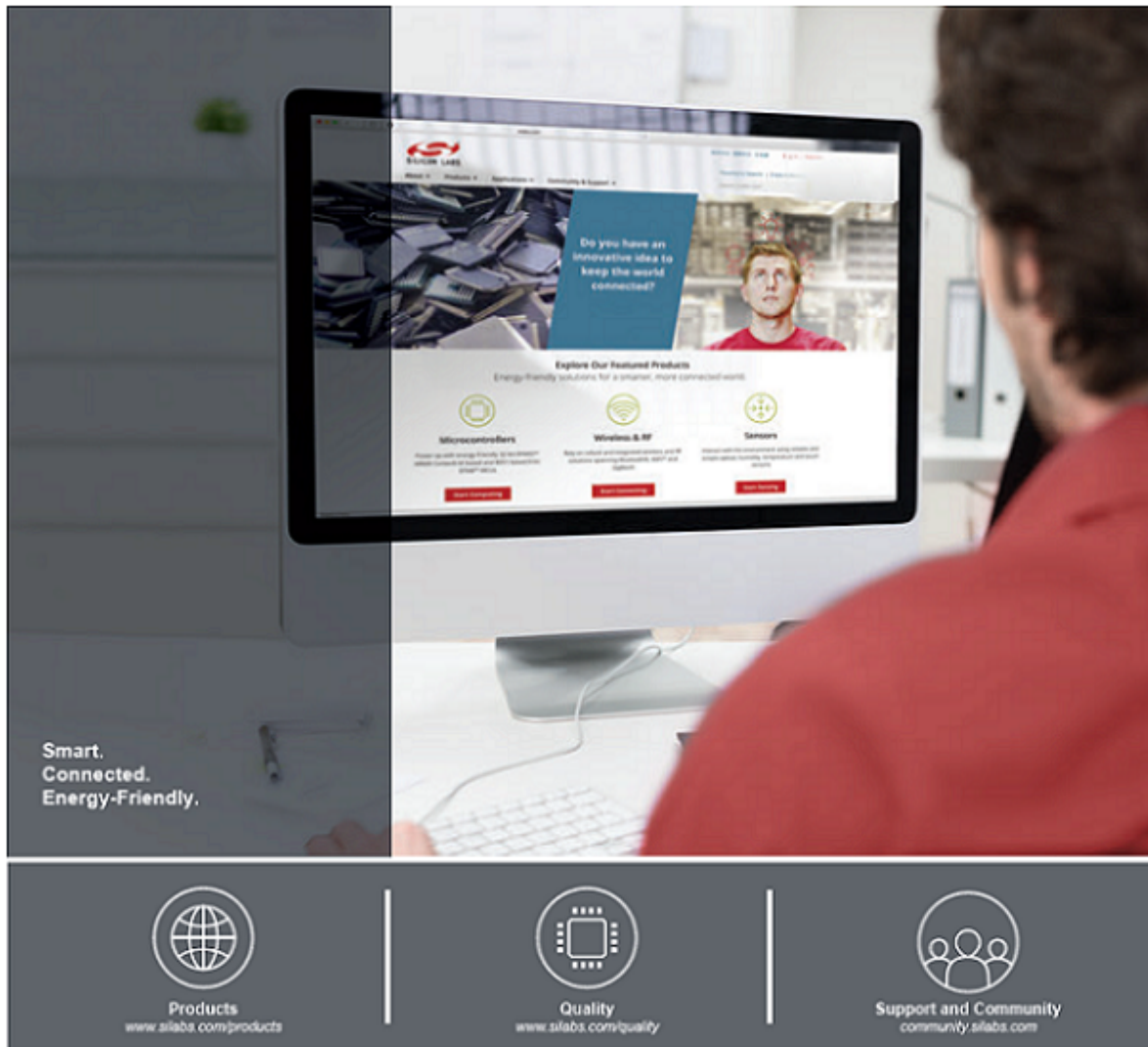
Part Rev A2, TSMC Fabrication, ASEKr Assembly except as noted							
Test Name	Test Condition	Qualification	Lot ID or Start	Fail/Pass or End	Notes	Summary	Status
ESD-CDM	JS-002	1 lot, N=>3	Q046939		4	500 V	Class C1
Latch Up	JESD78 ±200mA	1 lot, N=>3	Q046942	105 °C			Pass
Test Group G – CAVITY PACKAGE INTEGRITY TESTS							
Const Accel	MIL-STD-883, Method 2001.3 10,000g	1 lot, N=>39	Q046930 Q046931 Q046932			3 lots 0/120	Pass
Mech Shock	JESD22-B110 Cond B: 1,500g	1 lot, N=>39	Q046933 Q046934 Q046935			3 lots 0/120	Pass
VVF	JESD78-B103 Service Cond 1 - 20g	1 lot, N=>39	Q046936 Q046937 Q046938			3 lots 0/120	Pass

## Notes:

1. Parts are Pre-conditioned at MSL3/260°C
2. Leveraged die family qualification data
3. 20dBm PA HTOL 100% duty cycle; use case duty cycle <10%
4. PB00 and PB01 up to 350V

## This report applies to the following part numbers:

ZGM230SA27HGN3 ZGM230SB27HGN3



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