181210437 New Extended Temperature Happy Gecko MCU Devices Updated Data Sheet v2.1

Bulletin Issue Date: 12/10/2018   **Effective Date:** 12/10/2018

Description of Change

Silicon Labs is pleased to announce new EFM32 Happy Gecko devices and updated family data sheet (v2.1). The EFM32 Happy Gecko family now includes N-grade variants with operational capability at ambient temperatures above the standard G-grade (85 degrees Celsius).

The updated family data sheet includes these new part numbers, along with miscellaneous updates to the following sections:
-Feature List
-Ordering Information
-Absolute Max Ratings
-General Operating Conditions
-Thermal Characteristics
-Current Consumption
-Flash
-General Purpose Input Output
-HFRCO
-ADC
-QFN24 PCB Layout
-QFN32 PCB Layout
-Revision History

No specifications were loosened as a part of these updates. See the data sheet v2.1 for exact changes.

Reason for Change

Extended product family and updated data sheet specification methods to align to Series 0 EFM32 portfolio.

Product Identification

```
Existing Part Number
EFM32HG108F32N-B-QFN24
EFM32HG108F64N-B-QFN24
EFM32HG110F32N-B-QFN24
EFM32HG110F64N-B-QFN24
EFM32HG210F32N-B-QFN32
EFM32HG210F64N-B-QFN32
EFM32HG222F32N-B-QFP48
EFM32HG222F64N-B-QFP48
EFM32HG308F32N-B-QFN24
EFM32HG308F64N-B-QFN24
EFM32HG309F32N-B-QFN24
EFM32HG309F64N-B-QFN24
EFM32HG310F32N-B-QFN32
EFM32HG310F64N-B-QFN32
EFM32HG321F32N-B-QFP48
EFM32HG321F64N-B-QFP48
EFM32HG322F32N-B-QFP48
EFM32HG322F64N-B-QFP48
EFM32HG108F32N-B-QFN24R
EFM32HG108F64N-B-QFN24R
```

```
EFM32HG110F32N-B-QFN24R
EFM32HG110F64N-B-QFN24R
EFM32HG210F32N-B-QFN32R
EFM32HG210F64N-B-QFN32R
EFM32HG222F32N-B-QFP48R
EFM32HG222F64N-B-QFP48R
EFM32HG308F32N-B-QFN24R
EFM32HG308F64N-B-QFN24R
EFM32HG309F32N-B-QFN24R
EFM32HG309F64N-B-QFN24R
EFM32HG310F32N-B-QFN32R
EFM32HG310F64N-B-QFN32R
EFM32HG321F32N-B-QFP48R
EFM32HG321F64N-B-QFP48R
EFM32HG322F32N-B-QFP48R
EFM32HG322F64N-B-QFP48R
EFM32HG108F32G-B-QFN24
EFM32HG108F64G-B-QFN24
EFM32HG110F32G-B-QFN24
EFM32HG110F64G-B-QFN24
EFM32HG210F32G-B-QFN32
EFM32HG210F64G-B-QFN32
EFM32HG222F32G-B-QFP48
EFM32HG222F64G-B-QFP48
EFM32HG308F32G-B-QFN24
EFM32HG308F64G-B-QFN24
EFM32HG309F32G-B-QFN24
EFM32HG309F64G-B-QFN24
EFM32HG310F32G-B-QFN32
EFM32HG310F64G-B-QFN32
EFM32HG321F32G-B-QFP48
EFM32HG321F64G-B-QFP48
EFM32HG322F32G-B-QFP48
EFM32HG322F64G-B-QFP48
EFM32HG350F32G-B-CSP36
EFM32HG350F64G-B-CSP36
EFM32HG108F32G-B-QFN24R
EFM32HG108F64G-B-QFN24R
EFM32HG110F32G-B-QFN24R
EFM32HG110F64G-B-QFN24R
EFM32HG210F32G-B-QFN32R
EFM32HG210F64G-B-QFN32R
EFM32HG222F32G-B-QFP48R
EFM32HG222F64G-B-QFP48R
EFM32HG308F32G-B-QFN24R
EFM32HG308F64G-B-QFN24R
EFM32HG309F32G-B-QFN24R
EFM32HG309F64G-B-QFN24R
EFM32HG310F32G-B-QFN32R
EFM32HG310F64G-B-QFN32R
EFM32HG321F32G-B-QFP48R
EFM32HG321F64G-B-QFP48R
EFM32HG322F32G-B-QFP48R
EFM32HG322F64G-B-QFP48R
EFM32HG350F32G-B-CSP36R
EFM32HG350F64G-B-CSP36R
```

This change is considered a minor change which does not affect form, fit, function, quality, or reliability. The information is being provided as a customer courtesy.
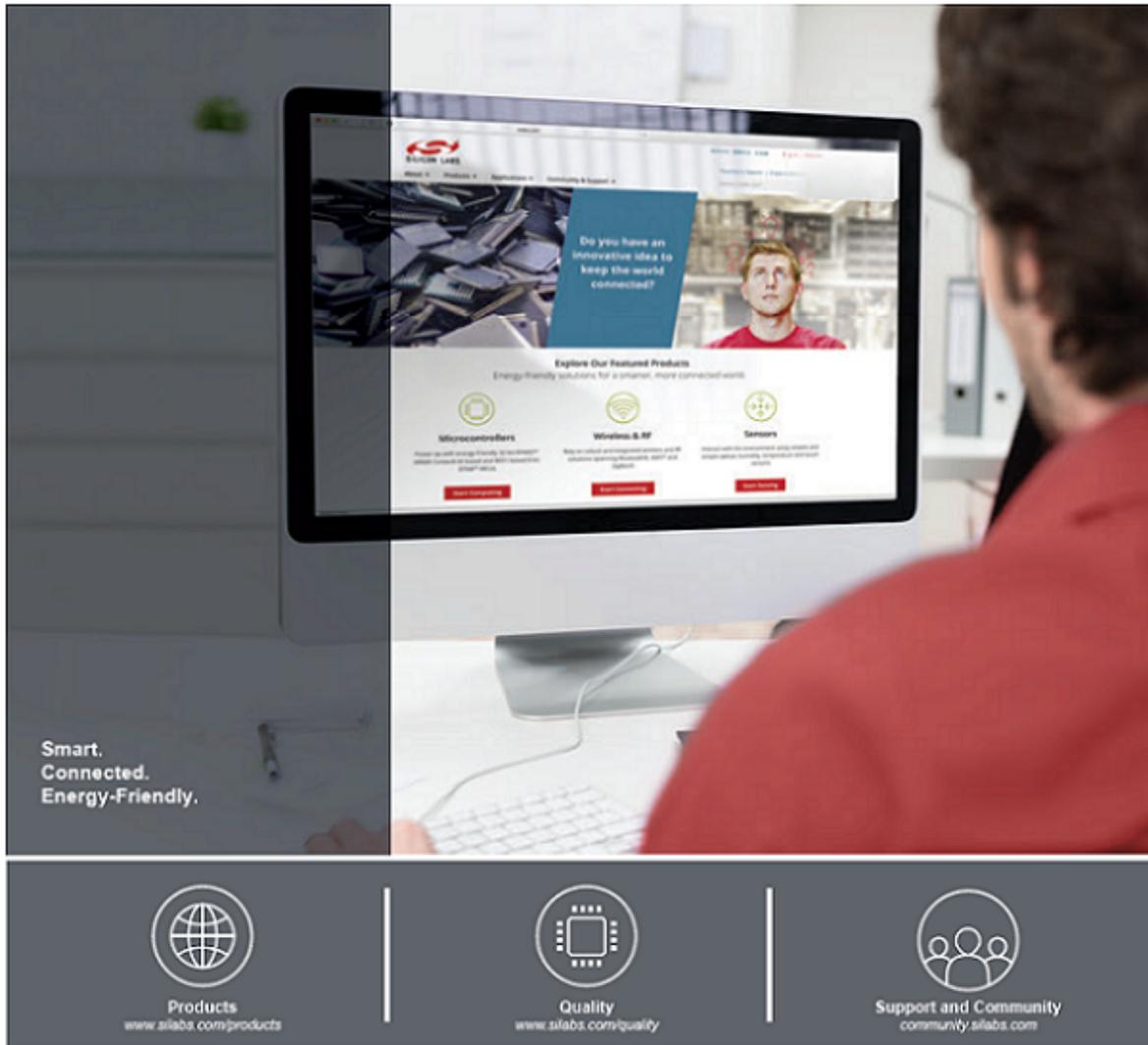
Please contact your local Silicon Labs sales representative with any questions about this notification. A list of Silicon Labs sales representatives may be found at **http://www.silabs.com**.

Customer Actions Needed:

See updated data sheet v2.10

User Registration

Register today to create your account on Silabs.com. Your personalized profile allows you to receive technical document updates, new product announcements, "how-to" and design documents, product change notices (PCN) and other valuable content available only to registered users. **http://www.silabs.com/profile**

Smart.
Connected.
Energy-Friendly.

Products
www.silabs.com/products

Quality
www.silabs.com/quality

Support and Community
community.silabs.com

Disclaimer

Silicon Labs intends to provide customers with the latest, accurate, and in-depth documentation of all peripherals and modules available for system and software implementers using or intending to use the Silicon Labs products. Characterization data, available modules and peripherals, memory sizes and memory addresses refer to each specific device, and "Typical" parameters provided can and do vary in different applications. Application examples described herein are for illustrative purposes only. Silicon Labs reserves the right to make changes without further notice and limitation to product information, specifications, and descriptions herein, and does not give warranties as to the accuracy or completeness of the included information. Silicon Labs shall have no liability for the consequences of use of the information supplied herein. This document does not imply or express copyright licenses granted hereunder to design or fabricate any integrated circuits. The products are not designed or authorized to be used within any Life Support System without the specific written consent of Silicon Labs. A "Life Support System" is any product or system intended to support or sustain life and/or health, which, if it fails, can be reasonably expected to result in significant personal injury or death. Silicon Labs products are not designed or authorized for military applications. Silicon Labs products shall under no circumstances be used in weapons of mass destruction including (but not limited to) nuclear, biological or chemical weapons, or missiles capable of delivering such weapons.

Trademark Information

Silicon Laboratories Inc.® , Silicon Laboratories®, Silicon Labs®, SiLabs® and the Silicon Labs logo®, Bluegiga®, Bluegiga Logo®, Clockbuilder®, CMEMS®, DSPLL®, EFM®, EFM32®, EFR, Ember®, Energy Micro, Energy Micro logo and combinations thereof, "the world's most energy friendly microcontrollers", Ember®, EZLink®, EZRadio®, EZRadioPRO®, Gecko®, ISOmodem®, Micrium, Precision32®, ProSLIC®, Simplicity Studio®, SiPHY®, Telegesis, the Telegesis Logo®, USBXpress®, Zentri and others are trademarks or registered trademarks of Silicon Labs. ARM, CORTEX, Cortex-M3 and THUMB are trademarks or registered trademarks of ARM Holdings. Keil is a registered trademark of ARM Limited. All other products or brand names mentioned herein are trademarks of their respective holders.

Silicon Laboratories Inc.
400 West Cesar Chavez
Austin, TX 78701

http://www.silabs.com