2108311118 EFP01 New Revision E Parts and Datasheet v1.3 Available

PRCN Issue Date: Aug 31, 2021   **Effective Date:** Dec 06, 2021

PCN Type: Datasheet; Product Revision

Description of Change

Silicon Labs is pleased to announce a new revision of EFP01. This revision was made to improve yields and help ensure continuity of supply.

In addition to the new revision, several new parts are being introduced.

New part numbers:
EFP0101GM20-E   EFP0101 Wired Buck PMIC
EFP0102GM20-E   EFP0102 Wired Buck PMIC
EFP0103GM20-E   EFP0103 Wired Buck with LDO PMIC
EFP0106GM20-E   EFP0106 Buck/Boost PMIC

The datasheet is being updated to revision 1.3 to add information on the new part numbers. See the datasheet revision history for a complete list of changes.

Note: After the effective date of the PRCN, Silicon Labs reserves the right not to accept orders for the old revision.

Reason for Change

IC revision to improve yields to improve continuity of supply.

Impact on Form, Fit, Function, Quality, Reliability

No impact on Form, Fit, Function, Quality or Reliability.

Product Identification

Existing Part #	Replacement Part #	DropInCompInd.
EFP0104GM20-D	EFP0104GM20-E	Yes
EFP0104GM20-DR	EFP0104GM20-ER	Yes
EFP0107GM20-D	EFP0107GM20-E	Yes
EFP0107GM20-DR	EFP0107GM20-ER	Yes
EFP0108GM20-D	EFP0108GM20-E	Yes
EFP0108GM20-DR	EFP0108GM20-ER	Yes
EFP0109GM20-D	EFP0109GM20-E	Yes
EFP0109GM20-DR	EFP0109GM20-ER	Yes
EFP0110GM20-D	EFP0110GM20-E	Yes
EFP0110GM20-DR	EFP0110GM20-ER	Yes
EFP0111GM20-D	EFP0111GM20-E	Yes
EFP0111GM20-DR	EFP0111GM20-ER	Yes

Kit Identification
Kits impacted by the above product are listed below.
Orders for the following obsolete kits will no longer be accepted.

Existing Kit #	Replacement Kit #
NA	NA

Last Date of Unchanged Product: Dec 06, 2021

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

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Qualification Data

See attached.

Part Rev E (die rev D0), TSMC Fabrication, SPIL 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							
HAST	JA110 130°C, 85%RH Vcc=5.5V, 96 hours	3 lots, N=>25	Q044904 Q045202 Q043693	0/26 0/28 0/27	3 3 2	3 lots 0/81	Pass
Temp Cycle	JA104 Cond C: -65°C to 150°C 500 cycles	3 lots, N=>25	Q048180 Q044626 Q045205	0/28 0/28 0/28	3 3	3 lots 0/84	Pass
HTSL	JA103 150°C, 1000hr	3 lots, N=>25	Q044625 Q045204 Q043485	0/28 0/28 0/28	3 3 2	3 lots 0/84	Pass
Preconditioning	JESD22-A113 MSL2 @ 260°C 85°C/60%RH / 168hr	3 lots, N=>75	Q048179 Q044796 Q045126	0/80 0/123 0/130	1 1, 3 1, 3	3 lots 0/333	Pass
UHAST	JESD22-A118 Cond A - 130°C / 85%RH / 96h	3 lots, N=>25	Q043694 Q045203 Q044627	0/27 0/28 0/28	2 3 3	3 lots 0/83	Pass
Test Group B – Accelerated Lifetime Simulation Tests							
HTOL	JA108 $T_J \geq 125°C$, Dynamic Vcc=5.5V, 1000 hours	3 lots, N=>77	Q045293 Q047858 Q044635	0/82 0/85 0/85	3 3	3 lots 0/252	Pass
LTOL	JA108 $T_A = -10°C$, Dynamic Vcc=5.5V, 1000 hours	1 lot, N=>32	Q043483	0/36	2	1 lots 0/36	Pass
ELFR	JA108 $T_J \geq 125°C$, Dynamic Vcc=5.5V, 48 hours	2 lots, N=>500	Q044636 Q045549	0/503 0/504	3 4	2 lots 0/1007	Pass
Data Retention High Temp	JESD22-A117+JESD22-A103 150°C / 1000hr	3 lots, N =>39	Q045207 Q044620 Q043691	0/42 0/42 0/39	3 3 2	3 lots 0/123	Pass
Test Group E – Electrical Verification							
ESD-HBM	JS-001	1 lot, N=>3	Q048183			2 kV	Class 2

EFP01xxGM20-E Qualification Report

Part Rev E (die rev D0), TSMC Fabrication, SPIL 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	Q048181			TC 550	Class C2a
Latch Up	JESD78 ±100mA Overvoltage = 5.5V	1 lot, N=>3 1 lot, N=>3	Q048184 Q048185	25 °C 130 °C	Class I Class II	±200mA ±200mA	Pass

Notes: (QP01856)

1. Parts are Pre-conditioned at MSL2/260°C
2. QBS to QP01588
3. QBS to QP01689
4. QBS to QP01758

This report applies to the following part numbers:			
EFP0101GM20-E	EFP0101GM20-ER	EFP0107GM20-E	EFP0107GM20-ER
EFP0102GM20-E	EFP0102GM20-ER	EFP0108GM20-E	EFP0108GM20-ER
EFP0103GM20-E	EFP0103GM20-ER	EFP0109GM20-E	EFP0109GM20-ER
EFP0104GM20-E	EFP0104GM20-ER	EFP0110GM20-E	EFP0110GM20-ER
EFP0106GM20-E	EFP0106GM20-ER	EFP0111GM20-E	EFP0111GM20-ER

EFP01xxGM20-E Qualification Report
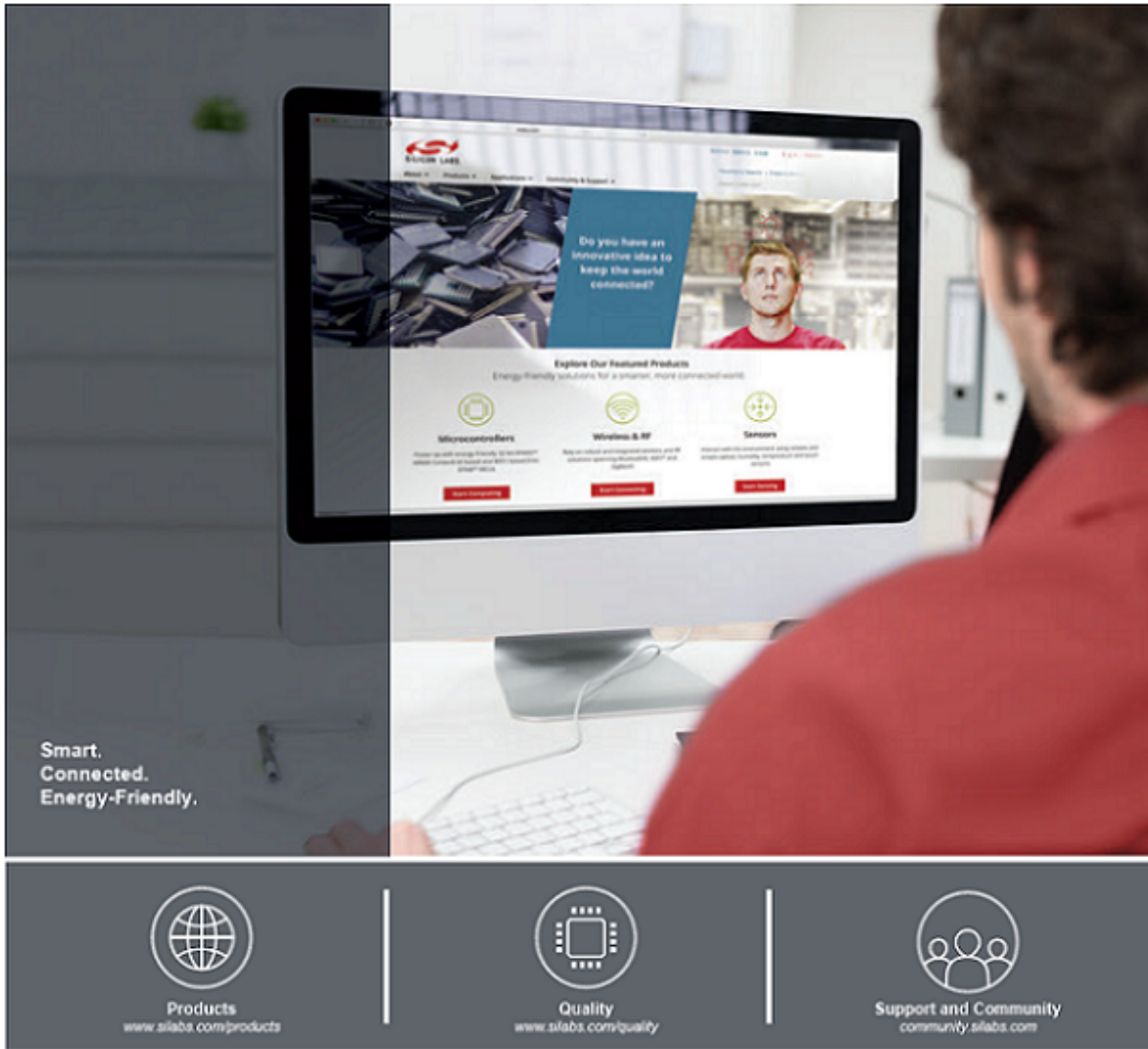
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Silicon Laboratories Inc.
400 West Cesar Chavez
Austin, TX 78701

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