2610231869 Additional Assembly, Test and Ship Site for EFR32xG21 and EFR32MR21

PCN Issue Date: Oct 23, 2026 **Effective Date:** Jan 28, 2027

PCN Type: Assembly; Test

Description of Change

Silicon Labs is pleased to announce the successful qualification of UNISEM (M) BERHAD as an additional assembly, test and ship site for EFR32xG21 and EFR32MR21 (32-QFN-4x4). UNISEM is an existing assembly and test site for Silicon Labs, and is certified to ISO9001, ISO14001 and IATF16949.

UNISEM Ship Address:
UNISEM (M) BERHAD
LOT 302285, JALAN INDUSTRI 1/1,
KAWASAN PERINDUSTRIAN GOPENG,
31600 GOPENG, PERAK
MALAYSIA.

As of the effective date of the PCN, Silicon Labs may ship from either of the qualified sites.

Software Impact Description

No impact

Reason for Change

Additional Assembly and Test capacity for supply continuity

Impact on Form, Fit, Function, Quality, Reliability

There is no change on form, fit, function, quality or reliability

Product Identification

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Existing Part #
EFR32BG21A010F512IM32-B
EFR32BG21A010F512IM32-BR
EFR32BG21A010F512IM32-C
EFR32BG21A010F512IM32-CR
EFR32BG21A010F512IM32-D
EFR32BG21A010F512IM32-DR
EFR32BG21A010F768IM32-B
EFR32BG21A010F768IM32-BR
EFR32BG21A010F768IM32-D
EFR32BG21A010F768IM32-DR
EFR32BG21A010F1024IM32-B
EFR32BG21A010F1024IM32-BR
EFR32BG21A010F1024IM32-D
EFR32BG21A010F1024IM32-DR
EFR32BG21A020F512IM32-B
EFR32BG21A020F512IM32-BR
EFR32BG21A020F512IM32-C
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EFR32BG21A020F512IM32-CR
EFR32BG21A020F512IM32-D
EFR32BG21A020F512IM32-DR
EFR32BG21A020F768IM32-B
EFR32BG21A020F768IM32-BR
EFR32BG21A020F768IM32-D
EFR32BG21A020F768IM32-DR
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EFR32MR21A020F512IM32-BR
EFR32MR21A020F512IM32-C
EFR32MR21A020F512IM32-CR
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Last Date of Unchanged Product: Jan 28, 2027

Qualification Samples

Customer Samples Readiness:
- EFR32MG21A020F512IM32-B: Available upon request

- EFR32BG21A010F512IM32-B: Available upon request
- EFR32MG21A020F768IM32-B: Available upon request
- EFR32BG21A020F512IM32-B: Available upon request
- EFR32BG21B010X1653IM32-B: Available upon request
- EFR32MG21A010F1024IM32-B: Available upon request
- EFR32MG21A020F1024IM32-B: Available upon request
- EFR32BG21A010F1024IM32-B: Available upon request
- EFR32MG21A020F768IM32-D: Available upon request
- EFR32MG21A020F512IM32-D: Available upon request
- EFR32MG21A020F1024IM32-D: Available upon request
- Others: Available in 8 weeks from customer sample order date

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 https://www.silabs.com.

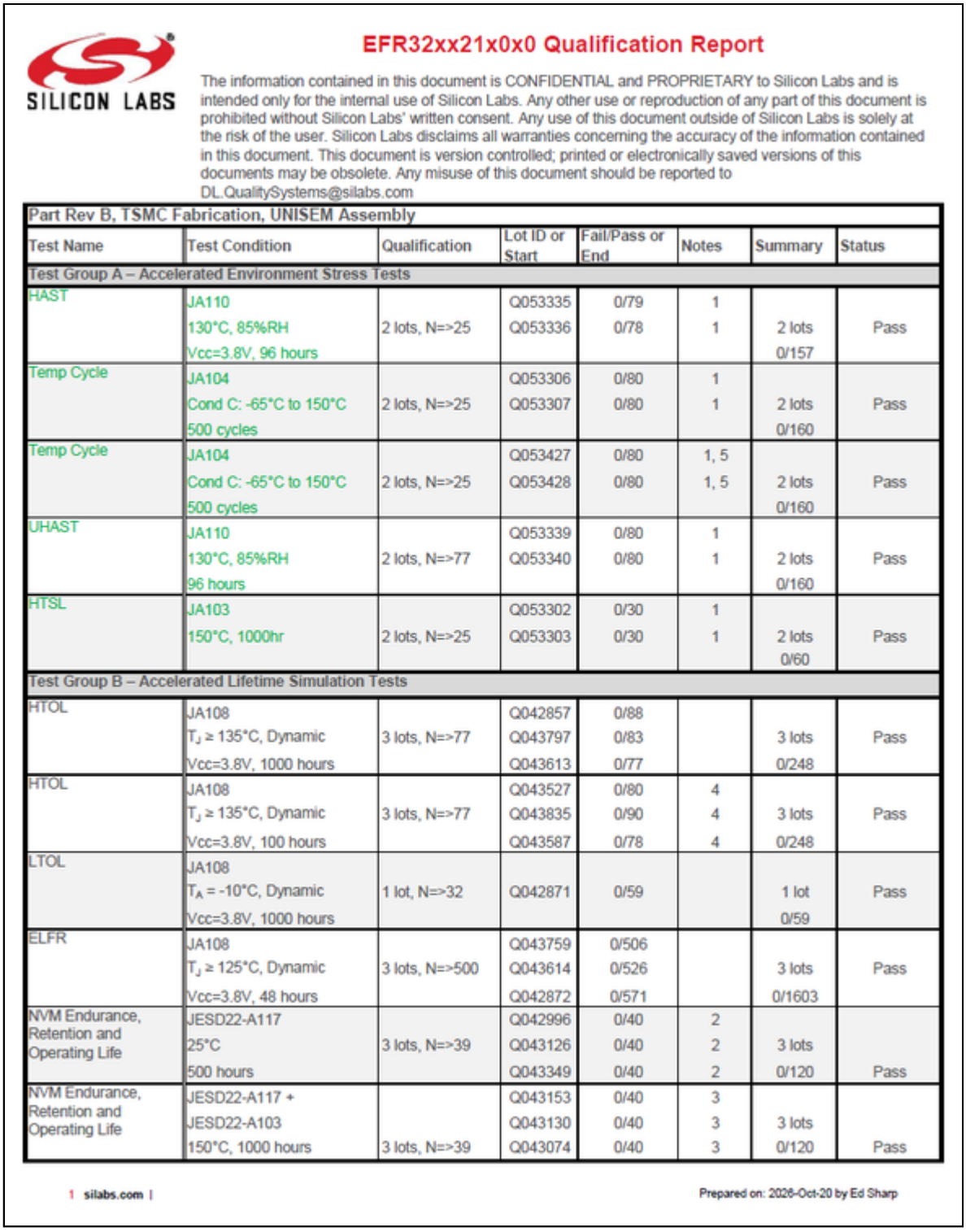
Customers may approve early PCN acceptance by emailing approval, along with PCN # to PCN@silabs.com

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Qualification Data

See Appendix.



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EFR32xx21x0x0 Qualification Report

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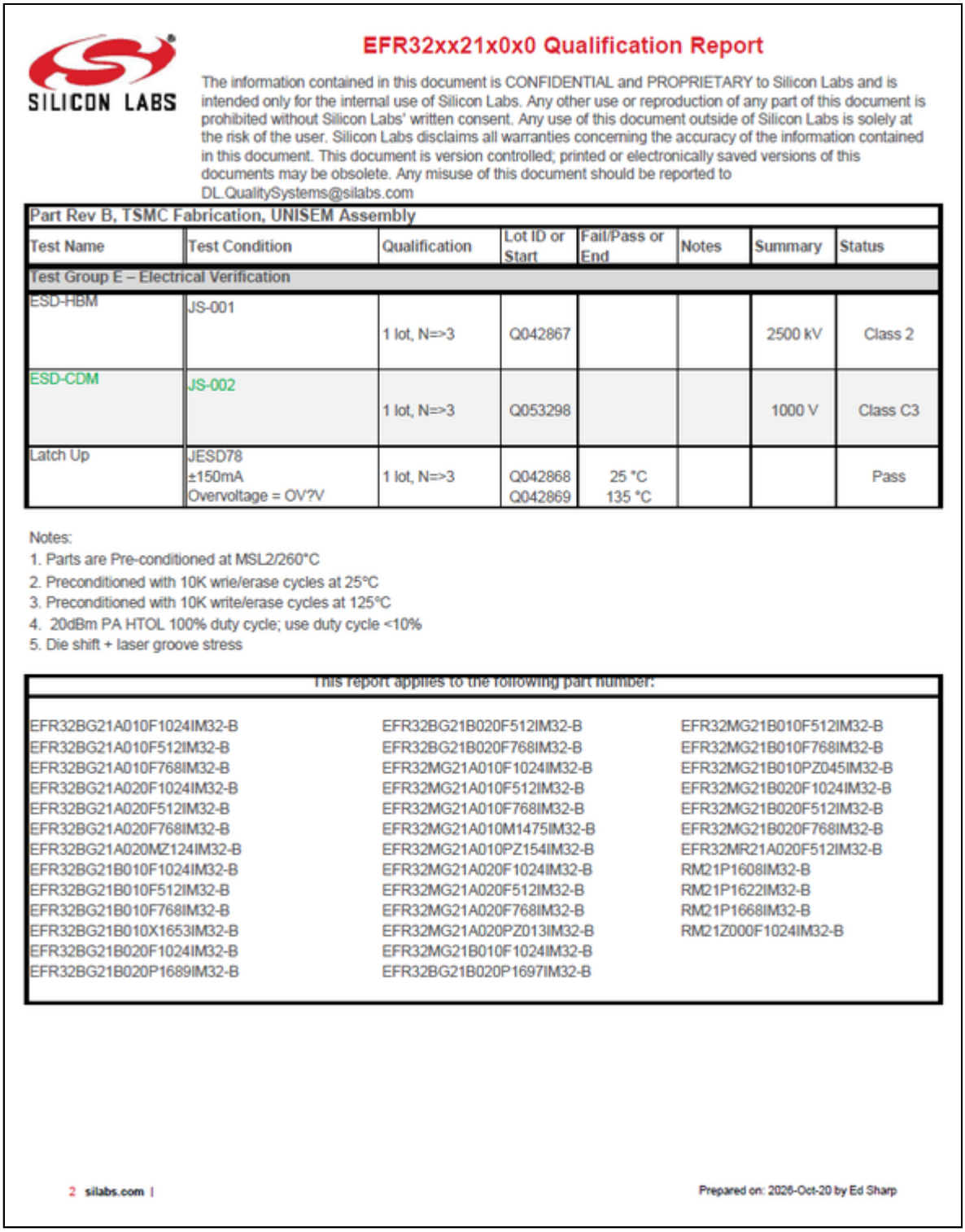
Part Rev B, TSMC Fabrication, UNISEM Assembly

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		Q053335	0/79	1		
	130°C, 85%RH	2 lots, N=>25	Q053336	0/78	1	2 lots	Pass
	Vcc=3.8V, 96 hours					0/157	
Temp Cycle	JA104		Q053306	0/80	1		
	Cond C: -65°C to 150°C	2 lots, N=>25	Q053307	0/80	1	2 lots	Pass
	500 cycles					0/160	
Temp Cycle	JA104		Q053427	0/80	1, 5		
	Cond C: -65°C to 150°C	2 lots, N=>25	Q053428	0/80	1, 5	2 lots	Pass
	500 cycles					0/160	
UHAST	JA110		Q053339	0/80	1		
	130°C, 85%RH	2 lots, N=>77	Q053340	0/80	1	2 lots	Pass
	96 hours					0/160	
HTSL	JA103		Q053302	0/30	1		
	150°C, 1000hr	2 lots, N=>25	Q053303	0/30	1	2 lots	Pass
						0/60	
Test Group B – Accelerated Lifetime Simulation Tests							
HTOL	JA108		Q042857	0/88			
	$T_J \geq 135°C$, Dynamic	3 lots, N=>77	Q043797	0/83		3 lots	Pass
	Vcc=3.8V, 1000 hours		Q043613	0/77		0/248	
HTOL	JA108		Q043527	0/80	4		
	$T_J \geq 135°C$, Dynamic	3 lots, N=>77	Q043835	0/90	4	3 lots	Pass
	Vcc=3.8V, 100 hours		Q043587	0/78	4	0/248	
LTOL	JA108						
	$T_A = -10°C$, Dynamic	1 lot, N=>32	Q042871	0/59		1 lot	Pass
	Vcc=3.8V, 1000 hours					0/59	
ELFR	JA108		Q043759	0/506			
	$T_J \geq 125°C$, Dynamic	3 lots, N=>500	Q043614	0/526		3 lots	Pass
	Vcc=3.8V, 48 hours		Q042872	0/571		0/1603	
NVM Endurance, Retention and Operating Life	JESD22-A117		Q042996	0/40	2		
	25°C	3 lots, N=>39	Q043126	0/40	2	3 lots	
	500 hours		Q043349	0/40	2	0/120	Pass
NVM Endurance, Retention and Operating Life	JESD22-A117 +		Q043153	0/40	3		
	JESD22-A103		Q043130	0/40	3	3 lots	
	150°C, 1000 hours	3 lots, N=>39	Q043074	0/40	3	0/120	Pass

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Part Rev B, TSMC Fabrication, UNISEM Assembly

Test Name	Test Condition	Qualification	Lot ID or Start	Fail/Pass or End	Notes	Summary	Status
Test Group E – Electrical Verification							
ESD-HBM	JS-001	1 lot, N=>3	Q042867			2500 kV	Class 2
ESD-CDM	JS-002	1 lot, N=>3	Q053298			1000 V	Class C3
Latch Up	JESD78 ±150mA Overvoltage = OV?V	1 lot, N=>3	Q042868 Q042869	25 °C 135 °C			Pass

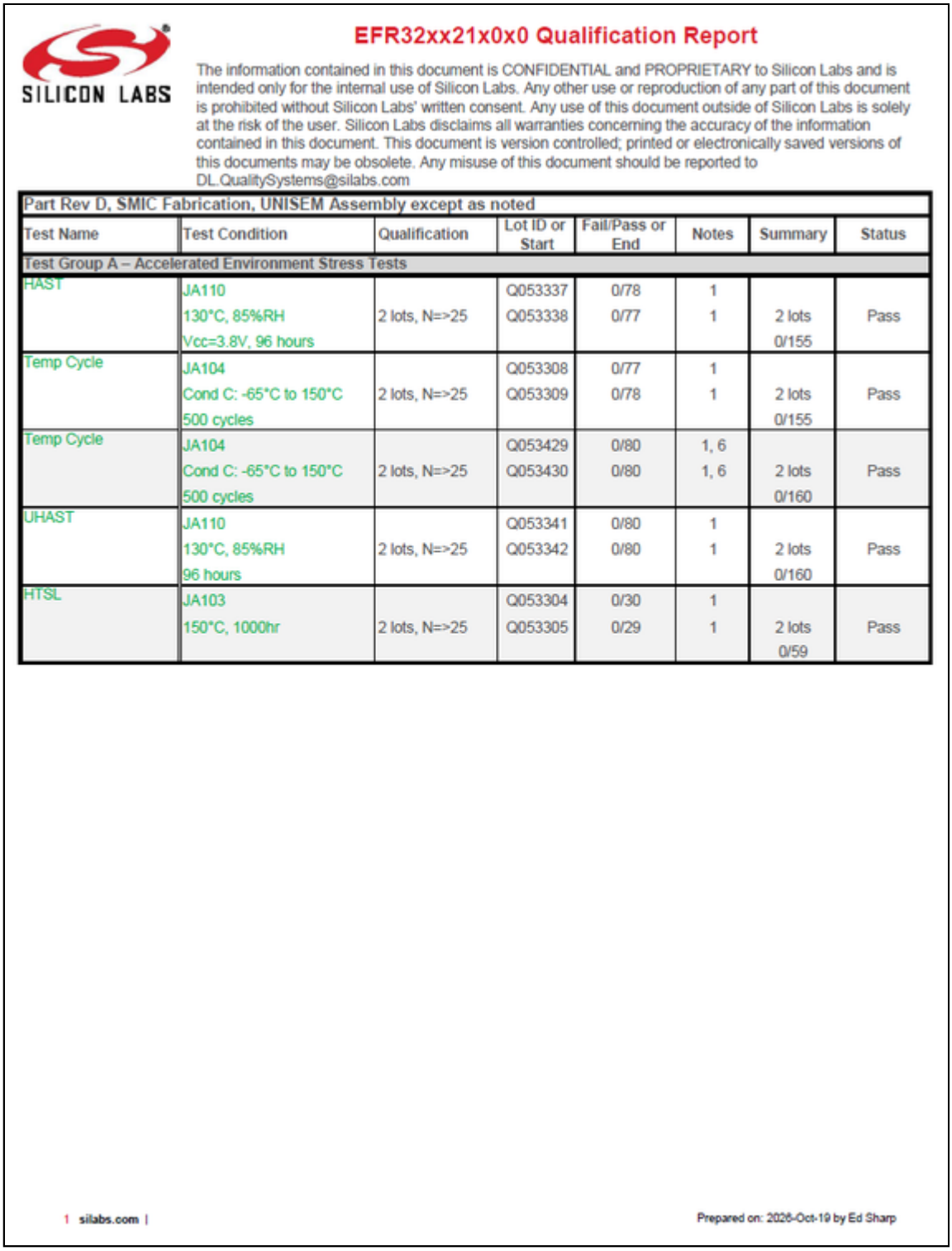
Notes:
1. Parts are Pre-conditioned at MSL2/260°C
2. Preconditioned with 10K wrie/erase cycles at 25°C
3. Preconditioned with 10K write/erase cycles at 125°C
4. 20dBm PA HTOL 100% duty cycle; use duty cycle <10%
5. Die shift + laser groove stress

This report applies to the following part number:

EFR32BG21A010F1024IM32-B	EFR32BG21B020F512IM32-B	EFR32MG21B010F512IM32-B
EFR32BG21A010F512IM32-B	EFR32BG21B020F768IM32-B	EFR32MG21B010F768IM32-B
EFR32BG21A010F768IM32-B	EFR32MG21A010F1024IM32-B	EFR32MG21B010PZ045IM32-B
EFR32BG21A020F1024IM32-B	EFR32MG21A010F512IM32-B	EFR32MG21B020F1024IM32-B
EFR32BG21A020F512IM32-B	EFR32MG21A010F768IM32-B	EFR32MG21B020F512IM32-B
EFR32BG21A020F768IM32-B	EFR32MG21A010M1475IM32-B	EFR32MG21B020F768IM32-B
EFR32BG21A020MZ124IM32-B	EFR32MG21A010PZ154IM32-B	EFR32MR21A020F512IM32-B
EFR32BG21B010F1024IM32-B	EFR32MG21A020F1024IM32-B	RM21P1608IM32-B
EFR32BG21B010F512IM32-B	EFR32MG21A020F512IM32-B	RM21P1622IM32-B
EFR32BG21B010F768IM32-B	EFR32MG21A020F768IM32-B	RM21P1668IM32-B
EFR32BG21B010X1653IM32-B	EFR32MG21A020PZ013IM32-B	RM21Z000F1024IM32-B
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EFR32BG21B020P1689IM32-B	EFR32BG21B020P1697IM32-B	

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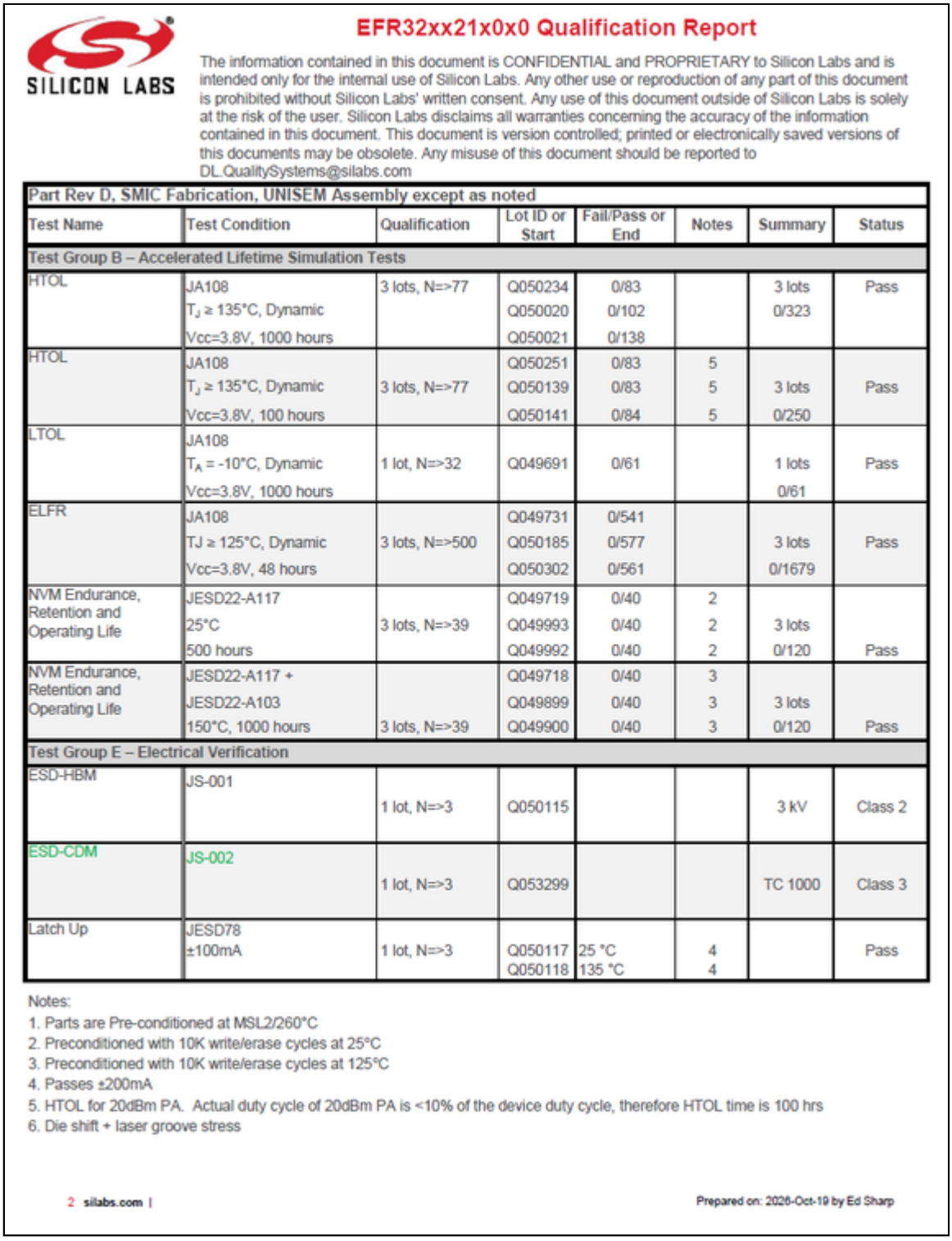
Part Rev D, SMIC Fabrication, UNISEM Assembly except as noted

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		Q053337	0/78	1		
	130°C, 85%RH	2 lots, N=>25	Q053338	0/77	1	2 lots	Pass
	Vcc=3.8V, 96 hours					0/155	
Temp Cycle	JA104		Q053308	0/77	1		
	Cond C: -65°C to 150°C	2 lots, N=>25	Q053309	0/78	1	2 lots	Pass
	500 cycles					0/155	
Temp Cycle	JA104		Q053429	0/80	1, 6		
	Cond C: -65°C to 150°C	2 lots, N=>25	Q053430	0/80	1, 6	2 lots	Pass
	500 cycles					0/160	
UHAST	JA110		Q053341	0/80	1		
	130°C, 85%RH	2 lots, N=>25	Q053342	0/80	1	2 lots	Pass
	96 hours					0/160	
HTSL	JA103		Q053304	0/30	1		
	150°C, 1000hr	2 lots, N=>25	Q053305	0/29	1	2 lots	Pass
						0/59	

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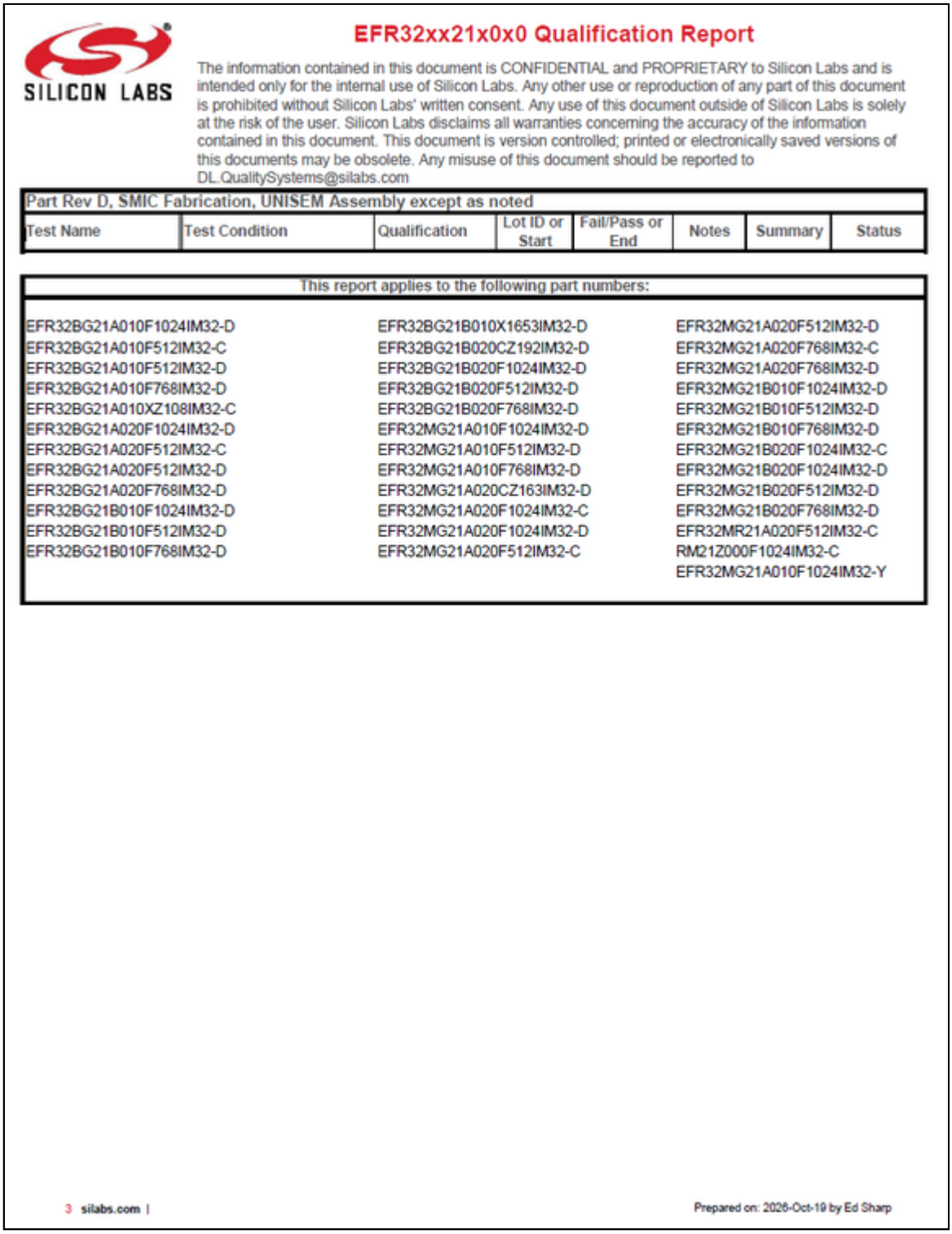
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Part Rev D, SMIC Fabrication, UNISEM Assembly except as noted							
Test Name	Test Condition	Qualification	Lot ID or Start	Fail/Pass or End	Notes	Summary	Status
Test Group B – Accelerated Lifetime Simulation Tests							
HTOL	JA108 $T_J \geq 135°C$, Dynamic Vcc=3.8V, 1000 hours	3 lots, N=>77	Q050234 Q050020 Q050021	0/83 0/102 0/138		3 lots 0/323	Pass
HTOL	JA108 $T_J \geq 135°C$, Dynamic Vcc=3.8V, 100 hours	3 lots, N=>77	Q050251 Q050139 Q050141	0/83 0/83 0/84	5 5 5	3 lots 0/250	Pass
LTOL	JA108 $T_A = -10°C$, Dynamic Vcc=3.8V, 1000 hours	1 lot, N=>32	Q049691	0/61		1 lots 0/61	Pass
ELFR	JA108 TJ ≥ 125°C, Dynamic Vcc=3.8V, 48 hours	3 lots, N=>500	Q049731 Q050185 Q050302	0/541 0/577 0/561		3 lots 0/1679	Pass
NVM Endurance, Retention and Operating Life	JESD22-A117 25°C 500 hours	3 lots, N=>39	Q049719 Q049993 Q049992	0/40 0/40 0/40	2 2 2	3 lots 0/120	Pass
NVM Endurance, Retention and Operating Life	JESD22-A117 + JESD22-A103 150°C, 1000 hours	3 lots, N=>39	Q049718 Q049899 Q049900	0/40 0/40 0/40	3 3 3	3 lots 0/120	Pass
Test Group E – Electrical Verification							
ESD-HBM	JS-001	1 lot, N=>3	Q050115			3 kV	Class 2
ESD-CDM	JS-002	1 lot, N=>3	Q053299			TC 1000	Class 3
Latch Up	JESD78 ±100mA	1 lot, N=>3	Q050117 Q050118	25 °C 135 °C	4 4		Pass

Notes:
1. Parts are Pre-conditioned at MSL2/260°C
2. Preconditioned with 10K write/erase cycles at 25°C
3. Preconditioned with 10K write/erase cycles at 125°C
4. Passes ±200mA
5. HTOL for 20dBm PA. Actual duty cycle of 20dBm PA is <10% of the device duty cycle, therefore HTOL time is 100 hrs
6. Die shift + laser groove stress

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Part Rev D, SMIC Fabrication, UNISEM Assembly except as noted

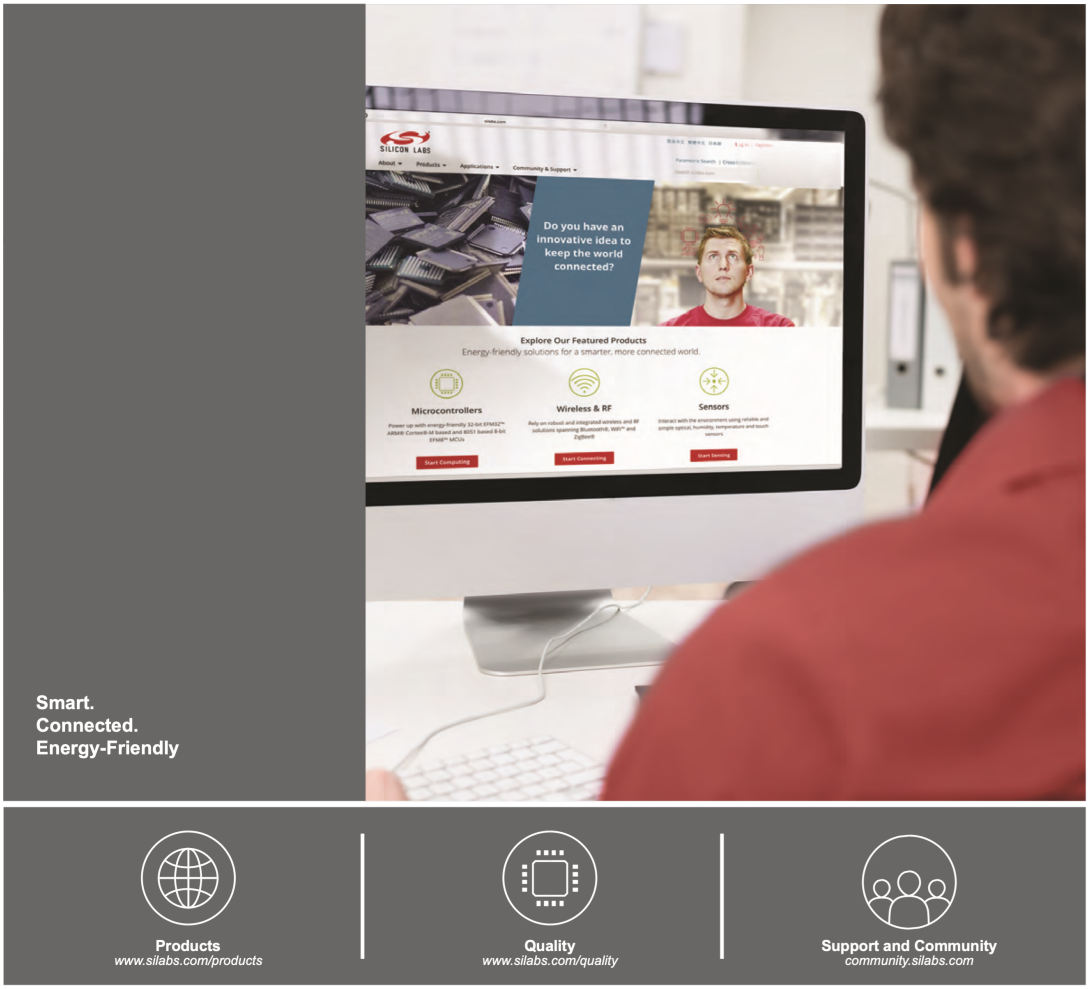
Test Name	Test Condition	Qualification	Lot ID or Start	Fail/Pass or End	Notes	Summary	Status

This report applies to the following part numbers:

EFR32BG21A010F1024IM32-D	EFR32BG21B010X1653IM32-D	EFR32MG21A020F512IM32-D
EFR32BG21A010F512IM32-C	EFR32BG21B020CZ192IM32-D	EFR32MG21A020F768IM32-C
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EFR32BG21B010F1024IM32-D	EFR32MG21A020F1024IM32-C	EFR32MG21B020F768IM32-D
EFR32BG21B010F512IM32-D	EFR32MG21A020F1024IM32-D	EFR32MR21A020F512IM32-C
EFR32BG21B010F768IM32-D	EFR32MG21A020F512IM32-C	RM21Z000F1024IM32-C
		EFR32MG21A010F1024IM32-Y

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