



191118664 EFM32WG Revision B PRCN and Datasheet V2.2 Release

PRCN Issue Date: 11/18/2019

Effective Date: 2/24/2020

PCN Type: Product Revision

Description of Change

Silicon Labs is pleased to announce the release of revision B of the EFM32WG or Wonder Gecko devices. This revision is accompanied by the release of version 2.2 of the EFM32WG datasheet.

After the effective date Silicon Labs reserves the right to ship revision B devices in place of the previous revision. After the effective date the previous revision devices will be End of Life. Please see the Product Identification section for information on the new drop in replacement part number.

This revision solves 2 errata items, RMU_E103 and RMU_E102.

RMU_E102:

Output of the on-chip regulator (DECOUPLE pin) may be approximately 0V, and the device will not respond to a pin reset.

RMU_E103:

Reset may fail to trigger when the device supplies (AVDD_0, AVDD_2, VDD_DREG) fall to a voltage in the 1.25V - 1.45V range.

Version 2.2 of datasheet has the following changes:

- Updated Table 2.1. "Ordering Information" to replace the previous revision part numbers with the new -B designated part numbers
- In Table 4.15. ADC, corrected the minimum ADC input ON resistance from 1M Ω to 300 Ω
- In Table 4.15. ADC, added maximum ADC input ON resistance of 800 Ω
- In Table 4.17. OPAMP, added load resistance for OPA2 with a minimum value of 1000 Ω
- Restored DAC0_P0, DAC0_P1, DAC0_N0 and DAC0_N1 alternate functionalities for all the devices
- Reordered the OPAMP functionality and respective pinout in alphabetical order
- Removed PB11 as the 1st alternate location of I2C1_SDA in Alternate Functionality Overview tables for, EFM32WG232, EFM32WG332, EFM32WG842, and EFM32WG942
- In Device Pinout/Device Padout tables, restored Alternate Functionality/Description of pin names USB_VREGI and USB_VREGO.
- Corrected typo by changing Pad #117 from PD15 to PB15 in Device Padout table for the EFM32WG900.
- Statements regarding packaging materials have been removed. The most current device quality and environmental information can be found at <http://www.silabs.com/support/quality/pages/default.aspx>.

Reason for Change

Release of revision B devices to address errata items

Impact on Form, Fit, Function, Quality, Reliability

Revision B corrects the 2 errata items listed in the Change Description section; revision B devices will now behave as expected on power on reset and brown out events. There is no impact to form, fit, quality or reliability.

Product Identification

Existing Part #	Replacement Part #	DropInCompInd.
EFM32WG230F64-QFN64	EFM32WG230F64-B-QFN64	Yes
EFM32WG230F64-QFN64R	EFM32WG230F64-B-QFN64R	Yes
EFM32WG230F128-QFN64	EFM32WG230F128-B-QFN64	Yes

EFM32WG230F128-QFN64R	EFM32WG230F128-B-QFN64R	Yes
EFM32WG230F256-QFN64	EFM32WG230F256-B-QFN64	Yes
EFM32WG230F256-QFN64R	EFM32WG230F256-B-QFN64R	Yes
EFM32WG232F64-QFP64	EFM32WG232F64-B-QFP64	Yes
EFM32WG232F64-QFP64R	EFM32WG232F64-B-QFP64R	Yes
EFM32WG232F128-QFP64	EFM32WG232F128-B-QFP64	Yes
EFM32WG232F128-QFP64R	EFM32WG232F128-B-QFP64R	Yes
EFM32WG232F256-QFP64	EFM32WG232F256-B-QFP64	Yes
EFM32WG232F256-QFP64R	EFM32WG232F256-B-QFP64R	Yes
EFM32WG280F64-QFP100	EFM32WG280F64-B-QFP100	Yes
EFM32WG280F64-QFP100R	EFM32WG280F64-B-QFP100R	Yes
EFM32WG280F128-QFP100	EFM32WG280F128-B-QFP100	Yes
EFM32WG280F128-QFP100R	EFM32WG280F128-B-QFP100R	Yes
EFM32WG280F256-QFP100	EFM32WG280F256-B-QFP100	Yes
EFM32WG280F256-QFP100R	EFM32WG280F256-B-QFP100R	Yes
EFM32WG290F64-BGA112	EFM32WG290F64-B-BGA112	Yes
EFM32WG290F64-BGA112R	EFM32WG290F64-B-BGA112R	Yes
EFM32WG290F128-BGA112	EFM32WG290F128-B-BGA112	Yes
EFM32WG290F128-BGA112R	EFM32WG290F128-B-BGA112R	Yes
EFM32WG290F256-BGA112	EFM32WG290F256-B-BGA112	Yes
EFM32WG290F256-BGA112R	EFM32WG290F256-B-BGA112R	Yes
EFM32WG295F64-BGA120	EFM32WG295F64-B-BGA120	Yes
EFM32WG295F64-BGA120R	EFM32WG295F64-B-BGA120R	Yes
EFM32WG295F128-BGA120	EFM32WG295F128-B-BGA120	Yes
EFM32WG295F128-BGA120R	EFM32WG295F128-B-BGA120R	Yes
EFM32WG295F256-BGA120	EFM32WG295F256-B-BGA120	Yes
EFM32WG295F256-BGA120R	EFM32WG295F256-B-BGA120R	Yes
EFM32WG330F64-QFN64	EFM32WG330F64-B-QFN64	Yes
EFM32WG330F64-QFN64R	EFM32WG330F64-B-QFN64R	Yes
EFM32WG330F128-QFN64	EFM32WG330F128-B-QFN64	Yes
EFM32WG330F128-QFN64R	EFM32WG330F128-B-QFN64R	Yes
EFM32WG330F256-QFN64	EFM32WG330F256-B-QFN64	Yes
EFM32WG330F256-QFN64R	EFM32WG330F256-B-QFN64R	Yes
EFM32WG332F64-QFP64	EFM32WG332F64-B-QFP64	Yes
EFM32WG332F64-QFP64R	EFM32WG332F64-B-QFP64R	Yes
EFM32WG332F128-QFP64	EFM32WG332F128-B-QFP64	Yes
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EFM32WG332F256-QFP64	EFM32WG332F256-B-QFP64	Yes
EFM32WG332F256-QFP64R	EFM32WG332F256-B-QFP64R	Yes
EFM32WG360F64G-CSP81	EFM32WG360F64G-B-CSP81	Yes
EFM32WG360F64G-CSP81R	EFM32WG360F64G-B-CSP81R	Yes
EFM32WG360F128G-CSP81	EFM32WG360F128G-B-CSP81	Yes
EFM32WG360F128G-CSP81R	EFM32WG360F128G-B-CSP81R	Yes
EFM32WG360F256G-CSP81	EFM32WG360F256G-B-CSP81	Yes
EFM32WG360F256G-CSP81R	EFM32WG360F256G-B-CSP81R	Yes
EFM32WG380F64-QFP100	EFM32WG380F64-B-QFP100	Yes
EFM32WG380F64-QFP100R	EFM32WG380F64-B-QFP100R	Yes
EFM32WG380F128-QFP100	EFM32WG380F128-B-QFP100	Yes
EFM32WG380F128-QFP100R	EFM32WG380F128-B-QFP100R	Yes
EFM32WG380F256-QFP100	EFM32WG380F256-B-QFP100	Yes
EFM32WG380F256-QFP100R	EFM32WG380F256-B-QFP100R	Yes
EFM32WG390F64-BGA112	EFM32WG390F64-B-BGA112	Yes
EFM32WG390F64-BGA112R	EFM32WG390F64-B-BGA112R	Yes
EFM32WG390F128-BGA112	EFM32WG390F128-B-BGA112	Yes
EFM32WG390F128-BGA112R	EFM32WG390F128-B-BGA112R	Yes
EFM32WG390F256-BGA112	EFM32WG390F256-B-BGA112	Yes
EFM32WG390F256-BGA112R	EFM32WG390F256-B-BGA112R	Yes
EFM32WG395F64-BGA120	EFM32WG395F64-B-BGA120	Yes
EFM32WG395F64-BGA120R	EFM32WG395F64-B-BGA120R	Yes
EFM32WG395F128-BGA120	EFM32WG395F128-B-BGA120	Yes
EFM32WG395F128-BGA120R	EFM32WG395F128-B-BGA120R	Yes
EFM32WG395F256-BGA120	EFM32WG395F256-B-BGA120	Yes
EFM32WG395F256-BGA120R	EFM32WG395F256-B-BGA120R	Yes
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EFM32WG840F64-QFN64R	EFM32WG840F64-B-QFN64R	Yes
EFM32WG840F128-QFN64	EFM32WG840F128-B-QFN64	Yes
EFM32WG840F128-QFN64R	EFM32WG840F128-B-QFN64R	Yes

EFM32WG840F256-QFN64	EFM32WG840F256-B-QFN64	Yes
EFM32WG840F256-QFN64R	EFM32WG840F256-B-QFN64R	Yes
EFM32WG842F64-QFP64	EFM32WG842F64-B-QFP64	Yes
EFM32WG842F64-QFP64R	EFM32WG842F64-B-QFP64R	Yes
EFM32WG842F128-QFP64	EFM32WG842F128-B-QFP64	Yes
EFM32WG842F128-QFP64R	EFM32WG842F128-B-QFP64R	Yes
EFM32WG842F256-QFP64	EFM32WG842F256-B-QFP64	Yes
EFM32WG842F256-QFP64R	EFM32WG842F256-B-QFP64R	Yes
EFM32WG880F64-QFP100	EFM32WG880F64-B-QFP100	Yes
EFM32WG880F64-QFP100R	EFM32WG880F64-B-QFP100R	Yes
EFM32WG880F128-QFP100	EFM32WG880F128-B-QFP100	Yes
EFM32WG880F128-QFP100R	EFM32WG880F128-B-QFP100R	Yes
EFM32WG880F256-QFP100	EFM32WG880F256-B-QFP100	Yes
EFM32WG880F256-QFP100R	EFM32WG880F256-B-QFP100R	Yes
EFM32WG890F64-BGA112	EFM32WG890F64-B-BGA112	Yes
EFM32WG890F64-BGA112R	EFM32WG890F64-B-BGA112R	Yes
EFM32WG890F128-BGA112	EFM32WG890F128-B-BGA112	Yes
EFM32WG890F128-BGA112R	EFM32WG890F128-B-BGA112R	Yes
EFM32WG890F256-BGA112	EFM32WG890F256-B-BGA112	Yes
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EFM32WG895F64-BGA120	EFM32WG895F64-B-BGA120	Yes
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EFM32WG895F128-BGA120R	EFM32WG895F128-B-BGA120R	Yes
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EFM32WG895F256-BGA120R	EFM32WG895F256-B-BGA120R	Yes
EFM32WG900F256G-D1I	EFM32WG900F256G-B-D1I	Yes
EFM32WG940F64-QFN64	EFM32WG940F64-B-QFN64	Yes
EFM32WG940F64-QFN64R	EFM32WG940F64-B-QFN64R	Yes
EFM32WG940F128-QFN64	EFM32WG940F128-B-QFN64	Yes
EFM32WG940F128-QFN64R	EFM32WG940F128-B-QFN64R	Yes
EFM32WG940F256-QFN64	EFM32WG940F256-B-QFN64	Yes
EFM32WG940F256-QFN64R	EFM32WG940F256-B-QFN64R	Yes
EFM32WG942F64-QFP64	EFM32WG942F64-B-QFP64	Yes
EFM32WG942F64-QFP64R	EFM32WG942F64-B-QFP64R	Yes
EFM32WG942F128-QFP64	EFM32WG942F128-B-QFP64	Yes
EFM32WG942F128-QFP64R	EFM32WG942F128-B-QFP64R	Yes
EFM32WG942F256-QFP64	EFM32WG942F256-B-QFP64	Yes
EFM32WG942F256-QFP64R	EFM32WG942F256-B-QFP64R	Yes
EFM32WG980F64-QFP100	EFM32WG980F64-B-QFP100	Yes
EFM32WG980F64-QFP100R	EFM32WG980F64-B-QFP100R	Yes
EFM32WG980F128-QFP100	EFM32WG980F128-B-QFP100	Yes
EFM32WG980F128-QFP100R	EFM32WG980F128-B-QFP100R	Yes
EFM32WG980F256-QFP100	EFM32WG980F256-B-QFP100	Yes
EFM32WG980F256-QFP100R	EFM32WG980F256-B-QFP100R	Yes
EFM32WG990F64-BGA112	EFM32WG990F64-B-BGA112	Yes
EFM32WG990F64-BGA112R	EFM32WG990F64-B-BGA112R	Yes
EFM32WG990F128-BGA112	EFM32WG990F128-B-BGA112	Yes
EFM32WG990F128-BGA112R	EFM32WG990F128-B-BGA112R	Yes
EFM32WG990F256-BGA112	EFM32WG990F256-B-BGA112	Yes
EFM32WG990F256-BGA112R	EFM32WG990F256-B-BGA112R	Yes
EFM32WG995F64-BGA120	EFM32WG995F64-B-BGA120	Yes
EFM32WG995F64-BGA120R	EFM32WG995F64-B-BGA120R	Yes
EFM32WG995F128-BGA120	EFM32WG995F128-B-BGA120	Yes
EFM32WG995F128-BGA120R	EFM32WG995F128-B-BGA120R	Yes
EFM32WG995F256-BGA120	EFM32WG995F256-B-BGA120	Yes
EFM32WG995F256-BGA120R	EFM32WG995F256-B-BGA120R	Yes

Last Date of Unchanged Product: 2/24/2020

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.

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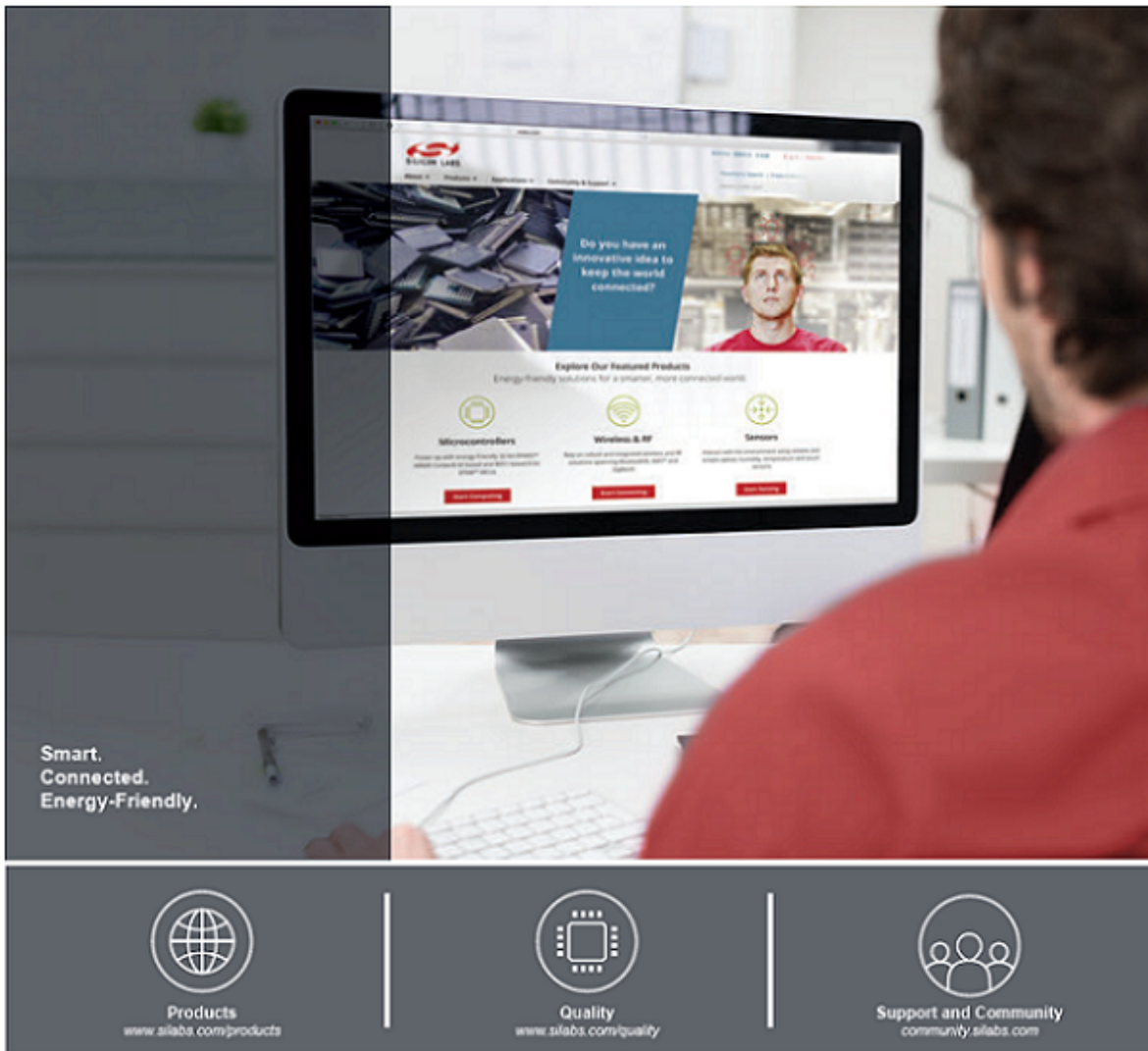
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Qualification Data

Available upon request



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