



Product Change Notification / ASER-24IAAH691

Date:

28-Jul-2020

Product Category:

8-bit Microcontrollers

PCN Type:

Manufacturing Change

Notification Subject:

CCB 3640.002 Final Notice: Qualification of MTAI as a new final test site for selected Atmel products available in 52L PLCC (19.1x19.1x4.4mm) package.

Affected CPNs:

[ASER-24IAAH691_Affected_CPN_07282020.pdf](#)
[ASER-24IAAH691_Affected_CPN_07282020.csv](#)

Notification Text:

PCN Status:Final notification.

PCN Type:Manufacturing Change

Microchip Parts Affected:Please open one of the icons found in the Affected CPNs section above.

NOTE: For your convenience Microchip includes identical files in two formats (.pdf and .xls).

Description of Change:Qualification of MTAI as a new final test site for selected Atmel products available in 52L PLCC (19.1x19.1x4.4mm) package.

Pre Change:Tested at ATP final test site.

Post Change:Tested at MTAI final test site.

Pre and Post Change Summary:

	Pre Change	Post Change

Final Test Site	Amkor Technology Philippines (P3/P4), INC. (ATP)	Microchip Technology Thailand (HQ) MTAI
Base Quantity Multiple (BQM)	23	23
Pin 1 Orientation	Pin 1 facing towards black plug.	Pin 1 facing towards white plug.
Tube Color	Clear	Clear
Plug Color	Black	White
Tube Dimensions	Minor dimensional changes. See pre and post change comparison.	
Packaging Process	See pre and post change comparison.	

Impacts to Data Sheet:None

Change Impact:None

Reason for Change:To improve manufacturability by qualifying MTAI as a new final test site.

Change Implementation Status:In Progress

Estimated First Ship Date:August 31, 2020 (date code: 2036)

Time Table Summary:

	July 2020					August 2020					
	27	28	29	30	31	31	32	33	34	35	36
Workweek											
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:July 28, 2020: Issued final notification.

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

Attachments:

[PCN_ASER-24IAAH691_Qual_Report.pdf](#)
[PCN_LIAL-05RFNS059_Packing Pre and Post Change.pdf](#)

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

Terms and Conditions:

If you wish to receive Microchip PCNs via email please register for our PCN email service at our [PCN home page](#) select register then fill in the required fields. You will find instructions about registering for Microchips PCN email service in the [PCN FAQ](#) section.

If you wish to change your PCN profile, including opt out, please go to the [PCN home page](#) select login and sign into your myMicrochip account. Select a profile option from the left navigation bar and make the applicable selections.

Affected Catalog Part Numbers (CPN)

AT89C51AC3-S3SUM

AT89C51CC03UA-S3SUM

AT89C51CC03CA-S3SUM

AT89C5130A-S3SUM

AT89C5131A-S3SUM



MICROCHIP

QUALIFICATION REPORT SUMMARY

PCN #: ASER-24IAAH691

**Date:
February 5, 2020**

Qualification of MTAI as new final test site for selected Atmel products available in 52L PLCC (19.1x19.1x4.4mm) package.

Purpose: Qualification of MTAI as new final test site for selected Atmel products available in 52L PLCC (19.1x19.1x4.4mm) package.

CCB No.: 3640.002

Test / Evaluation	Test Conditions / Parameters	Remarks / Results
Original Final Test Site Correlation	Run 3,000 devices to the final test flows at the original site and keep the good devices and rejects in separate bins.	Passed
Destination Final Test Site Correlation	<p>Send 3,000 tested parts to the destination test site. The results need 100% correlation to continue the release flow.</p> <p>Re-test the 3,000 devices from the original test site at the destination site for bin- to-bin correlation using the destination site final test program for correlation. The yield difference should be within 0.1% and bin-to-bin difference should be within 0.1%, if out of criteria then work with Product Test Engineering to determine root cause. After the results from FT were accepted, test 100% good devices to appropriate Electrical QC (EQC) program. The acceptable yield for EQC test is 100%. Any rejects will be studied by Product Test Engineering. The Final decision to accept the EQC's results must come from Product Test Engineering.</p>	Passed
Datalog Comparison	<p>Collect good datalog for all flows and variants on both test program of original test site and test program of destination test site.</p> <p>Compare test numbers, test names, test sequence, P/F result, and test limits. Verify correct guard band is used.</p> <p>Accept if all parameters matched or explainable</p>	Passed
Correlation Lot Report	Run 33 untested devices from the destination test site with same FT program; keep the good devices and rejects separate by bins and send all devices to the original test site for correlation. Re-test those 33 devices from destination test site bin- by-bin to the same FT program for correlation. The yield difference should be within 0.1% and bin-to-bin difference should be within 0.1%.	Passed
Original Final Test Site Characterization	Characterize 33 good devices at the original test site with DC items and measurable functional test items which are specified in the product datasheet (ex. Tce, Icc, Isb, Vih, Vil, Voh, Vol) and send these devices to the destination final test site.	Passed

Destination Final Test Site Characterization	Re-characterize the same 33 good devices at the destination test site using the destination site hardware/ within programs for the same DC and measurable functional test items. The results will be accepted if the variance $\pm 10\%$ of the measured values from the original test site.	Passed
Cpk-Parametric Test Stability Verification by 50 Loop Tests with datalog	Turn on datalog for all parametric tests. Do 50 loops test under FT test mode @ 90C. Save parametric datalog in Text and STDF files.	Passed

CCB 3640.002
Pre and Post Change Summary
PCN# ASER-24IAAH691



A Leading Provider of Smart, Connected and Secure Embedded Control Solutions



SMART | CONNECTED | SECURE

Packing Information – Tube

Packing Information	Packing Components / Media	Pre Change (ATP)	Post Change (MTAI)
Base Quantity Multiple (BQM)	Units/Tube	23	23
Pin 1 Orientation and Plug Color	Tube	Pin 1 facing towards black plug	Pin 1 facing towards white plug

Packing Information – Tube Dimension

ATP

NOTES:

- THIS PART TO BE MANUFACTURED PER THE LATEST REVISION OF ANAMAKMOR SPECIFICATION NO. 001-0431-0294
- UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES
- MARK LEAD COUNT & ANTISTATIC WITH 1/10 INCH HIGH X .300 INCH WIDE IN RED, GOTHIC LETTERS IN AREA SHOWN. RECYCLE LOGO TO BE .200 INCH HIGH IN RED COLOR. 'CC' REFERS TO THE PACKAGE LEADCOUNT.
- 'XXXXXXXX' REFERS TO THE SID NUMBER.
- THIS PRODUCT MUST BE TESTED PER ESD ASSOCIATION HANDBOOK (ESD-AV000-1994)
- FINISH TO BE TREATED WITH ANTISTATIC COATING: 1.540.9% STATICOIDE CONCENTRATE PER METHYL ALCOHOL
- MATERIAL: CLEAR/TRANSPARENT RIGID PVC
- APPLICABLE FOR PUC PACKAGE OUTLINE BASED ON THE LATEST REFERENCE DRAWING NUMBERS 00090 AND 00091

LEAD SYMBOL	20	28	32	44	52	68	84	COLOR
A	430	530	530	730	800	1,020	1,230	✓
B	210	210	170	210	210	220	220	✓
D	20,000	20,000	19,400	20,000	20,000	20,000	20,000	✓
UNITS/TUBE	48	37	30	28	23	18	15	✓
S.I.D. NO.	201269507	201269508	201269515	201269481	201269609	201269810	201269811	CLEAR
S.I.D. NO.	101300431	101317385	101328873				101300430	RED

MTAI

CUSTOMER: MICROCHIP TECHNOLOGY DESCRIPTION: 52LD PLCC CLEAR SHIPPING TUBE CUST. NO. CUST. REV

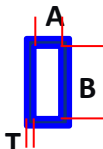
TUBE COLOUR: CLEAR
PRINT COLOUR: BLUE

1. ALL DIMENSIONS ARE IN INCHES, U.O.S.

SCALE: NONE
1. ALL TUBE TOLERANCES TO BE ±.010 UNLESS OTHERWISE SPECIFIED.
2. ALL RADIUS AND ANGLES UNLESS OTHERWISE SPECIFIED.

Checked & Approved By: **MERTEX SDN. BHD.**
Bayan Lepas Free Industrial Zone, Phase 4, 11900 Penang
Alor Gajah Industrial Estate, Phase 2, 78000 Malacca
a division of TIV Electronics Components Packaging Systems

Sheet #: DWG. NO: 19-0043-D.03 REV. 1



Location	Length (in)	A (in)	B (in)	Thickness (in)	Printing Color	Tube Color
ATP7	20.00 +/-0.050	0.210 +0.015/-0.010	0.830 +/-0.010	0.035 +/-0.005	Red	Clear
MTAI	20.00 +/-0.050	0.210 +0.010/-0.005	0.830 +/-0.010	0.035 +/-0.005	Blue	Clear

Packing Information – Packing Method (MSL – 3)

