



# 191018649 BGM13S and MGM13S Revision V3 Modules Available

**PRCN Issue Date:** 10/18/2019

**Effective Date:** 1/23/2020

**PCN Type:** Product Revision

## Description of Change

Silicon Labs is pleased to announce revision V3 for BGM13S and MGM13S module families, updating the embedded SoC to EFR32xG13 revD and packaging updates. The new module revision are pin-compatible replacements for the previous revision devices. The respective Data Sheets are revised to version 1.1.

Rev V3 introduces the Precision Low Frequency RC Oscillator (PLFRCO) and True Number Generator (TRNG). PLFRCO is an on-chip oscillator that eliminates the need for an external 32 KHz crystal typically required for Bluetooth low energy devices.

The changes in assembly packaging are as follows:

1. Substrate to ENEPIG plating due to plating line End of Life (EOL)
2. Additional vias added to the substrate for RF robustness

After the effective date of the PRCN, Silicon Labs reserves the right to deliver product revision V3 for customers ordering product revision V2.

PLFRCO and TRNG support is enabled from Gecko SDK 2.6.0. Customers wanting to enable PLFRCO or use TRNG must order xGM13S Revision V3 and use those in conjunction with Gecko SDK 2.6.0 or later.

For datasheet updates refer to corresponding datasheet change log.

## Reason for Change

Update to new revision SoC and substrate plating line EOL

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

There is no impact on form, fit, quality or reliability. Function changes are related to introduction of PLFRCO and TRNG.

## Product Identification

Existing Part #	Replacement Part #	Drop in Comp. Indicator
BGM13S22F512GA-V2	BGM13S22F512GA-V3	Yes
BGM13S22F512GA-V2R	BGM13S22F512GA-V3R	Yes
BGM13S22F512GN-V2	BGM13S22F512GN-V3	Yes
BGM13S22F512GN-V2R	BGM13S22F512GN-V3R	Yes
BGM13S32F512GA-V2	BGM13S32F512GA-V3	Yes
BGM13S32F512GA-V2R	BGM13S32F512GA-V3R	Yes
BGM13S32F512GN-V2	BGM13S32F512GN-V3	Yes
BGM13S32F512GN-V2R	BGM13S32F512GN-V3R	Yes
MGM13S02F512GA-V2	MGM13S02F512GA-V3	Yes
MGM13S02F512GA-V2R	MGM13S02F512GA-V3R	Yes
MGM13S02F512GN-V2	MGM13S02F512GN-V3	Yes
MGM13S02F512GN-V2R	MGM13S02F512GN-V3R	Yes
MGM13S12F512GA-V2	MGM13S12F512GA-V3	Yes
MGM13S12F512GA-V2R	MGM13S12F512GA-V3R	Yes
MGM13S12F512GN-V2	MGM13S12F512GN-V3	Yes
MGM13S12F512GN-V2R	MGM13S12F512GN-V3R	Yes

**Last Date of Unchanged Product:** 1/23/2020

### **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**

Available upon request.



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