



# 2103301006

## EFM8LB1x/BB3x/BB2x/SB10/UB10, CP2102N QFN 3x3 Additional Lead Frame Suppli

**PCN Issue Date:** Mar 30, 2021

**Effective Date:** Jul 06, 2021

**PCN Type:** Assembly

### Description of Change

Silicon Labs is pleased to announce the successful qualification of CWE lead frame for EFM8LB1x/BB3x/BB2x/SB10/UB10 and CP2102N, 3x3 QFN package devices.

Currently, EFM8LB1x/BB3x/BB2x/SB10/UB10 and CP2102N, 3x3 QFN package devices use Mitsui lead frame. Both Mitsui & CWE are qualified lead frame suppliers in ASECL.

There is no change between Mitsui and CWE lead frame in terms of material type, properties, dimensions, Assembly Process, Assembly Flow, etc.

As of the effective date of the PCN, Silicon Labs will continue to fulfill orders using the lead frames from both suppliers. The package qualification report is attached.

### Reason for Change

Capacity expansion

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

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

### Product Identification

Existing Part #  
CP2102N-A02-GQFN20  
CP2102N-A02-GQFN20R  
EFM8BB20F16G-C-QFN20  
EFM8BB20F16G-C-QFN20R  
EFM8BB20F16I-C-QFN20  
EFM8BB20F16I-C-QFN20R  
EFM8BB21F16A-C-QFN20  
EFM8BB21F16A-C-QFN20R  
EFM8BB21F16G-C-QFN20  
EFM8BB21F16G-C-QFN20R  
EFM8BB21F16I-C-QFN20  
EFM8BB21F16I-C-QFN20R  
EFM8BB31F16G-B-QFN24  
EFM8BB31F16G-B-QFN24R  
EFM8BB31F16G-C-QFN24  
EFM8BB31F16G-C-QFN24R  
EFM8BB31F16G-D-QFN24  
EFM8BB31F16G-D-QFN24R  
EFM8BB31F16I-B-QFN24  
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EFM8BB31F16I-C-QFN24R

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EFM8BB31F32G-B-QFN24R  
EFM8BB31F32G-C-QFN24  
EFM8BB31F32G-C-QFN24R  
EFM8BB31F32G-D-QFN24  
EFM8BB31F32G-D-QFN24R  
EFM8BB31F32I-C-QFN24  
EFM8BB31F32I-C-QFN24R  
EFM8BB31F32I-D-QFN24  
EFM8BB31F32I-D-QFN24R  
EFM8BB31F64G-B-QFN24  
EFM8BB31F64G-B-QFN24R  
EFM8BB31F64G-C-QFN24  
EFM8BB31F64G-C-QFN24R  
EFM8BB31F64G-D-QFN24  
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EFM8BB31F64I-C-QFN24R  
EFM8BB31F64I-D-QFN24  
EFM8BB31F64I-D-QFN24R  
EFM8LB10F16E-C-QFN24  
EFM8LB10F16E-C-QFN24R  
EFM8LB10F16ES0-C-QFN24  
EFM8LB10F16ES0-C-QFN24R  
EFM8LB10F16ES1-C-QFN24  
EFM8LB10F16ES1-C-QFN24R  
EFM8LB11F16E-C-QFN24  
EFM8LB11F16E-C-QFN24R  
EFM8LB11F16ES0-C-QFN24  
EFM8LB11F16ES0-C-QFN24R  
EFM8LB11F16ES1-C-QFN24  
EFM8LB11F16ES1-C-QFN24R  
EFM8LB11F32E-C-QFN24  
EFM8LB11F32E-C-QFN24R  
EFM8LB11F32ES0-C-QFN24  
EFM8LB11F32ES0-C-QFN24R  
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EFM8LB12F64ES0-C-QFN24R  
EFM8LB12F64ES1-C-QFN24  
EFM8LB12F64ES1-C-QFN24R  
EFM8LB12P\*F64EM2-C  
EFM8LB12P\*F64EM2-CR  
EFM8SB10F8A-A-QFN20  
EFM8SB10F8A-A-QFN20R  
EFM8UB10C\*F16GM-C  
EFM8UB10C\*F16GM-CR  
EFM8UB10F16G-C  
EFM8UB10F16G-C-QFN20  
EFM8UB10F16G-C-QFN20R  
EFM8UB10F16G-CR  
EFM8UB10F8G-C-QFN20  
EFM8UB10F8G-C-QFN20R  
EFM8UB10P\*F16GM-C

EFM8UB10P\*F16GM-CR  
EFM8UB10P\*F8GM-C  
EFM8UB10P\*F8GM-CR

**Last Date of Unchanged Product:** Jul 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](mailto:PCNEarlyAcceptance@silabs.com)

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### Qualification Data

See appendices.

Test Name	Test Condition	Qualification	Lot ID or Start	Fail/Pass or End	Notes	Summary	Status
<b>Test Group A – Accelerated Environment Stress Tests - 24-QFN-ASECL assembly</b>							
Preconditioning	JA113	3 lots, N=>77	Q047255	0/77		3 lots	Pass
	MSL 2, 260°C		Q047254	0/77			
	85°C, 60%RH, 168 hr		Q047253	0/77			
Temp Cycle	JA104	3 lots, N=>77	Q047263	0/77	1	3 lots	Pass
	Cond C: -65°C to 150°C		Q047262	0/76	1		
	500 cycles		Q047261	0/77	1		
<b>Test Group D – Electrical Verification</b>							
ESD-CDM	AEC-Q100-011	1 lot, N=>3	Q047095		4	1250 TC	Class C6

Notes:

- Parts are Pre-conditioned at MSL2/260°C

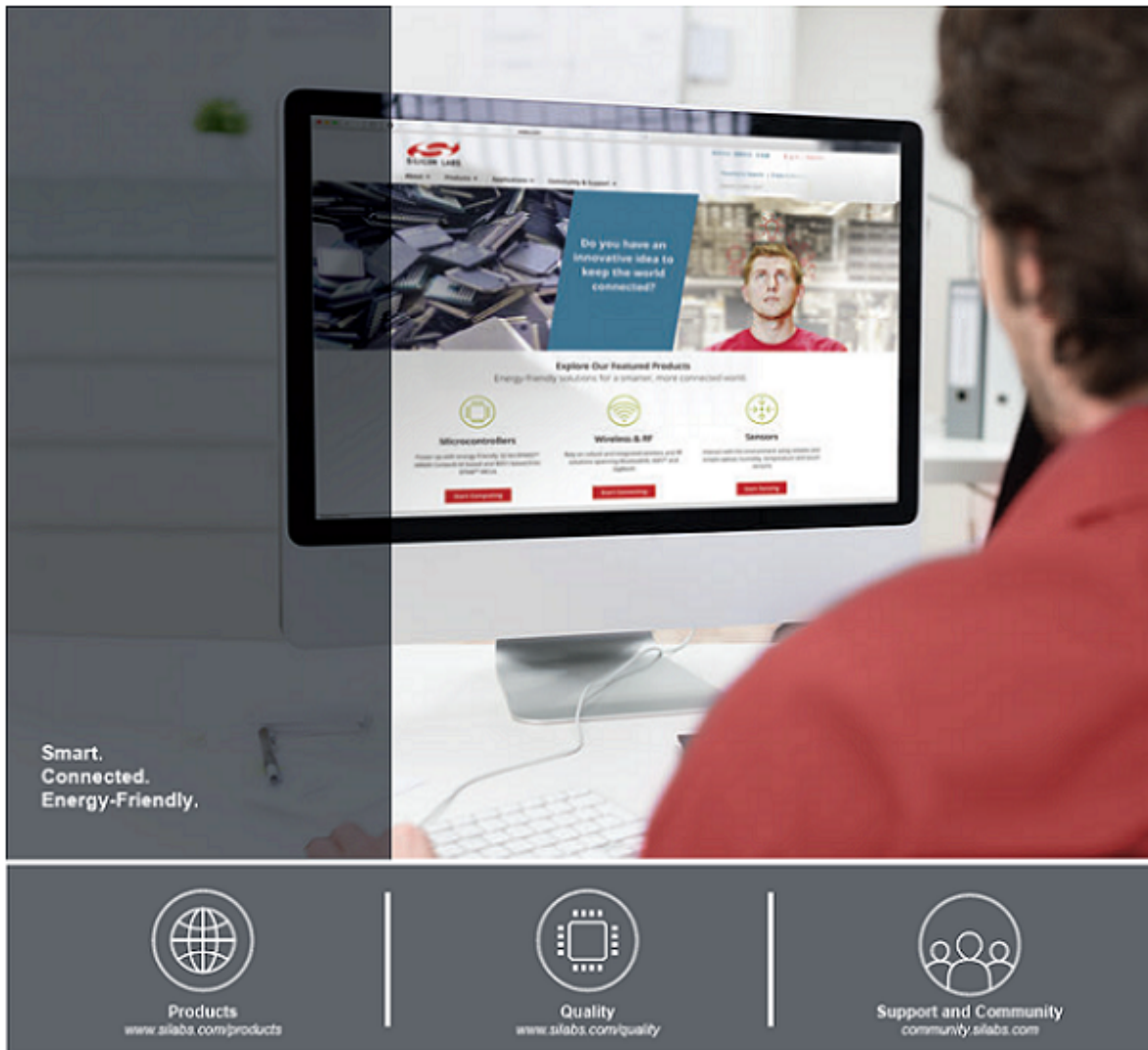
**Qualification report for EFM8LB1x/BB3x**

Test Name	Test Condition	Qualification	Lot ID or Start	Fail/Pass or End	Notes	Summary	Status
<b>Test Group A – Accelerated Environment Stress Tests</b>							
Preconditioning	J-STD-020, JA113	3 lots, N=>77	Q047251	0/76		4 lots	Pass
	MSL2 260°C		Q047515	0/80			
	85°C / 60%RH / 168hr		Q047516	0/79			
			Q047517	0/79			
Temp Cycle	JA104	3 lots, N=>77	Q047252	0/76	1	4 lots	Pass
	Cond C: -65°C to 150°C		Q047519	0/80	1		
	500 cycles		Q047520	0/79	1		
			Q047521	0/79	1		
<b>Test Group E – Electrical Verification</b>							
ESD-CDM	AEC-Q100-011	1 lot, N=>3	Q047096		3	1250 TC	Class C6
			Q047175		2	750 TC	Class C5

Notes:

- Parts are Pre-conditioned at MSL2/260°C
- EFM8SB10x
- EFM8BB2x

**Qualification report for EFM8BB2x/UB10, CP2102N and EFM8SB10 (Automotive)**



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