

#### **Product Change Notification - KSRA-12PACO579**

Date:

22 Jul 2019

#### **Product Category:**

8-bit Microcontrollers

Affected CPNs:



#### **Notification subject:**

CCB 3546 Final Notice: Qualification of MTAI as an additional final test site for selected Atmel ATTINY products available in 14L SOIC package.

#### **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 an additional final test site for selected Atmel ATTINY products available in 14L SOIC package.

#### **Pre Change:**

Tested at LPI and MPHL final test site.

#### **Post Change:**

Tested at LPI final test site or tested at MPHL final test site or tested at MTAI final test site.

**Pre and Post Change Summary:** 

re and Post Change Summary:									
	Pre Cl	nange	Post Change						
Final Test Site	Lingsen Precision Industries, LTD. (LPI)	MPHL	Lingsen Precision Industries, LTD. (LPI)	MPHL	Microchip Technology Thailand (HQ) (MTAI)				
Quantity per reel	3000 units	3000 units	3000 units	3000 units	3000 units				
Pin Orientation	Quadrant 1	Quadrant 1	Quadrant 1	Quadrant 1	Quadrant 1				
Carrier tape	Minor dime	Minor dimensional changes. See pre and post change comparison.							
Cover Tape	Minor dimensional changes. See pre and post change comparison.								
Reel	Minor dime	nsional changes.	See pre and po	ost change com	nparison.				



Desiccant	See pre and post change comparison.
Moisture Barrier Bag	Minor dimensional changes. See pre and post change comparison.
Carton/Pizza box	Minor dimensional changes. See pre and post change comparison.

#### Impacts to Data Sheet:

None

#### **Change Impact:**

None

#### **Reason for Change:**

To improve manufacturability by qualifying MTAI as an additional final test site.

#### **Change Implementation Status:**

In Progress

#### **Estimated First Ship Date:**

July 31, 2019 (date code: 1931)

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

#### **Time Table Summary:**

		September 2018					July 2019				
Workweek	35	36	37	38	39	^	27	28	29	30	31
Initial PCN Issue Date				X							
Qual Report Availability										X	
Final PCN Issue Date										X	
Estimated Implementation											~
Date											^

#### **Method to Identify Change:**

Traceability code

#### **Qualification Report:**

Please open the attachments included with this PCN labeled as PCN\_#\_Qual Report.

#### **Revision History:**

**September 14, 2018:** Issued initial notification.

**July 22, 2019**: Issued final notification. Attached the qualification report. Provided estimated first ship date on July 31, 2019.

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



#### Attachment(s):

PCN KSRA-12PACO579 PRE AND POST CHANGE CCB 3546.pdf PCN KSRA-12PACO579 Qual Report.pdf

Please contact your local <u>Microchip sales office</u> with questions or concerns regarding this notification.

#### **Terms and Conditions:**

If you wish to <u>receive Microchip PCNs via email</u> please register for our PCN email service at our <u>PCN home page</u> select register then fill in the required fields. You will find instructions about registering for Microchips PCN email service in the <u>PCN FAQ</u> section.

If you wish to <u>change your PCN profile</u>, <u>including opt out</u>, please go to the <u>PCN home page</u> select login and sign into your myMicrochip account. Select a profile option from the left navigation bar and make the applicable selections.

KSRA-12PACO579 - CCB 3546 Final Notice: Qualification of MTAI as an additional final test site for selected Atmel ATTINY products available in 14L SOIC package.

Affected Catalog Part Numbers (CPN)

ATTINY20-SSU

ATTINY20-SSUR

ATTINY20-SSURB47

ATTINY24A-SSF

ATTINY24A-SSFR

ATTINY441-SSU

ATTINY441-SSUR

ATTINY44A-SSF

ATTINY44A-SSFR

ATTINY841-SSU

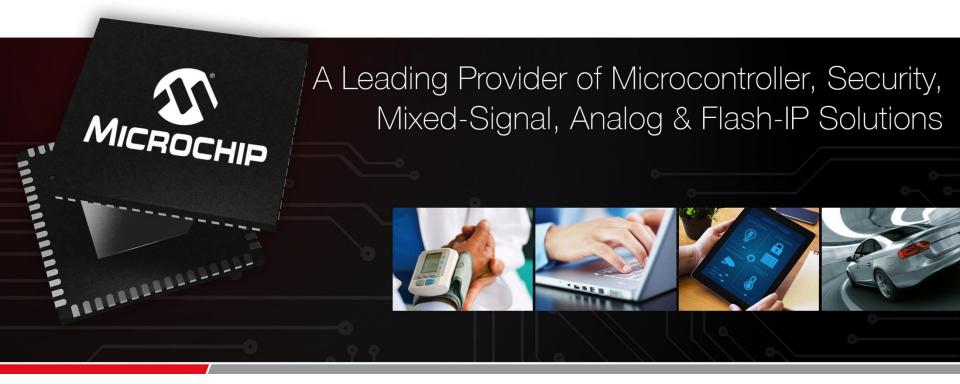
ATTINY841-SSUR

ATTINY84A-SSU

ATTINY84A-SSUR

Date: Monday, July 22, 2019





PCN # KSRA-12PACO579 CCB 3546 Pre and Post Changes Summary



### **Pin 1 Orientation**

PRE CI	POST CHANGE				
LPI	LPI MPHL				
Quadrant 1	Quadrant 1	Quadrant 1			



# **Carrier and Cover Tape**

Material		PRE CHANGE										POST CHANGE				
atoria.	LPI					MPHL				MTAI						
	Width	Pitch	Ao	Во	Ko	Width	Pitch	Ao	Во	Ko	Width	Pitch	Ao	Во	Ko	
Carrier Tape	16 ±0.3 mm	8.0 ±0.1 mm	6.20 ±0.1 mm	9.00 ±0.1 mm	2.20 ±0.1 mm	16 ±0.3 mm	8.0 ±0.1 mm	6.50 ±0.1 mm	9.50 ±0.1 mm	2.10 ±0.1 mm	16 ±0.3 mm	8.0 ±0.1 mm	6.50 ±0.1 mm	9.50 ±0.1 mm	2.10 ±0.1 mm	
Cover Tape	Width	Thicknes s	Adhesiv e width	Part No.	Method	Width	Thicknes s	Adhesiv e width	Part No.	Method	Width	Thicknes s	Adhesiv e width	Part No.	Method	
Coverrape	13.3 ±0.1 mm	0.05 ±0.005 mm	1 ±0.15 mm	AD133	Heat	13.3 ±0.1 mm	0.05 ±0.005 mm	1 ±0.15 mm	CP58	Pressure	13.3 ±0.1 mm	0.05 ±0.01 mm	-	CSL- Z7302	Heat	



## **Reel Dimension**

Material		PRE CHANGE										POST CHANGE				
Material	LPI					MPHL					MTAI					
	Color	Diameter	Hub Dia	W1	W2	Color	Diameter	Hub Dia	W1	W2	Color	Diameter	Hub Dia	W1	W2	
	White	330 ±2 mm	102 ±2mm	16.8 ±2 mm	22.4 mm	White	330 ±4 mm	101.5 ±1.5mm	16.4 ±2 mm	22.4 mm	Blue	330 ±2 mm	100 ±2mm	16.4 ±2 mm	22.4 mm	
Reel	Name of the state	COCK COCK COCK COCK COCK COCK COCK COCK		空白標 MSL												



### **Desiccant**





# **Moisture Barrier Bag**

	PRE CI	POST C	HANGE			
LI	PI	MF	MPHL MTAI			
Length (mm)	Width (mm)	Length (mm) Width (mm)		Length (mm)	Width (mm)	
440	400	457.2	406.4	420	370	
NO UN SELV	Jan Sai		R. J.C.S.	Example of the control of the contro		



# **Carton/Pizza Box**

		POS	T CHA	NGE				
	LPI			MPHL			MTAI	
Length (mm)	Width (mm)	Height (mm)	Length (mm)	Width (mm)	Height (mm)	Length (mm)	Width (mm)	Height (mm)
370	351	53	354	352	53	370	351	53









#### **QUALIFICATION REPORT SUMMARY**

**PCN #: KSRA-12PACO579** 

**Date June 28, 2019** 

Qualification of MTAI as an additional final test site for selected Atmel ATTINY products available in 14L SOIC package.

Purpose: Qualification of MTAI as an additional final test site for selected

Atmel ATTINY products available in 14L SOIC package.

CCB No.: 3546

Test / Evaluation	Test Conditions / Parameters	Results
Datalog / Bin Comparison	<ul> <li>Compare test numbers, test names, test limit, test sequence, bin assignments &amp; pass/fail results.</li> <li>Accept if all match or justify the differences</li> </ul>	PASSED
Site by site verification	Verifies the channel map has the correct site assignments and tester/handler communication work correctly	PASSED
Correlation lot report	<ul> <li>Yield at each step and reject analysis between systems. 5K units are tested for each program conversion we perform.</li> <li>Accept on yield match within 1%</li> </ul>	PASSED
Unit to unit parametric correlation	A full assembly strip characterized on both systems and graphed vs each other & the data sheet limits	PASSED
Test stability	<ul><li>50 loop test performed with no datalog delays</li><li>Accept on 0 fails</li></ul>	PASSED
Parametric test stability verification	<ul> <li>Use Real Time Statistics software to create CPK report of all parametric tests</li> <li>Accept on Cpk &gt; 1.67 or explainable</li> </ul>	PASSED