Product Change Notification / MAAN-07HYRJ408

Date:

04-Jan-2024

Product Category:

8-Bit Microcontrollers

PCN Type:

Manufacturing Change

Notification Subject:

CCB 6332 Final Notice: Qualification of MTAI as a new final test site for selected ATTINY13x device family available in 8L SOIC (0.15 in) and 8L SOIJ (0.208 in) packages.

Affected CPNs:

MAAN-07HYRJ408_Affected_CPN_01042024.pdf
MAAN-07HYRJ408_Affected_CPN_01042024.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 a new final test site for selected ATTINY13x device family available in 8L SOIC (0.15 in) and 8L SOIJ (0.208 in) packages.

Pre and Post Change Summary:
For 8L SOIC Package:

	Pre Change	Post Change

Final Test Site		Amkor Technology Philippine (P1/P2), INC. (ANAP)	Lingsen Precision Industries, LTD. (LPI)	Microchip Technology Thailand (MTAI)
Base Quantity Multiple (BQM)	Tape and Reel	4000	4000	4000
	Tube	100	100	100
Pin 1 Orientation	Tape and Reel	Quadrant 1	Quadrant 1	Quadrant 1
	Tube	See Pre and Post Change comparison		
Carrier Tape		Minimal dimensional changes. See Pre and Post Change Summary for comparison.		
Cover Tape				
Plastic Reel				
See Pre and Post Change Summary for comparison.				

For 8L SOIJ Package:

		Pre Change		**Post Change**
Final Test Site		Amkor Technology Philippine (P1/P2), INC. (ANAP)	Lingsen Precision Industries, LTD. (LPI)	Microchip Technology Thailand (MTAI)
Base Quantity Multiple (BQM)	Tape and Reel	2000	2000	2000
	Tube	95	95	90
Pin 1 Orientation	Tape and Reel	Quadrant 1	Quadrant 1	Quadrant 1
	Tube	See Pre and Post Change comparison		
Carrier Tape		With minor dimensional changes. See Pre and Post Change Summary for comparison.		
Cover Tape				
Plastic Reel				
See Pre and Post Change Summary for comparison.				

Impacts to Data Sheet: None

Change Impact None

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

Change Implementation Status: In Progress

Estimated First Ship Date: February 5, 2024 (date code: 2406)

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

Time Table Summary:

	October 2023					**>**	**January 2024**					**February 2024**				
Workweek	40	41	42	43	44		01	02	03	04	05	06	07	08	09	10
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: October 12, 2023: Issued initial notification.
January 4, 2024: Issued final notification. Attached the Qualification Report. Provided estimated first ship date to be on February 5, 2024.

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

Attachments:

PCN_MAAN-07HYRJ408_Pre_and_Post_Change_Summary.pdf
PCN_MAAN-07HYRJ408_Qual_Report.pdf

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

Terms and Conditions:

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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)

ATTINY13A-SS7
ATTINY13A-SN
ATTINY13A-SS7R
ATTINY13A-SNR
ATTINY13-20SSU
ATTINY13V-10SSU
ATTINY13V-10SU
ATTINY13-20SU
ATTINY13-20SSUR
ATTINY13V-10SSUR
ATTINY13V-10SUR
ATTINY13-20SUR

CCB 6332

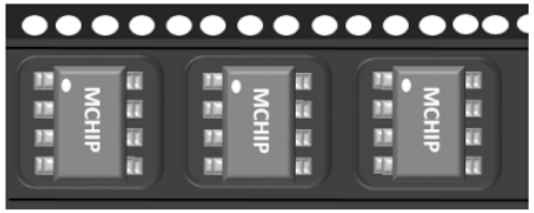
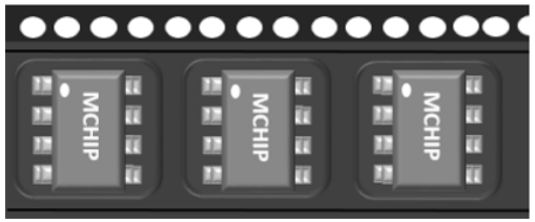
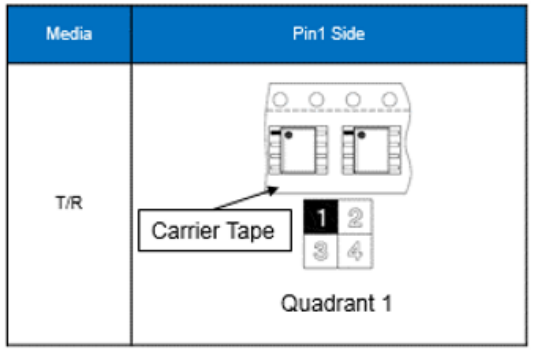
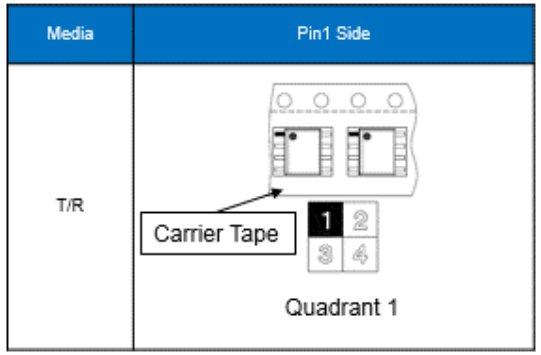
Pre and Post Change Summary

PCN #: MAAN-07HYRJ408

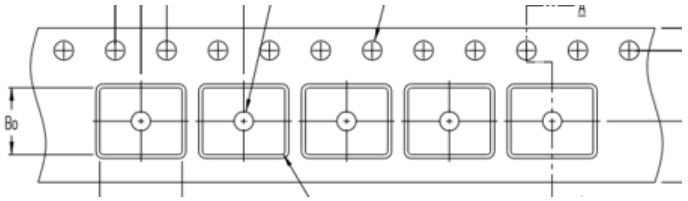
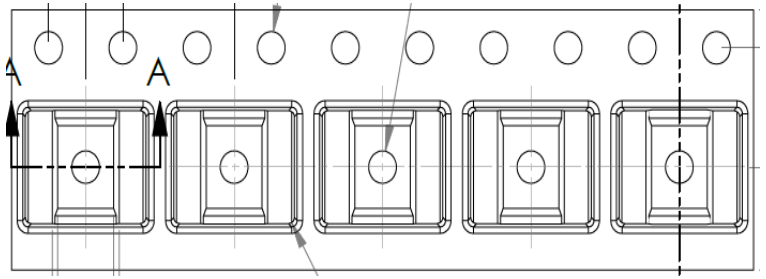
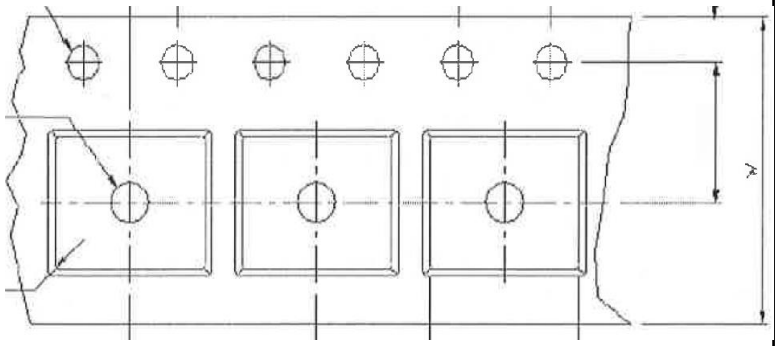
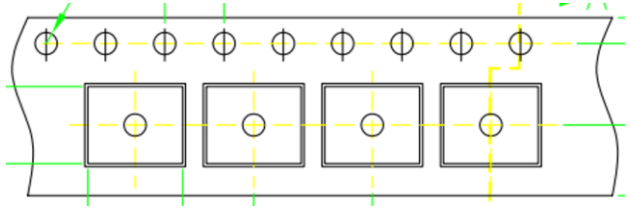
A Leading Provider of Smart, Connected and Secure Embedded Control Solutions

SMART | CONNECTED | SECURE

Tape and Reel - 8L SOIC Package

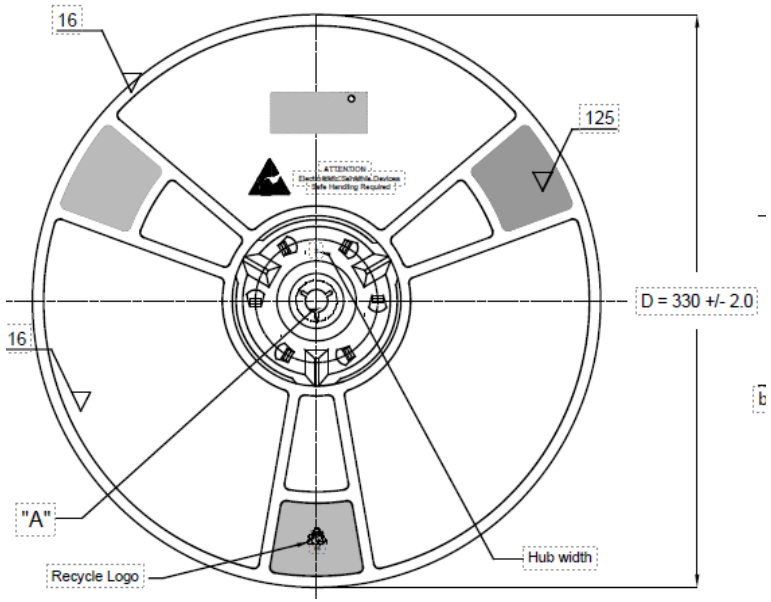
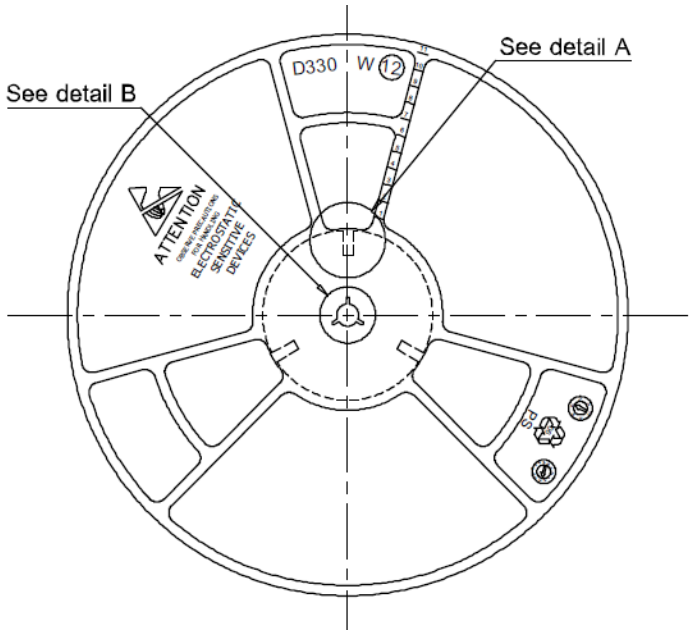
	ANAP	LPI	MTAI
BQM (Base Quantity Multiple)	4000	4000	4000
Pin 1 orientation	MSL 1 UPPER LEFT  MSL 2 UPPER LEFT 	Upper left corner 	

Carrier Tape – T/R- 8L SOIC Package

ANAP	LPI	MTAI
MSL 1 		
MSL 2 		

Plant	W (mm.)	P (mm.)	A0 (mm.)	B0 (mm.)	K0 (mm.)
ANAP	12.00 +/- 0.3	8.00 +/- 0.1	6.40 +/- 0.1	5.20 +/- 0.1	2.10 +/- 0.1
LPI	12.00 +0.3/-0.1	8.00	6.50 +/- 0.1	5.20 +/- 0.1	2.10 +/- 0.1
MTAI	12.00 +/- 0.3	8.00 +/- 0.1	6.40 +/- 0.1	5.20 +/- 0.1	2.10 +/- 0.1

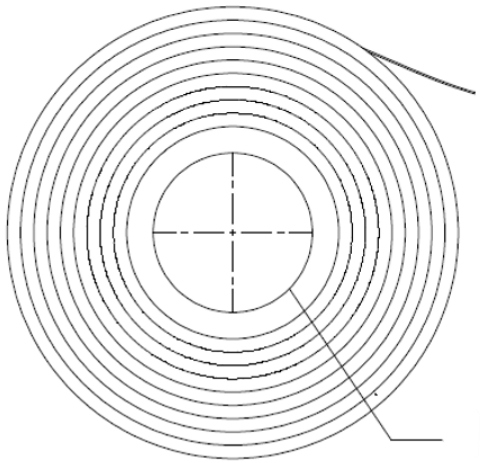
Reel – T/R - 8L SOIC Package

ANAP	LPI	MTAI
MSL 1 & 2		

Plant	Colour	Diameter	Hub Dia	W1	W2
ANAP	**White**	**329.99mm**	**100mm**	**13.5mm**	**17.5mm**
LPI	**White**	**330mm**	**102mm**	**4.4mm** **8.4mm**	**7.1mm** **11.1mm**
MTAI	**Dark Blue**	**330mm**	**100mm**	**12.40mm**	**18.40mm**

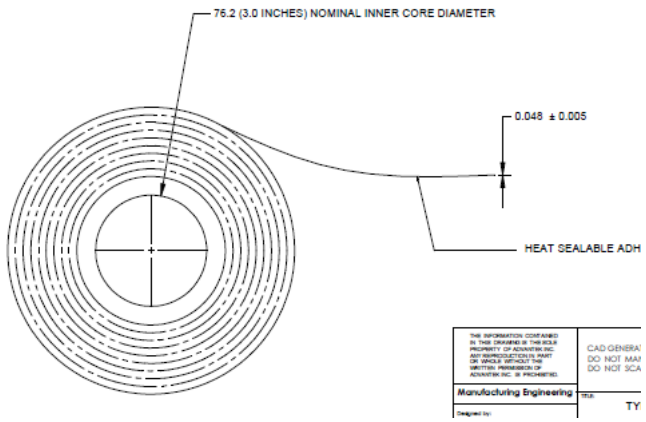
Cover Tape – T/R - 8L SOIC Package

ANAP



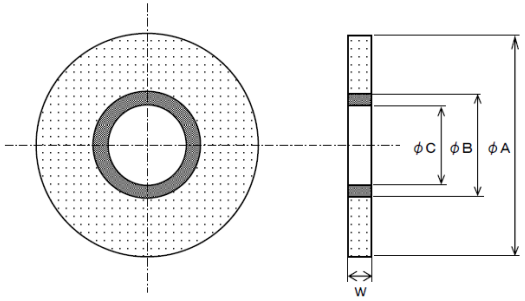
Width	9.2 mm
Thickness	0.053mm

LPI



Width	9.2mm
Thickness	0.048mm

MTAI



Width	9.05mm
Thickness	0.050mm

MICROCHIP

Antistatic Shielding/Moisture barrier Bag - T/R - 8L SOIC Package

ANAP

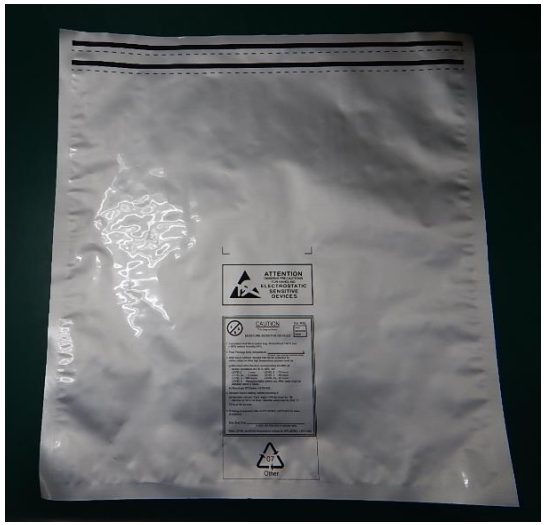
MSL 1

Length	457.2 mm
Width	381 mm

MSL 2

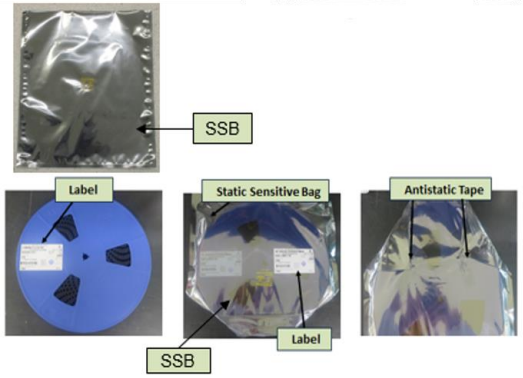
Length	457 mm
Width	457 mm

LPI



Length	450 mm
Width	420 mm

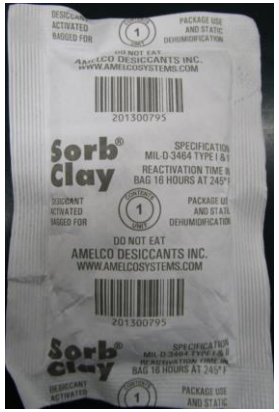
MTAI



Length	420 mm
Width	370 mm

MICROCHIP

Desiccant – T/R - 8L SOIC Package

ANAP	LPI	MTAI
MSL 1 N/A		N/A
MSL 2 		

Carton Box – T/R - 8L SOIC Package

ANAP

MSL 1 & MSL 2

Length: 370 mm
Width: 350 mm
Height: 53 mm

LPI

37.0x38.0x11.0 cm (2 inner box per 1 outer box)
37.0x38.0x22.5 cm (4 inner box per 1 outer box)
37.0x39.0x39.0 cm (8 inner box per 1 outer box)
42.0x66.0x39.0 cm (11 inner box per 1 outer box)

MTAI

365 x 380 x 395 mm
355 x 355 x 28 mm
355 x 355 x 40 mm
355 x 355 x 60 mm
355 x 355 x 165 mm

Tube - 8L SOIC Package

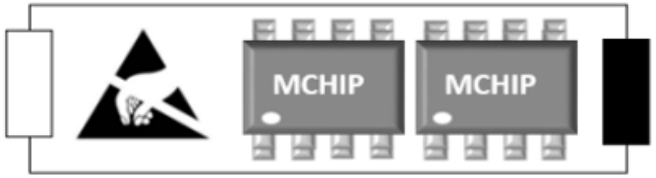
	ANAP	LPI	MTAI
BQM (Base Quantity Multiple)	100	100	100

Pin Orientation - Tube - 8L SOIC Package

ANAP

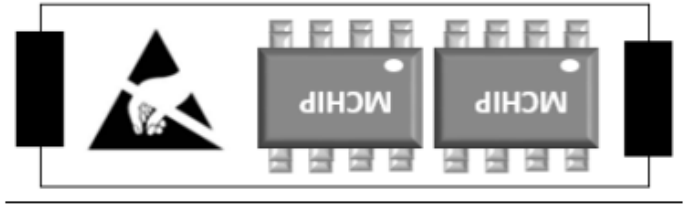
MSL 1

LOWER LEFT REFERENCE TO TUBE MARKING



MSL 2

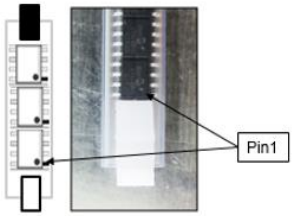
UPPER RIGHT REFERENCE TO TUBE MARKING



LPI

Pin 1 side Green
Opposite side White

MTAI

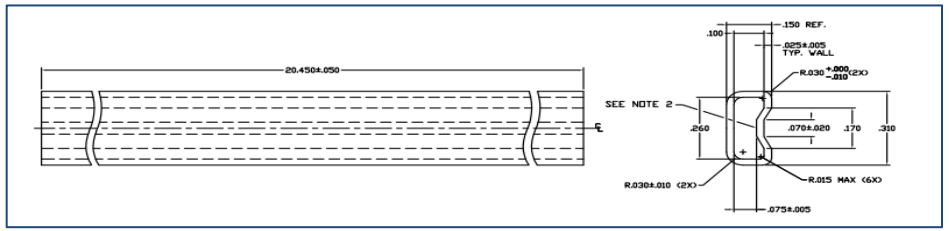


Media	Pin1 Side	Opposite Side
TUBE	White	Black

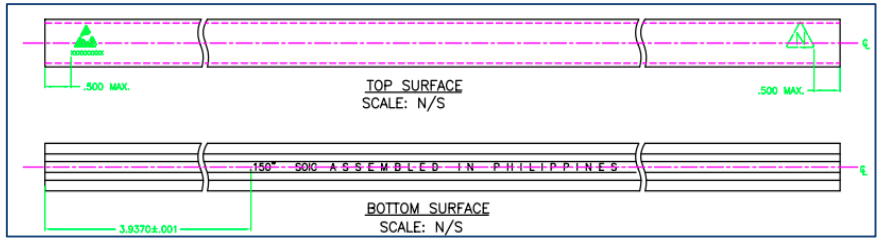
MICROCHIP

Tube - 8L SOIC Package

ANAP



Length	20.45 in
Color	Clear Blue

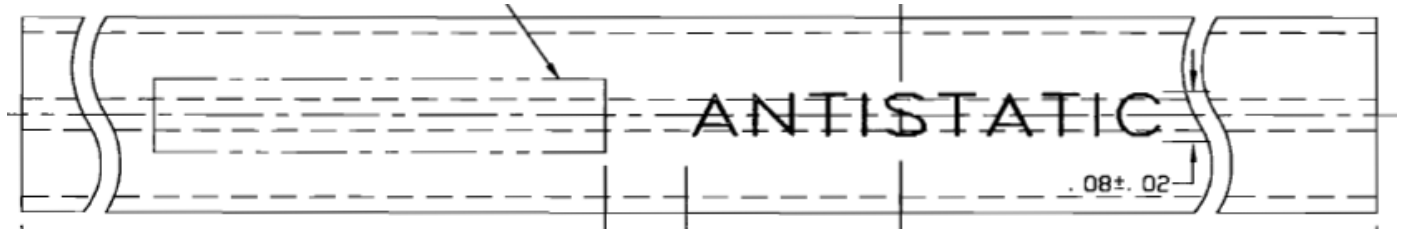


Color	Clear Blue

LPI

Length	20.4 in
Color	Clear

MTAI



Length	20.5 in
Color	Clear

Antistatic Shielding/Moisture barrier Bag - Tube- 8L SOIC Package

ANAP

MSL 1

Length	635 mm
Width	304 mm

MSL 2

Length	762 mm
Width	203.2 mm

LPI

Antistatic Shielding Bag
770x210x0.08mm

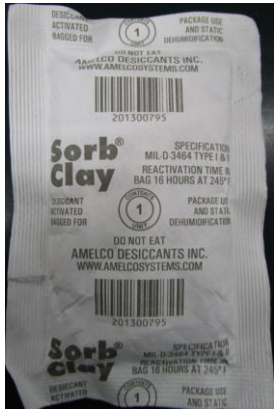
Moisture Barrier Bag
760x150x0.15mm
255*765*0.15mm

MTAI

P/N	WIDTH	LENGTH
DY3650	160	650

MICROCHIP

Desiccant – Tube - 8L SOIC Package

ANAP	LPI	MTAI
MSL 1 N/A		N/A
MSL 2 		

Carton Box - Tube - 8L SOIC Package

ANAP

MSL 1 & MSL 2

Length: 129 mm
Width: 565 mm
Height: 80 mm

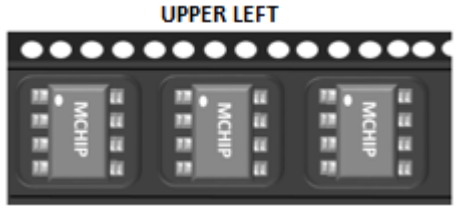
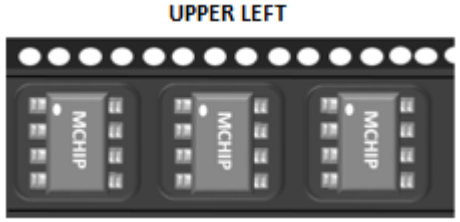
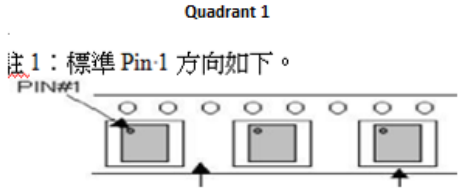
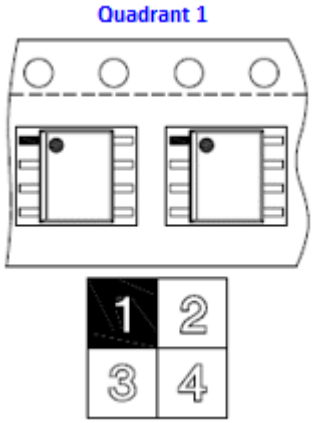
LPI

28.0x60.0x11.0 cm (2 inner box per 1 outer box)
43.0x60.0x19.0 cm (6 inner box per 1 outer box)

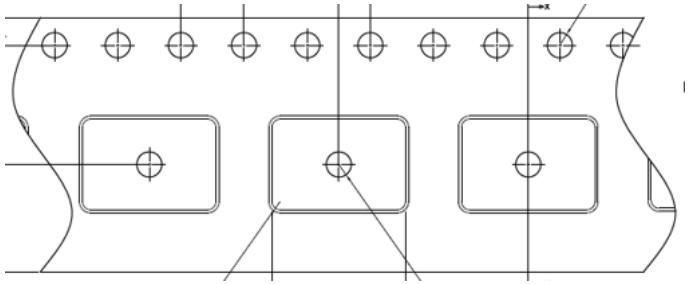
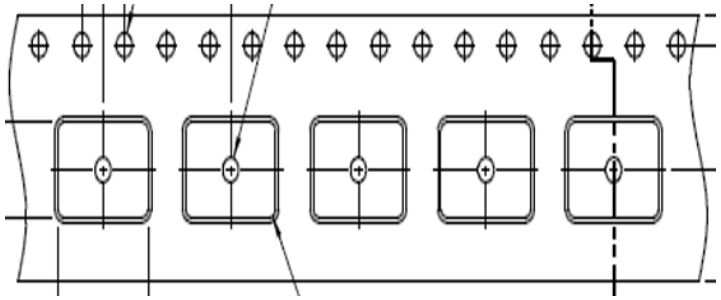
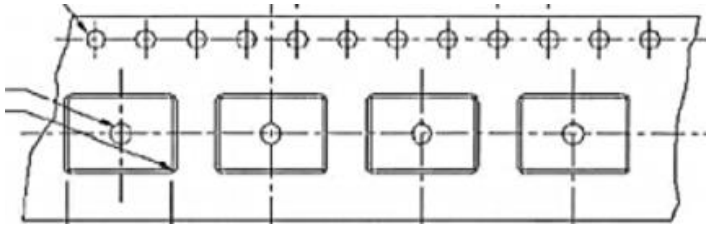
MTAI

150 x 640 x 55 mm
150 x 640 x 100 mm
150 x 640 x 140 mm
280 x 630 x 110 mm
280 x 630 x 155 mm
280 x 630 x 200 mm

Tape and Reel - 8L SOIJ Package

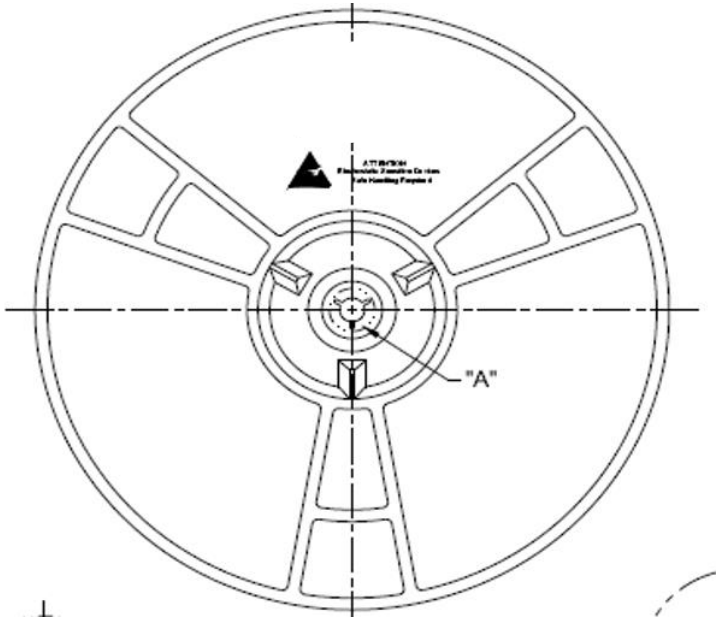
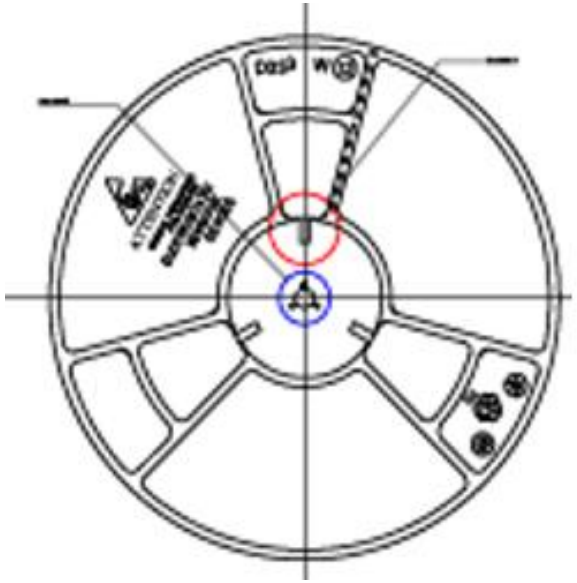
	ANAP	LPI	MTAI
BQM (Base Quantity Multiple)	2000	2000	2000
Pin 1 orientation	MSL 1  MSL 2  	 	

Carrier Tape – T/R - 8L SOIJ Package

ANAP	LPI	MTAI
MSL 1 & MSL 2 		

Plant	W (mm.)	P (mm.)	A0 (mm.)	B0 (mm.)	K0 (mm.)
ANAP	16.00 +0.3/-0.1	12.00 +/- 0.1	8.45 +/- 0.1	5.70 +/- 0.1	2.35 +/- 0.1
LPI	16.00	12.00	8.450 +/- 0.1	5.70 +/- 0.1	2.35 +/- 0.1
MTAI	16.00	12.00	8.30 +/- 0.1	5.70 +/- 0.1	2.30 +/- 0.1

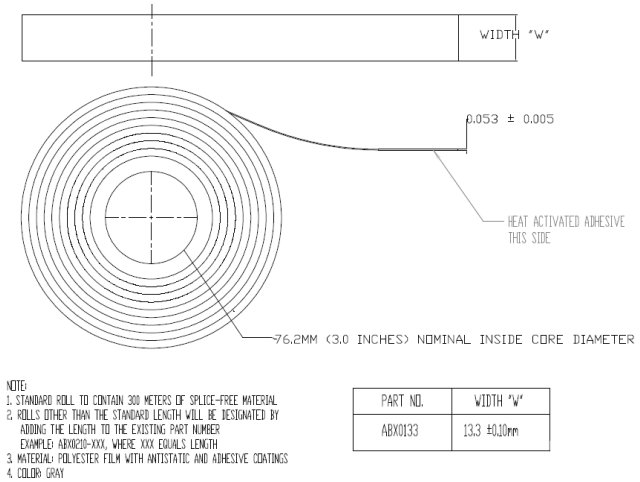
Reel – T/R - 8L SOIJ Package

ANAP	LPI	MTAI
MSL 1 & 2		

Plant	Colour	Diameter	W1	W2
ANAP	White	329.99mm	17mm	19.4mm
LPI	White	330mm	4.4mm 8.4mm	7.1mm 11.1mm
MTAI	Dark Blue	330mm	16.40mm	22.40mm

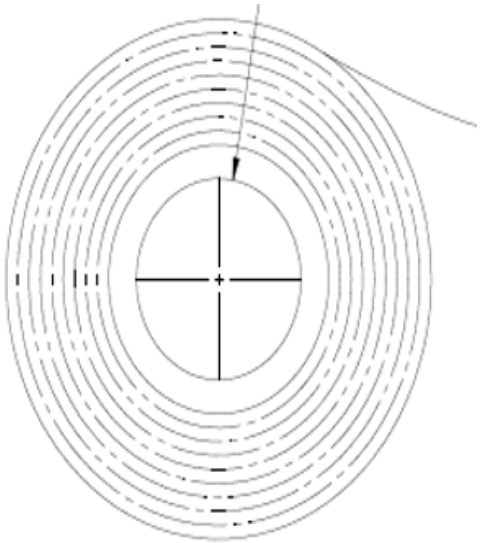
Cover Tape – T/R - 8L SOIJ Package

ANAP



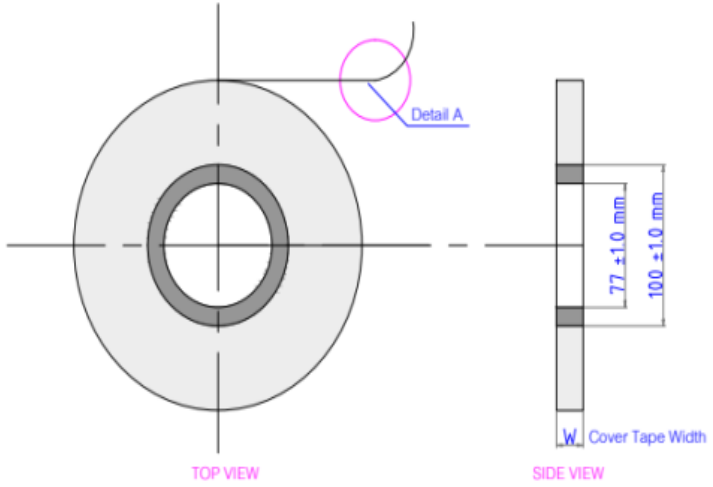
Width	13.33 mm
Thickness	0.053mm

LPI



Width	13.3 mm
Thickness	0.048mm

MTAI



Width	13.3 mm
Thickness	0.050mm

Antistatic Shielding/Moisture barrier Bag - T/R - 8L SOIJ Package

ANAP

MSL 1

Length	457.2 mm
Width	381 mm

MSL 2

Length	18 inches
Width	18 inches

LPI

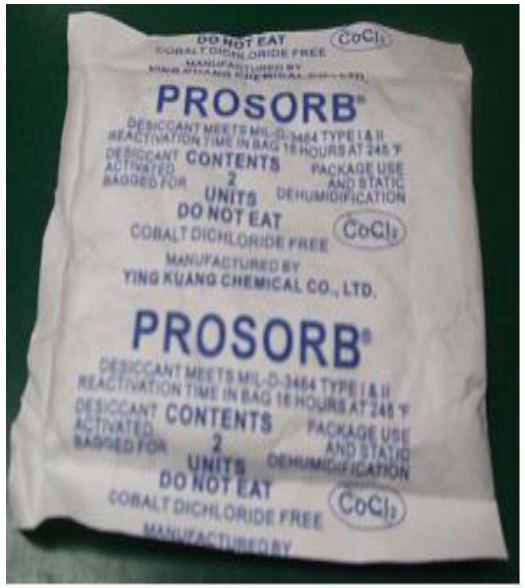
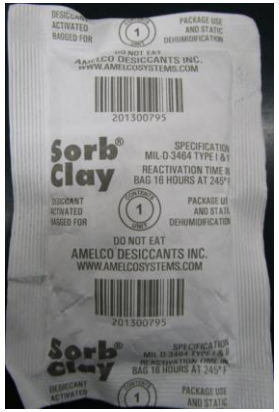
Length	450 mm
Width	420 mm

MTAI

Length	370 mm
Width	420 mm

MICROCHIP

Desiccant – T/R - 8L SOIJ Package

ANAP	LPI	MTAI
MSL 1 N/A		N/A
MSL 2 		

Carton Box – T/R - 8L SOIJ Package

ANAP

MSL 1 & MSL 2

Length	370 mm
Width	350 mm
Height	53 mm

LPI

370 x 351 x 53 mm
370 x 384 x 110 mm
370 x 384 x 110 mm
370 x 390 x 390 mm
420 x 660 x 390 mm

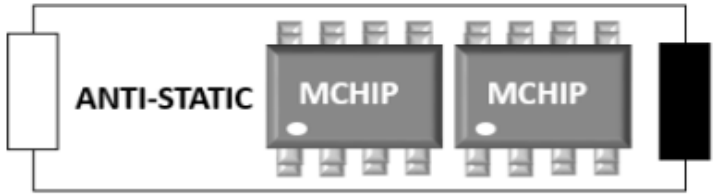
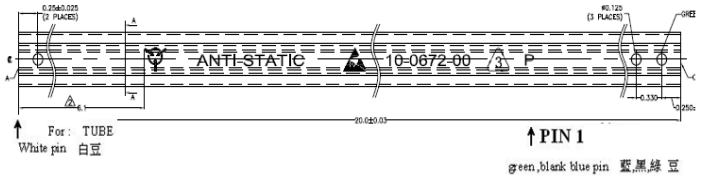
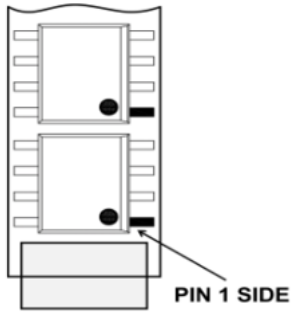
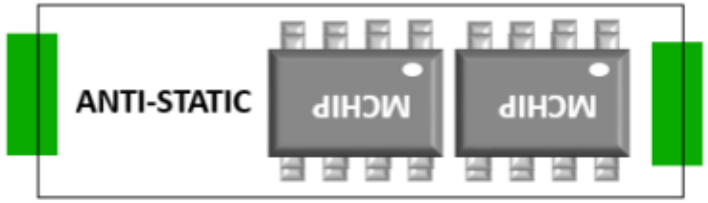
MTAI

365 x 380 x 395 mm
355 x 355 x 40 mm
355 x 355 x 60 mm
355 x 355 x 165 mm

Tube - 8L SOIJ Package

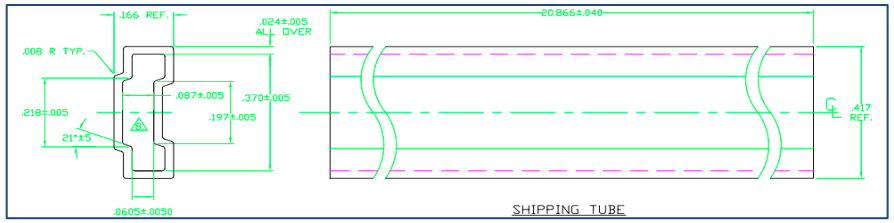
	ANAP	LPI	MTAI
BQM (Base Quantity Multiple)	95	95	90

Pin Orientation - Tube - 8L SOIJ Package

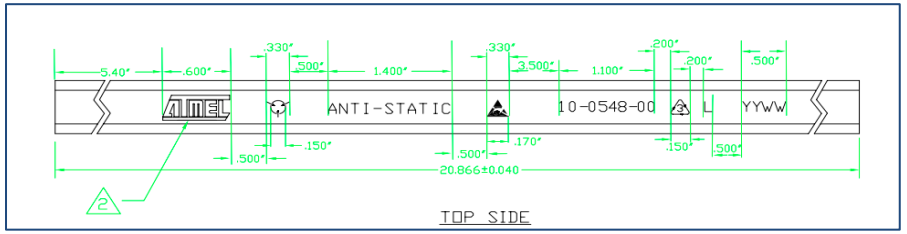
ANAP	LPI	MTAI
MSL 1 LOWER LEFT REFERENCE TO TUBE MARKING  	 	PLUG **Pin 1 Side:** WHITE **Opposite Side:** BLACK 
MSL 2 UPPER RIGHT REFERENCE TO TUBE MARKING  		

Tube - 8L SOIJ Package

ANAP



Length	20.866 in
Color	Clear Blue

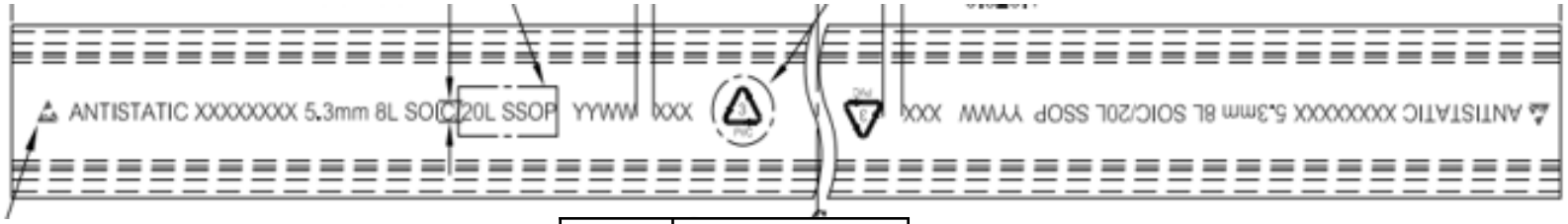


Length	20.866 in
Color	Clear Blue

LPI

Length	20.86 in
Color	Clear

MTAI



Length	20 in
Color	Clear

Antistatic Shielding/Moisture barrier Bag - Tube- 8L SOIJ Package

ANAP

MSL 1

Length	635 mm
Width	304 mm

MSL 2

Length	762 mm
Width	203.2 mm

LPI

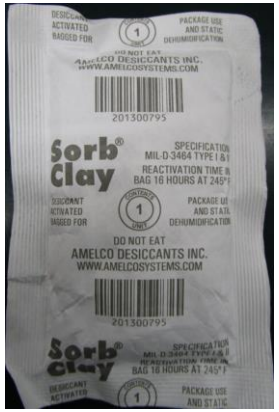
Length	765 mm
Width	255 mm

MTAI

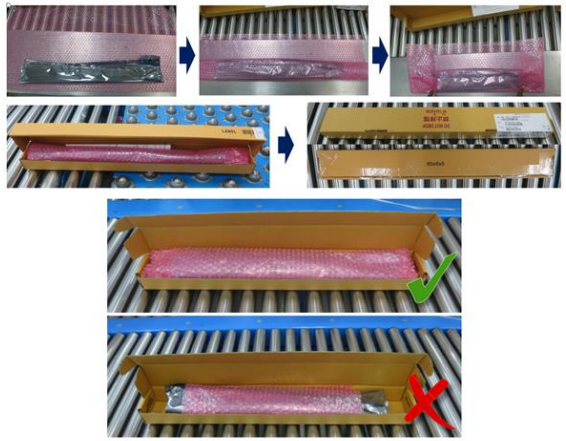
Length	160 mm
Width	650 mm

MICROCHIP

Desiccant – Tube - 8L SOIJ Package

ANAP	LPI	MTAI
MSL 1 N/A		N/A
MSL 2 		

Carton Box - Tube - 8L SOIJ Package

ANAP	LPI	MTAI
MSL 1 & MSL 2 Length: 129 mm Width: 565 mm Height: 80 mm	 580 x 129 x 80mm 600 x 280 x 105mm 600 x 430 x 188mm	 150 x 640 x 55 mm 150 x 640 x 100 mm 150 x 640 x 140 mm 280 x 630 x 110 mm 280 x 630 x 155 mm 280 x 630 x 200 mm

QUALIFICATION REPORT SUMMARY

RELIABILITY LABORATORY

PCN #: MAAN-07HYRJ408

Date:
December 11, 2023

Qualification of MTAI as a new final test site for selected ATTINY13xx device family available in 8L SOIC (0.15 in) and 8L SOIJ (0.208 in) package.

Purpose: **Qualification of MTAI as a new final test site for selected ATTINY13xx device family available in 8L SOIC (0.15 in) and 8L SOIJ (0.208 in) package.**

CCB: **6332**

Test Name	Test Conditions	Results
Datalog/Bin Comparison	• 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	• Verifies the channel map has the correct site assignments and tester/handler communications work correctly	Passed
Correlation Lot Report	• Yield comparison between systems and test sites. • Accept on yield match within 2%	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 Verification	• 50 loop test performed with no datalog delays - Accept on 0 fails	Passed
Parametric test stability verification	• Use Real Time Statistics software.	Passed