



Product Change Notification / NTDO-06UCYA969

Date:

26-Jan-2022

Product Category:

8-bit Microcontrollers

PCN Type:

Manufacturing Change

Notification Subject:

CCB 3547.004 Final Notice: Qualification of MTAI as an additional final test site for selected Atmel ATTINY212, ATTINY402 and ATTINY412 device families available in 8L SOIC (.150in) package.

Affected CPNs:

[NTDO-06UCYA969_Affected_CPN_01262022.pdf](#)
[NTDO-06UCYA969_Affected_CPN_01262022.csv](#)

Notification Text:

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 MTAI as an additional final test site for selected Atmel ATTINY212, ATTINY402 and ATTINY412 device families available in 8L SOIC (.150in) package.

Pre and Post Change Summary:

	Pre Change	Post Change
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Final Test Site		Microchip Technology Operations (Philippines) Corporation (MPHL)	Microchip Technology Operations (Philippines) Corporation (MPHL)	Microchip Technology Thailand (HQ) (MTAI)
Base Quantity Multiple (BQM)	Tube	100	100	100
	T/R	4000	4000	4000
Pin 1 orientation	Tube	See pre and post change comparison		
	T/R	Quadrant 1	Quadrant 1	Quadrant 1
Carrier Tape		No dimensional changes*		
Cover Tape		With minor dimensional changes*		
Plastic Reel	Dimension	No dimensional changes*		
	Color	White	White	Dark Blue
Desiccant		See attached Pre and Post comparison		
Carton Box		With dimensional changes*		
Packing Method		See attached Pre and Post comparison		

* See attached 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:February 28, 2022 (date code: 2210)

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

Time Table Summary:

	December 2021					January 2022					February 2022				
Workweek	4	5	5	5	5	0	0	0	0	0	06	07	08	09	10

	9	0	1	2	3	1	2	3	4	5					
Initial PCN Issue Date		x													
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:

December 9, 2021: Issued initial notification.

January 26, 2022: Issued final notification. Added tube Pin 1 orientation and desiccant information in the pre and post change summary. Added reel photo and desiccant information in the pre and post change summary attachment. Attached the Qualification Report. Provided estimated first ship date to be on February 28, 2022.

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

Attachments:

[PCN_NTDO-06UCYA969_Qual_Report.pdf](#)

[PCN_NTDO-06UCYA969_Pre and Post_Change Summary.pdf](#)

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

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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)

ATTINY212-SSF

ATTINY402-SSF

ATTINY412-SSF

ATTINY212-SSN

ATTINY402-SSN

ATTINY412-SSN

ATTINY212-SSNR

ATTINY412-SSNR

ATTINY402-SSNR

ATTINY402-SSFR

ATTINY412-SSFR

ATTINY212-SSFR

CCB 3547.004

Pre and Post Change Summary

PCN #: NTDO-06UCYA969

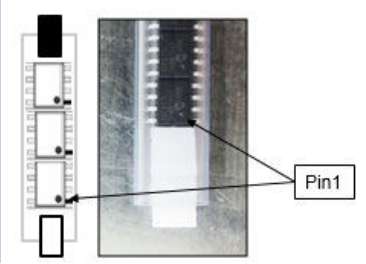
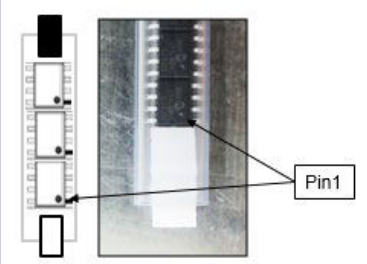
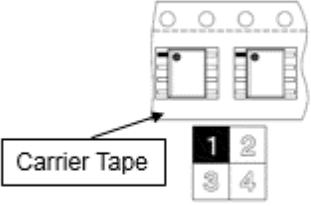
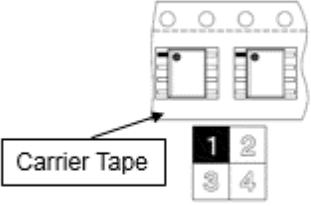
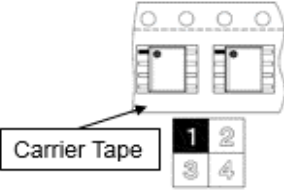
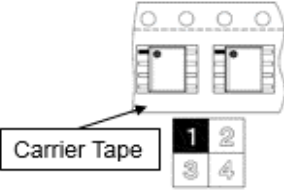
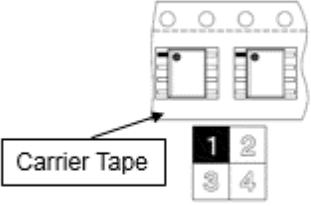
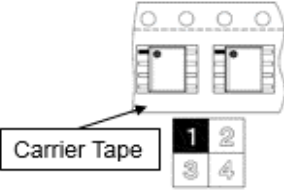


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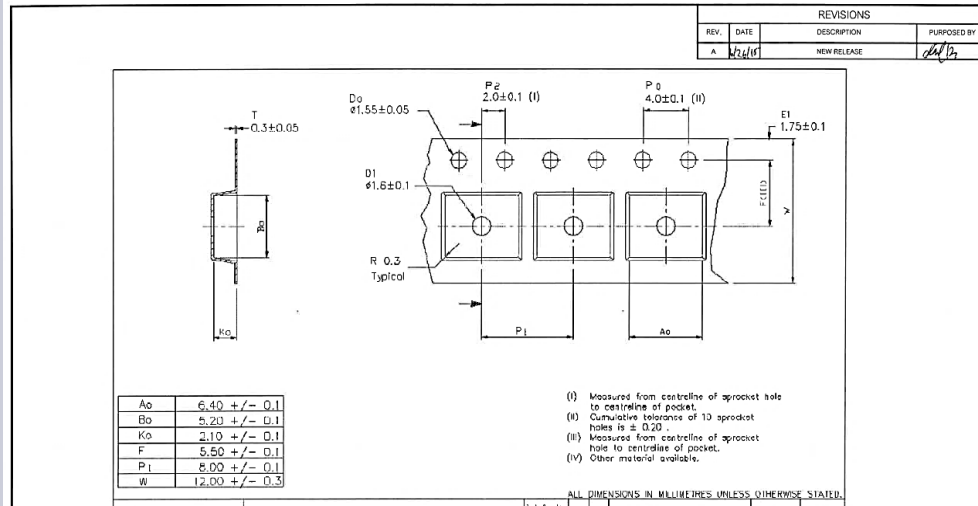
Pre and Post Change Summary

		MPHL	MTAI												
BQM	Tube	100	100												
	Tape and Reel	4000	4000												
Pin 1 Orientation	Tube	 <table border="1" data-bbox="886 721 1406 825"> <thead> <tr> <th>Media</th> <th>Pin1 Side</th> <th>Opposite Side</th> </tr> </thead> <tbody> <tr> <td>TUBE</td> <td>White</td> <td>Black</td> </tr> </tbody> </table>	Media	Pin1 Side	Opposite Side	TUBE	White	Black	 <table border="1" data-bbox="1786 732 2305 836"> <thead> <tr> <th>Media</th> <th>Pin1 Side</th> <th>Opposite Side</th> </tr> </thead> <tbody> <tr> <td>TUBE</td> <td>White</td> <td>Black</td> </tr> </tbody> </table>	Media	Pin1 Side	Opposite Side	TUBE	White	Black
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Pre and Post Change Summary

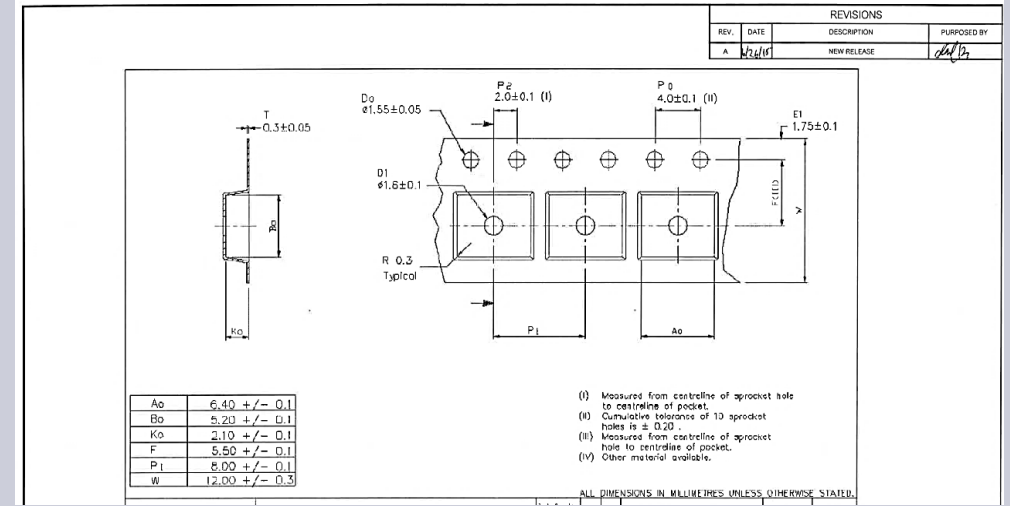
Carrier tape

MPHL



Mfg. Part No.	W (mm.) ±0.3 or Specific	P (mm.) ±0.1 or Specific	Ao ±0.1 or Specific	Bo ±0.1 or Specific	Ko ±0.1 or Specific	Thickness
S08N PS3 22X10CY L410 W12(CL)	12	8	6.40	5.20	2.10	-

MTAI



Mfg. Part No.	W (mm.) ±0.3 or Specific	P (mm.) ±0.1 or Specific	Ao ±0.1 or Specific	Bo ±0.1 or Specific	Ko ±0.1 or Specific	Thickness
S08N PS3 22X10CY L410 W12(CL)	12	8	6.40	5.20	2.10	-

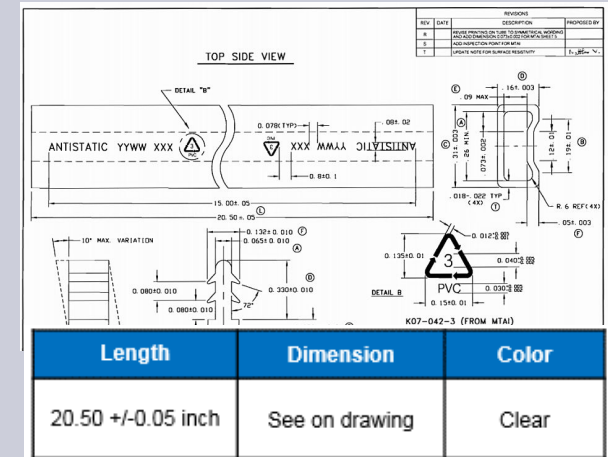
Pre and Post Change Summary

MPHL

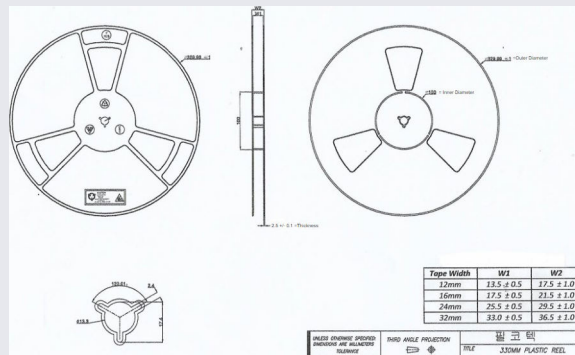
MTAI

Tube

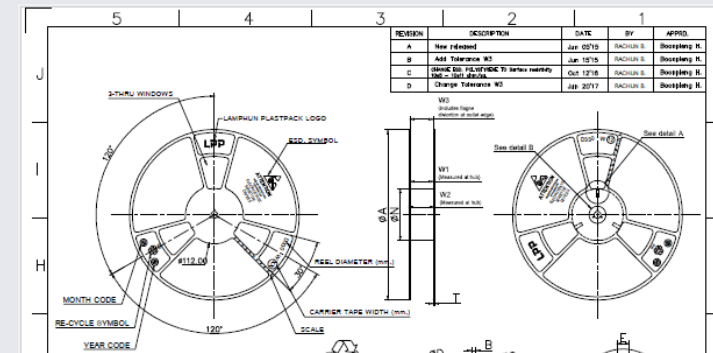
As received from Assembly



Tape and Reel



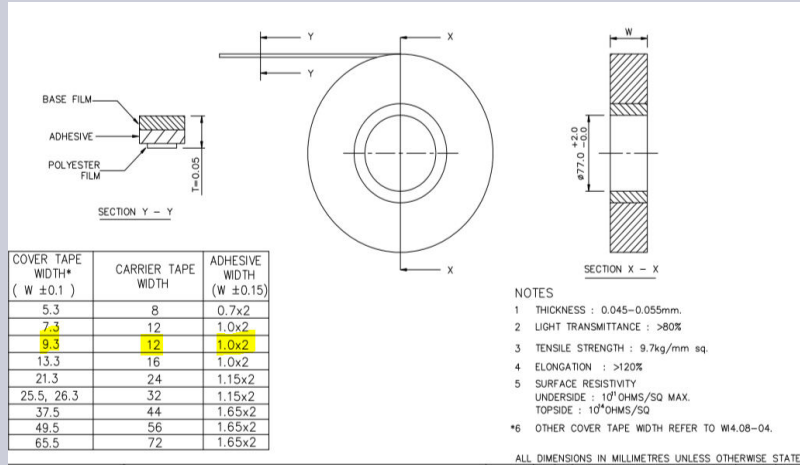
Width	Hub	Color
12mm	4inch (100mm)	White



Width	Hub	Color
12mm	4inch (100mm)	Dark Blue

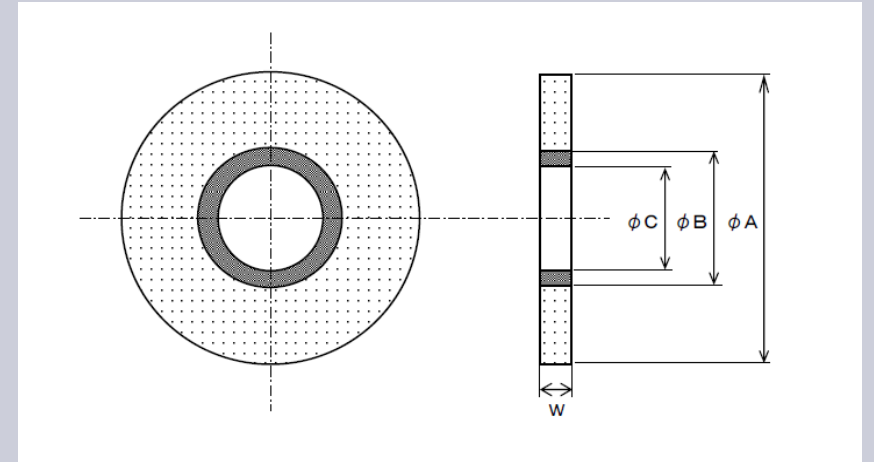
Pre and Post Change Summary

MPHL



Carrier Width	Width "W" (mm)	Thickness (mm)	Sealing Mythology
12mm	9.3 +/-0.1	0.050 ±0.010	Pressure Seal

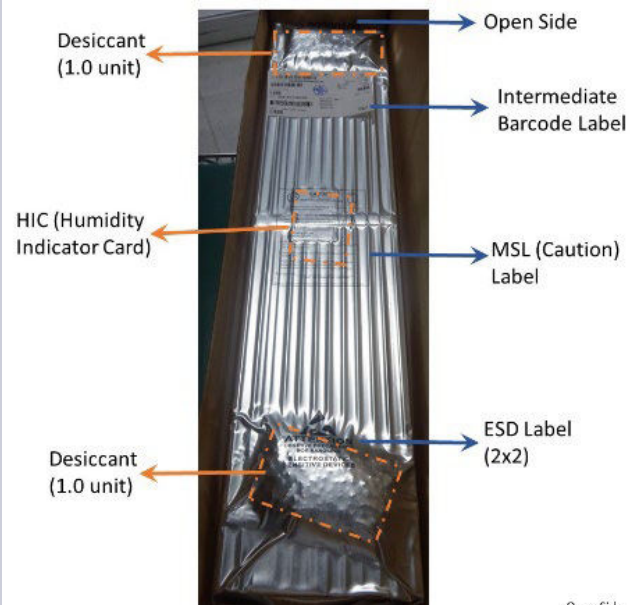





MTAI



Carrier Width	Width "W" (mm)	Thickness (mm)	Sealing Mythology
12mm	9.05+0.05/-0.15	0.050 ±0.010	Heat seal

Cover tape

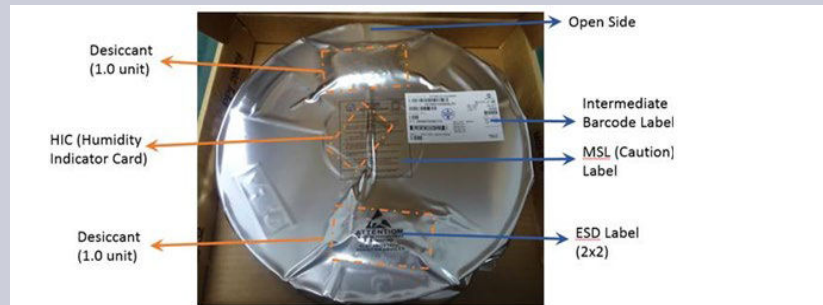
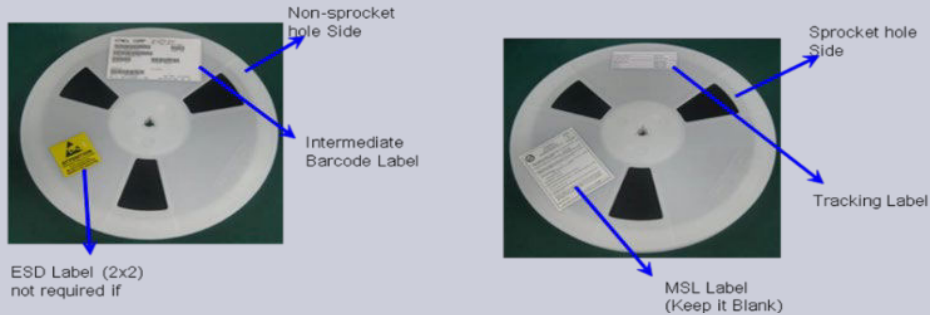
Pre and Post Change Summary

	MPHL	MTAI						
<p>Packing Method (Tube)</p>	 <p>Desiccant (1.0 unit)</p> <p>HIC (Humidity Indicator Card)</p> <p>Desiccant (1.0 unit)</p> <p>Open Side</p> <p>Intermediate Barcode Label</p> <p>MSL (Caution) Label</p> <p>ESD Label (2x2)</p>  <p>Open Side of Box</p> <p>MSID Sticker</p> <p>Intermediate Label</p>  <p>Bubble Sheet</p>	 <p>SSB</p> <table border="1" data-bbox="1977 568 2379 639"> <thead> <tr> <th>P/N</th> <th>WIDTH</th> <th>LENGTH</th> </tr> </thead> <tbody> <tr> <td>DY3650</td> <td>160</td> <td>650</td> </tr> </tbody> </table>   <p>ANTISTATIC TAPE</p>	P/N	WIDTH	LENGTH	DY3650	160	650
P/N	WIDTH	LENGTH						
DY3650	160	650						

Pre and Post Change Summary

Packing Method (T/R)

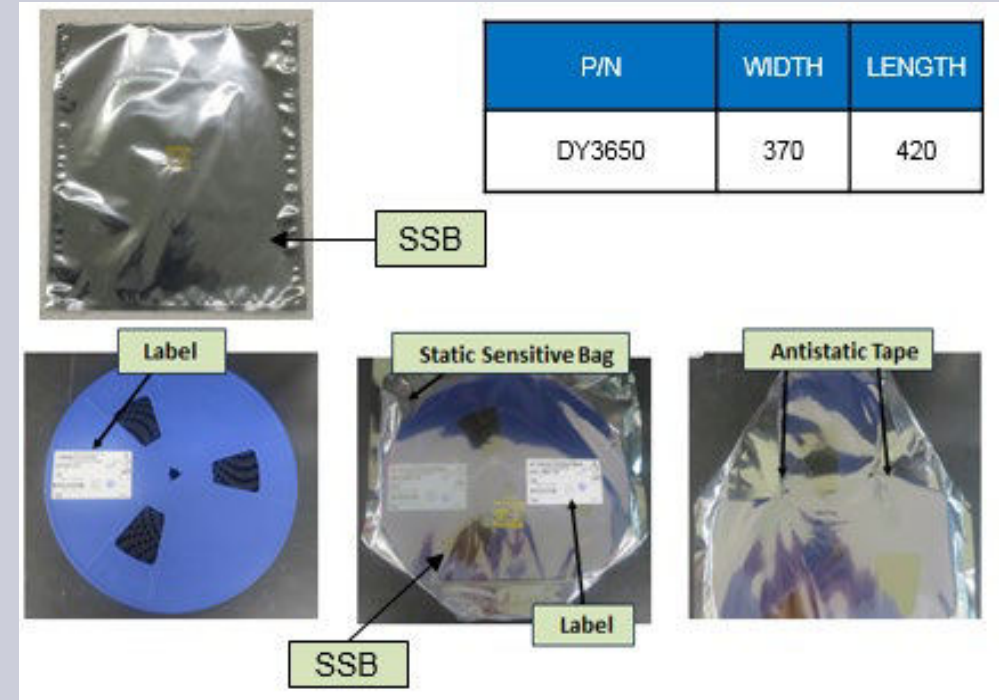
MPHL



Label Placement at Box



MTAI



Pre and Post Change Summary

MPHL

MTAI

Carton Box
(Tube)



Length	Width	Height
560	130	78



Carton	Dimension W x L x H (cm)	Number of Bag/carton
M01-025 (C1)	15x64x5.5	1
M01-026 (C2)	15x64x10	2
M01-027 (C3)	15x64x14	3
M01-028 (C4)	28x63x11	4
M01-029 (C6)	28x63x15.5	6
M01-030 (C8)	28x63x20	8

Pre and Post Change Summary

		MPHL	MTAI
Desiccant	Tube	<p>1 unit desiccant</p> 	Not applicable
	T/R	<p>1 unit desiccant</p> 	Not applicable

Pre and Post Change Summary

MPHL



Length	Width	Height
375 mm	352 mm	53 mm

Carton Box
(T/R)

MTAI



Carton	Dimension	Number of reel per carton
	W x L x H (cm)	Reel diameter (D) = 330mm Carrier Tape Width 12mm
M01-011 (TT)	36.5x38x39.5	15
M01-012 (B1)	35.5x35.5x2.8	1
M01-013 (B2)	35.5x35.5x4	2
M01-014 (B3)	35.5x35.5x6	3
M01-015 (B8)	35.5x35.5x16.5	8



QUALIFICATION REPORT SUMMARY

PCN #: NTDO-06UCYA969

**Date:
January 06, 2022**

Qualification of MTAI as an additional final test site for selected Atmel ATTINY212, ATTINY402 and ATTINY412 device families available in 8L SOIC (.150in) package.

Purpose: Qualification of MTAI as an additional final test site for selected Atmel ATTINY212, ATTINY402 and ATTINY412 device families available in 8L SOIC (.150in) package.

CCB No.: 3547.004

Test / Evaluation	Test Conditions / Parameters	Results
Datalog/Bin Comparison	<ul style="list-style-type: none"> • Compare test numbers, test names, test sequence bin assignments & pass/fail results • Accept if all match or justify the differences 	Passed
Site by site verification	<ul style="list-style-type: none"> • Verifies the channel map has the correct site assignments and tester/handler communications work correctly 	Passed
Correlation lot report	<ul style="list-style-type: none"> • Yield at each step and reject analysis between systems. 5K units are tested for each program conversion we perform. • Accept on yield match within 0.1% 	Passed
Unit to unit parametric correlation	<ul style="list-style-type: none"> • A full assembly strip characterized on both systems and graphed vs each other & the data sheet limits 	Passed
Test stability verification	<ul style="list-style-type: none"> • 50 loop test performed with no datalog delays • Accept on 0 fails 	Passed
Parametric test stability verification	<ul style="list-style-type: none"> • Use Real Time Statistics software to create CPK report of all parametric tests • Accept on Cpk > 1.67 or explainable 	Passed