



2605061812 Additional Assembly, Test and Ship Site for EFM8BB2x/EFM8UB1x/CP2102N (20-QFN-3x3)

PCN Issue Date: May 06, 2026

Effective Date: Aug 12, 2026

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 EFM8BB2x/EFM8UB1x/CP2102N (20-QFN-3x3). 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

Existing Part #
EFM8BB21F16G-C-QFN20
EFM8BB21F16G-C-QFN20R
EFM8BB21F16I-C-QFN20
EFM8BB21F16I-C-QFN20R
EFM8UB10F8G-C-QFN20
EFM8UB10F8G-C-QFN20R
EFM8UB10F16G-C-QFN20
EFM8UB10F16G-C-QFN20R
EFM8UB10P1098F16GM-C
EFM8UB10P1098F16GM-CR
EFM8UB10P1425F16GM-C
EFM8UB10P1425F16GM-CR
CP2102N-A02-GQFN20
CP2102N-A02-GQFN20R

Last Date of Unchanged Product: Aug 12, 2026

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 <https://www.silabs.com>.

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

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. <https://www.silabs.com/profile>

Qualification Data

Please refer to qualification report below



EFM8BB2x AEC-Q100 Qualification Report Rev.Q

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EFM8BB2x Rev A2/A3/A4, HHGrace Fabrication, ASECL, UTACTH & 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 - 20QFN - CuPd Wire ASECL							
HAST	AEC-Q006, JESD22-A110 130°C, 85%RH Voc=3.6V, 96 hours	3 lots, N=>77	Q037190 Q037191 Q037192	0/77 0/80 0/80	1 1 1	3 lots 0/237	Pass
UHAST	AEC-Q100, JESD22-A102 130°C, 85%RH 96 hours	3 lots, N=>77	Q037199 Q037200 Q037202	0/81 0/80 0/82	1 1 1	3 lots 0/243	Pass
Temp Cycle	AEC-Q006, JESD22-A104 Cond C: -85°C to 150°C 500 cycles	3 lots, N=>77	Q037196 Q037197 Q037198	0/80 0/80 0/80	1 1 1	3 lots 0/240	Pass
HTSL	AEC-Q006, JESD22-A103 150°C, 1000hr	1 lot, N=>45	Q037193 Q037194 Q037195	0/30 0/30 0/30	1 1 1	3 lots 0/90	Pass
Test Group A – Accelerated Environment Stress Tests - 20QFN - CuPd Wire UNISEM							
HAST	AEC-Q006, JESD22-A110 130°C, 85%RH Voc=3.6V, 96 hours	3 lots, N=>77	Q052900 Q052901 Q052902 Q052903	0/80 0/80 0/80 0/80	1 1 1 1	4 lots 0/320	Pass
UHAST	AEC-Q100, JESD22-A102 130°C, 85%RH 96 hours	3 lots, N=>77	Q053113 Q053117 Q053121	0/80 0/79 0/80	1 1 1	3 lots 0/239	Pass
Temp Cycle	AEC-Q006, JESD22-A104 Cond C: -85°C to 150°C 500 cycles	3 lots, N=>77	Q053114 Q053118 Q053122	0/80 0/80 0/80	1 1 1	3 lots 0/240	Pass
HTSL	AEC-Q006, JESD22-A103 150°C, 1000hr	1 lot, N=>45	Q053115 Q053119 Q053123	0/80 0/80 0/80	1 1 1	3 lots 0/240	Pass
Test Group A – Accelerated Environment Stress Tests - 28QFN - CuPd Wire UTACTH							
HAST	AEC-Q006, JESD22-A110 130°C, 85%RH Voc=3.6V, 96 hours	3 lots, N=>77	Q035792 Q035788 Q035789	0/80 0/77 0/80	1 1 1	3 lots 0/237	Pass
UHAST	AEC-Q100, JESD22-A102 130°C, 85%RH 96 hours	3 lots, N=>77	Q037163 Q037164 Q037165	0/80 0/80 0/80	1 1 1	3 lots 0/240	Pass
Temp Cycle	AEC-Q006, JESD22-A104 Cond C: -85°C to 150°C 500 cycles	3 lots, N=>77	Q037160 Q037161 Q037162	0/80 0/80 0/80	1 1 1	3 lots 0/240	Pass
HTSL	AEC-Q006, JESD22-A103 150°C, 1000hr	1 lot, N=>45	Q035682 Q037977 Q037159 Q037806	0/30 0/80 0/30 0/45	1 1 1 1	4 lots 0/185	Pass



EFM8BB2x AEC-Q100 Qualification Report Rev.Q

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EFM8BB2x Rev A2/A3/A4, HHGrace Fabrication, ASECL, UTACTH & 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 - 24QSOP - CuPd Wire UTACTH							
HAST	AEC-Q006, JESD22-A110 130°C, 85%RH Voc=3.6V, 96 hours	3 lots, N=>77	Q036513	0/80	1		Pass
			Q036515	0/80	1	3 lots	
			Q036519	0/80	1	0/240	
UHASt	AEC-Q100, JESD22-A102 130°C, 85%RH 96 hours	3 lots, N=>77	Q036526	0/80	1		Pass
			Q036527	0/80	1	3 lots	
			Q036528	0/80	1	0/240	
Temp Cycle	AEC-Q006, JESD22-A104 Cond C: -65°C to 150°C 500 cycles	3 lots, N=>77	Q036523	0/80	1		Pass
			Q036524	0/80	1	3 lots	
			Q036525	0/80	1	0/240	
HTSL	AEC-Q006, JESD22-A103 150°C, 1000hr	1 lot, N=>45	Q036520	0/28	1		Pass
			Q036521	0/28	1	3 lots	
			Q036522	0/28	1	0/84	
Test Group A – Accelerated Environment Stress Tests - 24QFN - CuPd Wire UTACTH							
HAST	AEC-Q006, JESD22-A110 130°C, 85%RH Voc=3.6V, 96 hours	3 lots, N=>77	Q035792	0/80	1		Pass
			Q035788	0/77	1	3 lots	
			Q035789	0/80	1	0/237	
UHASt	AEC-Q100, JESD22-A102 130°C, 85%RH 96 hours	3 lots, N=>77	Q037163	0/80	1		Pass
			Q037164	0/80	1	3 lots	
			Q037165	0/80	1	0/240	
Temp Cycle	AEC-Q006, JESD22-A104 Cond C: -65°C to 150°C 500 cycles	3 lots, N=>77	Q038520	0/80	1		Pass
			Q038521	0/80	1	3 lots	
			Q038522	0/80	1	0/240	
HTSL	AEC-Q006, JESD22-A103 150°C, 1000hr	1 lot, N=>45	Q035682	0/30	1		Pass
			Q037977	0/80	1	3 lots	
			Q037159	0/30	1	0/140	



EFM8BB2x AEC-Q100 Qualification Report Rev.Q

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EFM8BB2x Rev A2/A3/A4, HHGrace Fabrication, ASECL, UTACTH & UNISEM Assembly							
Test Name	Test Condition	Qualification	Lot ID or Start	Fail/Pass or End	Notes	Summary	Status
Test Group B – Accelerated Lifetime Simulation Tests							
HTOL	AEC-Q100, JESD22-A108 T _j ≥ 125°C, Dynamic Voc=3.6V, 1000 hours	3 lots, N=>77	Q035684 Q035685 Q037250	0/84 0/84 0/80		3 lots 0/248	Pass
LTOL	JA108 -10°C, Dynamic Voc=3.6V, 1000 hours	1 lot, N=>32	Q036550	0/35		1 lots 0/35	Pass
ELFR	AEC-Q100-008 T _j ≥ 125°C, Dynamic Voc=3.6V, 48 hours	3 lots, N=>800	Q035681 Q036910 Q037251 Q036509	0/839 0/839 0/836 0/840		4 lots 0/3354	Pass
Data Retention High Temp	AEC-Q100-005 150°C, 1000 hours	3 lots, N=>39	Q035781 Q035783 Q037252	0/45 0/44 0/45		3 lots 0/134	Pass
Data Retention Low Temp	AEC-Q100-005 25°C, 1000 hours	3 lots, N=>38	Q035784 Q035786 Q037253	0/45 0/45 0/45		3 lots 0/135	Pass
NVM P/E Cycling High Temp	AEC-Q100-005 85°C	3 lots, N=>77	Q035787 Q035782 Q037254	0/84 0/84 0/84		3 lots 0/252	Pass
NVM P/E Cycling Low Temp	AEC-Q100-005 55°C	3 lots, N=>77	Q035791 Q035785 Q037255	0/80 0/80 0/84		3 lots 0/244	Pass
Test Group C – Package Assembly Integrity Tests							
Wire Bond Pull	AEC-Q006, M-STD-883 Performed post-TC	5 units, N=>30 20QFN	Q037487 Q053132 Q053133 Q053134	0/5 0/5 0/5 0/5	2 6 6 6		Pass
Wire Bond Pull	AEC-Q006, M-STD-883 Performed post-TC	5 units, N=>30 28QFN	Q037489	0/5	3		Pass
Wire Bond Pull	AEC-Q006, M-STD-883 Performed post-TC	5 units, N=>30 24QSOP	Q037707	0/5	4		Pass
Wire Bond Pull	AEC-Q006, M-STD-883 Performed post-TC	5 units, N=>30 24QFN	Q038577	0/5	5		Pass



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EFM8BB2x Rev A2/A3/A4, HHGrace Fabrication, ASECL, UTACTH & 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	AEC-Q100-002	1 lot, N=>3	Q036561 Q036569 Q037643			2 kV 2 kV 2 kV	Class 2 Class 2 Class 2
ESD-CDM	AEC-Q100-011	1 lot, N=>3	Q036705 Q036588 Q037648 Q036558 Q036512 Q036628 Q052904		2 3 3 3 4 5 6	TC 1500V TC 1250V TC 1250V TC 1500V TC 1500V TC 1500V TC 1000V	Class C3 Class C3 Class C3 Class C3 Class C3 Class C3 Class C3
Latch Up	AEC-Q100-004 ±100mA Overvoltage = OV?V	1 lot, N=>6	Q037647 Q037674			125 °C 25 °C	Class I.A Class I.A
Electromagnetic Compatibility	SAE J1752	1 lot, N=>1	Q038023				Pass

Notes:

1. Parts are Pre-conditioned at MSL2/260°C
2. 20-QFN
3. 28-QFN
4. 24-QSOP
5. 24-QFN
6. Unisem 20-QFN

This report applies to the following part numbers:

EFM8BB21F16G-C-QFN20	EFM8BB22F16G-C-QFN28
EFM8BB21F16G-C-QSOP24	EFM8BB22F16I-C-QFN28
EFM8BB21F16I-C-QFN20	EFM8BB20F16G-C-QFN20
EFM8BB21F16I-C-QSOP24	EFM8BB20F16I-C-QFN20



EFM8UB1x AEC-Q100 Qualification Report Rev.Q

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EFM8UB1x Rev A2/A3/A4, HHGrace Fabrication, ASECL, UTACTH & 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 - 20QFN - CuPd Wire ASECL							
HAST	AEC-Q006, JESD22-A110 130°C, 85%RH Vcc=3.6V, 96 hours	3 lots, N=>77	Q037190	0/77	1		Pass
			Q037191	0/80	1	3 lots	
			Q037192	0/80	1	0/237	
UHAUT	AEC-Q100, JESD22-A102 130°C, 85%RH 96 hours	3 lots, N=>77	Q037199	0/81	1		Pass
			Q037200	0/80	1	3 lots	
			Q037202	0/82	1	0/243	
Temp Cycle	AEC-Q006, JESD22-A104 Cond C: -85°C to 150°C 500 cycles	3 lots, N=>77	Q037196	0/80	1		Pass
			Q037197	0/80	1	3 lots	
			Q037198	0/80	1	0/240	
HTSL	AEC-Q006, JESD22-A103 150°C, 1000hr	1 lot, N=>45	Q037193	0/30	1		Pass
			Q037194	0/30	1	3 lots	
			Q037195	0/30	1	0/90	
Test Group A – Accelerated Environment Stress Tests - 20QFN - CuPd Wire UNISEM							
HAST	AEC-Q006, JESD22-A110 130°C, 85%RH Vcc=3.6V, 96 hours	3 lots, N=>77	Q052900	0/80	1		Pass
			Q052901	0/80	1	4 lots	
			Q052902	0/80	1	0/320	
			Q052903	0/80	1		
UHAUT	AEC-Q100, JESD22-A102 130°C, 85%RH 96 hours	3 lots, N=>77	Q053113	0/80	1		Pass
			Q053117	0/79	1	3 lots	
			Q053121	0/80	1	0/239	
Temp Cycle	AEC-Q006, JESD22-A104 Cond C: -85°C to 150°C 500 cycles	3 lots, N=>77	Q053114	0/80	1		Pass
			Q053118	0/80	1	3 lots	
			Q053122	0/80	1	0/240	
HTSL	AEC-Q006, JESD22-A103 150°C, 1000hr	1 lot, N=>45	Q053115	0/80	1		Pass
			Q053119	0/80	1	3 lots	
			Q053123	0/80	1	0/240	
Test Group A – Accelerated Environment Stress Tests - 28QFN - CuPd Wire UTACTH							
HAST	AEC-Q006, JESD22-A110 130°C, 85%RH Vcc=3.6V, 96 hours	3 lots, N=>77	Q035792	0/80	1		Pass
			Q035788	0/77	1	3 lots	
			Q035789	0/80	1	0/237	
UHAUT	AEC-Q100, JESD22-A102 130°C, 85%RH 96 hours	3 lots, N=>77	Q037163	0/80	1		Pass
			Q037164	0/80	1	3 lots	
			Q037165	0/80	1	0/240	
Temp Cycle	AEC-Q006, JESD22-A104 Cond C: -85°C to 150°C 500 cycles	3 lots, N=>77	Q037160	0/80	1		Pass
			Q037161	0/80	1	3 lots	
			Q037162	0/80	1	0/240	
HTSL	AEC-Q006, JESD22-A103 150°C, 1000hr	1 lot, N=>45	Q035682	0/30	1		Pass
			Q037977	0/80	1	4 lots	
			Q037159	0/30	1		
			Q037806	0/45	1	0/185	



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EFM8UB1x Rev A2/A3/A4, HHGrace Fabrication, ASECL, UTACTH & 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 - 24QSOP - CuPd Wire UTACTH							
HAST	AEC-Q006, JESD22-A110 130°C, 85%RH Vcc=3.6V, 96 hours	3 lots, N=>77	Q036513	0/80	1		Pass
			Q036515	0/80	1	3 lots	
			Q036519	0/80	1	0/240	
UHAST	AEC-Q100, JESD22-A102 130°C, 85%RH 96 hours	3 lots, N=>77	Q036526	0/80	1		Pass
			Q036527	0/80	1	3 lots	
			Q036528	0/80	1	0/240	
Temp Cycle	AEC-Q006, JESD22-A104 Cond C: -65°C to 150°C 500 cycles	3 lots, N=>77	Q036523	0/80	1		Pass
			Q036524	0/80	1	3 lots	
			Q036525	0/80	1	0/240	
HTSL	AEC-Q006, JESD22-A103 150°C, 1000hr	1 lot, N=>45	Q036520	0/28	1		Pass
			Q036521	0/28	1	3 lots	
			Q036522	0/28	1	0/84	
Test Group A – Accelerated Environment Stress Tests - 24QFN - CuPd Wire UTACTH							
HAST	AEC-Q006, JESD22-A110 130°C, 85%RH Vcc=3.6V, 96 hours	3 lots, N=>77	Q035792	0/80	1		Pass
			Q035788	0/77	1	3 lots	
			Q035789	0/80	1	0/237	
UHAST	AEC-Q100, JESD22-A102 130°C, 85%RH 96 hours	3 lots, N=>77	Q037183	0/80	1		Pass
			Q037184	0/80	1	3 lots	
			Q037185	0/80	1	0/240	
Temp Cycle	AEC-Q006, JESD22-A104 Cond C: -65°C to 150°C 500 cycles	3 lots, N=>77	Q038520	0/80	1		Pass
			Q038521	0/80	1	3 lots	
			Q038522	0/80	1	0/240	
HTSL	AEC-Q006, JESD22-A103 150°C, 1000hr	1 lot, N=>45	Q035682	0/30	1		Pass
			Q037977	0/80	1	3 lots	
			Q037159	0/30	1	0/140	



EFM8UB1x AEC-Q100 Qualification Report Rev.Q

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EFM8UB1x Rev A2/A3/A4, HHGrace Fabrication, ASECL, UTACTH & UNISEM Assembly

Test Name	Test Condition	Qualification	Lot ID or Start	Fail/Pass or End	Notes	Summary	Status
Test Group B – Accelerated Lifetime Simulation Tests							
HTOL	AEC-Q100, JESD22-A108 T _a ≥ 125°C, Dynamic V _{cc} =3.6V, 1000 hours	3 lots, N=>77	Q035684 Q035685 Q037250	0/84 0/84 0/80		3 lots 0/248	Pass
LTOL	JA108 -10°C, Dynamic V _{cc} =3.6V, 1000 hours	1 lot, N=>32	Q036550	0/35		1 lots 0/35	Pass
ELFR	AEC-Q100-008 T _a ≥ 125°C, Dynamic V _{cc} =3.6V, 48 hours	3 lots, N=>800	Q035681 Q036910 Q037251 Q036509	0/839 0/839 0/836 0/840		4 lots 0/3354	Pass
Data Retention High Temp	AEC-Q100-005 150°C, 1000 hours	3 lots, N=>39	Q035781 Q035783 Q037252	0/45 0/44 0/45		3 lots 0/134	Pass
Data Retention Low Temp	AEC-Q100-005 25°C, 1000 hours	3 lots, N=>38	Q035784 Q035786 Q037253	0/45 0/45 0/45		3 lots 0/135	Pass
NVM P/E Cycling High Temp	AEC-Q100-005 85°C	3 lots, N=>77	Q035787 Q035782 Q037254	0/84 0/84 0/84		3 lots 0/252	Pass
NVM P/E Cycling Low Temp	AEC-Q100-005 55°C	3 lots, N=>77	Q035791 Q035785 Q037255	0/80 0/80 0/84		3 lots 0/244	Pass
Test Group C – Package Assembly Integrity Tests							
Wire Bond Pull	AEC-Q006, M-STD-883 Performed post-TC	5 units, N=>30 20QFN	Q037487 Q053132 Q053133 Q053134	0/5 0/5 0/5 0/5	2 7 7 7		Pass
Wire Bond Pull	AEC-Q006, M-STD-883 Performed post-TC	5 units, N=>30 28QFN	Q037489	0/5	3		Pass
Wire Bond Pull	AEC-Q006, M-STD-883 Performed post-TC	5 units, N=>30 24QSOP	Q037707	0/5	4		Pass
Wire Bond Pull	AEC-Q006, M-STD-883 Performed post-TC	5 units, N=>30 24QFN	Q038577	0/5	5		Pass



EFM8UB1x AEC-Q100 Qualification Report Rev.Q

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EFM8UB1x Rev A2/A3/A4, HHGrace Fabrication, ASECL, UTACTH & 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	AEC-Q100-002	1 lot, N=>3	Q036561		6	2 kV	Class 2
			Q035689		6	2 kV	Class 2
			Q037643		6	2 kV	Class 2
ESD-CDM	AEC-Q100-011	1 lot, N=>3	Q036705		2	TC 1500V	Class C3
			Q035688		3	TC 1250V	Class C3
			Q037648		3	TC 1250V	Class C3
			Q036558		3	TC 1500V	Class C3
			Q036512		4	TC 1500V	Class C3
			Q036028		5	TC 1500V	Class C3
			Q052904		7	TC 1000V	Class C3
Latch Up	AEC-Q100-004 ±100mA Overvoltage = OV?V	1 lot, N=>6	Q037647			125 °C	Class I.A
			Q037674			25 °C	Class I.A
Electromagnetic Compatibility	SAE J1752	1 lot, N=>1	Q038023				Pass

Notes:

- Parts are Pre-conditioned at MSL2/260°C
- 20-QFN
- 28-QFN
- 24-QSOP
- 24-QFN
- Five USB-related pins passed 8 kV. They are D+, D-, VBUS, VSS, VREGIN
- Unisem 20-QFN

This report applies to the following part numbers:	
EFM8UB10F16G-C-QFN20	EFM8UB11F16G-C-QSOP24
EFM8UB10F16G-C-QFN28	EFM8UB11F8G-C-QFN24
EFM8UB10F8G-C-QFN20	
EFM8UB11F16G-C-QFN24	

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Prepared on: 2026-04-30 by Wee Han Poh



CP2102N AEC-Q100 Qualification Report Rev.Q

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CP2102N, HHGrace Fabrication, ASECL, UTACTH & 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 - 20QFN - CuPd Wire ASECL							
HAST	AEC-Q008, JESD22-A110 130°C, 85%RH Vcc=3.6V, 96 hours	3 lots, N=>77	Q037190 Q037191 Q037192	0/77 0/80 0/80	1 1 1	3 lots 0/237	Pass
UHAST	AEC-Q100, JESD22-A102 130°C, 85%RH 96 hours	3 lots, N=>77	Q037199 Q037200 Q037202	0/81 0/80 0/82	1 1 1	3 lots 0/243	Pass
Temp Cycle	AEC-Q008, JESD22-A104 Cond C: -85°C to 150°C 500 cycles	3 lots, N=>77	Q037198 Q037197 Q037198	0/80 0/80 0/80	1 1 1	3 lots 0/240	Pass
HTSL	AEC-Q008, JESD22-A103 150°C, 1000hr	1 lot, N=>45	Q037193 Q037194 Q037195	0/30 0/30 0/30	1 1 1	3 lots 0/90	Pass
Test Group A – Accelerated Environment Stress Tests - 20QFN - CuPd Wire UNISEM							
HAST	AEC-Q008, JESD22-A110 130°C, 85%RH Vcc=3.6V, 96 hours	3 lots, N=>77	Q052900 Q052901 Q052902 Q052903	0/80 0/80 0/80 0/80	1 1 1 1	4 lots 0/320	Pass
UHAST	AEC-Q100, JESD22-A102 130°C, 85%RH 96 hours	3 lots, N=>77	Q053113 Q053117 Q053121	0/80 0/79 0/80	1 1 1	3 lots 0/239	Pass
Temp Cycle	AEC-Q008, JESD22-A104 Cond C: -85°C to 150°C 500 cycles	3 lots, N=>77	Q053114 Q053118 Q053122	0/80 0/80 0/80	1 1 1	3 lots 0/240	Pass
HTSL	AEC-Q008, JESD22-A103 150°C, 1000hr	1 lot, N=>45	Q053115 Q053119 Q053123	0/80 0/80 0/80	1 1 1	3 lots 0/240	Pass
Test Group A – Accelerated Environment Stress Tests - 24QFN - CuPd Wire UTACTH							
HAST	AEC-Q008, JESD22-A110 130°C, 85%RH Vcc=3.6V, 96 hours	3 lots, N=>77	Q035792 Q035788 Q035789	0/80 0/77 0/80	1 1 1	3 lots 0/237	Pass
UHAST	AEC-Q100, JESD22-A102 130°C, 85%RH 96 hours	3 lots, N=>77	Q037163 Q037164 Q037165	0/80 0/80 0/80	1 1 1	3 lots 0/240	Pass
Temp Cycle	AEC-Q008, JESD22-A104 Cond C: -85°C to 150°C 500 cycles	3 lots, N=>77	Q038520 Q038521 Q038522	0/80 0/80 0/80	1 1 1	3 lots 0/240	Pass
HTSL	AEC-Q008, JESD22-A103 150°C, 1000hr	1 lot, N=>45	Q035682 Q037977 Q037159	0/30 0/80 0/30	1 1 1	3 lots 0/140	Pass



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CP2102N, HHGrace Fabrication, ASECL, UTACTH & 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 - 28QFN - CuPd Wire UTACTH							
HAST	AEC-Q008, JESD22-A110	3 lots, N=>77	Q035792	0/80	1		Pass
	130°C, 85%RH		Q035788	0/77	1	3 lots	
	Vcc=3.6V, 96 hours		Q035789	0/80	1	0/237	
UHAST	AEC-Q100, JESD22-A102	3 lots, N=>77	Q037163	0/80	1		Pass
	130°C, 85%RH		Q037164	0/80	1	3 lots	
	96 hours		Q037165	0/80	1	0/240	
Temp Cycle	AEC-Q008, JESD22-A104	3 lots, N=>77	Q037160	0/80	1		Pass
	Cond C: -85°C to 150°C		Q037161	0/80	1	3 lots	
	500 cycles		Q037162	0/80	1	0/240	
HTSL	AEC-Q008, JESD22-A103	1 lot, N=>45	Q035682	0/30	1		Pass
	150°C, 1000hr		Q037977	0/80	1	4 lots	
			Q037159	0/30	1		
			Q037806	0/45	1	0/185	
Test Group B – Accelerated Lifetime Simulation Tests							
HTOL	AEC-Q100, JESD22-A108	3 lots, N=>77	Q035684	0/84		3 lots	Pass
	T _j ≥ 125°C, Dynamic		Q035685	0/84		0/248	
	Vcc=3.6V, 1000 hours		Q037250	0/80			
LTOL	JA108	1 lot, N=>32				1 lots	Pass
	-10°C, Dynamic		Q036550	0/35		0/35	
	Vcc=3.6V, 1000 hours						
ELFR	AEC-Q100-008	3 lots, N=>800	Q035681	0/839		4 lots	Pass
	T _j ≥ 125°C, Dynamic		Q036910	0/839			
	Vcc=3.6V, 48 hours		Q037251	0/836			
			Q036509	0/840		0/3354	
Data Retention High Temp	AEC-Q100-005	3 lots, N=>39	Q035781	0/45		3 lots	Pass
	150°C, 1000 hours		Q035783	0/44			
			Q037252	0/45		0/134	
Data Retention Low Temp	AEC-Q100-005	3 lots, N=>38	Q035784	0/45		3 lots	Pass
	25°C, 1000 hours		Q035786	0/45			
			Q037253	0/45		0/135	
NVM P/E Cycling High Temp	AEC-Q100-005	3 lots, N=>77	Q035787	0/84		3 lots	Pass
	85°C		Q035782	0/84			
			Q037254	0/84		0/252	
NVM P/E Cycling Low Temp	AEC-Q100-005	3 lots, N=>77	Q035791	0/80		3 lots	Pass
	55°C		Q035785	0/80			
			Q037255	0/84		0/244	



CP2102N AEC-Q100 Qualification Report Rev.Q

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CP2102N, HHGrace Fabrication, ASECL, UTACTH & UNISEM Assembly

Test Name	Test Condition	Qualification	Lot ID or Start	Fail/Pass or End	Notes	Summary	Status
Test Group C – Package Assembly Integrity Tests							
Wire Bond Pull	AEC-Q006, M-STD-883 Performed post-TC	5 units, N=>30 20QFN	Q037487 Q053132 Q053133 Q053134	0/5 0/5 0/5 0/5	2 6 6 6		Pass
Wire Bond Pull	AEC-Q006, M-STD-883 Performed post-TC	5 units, N=>30 28QFN	Q037489	0/5	3		Pass
Wire Bond Pull	AEC-Q006, M-STD-883 Performed post-TC	5 units, N=>30 24QFN	Q038577	0/5	4		Pass
Test Group E – Electrical Verification							
ESD-HBM	AEC-Q100-002	1 lot, N=>3	Q036561 Q035689 Q037643		5 5 5	2 kV 2 kV 2 kV	Class 2 Class 2 Class 2
ESD-CDM	AEC-Q100-011	1 lot, N=>3	Q036705 Q035688 Q037648 Q036558 Q038628 Q052904		2 3 3 3 4 6	TC 1500V TC 1250V TC 1250V TC 1500V TC 1500V TC 1000V	Class C3 Class C3 Class C3 Class C3 Class C3 Class C3
Latch Up	AEC-Q100-004 ±100mA Overvoltage = OV?V	1 lot, N=>6	Q037647 Q037674			125 °C 25 °C	Class I.A Class I.A
Electromagnetic Compatibility	SAE J1752	1 lot, N=>1	Q038023				Pass

Notes:

- Parts are Pre-conditioned at MSL2/260°C
- 20-QFN
- 28-QFN
- 24-QFN
- Five USB-related pins passed 8 kV. They are D+, D-, VBUS, VSS, VREGIN
- Unisem 20-QFN

This report applies to the following part numbers:

CP2102N-A01-GQFN20/R	CP2102N-A02-GQFN20/R
CP2102N-A01-GQFN24/R	CP2102N-A02-GQFN24/R
CP2102N-A01-GQFN28/R	CP2102N-A02-GQFN28/R

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