



Product Change Notification: JPZA-01TEDP620

Date:

08-Sep-2026

Product Category:

32-Bit Microcontrollers

Notification Subject:

CCB 8491 Final Notice: Qualification of MMT as an additional assembly site for selected ATSAME54P20A, ATSAME54P19A, PIC32CX1025SG41128, ATSAMD51P20A and ATSAMD51P19A device families available in 128L TQFP (14x14x1.0mm) package.

Affected CPNs:

[JPZA-01TEDP620_Affected_CPN_09082026.pdf](#)

[JPZA-01TEDP620_Affected_CPN_09082026.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 MMT as an additional assembly site for selected ATSAME54P20A, ATSAME54P19A, PIC32CX1025SG41128, ATSAMD51P20A and ATSAMD51P19A device families available in 128L TQFP (14x14x1.0mm) package.

Pre and Post Summary Changes:

	Pre Change		Post Change			Change
Assembly Site	ASE Inc. (ASE)		ASE Inc. (ASE)	Microchip Technology Thailand (Branch) (MMT)		Yes
Wire Material	Au	CuPdAu	Au	CuPdAu	CuPdAu	Yes
Die Attach Material	1076WA (PFAS-free)		1076WA (PFAS-free)		QMI519 (PFAS-free)	Yes

Molding Compound Material	G631H	G631H	G700HA	Yes
Lead-Frame Material	C7025	C7025	C7025	No
Lead-Frame Paddle Size	240 x240 mils	240 x240 mils	190 x 190 mils	Yes
Lead-Frame Drawing	See Pre and Post Change Summary for Comparison.			

Impacts to Datasheet: None

Change Impact: None

Reason for Change: To improve on-time delivery performance by qualifying MMT as an additional assembly site.

Change Implementation Status: In Progress

Estimated First Ship Date: 29 October 2026 (date code: 2644)

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

Timetable Summary:

	September 2026					October 2026			
Work Week	36	37	38	39	40	41	42	43	44
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.

Note: This is a qualification by similarity (QBS) to CCB# 4978 and 7864.

Revision History: September 08, 2026: 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_JPZA-01TEDP620_Pre and Post Change Summary.pdf

PCN_JPZA-01TEDP620 Qual Report 4978.pdf

PCN_JPZA-01TEDP620 Qual Report 7864.pdf

Please contact your local [Microchip sales office](#) with questions or concerns regarding this notification.

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Affected Catalog Part Numbers (CPN):

ATSAMD51P20A-AU-EFP
ATSAMD51P20A-AU
ATSAMD51P19A-AU-EFP
ATSAMD51P19A-AU
ATSAME54P19A-AF
ATSAME54P20A-AFT
ATSAMD51P20A-AFT
ATSAMD51P20A-AF
ATSAMD51P19A-AF
ATSAMD51P19A-AFT
ATSAMD51P19A-AUT-EFP
ATSAMD51P19A-AUT
ATSAME54P20A-AF
PIC32CX1025SG41128T-I/Z2X
ATSAME54P20A-AUT
ATSAME54P19A-AUT
ATSAMD51P20A-AUT-EFP
ATSAMD51P20A-AUT
ATSAME54P20A-AUT-EFP
ATSAME54P19A-AFT
PIC32CX1025SG41128-E/Z2X
PIC32CX1025SG41128T-E/Z2X
ATSAME54P20A-AZT
ATSAMD51P20A-AZT
ATSAME54P20A-AZ
ATSAME54P19A-AZ
ATSAMD51P20A-AZ
ATSAME54P20A-AUT-EFP-RB
ATSAME54P20A-AU-EFP-RB
ATSAME54P20A-AU-SL3
ATSAME54P20A-AUT-SL3
ATSAME54P20A-AZ-SL3

ATSAME54P20A-AZTVAO

ATSAME54P19A-AZTVAO

ATSAME54P20A-AZT510

ATSAME54P19A-AZVAO

ATSAME54P20A-AZ510

ATSAME54P20A-AZVAO

PIC32CX1025SG41128-I/Z2X

ATSAME54P20A-AU-EFP

ATSAME54P20A-AU

ATSAME54P19A-AU



Qualification Report Summary

RELIABILITY LABORATORY

PCN #: JPZA-01TEDP620

Date

January 19, 2023

Qualification of MMT as an additional assembly site for selected ATSAME54P20A, ATSAME54P19A, PIC32CX1025SG41128, ATSAMD51P20A and ATSAMD51P19A device families available in 128L TQFP (14x14x1.0mm) package. This is Q006 Grade 1 Qualification.

PACKAGE QUALIFICATION REPORT

Purpose:

Qualification of MMT as an additional assembly site for selected ATSAME54P20A, ATSAME54P19A, PIC32CX1025SG41128, ATSAMD51P20A and ATSAMD51P19A device families available in 128L TQFP (14x14x1.0mm) package. This is Q006 Grade 1 Qualification.

MP CODE: 65106YZ2XC01
Part No.: ATSAME54P20A-AFT
Bonding No.: BD-000266 rev02
CCB No.: 4978

Lead Frame

Paddle Size: 190x190 mils
Material: C7025
DAP Surface Prep: Double Ag Ring Plated
Process: Stamped
Lead Lock: No
Part Number: 10112804
Lead Plating: Matte Tin
Strip Size: 70x250mm
Strip Density: 30 units/strip

Bond Wire

Wire: CuPdAu wire

Die Attach Material

Epoxy: 3280
Conductive: Yes

Mold Compound

Mold Compound: G700HA

Package

PKG Type: TQFP
Pin/Ball Count: 128
PKG Width/Size: 14x14x1mm

Manufacturing Information

Assembly Lot No.
MMT-224902006.000
MMT-224902038.000
MMT-224902039.000

Result: **Pass**

Conclusion:

65106YZ2XC01 from 65nm UMC FAB on 128L TQFP 14x14mm (Z2X) package at MMT assembly is Q006 Grade1 qualified. It pass reliability test per QCI-39000 which was conducted at MPHL rel lab. This package is qualified Moisture/Reflow Sensitivity Classification Level 3 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 3)	Electrical Test :25°C Magnum	JESD22-A113 , JIP/IPC/JED EC J-STD-020E	231 per lot	Lot 1 0/231 Lot 2 0/231 Lot 3 0/231	Pass Pass Pass	Good Devices
	Bake 150°C, 24 hrs System: HERAEUS		231 per lot			
	Moisture Soak 192h(30°C/60%RH) System: Climats Excal 5423-HE		231 per lot			
	Reflow 3x Convection-Reflow 265°C max System: Mancorp CR.5000F		231 per lot	Lot 1 0/231 Lot 2 0/231 Lot 3 0/231	Pass Pass Pass	
	Electrical Test :25°C Magnum SV 1024		231 per lot	Lot 1 0/231 Lot 2 0/231 Lot 3 0/231	Pass Pass Pass	
High Temperature Storage Life	Stress Condition: Bake 175°C, 500 hrs System: HERAEUS Electrical Test: 25°C, 125°C System: Magnum	JESD22-A103	45 units per lot	Lot 1 0/45 Lot 2 0/45 Lot 3 0/45	Pass Pass Pass	
	Stress Condition: Bake 175°C, 10000 hrs System: HERAEUS Electrical Test: 25°C, 125°C System: Magnum		44 units per lot	Lot 1 0/44 Lot 2 0/44 Lot 3 0/44	Pass Pass Pass	
Unbiased HAST	Stress Condition: (Standard) + 130°C, 85%RH, 96 hrs. System: HIRAYAMA HASTEST PC-422R8 Electrical Test: 25°C, System: Magnum	JESD22-A118	77 units per lot	Lot 1 0/77 Lot 2 0/77 Lot 3 0/77	Pass Pass Pass	Parts had been pre-conditioned at 260°C

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
HAST	Stress Condition: (Standard) 130°C, 85%RH, 96 hrs. VOLTS=3.6V System: HIRAYAMA HASTEST PC-422R8 Electrical Test: 25°C, 125°C System: Magnum	JESD22-A110	77 units per lot	Lot 1 0/77 Lot 2 0/77 Lot 3 0/77	Pass Pass Pass	
	Stress Condition: (Standard) 130°C, 85%RH, 192 hrs. VOLTS=3.6V System: HIRAYAMA HASTEST PC-422R8 Electrical Test: 25°C, 125°C System: Magnum		70 units per lot	Lot 1 0/70 Lot 2 0/70 Lot 3 0/70	Pass Pass Pass	
Temp Cycle	Stress Condition: (Standard) - 65°C/150°C, 500 Cycles System : Votsch VTS27012 Electrical Test: 125°C System: Magnum	JESD22-A104	77 units per lot	Lot 1 0/77 Lot 2 0/77 Lot 3 0/77	Pass Pass Pass	Parts had been pre-conditioned at 260°C
	Bond Strength: System: Dage Wire Bond Pull (> 2 grams) Wire Ball Shear (>9.1 grams) System: Dage	MILSTD883-2 Method 2011.10, AEC Q100.001	5 units, 30 bonds per lot	Lot 1 0/30 Lot 2 0/30 Lot 3 0/30	Pass Pass Pass	
	Stress Condition: (Standard) - 65°C/150°C, 1000 Cycles System : Votsch VTS27012 Electrical Test: 125°C System: Magnum	JESD22-A104	70 units per lot	Lot 1 0/70 Lot 2 0/70 Lot 3 0/70	Pass Pass Pass	
	Bond Strength: System: Dage Wire Bond Pull (> 2 grams) Wire Ball Shear (>9.1 grams) System: Dage	MILSTD883-2 Method 2011.10, AEC Q100.001	5 units, 30 bonds per lot	Lot 1 0/30 Lot 2 0/30 Lot 3 0/30	Pass Pass Pass	
Bond Strength, 0 Hour	Bond Strength: System: Dage Wire Bond Pull (> 2 grams) Wire Ball Shear (>9.1 grams) System: Dage	MILSTD883-2 Method 2011.10, AEC Q100.001	5 units, 30 bonds per lot	Lot 1 0/30 Lot 2 0/30 Lot 3 0/30	Pass Pass Pass	
Standard Pb-free Solderability	> 95% lead coverage	J-STD-002D	22 units 1 lot	0/22	Pass	



Qualification Report Summary

RELIABILITY LABORATORY

PCN #: JPZA-01TEDP620

Date

January 8, 2026

Qualification of MMT as an additional assembly site for selected ATSAME54P20A, ATSAME54P19A, PIC32CX1025SG41128, ATSAMD51P20A and ATSAMD51P19A device families available in 128L TQFP (14x14x1.0mm) package.

PACKAGE QUALIFICATION REPORT

Purpose:

Qualification of MMT as an additional assembly site for selected ATSAME54P20A, ATSAME54P19A, PIC32CX1025SG41128, ATSAMD51P20A and ATSAMD51P19A device families available in 128L TQFP (14x14x1.0mm) package.

CN:	E000287632
QUAL ID:	R2501341
QUAL ID Rev.:	A
MP CODE:	UG0241E5X04A
Part No.:	A42MX16-VQG100-B4
Bonding No.:	BD-003783 Rev.01
CCB No.:	7864

Lead Frame

Paddle Size:	315 x 315 mils
Material:	C7025
DAP Surface Prep:	Ag Ring Plated
Process:	Etched
Lead Lock:	No
Part Number:	10110019
Lead Plating:	Matte Tin

Bond Wire

Wire:	Au wire
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Die Attach Material

Epoxy:	QMI519 (PFAS-Free)
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Mold Compound

Mold Compound:	G700HA
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Package

Type:	100L TQFP
Package Size:	14 x 14mm

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
MMT-262700747.000	GF02923303599.110	254082R
MMT-262800222.000	GF02923303599.120	254182S
MMT-262800223.000	GF02923303599.100	254182T

Result: **Pass**

Conclusion:

100L TQFP (14x14 mm) assembled by MMT pass reliability test per QCI-39000. This package was qualified the Moisture/Reflow Sensitivity Classification Level 3 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 3)	Electrical Test: +25°C and 85°C System: J750 Bake 150°C, 24 hrs. System: CHINEE 30°C/60%RH Moisture Soak 192 hrs. System: TABAI ESPEC Model PR-3SPH 3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243 Electrical Test: +25°C and 85°C System: J750	JESD22-A113 JIP/ IPC/JEDEC J-STD-020E	693(0) 693(0)	0/693 693 693 693 0/693	Pass Pass	Good Devices
Temp Cycle	Stress Condition: -65°C to +150°C, 500 Cycles System: TABAI ESPEC TSA-70H Electrical Test: +85°C System: J750	JESD22-A104	231(0)	0/231	Pass	Parts had been pre-conditioned at 260°C 77 units / lot
	Bond Strength: Wire Pull (>4.00 grams)		15(0)	0/15	Pass	
UNBIASED-HAST	Stress Condition: +130°C/85%RH, 96 hrs. System: HAST 6000X Electrical Test: +25°C System: J750	JESD22-A118	231(0)	231 0/231	Pass	Parts had been pre-conditioned at 260°C 77 units / lot
	Stress Condition: +130°C/85%RH, 192 hrs. System: HAST 6000X Electrical Test: +25°C System: J750		231(0)	231 0/231	Pass	77 units / lot
High Temperature Storage Life	Stress Condition: Bake 175°C, 504 hrs. System: TPS Bake Oven Electrical Test: +25°C and 85°C System: J750	JESD22-A103	45(0)	45 0/45	Pass	45 units

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
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)	22 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)	22 22 0/22	Pass	
Wire sweep	Wire sweep Inspection 15 Wires / lot	-	45(0) Wires	0/45	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 (>18.00 grams)	Mil. Std. 883-2011 CDF-AEC- Q100-001	30(0) Wires 30(0) Bonds	0/30 0/30	Pass Pass	

CCB 8491
Pre and Post Change Summary
PCN #: JPZA-01TEDP620

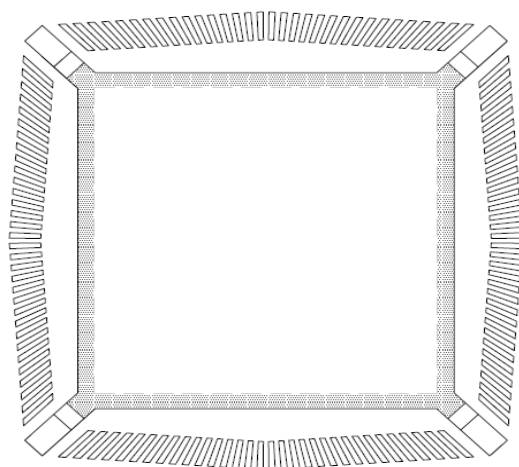


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Lead Frame Comparison

ASE

ASE LF



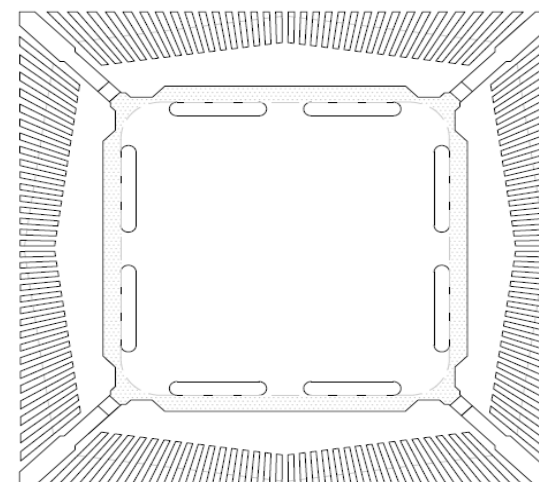
240x240 mils

Note: Not to scale

Lead-Frame Paddle Size	240x240mils
Lead-Frame Material	C7025
DAP Surface Prep	Ag Ring Plated

MMT

MMT LF



190x190 mils

Note: Not to scale

Lead-Frame Paddle Size	190x190mils
Lead-Frame Material	C7025
DAP Surface Prep	Ag Ring Plated