Product Change Notification: MAAN-25HPSB183

Date:

09-Apr-2025

Product Category:

8-Bit Microcontrollers

Notification Subject:

CCB 7196.021 Final Notice: Qualification of MTAI as a new final test site for selected AT89C51IC2, AT89C51RB2, AT89C51RC2, AT89C51ED2, AT89C51ID2, AT89C51RD2, AT89C51AC3, AT89C51CC03, AT89C51AC2, AT89C51CC01 and AT80C51RD2 device families available in 44L PLCC (16.6x16.6x4.4mm) package.

Affected CPNs:

MAAN-25HPSB183_Affected_CPN_04092025.pdf
MAAN-25HPSB183_Affected_CPN_04092025.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 MTAI as a new final test site for selected AT89C51IC2, AT89C51RB2, AT89C51RC2, AT89C51ED2, AT89C51ID2, AT89C51RD2, AT89C51AC3, AT89C51CC03, AT89C51AC2, AT89C51CC01 and AT80C51RD2 device families available in 44L PLCC (16.6x16.6x4.4mm) package.

Pre and Post Summary Changes:

	Pre Change	Post Change
Final Test Site	Microchip Technology Operations (Phils.) Corp. (MPHL)	Microchip Technology Thailand (HQ) (MTAI)
Packing Method/Material	See pre and post change summary for comparison.	

Impacts to Datasheet: None

Change Impact: None

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

Change Implementation Status: In Progress

Estimated First Ship Date: 01 May 2025 (date code: 2518)

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

Timetable Summary:

	March 2025					**April 2025**				**May 2025**				
Work Week	09	10	11	12	13	14	15	16	17	18	19	20	21	22
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: March 28, 2025: Issued initial notification.
April 09, 2025: Issued final notification. Attached the Qualification report. Provided estimated first ship date to be on May 01, 2025.

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_MAAN-25HPSB183_Pre_and Post Change Summary.pdf

PCN_MAAN-25HPSB183_Qualification 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.

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Affected Catalog Part Numbers (CPN)

AT89C51IC2-SLSUL

AT89C51RB2-SLSUM

AT89C51RC2-SLSUM

AT89C51IC2-SLSUM

AT89C51ED2-SLSUM

AT89C51ID2-SLSUM

AT89C51RD2-SLSUM

AT89C51AC3-SLSUM

AT89C51RB2-SLSUL

AT89C51RC2-SLSUL

AT89C51CC03CA-SLSUM

AT89C51AC2-SLSUM

AT89C51CC01UA-SLSUM

AT89C51CC01CA-SLSUM

AT80C51RD2-SLSUM

AT89C51CC03UA-SLSUM

AT89C51IC2-SLRUM

AT89C51RB2-SLRUM

AT89C51RC2-SLRUM

AT89C51IC2-SLRUL

AT89C51RB2-SLRUL

AT89C51RC2-SLRUL

AT89C51ED2-SLRUM

AT89C51ID2-SLRUM

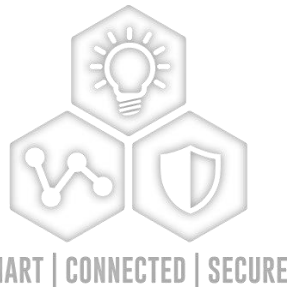
AT89C51RD2-SLRUM

AT89C51CC03CA-SLRUM

AT80C51RD2-SLRUM

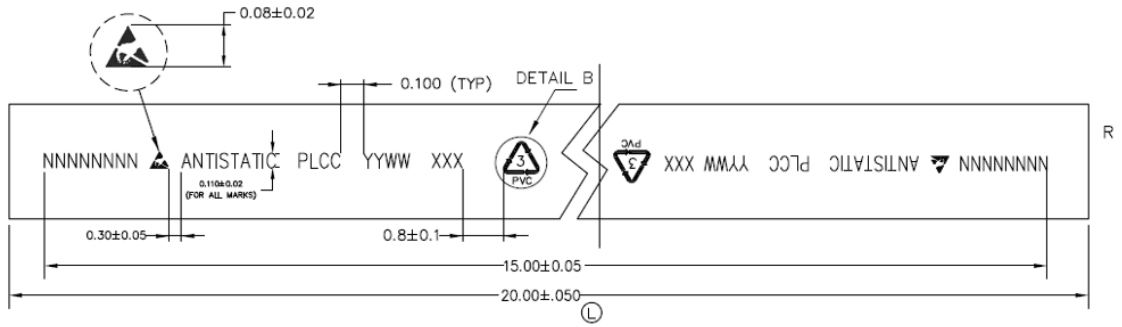
CCB 7196.021
Pre and Post Change Summary
PCN #: MAAN-25HPSB183

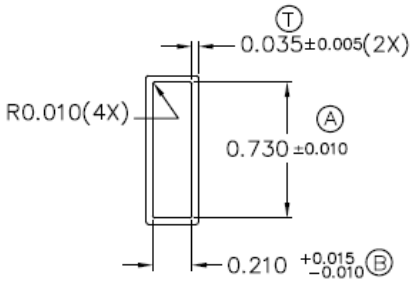
A Leading Provider of Smart, Connected and Secure Embedded Control Solutions



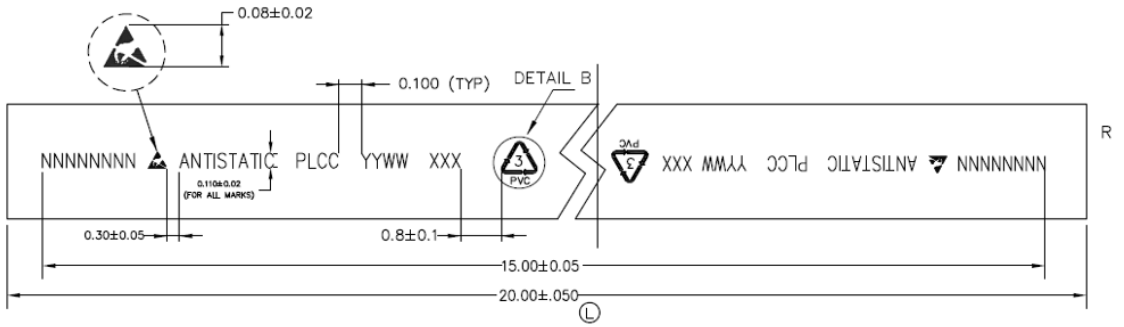
Pre and Post Change Summary - TUBE

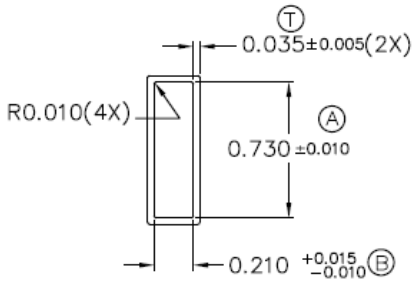
MPHL





MTAI





Location	Tube Length (inch)	Dimension	Unit per Tube	Tube per Bag	Tube Color
MPHL	20.00 +/- 0.050	See on drawing	27	20	Transparent Clear
MTAI	20.00 +/- 0.050	See on drawing	27	20	Transparent Clear

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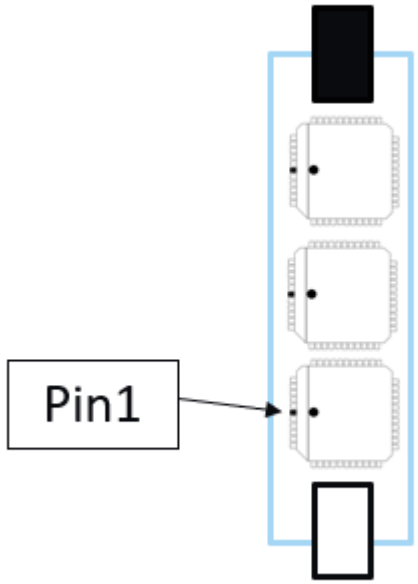
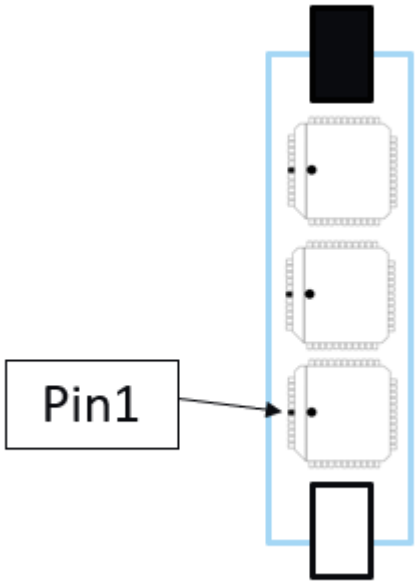
Pre and Post Change Summary - TUBE

MPHL



Media	Pin1 Side Color	Opposite Side Color
Plug	White	Black

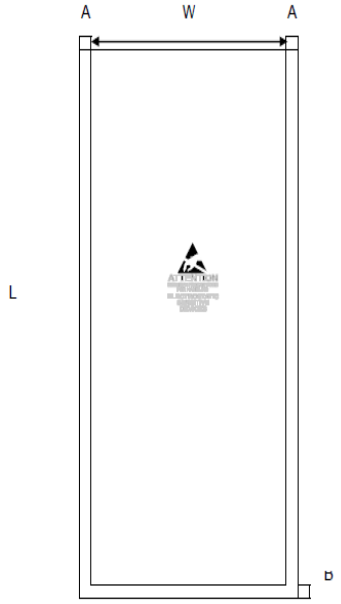
MTAI



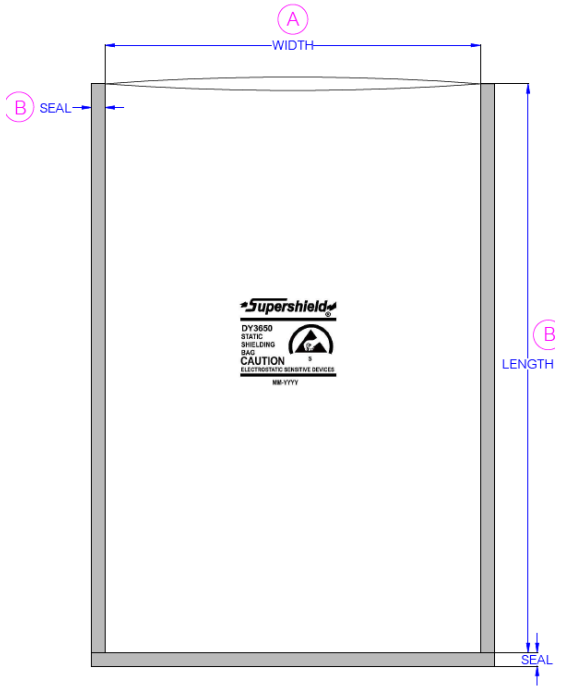
Media	Pin1 Side Color	Opposite Side Color
Plug	White	Black

Pre and Post Change Summary - TUBE (Bag)

MPHL



MTAI



Plant	Bag type	Length (mm)	Width (mm)	Thickness (mm)
MPHL	Static Shielding Bag (Gray)	762 +/- 5	228 +/- 5	0.08 +/-0.01
MTAI	Static Shielding Bag	650+5/-0	160 +5/-0	0.0762

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Pre and Post Change Summary - TUBE (Packing Method Non-Dry Pack)

MPHL

(No inner box)

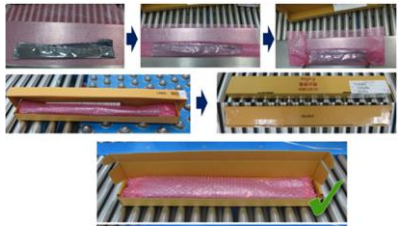
MTAI

MSL-1 (No inner box)

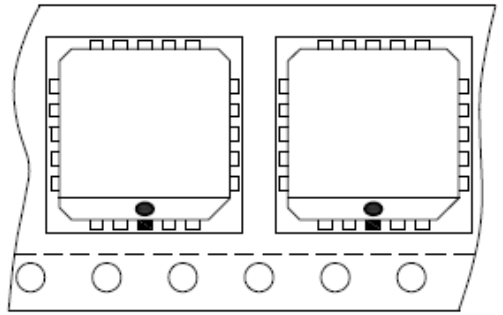
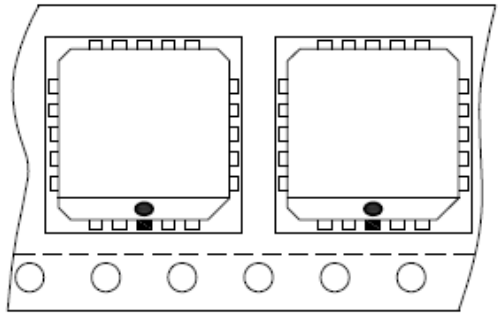
Carton for product in tubes media (MSL-1)

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

Example:



Pre and Post Change Summary – Tape and Reel

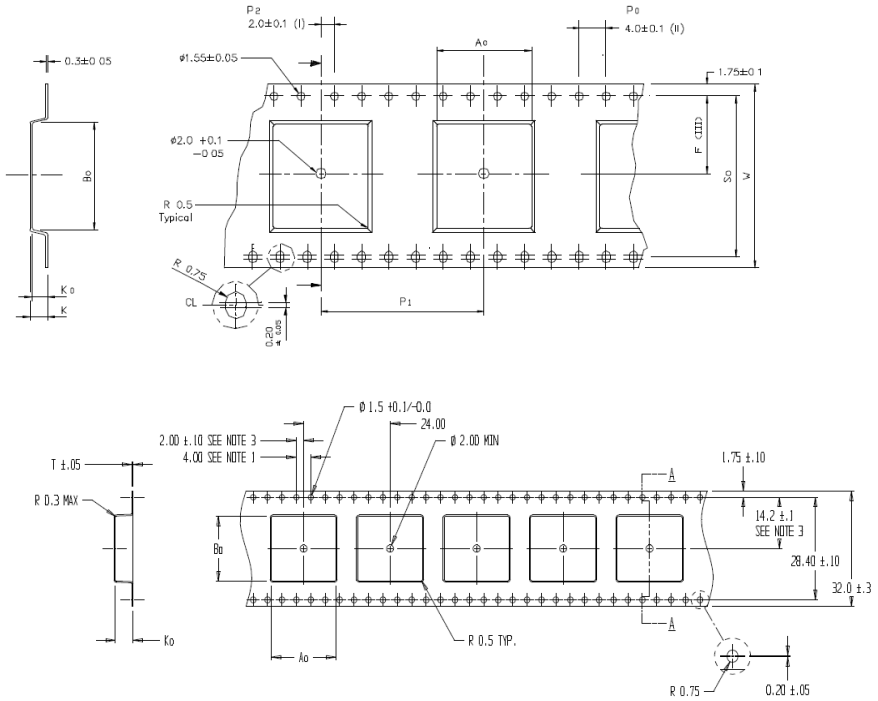
MPHL	MTAI
 Quadrant 1-2	 Quadrant 1-2

Pre and Post Change Summary – BQM – Tape and Reel

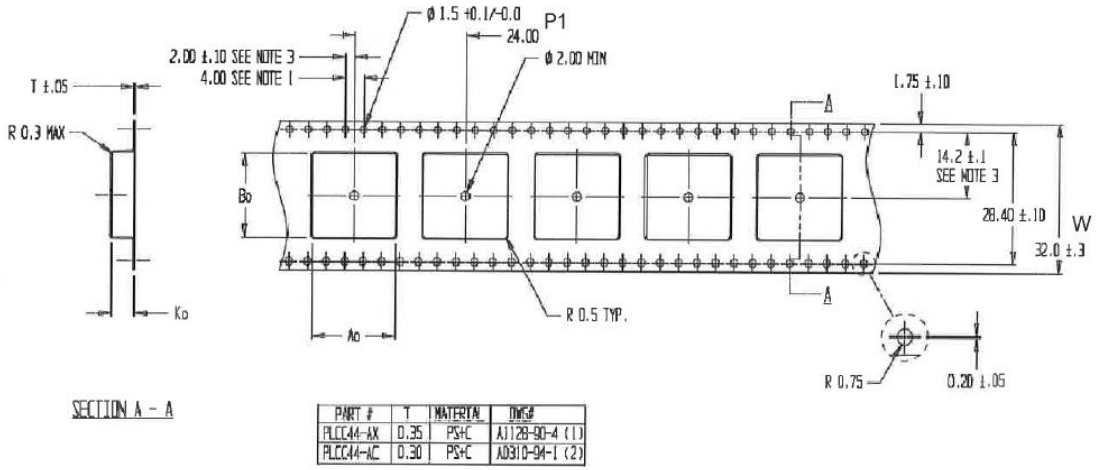
MPHL	MTAI
Units per reel: 500 1 reel per bag	Units per reel: 500 1 reel per bag

Pre and Post Change Summary - Carrier Tape

MPHL



MTAI



SECTION A - A

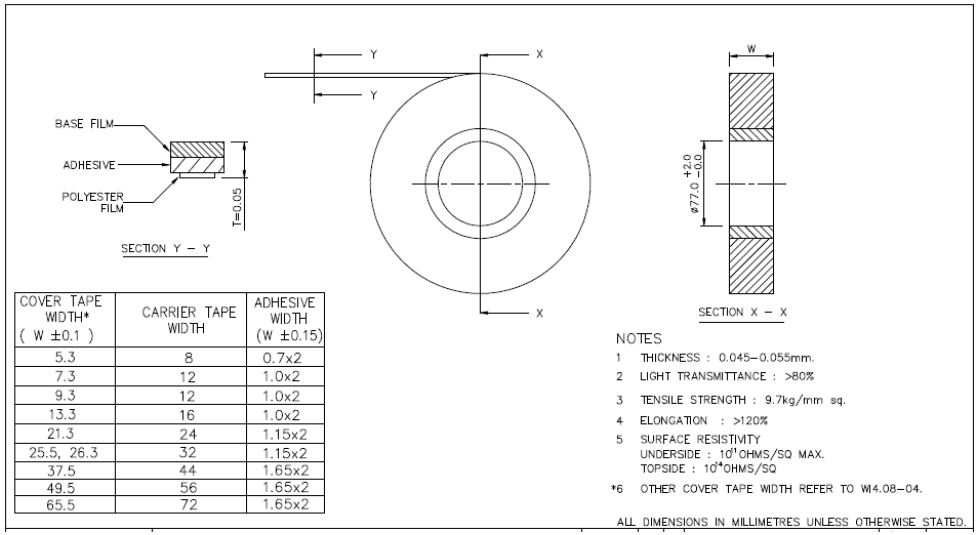
PART #	T	MATERIAL	DWG#
PLCC44-AX	0.35	PS+C	A1128-80-4 (1)
PLCC44-AC	0.30	PS+C	A0310-94-1 (2)

Location	W (mm)	P (mm)	A0 (mm)	B0 (mm)	K0 (mm)	Thickness (mm)
MPHL	32.00 ±0.30	24.00 ±0.10	18.00 ±0.10	18.00 ±0.10	4.90 ±0.10	0.30 ±0.50
MTAI	32.00 ±0.30	24.00 ±0.10	18.00 ±0.10	18.00 ±0.10	4.90 ±0.10	0.30 ±0.50

MICROCHIP

Pre and Post Change Summary – Cover Tape

MPHL

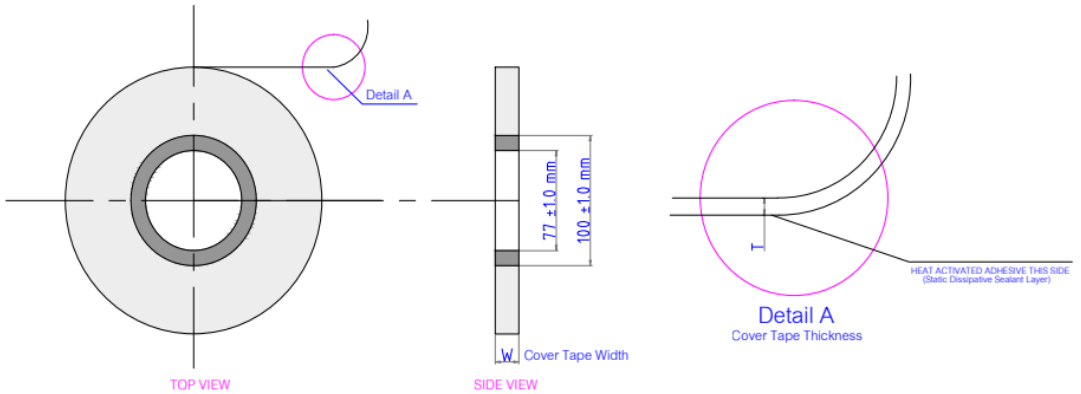


COVER TAPE WIDTH* (W ±0.1)	CARRIER TAPE WIDTH	ADHESIVE WIDTH (W ±0.15)
5.3	8	0.7x2
7.3	12	1.0x2
9.3	12	1.0x2
13.3	16	1.0x2
21.3	24	1.15x2
25.5, 26.3	32	1.15x2
37.5	44	1.65x2
49.5	56	1.65x2
65.5	72	1.65x2

NOTES
1 THICKNESS : 0.045–0.055mm.
2 LIGHT TRANSMITTANCE : >80%
3 TENSILE STRENGTH : 9.7kg/mm sq.
4 ELONGATION : >120%
5 SURFACE RESISTIVITY
UNDERSIDE : 10^{7}OHMS/SQ MAX.
TOPSIDE : 10^{4}OHMS/SQ
*6 OTHER COVER TAPE WIDTH REFER TO W14.08–04.

ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED.

MTAI

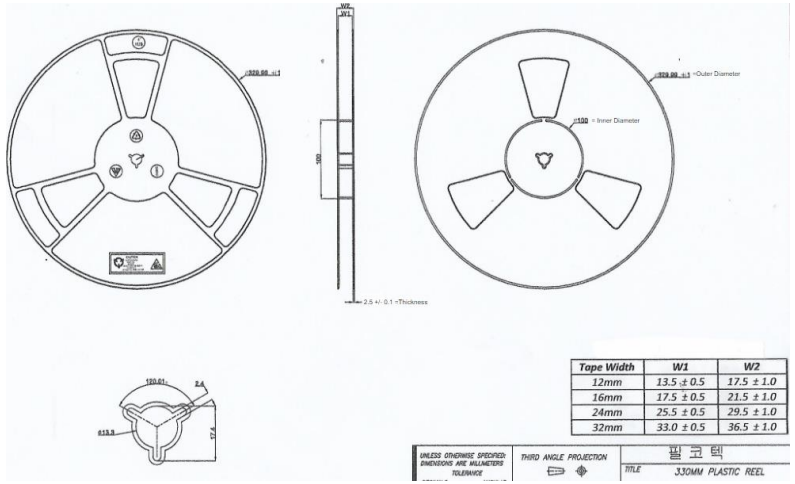


Location	Width W (mm.)	Thickness T (mm.)	Color	Sealing Methodology
MPHL	25.5 ±0.1	0.050 ±0.005	Clear	Pressure Adhesive Sealing
MTAI	25.5 ±0.1	0.050 ±0.010	Clear	Heat sealing

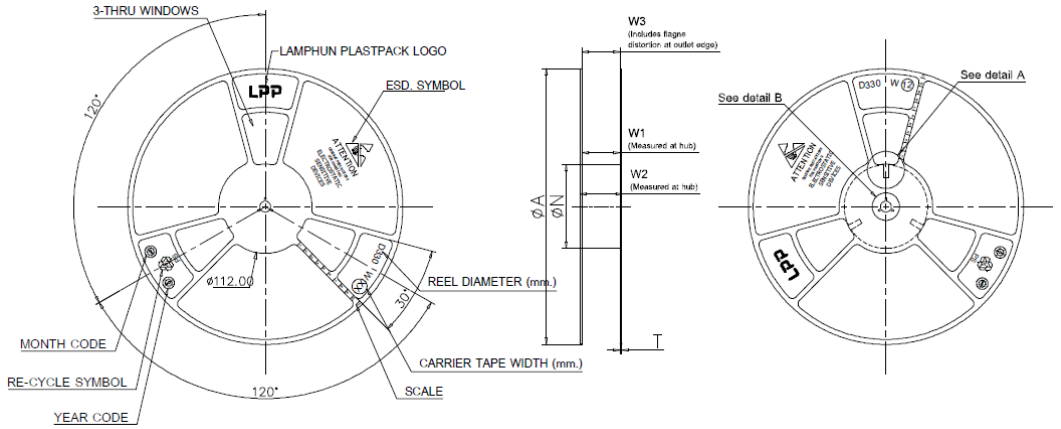
MICROCHIP

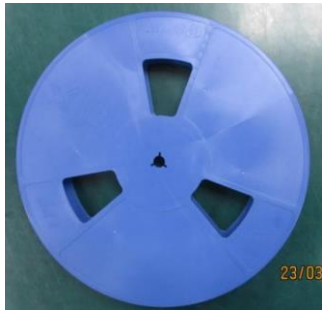
Pre and Post Change Summary – Plastic Reel

MPHL



MTAI





Location	Reel Diameter (mm.)	Reel Hub Size (mm)	Reel Width Max (mm.)	Color
MPHL	330 ±1.0	100 ±1.0	37.50	White
MTAI	330 ±2.0	100 ±2.0	38.40	Dark Blue

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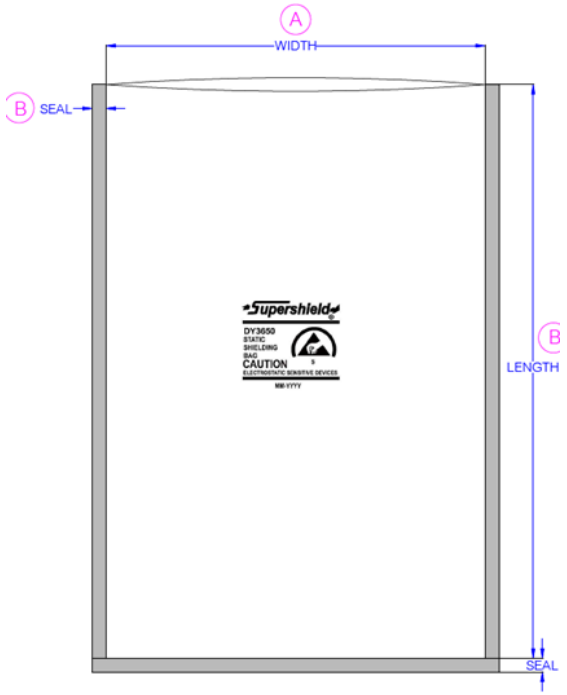
Pre and Post Change Summary – Bag

MPHL

MTAI



Location	Bag type	Length (mm)	Width (mm)	Thickness (mm)
MPHL	Static Shielding Bag (Gray)	406 +/-5	356+/-5	0.08 +/-0.01
MTAI	Static Shielding Bag	420 +5/-0	370 +5/-0	0.0762

Pre and Post Change Summary – Packing Method Non-Dry Pack

MPHL

MSL-1 (No inner box)

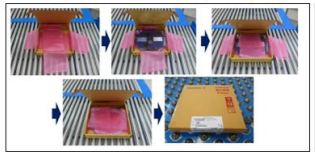
MTAI

MSL-1 (No inner box)

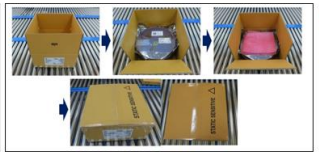
Carton for product in T/R media (MSL-1)

Carton	Dimension W x L x H (cm)	Number of reel per carton
M01-011 (TT)	36.5x38x39.5	8
M01-013 (B2)	35.5x35.5x4	1
M01-014 (B3)	35.5x35.5x6	1
M01-015 (B8)	35.5x35.5x16.5	4

Example: Packing for tape and reel in carton box B2/ B3.(Sample)



Packing for tape and reel in carton box B8.(Sample)



Packing for tape and reel in carton box TT

QUALIFICATION REPORT SUMMARY

RELIABILITY LABORATORY

PCN #: MAAN-25HPSB183

Date:
April 01, 2025

Qualification of MTAI as a new final test site for selected AT89C51IC2, AT89C51RB2, AT89C51RC2, AT89C51ED2, AT89C51ID2, AT89C51RD2, AT89C51AC3, AT89C51CC03, AT89C51AC2, AT89C51CC01 and AT80C51RD2 device families available in 44L PLCC (16.6x16.6x4.4mm) package.

Purpose: Qualification of MTAI as a new final test site for selected AT89C51IC2, AT89C51RB2, AT89C51RC2, AT89C51ED2, AT89C51ID2, AT89C51RD2, AT89C51AC3, AT89C51CC03, AT89C51AC2, AT89C51CC01 and AT80C51RD2 device families available in 44L PLCC (16.6x16.6x4.4mm) package.

CCB No.: 7196.021

Test / Evaluation	Test Condition / Parameters	Sample Size	Qty of Lots	Fail/Accept Criteria	Result
Bin and Yield Comparison	• Test the same units at existing and destination locations and compare Bin and Yield data.	3000	1	≤0.1%	Passed
Parametric / Characterization Comparison	• Characterize the same units at existing and destination locations and compare data.	33	1	≤10%	Passed
Correlation Lot Report	• Accept on yield match within 0.1%	33	1	≤0.1%	Passed