Product Change Notification: MFOL-06BQEP127

Date:

21-Feb-2025

Product Category:

Memory

Notification Subject:

CCB 7421 Final Notice: Qualification of CuPdAu as a new wire material, QMI-519 and AMK-EP27 as a new die attach material and AMK-MC27 as a new mold compound for selected 24AA32Ax, 24AA64x, 24FC64x, 24LC32Ax, 24LC64x, AT24C32x, and AT24C64x device families available in 8L SOIC (3.90mm) package.

Affected CPNs:

MFOL-06BQEP127_Affected_CPN_02212025.pdf
MFOL-06BQEP127_Affected_CPN_02212025.csv

PCN Status: Final Notification

PCN Type: Manufacturing Change

Microchip Parts Affected: Please open one of the files found in the Affected CPNs section.
Note: For your convenience Microchip includes identical files in two formats (.pdf and .xls)

Description of Change: Qualification of CuPdAu as a new wire material, QMI-519 and AMK-EP27 as a new die attach material and AMK-MC27 as a new mold compound for selected 24AA32Ax, 24AA64x, 24FC64x, 24LC32Ax, 24LC64x, AT24C32x, and AT24C64x device families available in 8L SOIC (3.90mm) package.

Pre and Post Summary Changes:

	Pre Change			**Post Change**		
Assembly Site	Amkor Technology Philippine	ATX Semiconductor (Shanghai)Co.	Microchip Technology Thailand	Amkor Technology Philippine	ATX Semiconductor (Shanghai)Co.	Microchip Technology Thailand

	(P1/P2), INC. (ANAP)	Ltd (ASSH)	(HQ) (MTAI)	(P1/P2), INC. (ANAP)	Ltd (ASSH)	(HQ) (MTAI)
Device Families	AT24C32x AT24C64x	24AA32Ax 24AA64x 24FC64x 24LC32x 24LC64x AT24C32x AT24C64x	24AA32Ax 24AA64x 24FC64x 24LC32x 24LC64x AT24C32x AT24C64x	AT24C32x AT24C64x	24AA32Ax 24AA64x 24FC64x 24LC32x 24LC64x AT24C32x AT24C64x	24AA32Ax 24AA64x 24FC64x 24LC32x 24LC64x AT24C32x AT24C64x
Wire Material	PdCu	CuPdAu	Au or CuPdAu	CuPdAu	CuPdAu	Au or CuPdAu
Die Attach Material	8290	EN-4900G	8390A	AMK-EP27	EN-4900G	QMI-519
Molding Compound Material	G700A	CEL-9240HF10 AK	G600V	AMK-MC27	CEL-9240HF10 AK	G600V
Lead-Frame Material	C194	C194	CDA194	C19400FH	C194	CDA194
Lead Plating	NiPdAu	Matte tin	Matte tin	Matte tin	Matte tin	Matte tin
DAP Surface Prep	PPF	Bare Cu	Bare Cu	Bare Cu	Bare Cu	Bare Cu

*Note: C194, A194, CDA194 or C19400FH Lead frame material are the same, it is just a MCHP internal labelling difference.

Impacts to Datasheet: None

Change Impact: None

Reason for Change: To improve manufacturability by qualifying CuPdAu as a new wire material, QMI-519 and AMK-EP27 as a new die attach material and AMK-MC27 as a new mold compound.

Change Implementation Status: In Progress

Estimated First Ship Date: 31 March 2025 (date code: 2514)

Note Below EFSD: Note: Please be advised that after the estimated first ship date customers may receive pre and post change parts.

Timetable Summary:

	February 2025				**March 2025**				
Work Week	06	07	08	09	10	11	12	13	14
Qual Report Availability			X						
Final PCN Issue Date			X						
Estimated Implementation Date									X

Method to Identify Change: Traceability Code

Qualification Report: Please open the attachments included with this PCN labeled as PCN_#_Qual_Report.

Revision History: February 21, 2025: Issued final notification.

Note: The change described in this PCN does not alter Microchip's current regulatory compliance regarding the material content of the applicable product.

Attachments:

PCN_MFOL-06BQEP127 Qualification Report_ANAP.pdf
PCN_MFOL-06BQEP127 Qualification Report_MTAI.pdf
PCN_MFOL-06BQEP127_Qualification Report_ASSH.pdf

Please contact your local **Microchip sales office** with questions or concerns regarding this

notification.

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MFOL-06BQEP127 - CCB 7421 Final Notice: Qualification of CuPdAu as a new wire material, QMI-519 and AMK-EP27 as a new die attach material and AMK-MC27 as a new mold compound for selected 24AA32Ax, 24AA64x, 24FC64x, 24LC32Ax, 24LC64x, AT24C32x, and AT24C64x device families available in 8L SOIC (3.90mm) package.

Affected Catalog Part Numbers (CPN)

24LC64-I/SN

24AA64-I/SN

24AA64T/SN

24AA64/SN

24LC64-E/SN

24FC64FT-I/SN

24LC32A-E/SN

24LC64T-E/SN

24LC64F-I/SN

24LC32A/SN

24LC32A-I/SN

24AA32A-I/SN

24AA64F-I/SN

24LC64FT-I/SN

24AA64FT-I/SN

24LC32AT/SN

24AA32AT-I/SN

24LC32AT-E/SN

24LC64T-I/SN

24AA64T-I/SN

24FC64-I/SN

24LC32AF-I/SN

24AA32AF-I/SN

24LC64F-E/SN

24LC64FT-E/SN

24FC64T-I/SN

24LC32AFT-E/SN

24FC64F-I/SN

24LC32AFT-I/SN

24AA32AFT-I/SN

24LC32AT-I/SN

24LC32AF-E/SN

24AA64-E/SN

24AA64T-E/SN

AT24C32D-SSHMFD-T

AT24C64BN-10SU-2.7-T

AT24C64BN-10SU-2.7

AT24C64D-SSHM-B

AT24C64D-SSHM-T

AT24C32D-SSHM-B

AT24C32D-SSHM-T

AT24C32E-SSHM-B

AT24C32E-SSHM-T

QUALIFICATION REPORT SUMMARY

RELIABILITY LABORATORY

PCN #: MFOL-06BQEP127

Date:
August 24, 2023

Qualification of CuPdAu as a new wire material, QMI-519 and AMK-EP27 as a new die attach material and AMK-MC27 as a new mold compound for selected 24AA32Ax, 24AA64x, 24FC64x, 24LC32Ax, 24LC64x, AT24C32x, and AT24C64x device families available in 8L SOIC (3.90mm) package will qualify by similarity (QBS). This is a Q006 Grade 1 qualification.

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PACKAGE QUALIFICATION REPORT

Purpose	Qualification of CuPdAu as a new wire material, QMI-519 and AMK-EP27 as a new die attach material and AMK-MC27 as a new mold compound for selected 24AA32Ax, 24AA64x, 24FC64x, 24LC32Ax, 24LC64x, AT24C32x, and AT24C64x device families available in 8L SOIC (3.90mm) package will qualify by similarity (QBS). This is a Q006 Grade 1 qualification.
CN	E000143151
QUAL ID	R2300428 Rev. A
MP CODE	669014C2XA00
Part No.	25CSM01-E/SN
Bonding No.	BD-000834 Rev. 02
CCB No.	5340 and 7421

Package

Type	8L SOIC
Package size	150 mils

Lead Frame

Paddle size	95 x 155 mils
Material	C19400FH
Surface	Ring Ag
Process	Stamped
Lead Lock	Yes
Part Number	101393362
Treatment	Roughened

Material

Epoxy	AMK-EP27
Wire	CuPdAu wire
Mold Compound	AMK-MC27
Plating Composition	Matte tin

MICROCHIP

PACKAGE QUALIFICATION REPORT

Manufacturing Information:

Assembly Lot No.	Wafer Lot No.	Date Code
ANAP233300001.000	U08D923227429.110	2246TSQ
ANAP233300002.000	U08D923227429.110	2246TSR
ANAP240100200.000	U08D923227429.110	23149VD

Result [X] Pass [ ] Fail [ ] _____

8L SOIC (150 mils) assembled by ANAP pass reliability test per QCI-39000. This package was qualified the Moisture/Reflow Sensitivity Classification Level 1 at 260°C reflow temperature per IPC/JEDEC J-STD-020E standard.

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
Moisture/Reflow Sensitivity Classification Test (At MSL Level 1)	85°C/ 85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH 3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243 (IPC/JEDEC J-STD-020E)	IPC/JEDEC J-STD-020E	135(0)	0/135	Pass	
<u>Precondition Prior Perform Reliability Tests</u> **(At MSL Level 1)**	**Electrical Test:** +25°C, 85°C and 125°C System: NEXTEST_PT	JESD22-A113	693(0)	0/693		Good Devices
	Bake 150°C, 24 hrs System: CHINEE			693		
	85°C/85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH			693		
	3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243			693		
	Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT		693(0)	0/693	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Temp Cycle	**Stress Condition:** -65°C to +150°C, 500 Cycles System: TABAI ESPEC TSA-70H	JESD22-A104		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +85°C and 125°C System: NEXTEST_PT		231(0)	0/231	Pass	
	Bond Strength: Wire Pull (>2.50 grams) Bond Shear (>15.00 grams)		45(0)	0/45	Pass	
	Stress Condition: -65°C to +150°C, 1000 Cycles System: TABAI ESPEC TSA-70H			231		
	Electrical Test: +85°C and 125°C System: NEXTEST_PT		231(0)	0/231	Pass	
	Bond Strength: Wire Pull (>2.50 grams) Bond Shear (>15.00 grams)		45(0)	0/45	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. **Bias Volt:** 5.6 Volts System: HAST 6000X	JESD22-A110		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT		231(0)	0/231	Pass	77 units / lot
	Bond Strength: Wire Pull (>2.50 grams) Bond Shear (>15.00 grams)		45(0)	0/45	Pass	
	Stress Condition: +130°C/85%RH, 192 hrs. **Bias Volt:** 5.6 Volts System: HAST 6000X			231		
	Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT		231(0)	0/231	Pass	
	Bond Strength: Wire Pull (>2.50 grams) Bond Shear (>15.00 grams)		45(0)	0/45	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
UNBIASED-HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. System: HAST 6000X	JESD22-A118		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C System: NEXTEST_PT		231(0)	0/231	Pass	77 units / lot
High Temperature Storage Life	**Stress Condition:** Bake 175°C, 500 hrs. System: TPS DC-166-F-ST350	JESD22-A103		135		45 units / lot
	Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT		135(0)	0/135	Pass	
	Stress Condition: Bake 175°C, 1000 hrs. System: TPS DC-166-F-ST350			135		
	Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT		135(0)	0/135	Pass	
Solderability **Temp 245°C**	**Steam Aging:** Temp 93°C,8Hrs System: SAS-3000 Solder Dipping: Solder Temp.245°C Solder material: Pb Free Sn 95.5Ag3.9 Cu0.6 System: ERSA RA 2200D Visual Inspection: External Visual Inspection	J-STD-002	22(0)	22 22 0/22	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Physical Dimensions	Physical Dimension, 10 units / lot from 3 lot	JESD22-B100/B108	30(0) Units	0/30	Pass	
Bond Strength Data Assembly	Wire Pull (>2.50 grams)	Mil. Std. 883-2011	30(0) Wires	0/30	Pass	
	Bond Shear (>15.00 grams)	CDF-AEC-Q100-001	30(0) bonds	0/30	Pass	

QUALIFICATION REPORT SUMMARY

RELIABILITY LABORATORY

PCN #: MFOL-06BQEP127

Date:
June 12, 2023

Qualification of CuPdAu as a new wire material, QMI-519 and AMK-EP27 as a new die attach material and AMK-MC27 as a new mold compound for selected 24AA32Ax, 24AA64x, 24FC64x, 24LC32Ax, 24LC64x, AT24C32x, and AT24C64x device families available in 8L SOIC (3.90mm) package will qualify by similarity (QBS). This is a Q100 Grade 1 qualification.

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PACKAGE QUALIFICATION REPORT

Purpose	Qualification of CuPdAu as a new wire material, QMI-519 and AMK-EP27 as a new die attach material and AMK-MC27 as a new mold compound for selected 24AA32Ax, 24AA64x, 24FC64x, 24LC32Ax, 24LC64x, AT24C32x, and AT24C64x device families available in 8L SOIC (3.90mm) package will qualify by similarity (QBS). This is a Q100 Grade 1 qualification.
CN	E000143145
QUAL ID	R2300236 Rev. A
MP CODE	6682A4C3XS00
Part No.	24CSM01-E/SM
Bonding No.	BD-000954 Rev. 01
CCB No.	5339 and 7421

Package

Type	8L SOIJ
Package size	208 mils

Lead Frame

Paddle size	140 x 160 mils
Material	CDA194
Surface	Roughened
Process	Stamped
Part Number	10100840
Treatment	Roughened

Material

Epoxy	QMI-519
Wire	Au wire
Mold Compound	G600V
Plating Composition	Matte Sn

MICROCHIP

PACKAGE QUALIFICATION REPORT

Manufacturing Information:

Assembly Lot No.	Wafer Lot No.	Date Code
MTAI233501185.000	U08D923120455.200	2248RY1
MTAI233502165.000	U08D923120455.200	2248UPY
MTAI233601151.000	U08D923120455.200	2249370

Result [X] Pass [ ] Fail [ ] _____

8L SOIJ (208 mils) assembled by MTAI pass reliability test per QCI-39000. This package was qualified the Moisture/Reflow Sensitivity Classification Level 1 at 260°C reflow temperature per IPC/JEDEC J-STD-020E standard.

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
Precondition Prior Perform Reliability Tests (At MSL Level 1)	**Electrical Test:** +25°C, 85°C and 125°C System: NEXTEST_PT	JESD22-A113	693(0)	0/693		Good Devices
	Bake 150°C, 24 hrs. System: CHINEE	JIP/ IPC/JEDEC J-STD-020E		0/693		
	85°C/85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH			0/693		
	3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243			0/693		
	Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT		693(0)	0/693	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Temp Cycle	**Stress Condition:** -65°C to +150°C, 500 Cycles System: TABAI ESPEC TSA-70H	JESD22-A104		0/231		Parts had been pre-conditioned at 260°C
	Electrical Test: +85°C and 125°C System: NEXTEST_PT		231(0)	0/231	Pass	77 units / lot
	Bond Strength: Wire Pull (>2.50 grams)		15(0)	0/15	Pass	
UNBIASED-HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. System: HAST 6000X	JESD22-A118		0/231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C System: NEXTEST_PT		231(0)	0/231	Pass	77 units / lot
HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. **Bias Volt:** 5.0 Volts System: HAST 6000X	JESD22-A110		0/231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT		231(0)	0/231	Pass	77 units / lot

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
High Temperature Storage Life	**Stress Condition:** Bake 175°C, 500 hrs. System: SHEL LAB **Electrical Test:** +25°C, 85°C and 125°C System: NEXTEST_PT	JESD22-A103	 45(0)	0/45 0/45	 Pass	45 units
Solderability Temp 215°C	**Steam Aging:** Temp 93°C,8Hrs System: SAS-3000 Solder Dipping: Solder Temp.215°C Solder material: SnPb Sn63, Pb37 System: ERSA RA 2200D Visual Inspection: External Visual Inspection	J-STD-002	22(0)	0/22 0/22 0/22	 Pass	
Solderability Temp 245°C	**Steam Aging:** Temp 93°C,8Hrs System: SAS-3000 Solder Dipping: Solder Temp.245°C Solder material:Pb Free Sn 95.5Ag3.9 Cu0.6 System: ERSA RA 2200D Visual Inspection: External Visual Inspection	J-STD-002	22(0)	0/22 0/22 0/22	 Pass	
Physical Dimensions	Physical Dimension, 10 units / 1 lot	JESD22-B100/B108	30(0) Units	0/30	Pass	
Bond Strength Data Assembly	Wire Pull (>2.50 grams) Bond Shear (>15.00 grams)	Mil. Std. 883-2011 CDF-AEC-Q100-001	30(0) Wires 30(0) bonds	0/30 0/30	Pass Pass	

QUALIFICATION REPORT SUMMARY

RELIABILITY LABORATORY

PCN #: MFOL-06BQEP127

Date:
March 14, 2023

Qualification of CuPdAu as a new wire material, QMI-519 and AMK-EP27 as a new die attach material and AMK-MC27 as a new mold compound for selected 24AA32Ax, 24AA64x, 24FC64x, 24LC32Ax, 24LC64x, AT24C32x, and AT24C64x device families available in 8L SOIC (3.90mm) package. , 24AA64x, 24FC64x, 24LC32xx, 24LC64xx, AT24C32x and AT24C64x device families available in 8L TSSOP (4.4mm) package will qualify by similarity (QBS).

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PACKAGE QUALIFICATION REPORT

Purpose	Qualification of CuPdAu as a new wire material, QMI-519 and AMK-EP27 as a new die attach material and AMK-MC27 as a new mold compound for selected 24AA32Ax, 24AA64x, 24FC64x, 24LC32Ax, 24LC64x, AT24C32x, and AT24C64x device families available in 8L SOIC (3.90mm) package. , 24AA64x, 24FC64x, 24LC32xx, 24LC64xx, AT24C32x and AT24C64x device families available in 8L TSSOP (4.4mm) package will qualify by similarity (QBS).
CN	E000143149
QUAL ID	R2300207 Rev. A
MP CODE	6682A4C2XS00
Part No.	24CSM01-E/SN
Bonding No.	BD-000950 Rev. 01
CCB No.	5342 and 7421

Package

Type	8L SOIC
Package size	150 mils

Lead Frame

Paddle size	90 x 90 mils
Material	CDA194
Surface	Bare Cu on DAP
Process	Stamped
Lead Lock	Yes
Part Number	10100841
Treatment	BOT

Material

Epoxy	QMI-519
Wire	CuPdAu wire
Mold Compound	G600V
Plating Composition	Matte Sn

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PACKAGE QUALIFICATION REPORT

Manufacturing Information:

Assembly Lot No.	Wafer Lot No.	Date Code
MTAI233602196.000	U08D923120455.200	22496M2
MTAI233701328.000	U08D923120455.200	2250B7B
MTAI233702681.000	U08D923120455.200	2250H2R

Result [X] Pass [ ] Fail [ ] _____

8L SOIC (150 mils) assembled by MTAI pass reliability test per QCI-39000. This package was qualified the Moisture/Reflow Sensitivity Classification Level 1 at 260°C reflow temperature per IPC/JEDEC J-STD-020E standard.

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
Precondition Prior Perform Reliability Tests (At MSL Level 1)	**Electrical Test:** +25°C, 85°C and 125°C System: NEXTEST_PT	JESD22-A113	693(0)	0/693		Good Devices
	Bake 150°C, 24 hrs. System: CHINEE	JIP/ IPC/JEDEC J-STD-020E		0/693		
	85°C/85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH			0/693		
	3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243			0/693		
	Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT		693(0)	0/693	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Temp Cycle	**Stress Condition:** -65°C to +150°C, 500 Cycles System: TABAI ESPEC TSA-70H	JESD22-A104		0/231		Parts had been pre-conditioned at 260°C
	Electrical Test: +85°C and 125°C System: NEXTEST_PT		231(0)	0/231	Pass	77 units / lot
	Bond Strength: Wire Pull (>3.00 grams)		15(0)	0/15	Pass	
UNBIASED-HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. System: HAST 6000X	JESD22-A118		0/231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C System: NEXTEST_PT		231(0)	0/231	Pass	77 units / lot
HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. **Bias Volt:** 5.0 Volts System: HAST 6000X	JESD22-A110		0/231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT		231(0)	0/231	Pass	77 units / lot

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
High Temperature Storage Life	**Stress Condition:** Bake 175°C, 504 hrs. System: SHEL LAB	JESD22-A103		0/135		45 units / lot
	Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT		135(0)	0/135	Pass	
Solderability **Temp 245°C**	**Steam Aging:** Temp 93°C,8Hrs System: SAS-3000 Solder Dipping:Solder Temp.245°C Solder material:Pb Free Sn 95.5Ag3.9 Cu0.6 System: ERSA RA 2200D Visual Inspection: External Visual Inspection	J-STD-002	22(0)	0/22 0/22 0/22	Pass	
Physical Dimensions	Physical Dimension, 10 units / 1 lot	JESD22-B100/B108	30(0) Units	0/30	Pass	
Bond Strength Data Assembly	Wire Pull (>3.00 grams)	Mil. Std. 883-2011	30(0) Wires	0/30	Pass	
	Bond Shear (>15.00 grams)	CDF-AEC-Q100-001	30(0) bonds	0/30	Pass	

QUALIFICATION REPORT SUMMARY

RELIABILITY LABORATORY

PCN #: MFOL-06BQEP127

Date:
February 01, 2024

Qualification of CuPdAu as a new wire material, QMI-519 and AMK-EP27 as a new die attach material and AMK-MC27 as a new mold compound for selected 24AA32Ax, 24AA64x, 24FC64x, 24LC32Ax, 24LC64x, AT24C32x, and AT24C64x device families available in 8L SOIC (3.90mm) package will qualify by similarity (QBS).

MICROCHIP

PACKAGE QUALIFICATION REPORT

Purpose	Qualification of CuPdAu as a new wire material, QMI-519 and AMK-EP27 as a new die attach material and AMK-MC27 as a new mold compound for selected 24AA32Ax, 24AA64x, 24FC64x, 24LC32Ax, 24LC64x, AT24C32x, and AT24C64x device families available in 8L SOIC (3.90mm) package will qualify by similarity (QBS).
CN	E000202416
QUAL ID	R2301695 Rev. A
MP CODE	6682A7C2XC07
Part No.	AT24CM01-SSHM-B
Bonding No.	BD-000956 Rev. 03
CCB No.	6077 and 7421

Package

Type	8L SOIC
Package size	150 mils

Lead Frame

Paddle size	93 x 93 mils
Material	C194
Surface	Bare Cu
Process	Stamped
Lead Lock	No
Part Number	LI-WS0000008-10

Material

Epoxy	EN-4900G
Wire	CuPdAu wire
Mold Compound	CEL-9240HF10AK
Plating Composition	Matte Tin

MICROCHIP

PACKAGE QUALIFICATION REPORT

Manufacturing Information:

Assembly Lot No.	Wafer Lot No.	Date Code
ASSH243000045.000	U08D924094165.110	2343KCG
ASSH243000046.000	U08D924094165.110	2343KCH
ASSH243000047.000	U08D924094165.110	2343KCJ

Result [X] Pass [ ] Fail [ ] _____

8L SOIC (150 mils) assembled by MTAI pass reliability test per QCI-39000. This package was qualified the Moisture/Reflow Sensitivity Classification Level 1 at 260°C reflow temperature per IPC/JEDEC J-STD-020E standard.

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
Precondition Prior Perform Reliability Tests (At MSL Level 1)	**Electrical Test:** +25°C, 85°C and 125°C System: NEXTEST_PT	JESD22-A113	693(0)	0/693		Good Devices
	Bake 150°C, 24 hrs. System: CHINEE	JIP/ IPC/JEDEC J-STD-020E		693		
	85°C/85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH			693		
	3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243			693		
	Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT		693(0)	0/693	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Temp Cycle	**Stress Condition:** -65°C to +150°C, 500 Cycles System: TABAI ESPEC TSA-70H	JESD22-A104		0/231		Parts had been pre-conditioned at 260°C
	Electrical Test: +85°C and 125°C System: NEXTEST_PT		231(0)	0/231	Pass	77 units / lot
	Bond Strength: Wire Pull (>2.50 grams)		15(0)	0/15	Pass	
UNBIASED-HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. System: HAST 6000X	JESD22-A118		0/231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C System: NEXTEST_PT		231(0)	0/231	Pass	77 units / lot
HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. **Bias Volt:** 5.0 Volts System: HAST 6000X	JESD22-A110		0/231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT		231(0)	0/231	Pass	77 units / lot

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
High Temperature Storage Life	**Stress Condition:** Bake 175°C, 504 hrs. System: CHINEE **Electrical Test:** +25°C, 85°C and 125°C System: NEXTEST_PT	JESD22-A103	 45(0)	0/45 0/45	 Pass	45 units
Solderability **Temp 215°C**	**Steam Aging:** Temp 93°C,8Hrs System: SAS-3000 Solder Dipping: Solder Temp.215°C Solder material: SnPb Sn63, Pb37 System: ERSA RA 2200D Visual Inspection: External Visual Inspection	J-STD-002	22(0)	0/22 0/22 0/22	 Pass	
Solderability **Temp 245°C**	**Steam Aging:** Temp 93°C,8Hrs System: SAS-3000 Solder Dipping: Solder Temp.245°C Solder material: Pb Free Sn 95.5Ag3.9 Cu0.6 System: ERSA RA 2200D Visual Inspection: External Visual Inspection	J-STD-002	22(0)	0/22 0/22 0/22	 Pass	
Physical **Dimensions**	Physical Dimension, 10 units / 1 lot	JESD22-B100/B108	30(0) Units	0/30	Pass	
Bond Strength **Data Assembly**	Wire Pull (>4.00 grams) Bond Shear (>12.00 grams)	Mil. Std. 883-2011 CDF-AEC-Q100-001	30(0) Wires 30(0) bonds	0/30 0/30	Pass Pass	