



Product Change Notification / CADA-30MRZM669

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**Date:**

03-Jun-2022

**Product Category:**

8-bit Microcontrollers

**PCN Type:**

Manufacturing Change

**Notification Subject:**

CCB 5132 Final Notice: Qualification of MTAI as an additional Scan/Pack process site and implement packing changes for selected ATTINY804, ATTINY814, ATTINY1604 and ATTINY1614 device families available in 14L SOIC (0.150in) package

**Affected CPNs:**

[CADA-30MRZM669\\_Affected\\_CPN\\_06032022.pdf](#)

[CADA-30MRZM669\\_Affected\\_CPN\\_06032022.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 Scan/Pack process site and implement packing changes for selected ATTINY804, ATTINY814, ATTINY1604 and ATTINY1614 device families available in 14L SOIC (0.150in) package.

**Pre and Post Change Summary:**

	Pre Change	Post Change
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<b>Scan/Pack Site</b>		Microchip Technology Operations (Philippines) Corporation (MPHL)	Microchip Technology Operations (Philippines) Corporation (MPHL)	Microchip Technology Thailand (HQ) (MTAI)
<b>Base Quantity Multiple (BQM)</b>	<b>Tape and Reel</b>	3000	3000	3000
	<b>Tube</b>	57	57	57
<b>Pin 1 Orientation</b>	<b>Tape and Reel</b>	See Pre and Post Change comparison.		
	<b>Tube</b>	See Pre and Post Change comparison.		
<b>Carrier tape</b>		No dimensional changes. See Pre and Post Change comparison.		
<b>Cover Tape</b>	<b>Dimensions</b>	With minor dimensional changes. See Pre and Post Change comparison.		
<b>Carrier Reel</b>	<b>Color</b>	White	White	Dark Blue
	<b>Dimensions</b>	No dimensional changes. See Pre and Post Change comparison.		
<b>Tape and Reel Packing Method</b>		See Pre and Post Change comparison.		
<b>Tube</b>	<b>Dimensions</b>	No dimensional changes. See Pre and Post Change comparison.		
	<b>Color</b>	Clear	Clear	Clear
<b>Tube Packing Method</b>		See Pre and Post Change comparison.		
<b>Carton Box</b>		See Pre and Post Change comparison.		
<b>Desiccant</b>		1-unit	1-unit	None

**Impacts to Data Sheet:**None

**Change Impact:**None

**Reason for Change:**To improve on-time delivery performance by qualifying MTAI as an additional Scan/Pack process site.

**Change Implementation Status:**In Progress

**Estimated First Ship Date:**June 15, 2022 (date code: 2225)

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

**Time Table Summary:**

	June 2022				
Workweek	23	24	25	26	27
Final PCN Issue Date	x				
Estimated Implementation Date			x		

**Method to Identify Change:**Traceability code

**Qualification Report:**Not applicable

**Revision History:**June 3, 2022: 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\\_CADA-30MRZM669\\_Pre and Post Change Summary.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)

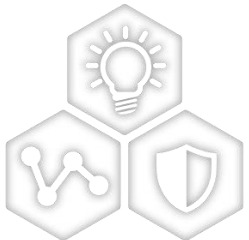
ATTINY1604-SSF  
ATTINY804-SSF  
ATTINY1604-SSN  
ATTINY804-SSN  
ATTINY804-SSNR  
ATTINY1604-SSNR  
ATTINY804-SSFR  
ATTINY1604-SSFR  
ATTINY1614-SSF  
ATTINY1614-SSZ-VAO  
ATTINY1614-SSN  
ATTINY1614-SSB-VAO  
ATTINY1614-SSNR  
ATTINY1614-SSBT-VAO  
ATTINY1614-SSFR  
ATTINY1614-SSZT-VAO  
ATTINY814-SSZ-VAO  
ATTINY814-SSB-VAO  
ATTINY814-SSNR  
ATTINY814-SSNRA1  
ATTINY814-SSBT-VAO  
ATTINY814-SSFR  
ATTINY814-SSZT-VAO

**CCB 5132**  
**Pre and Post Change Summary**  
**PCN #: CADA-30MRZM669**



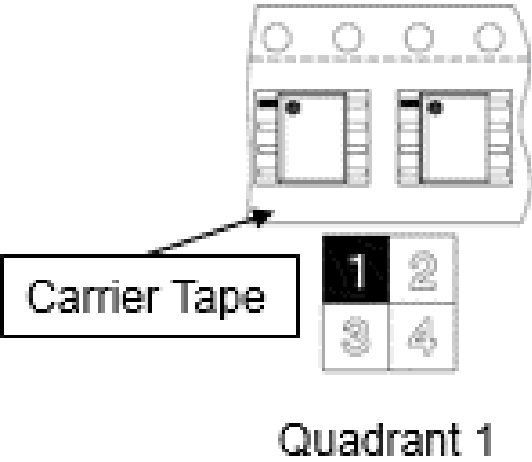
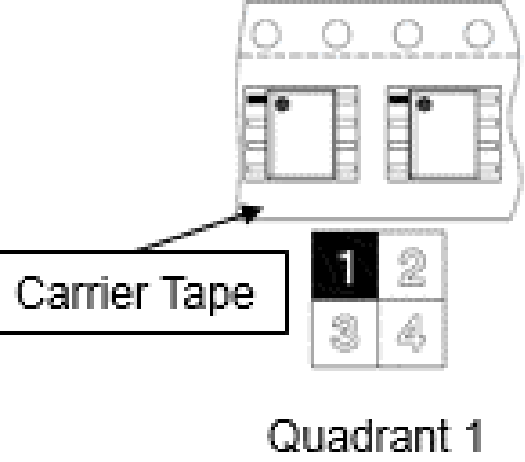
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# Tape and Reel – MSL-1

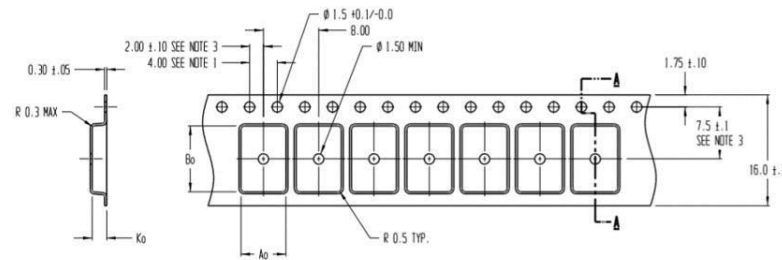
	MPHL	MTAI
Base Quantity Multiple (BQM)	3000	3000
Pin 1 orientation	 <p>Carrier Tape</p> <p>1 2 3 4</p> <p>Quadrant 1</p>	 <p>Carrier Tape</p> <p>1 2 3 4</p> <p>Quadrant 1</p>

# Carrier Tape

## MPHL

## MTAI

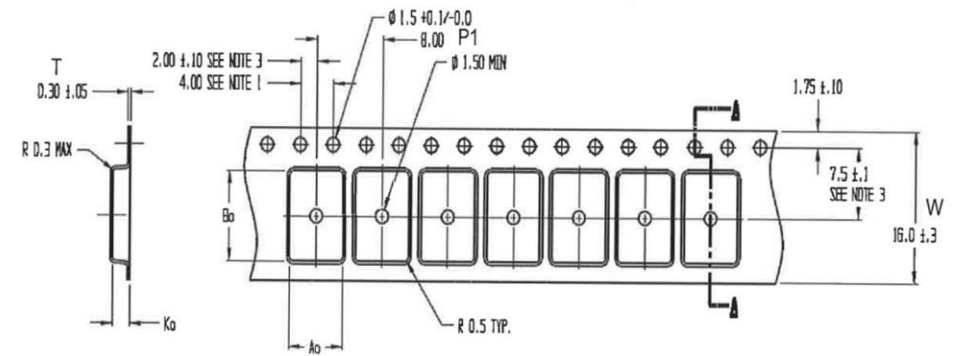
### Drawing and Dimension



SECTION A - A

$A_0 = 6.50$   
 $B_0 = 9.50$   
 $K_0 = 2.10$

- NOTES:  
 1. 10 SPROCKET HOLE PITCH CUMULATIVE TOLERANCE  $\pm 0.2$   
 2. CAMBER IN COMPLIANCE WITH EIA 481  
 3. POCKET POSITION RELATIVE TO SPROCKET HOLE MEASURED AS TRUE POSITION OF POCKET, NOT POCKET HOLE



# Cover Tape

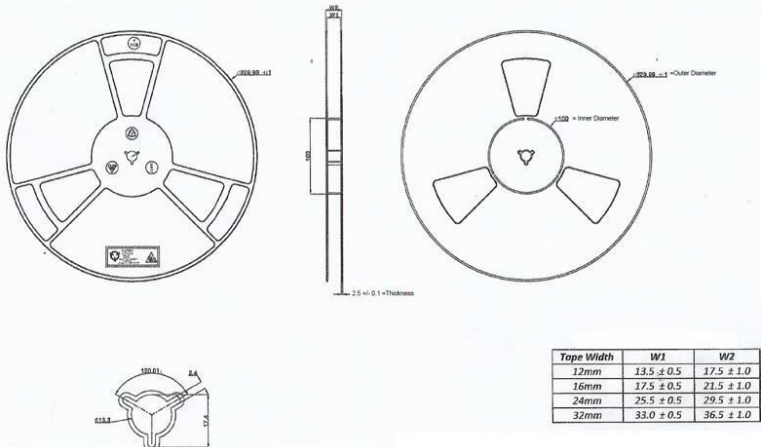
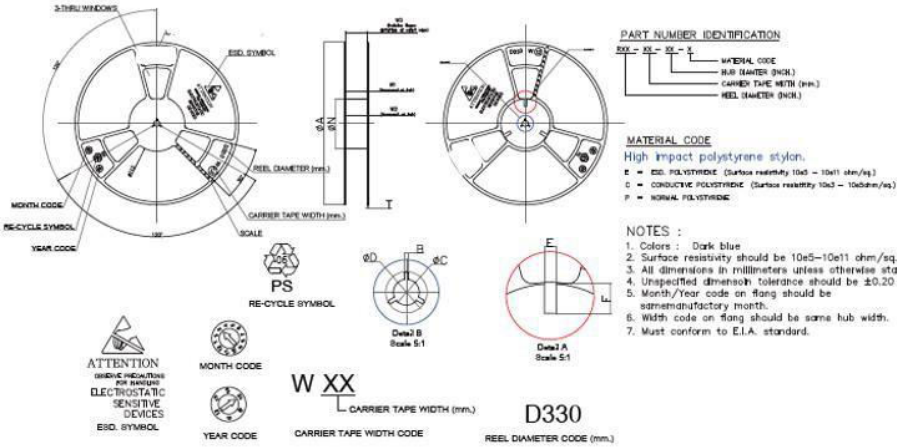
## Drawing and Dimension

MPHL																																
<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th>COVER TAPE WIDTH* (W ±0.1)</th> <th>CARRIER TAPE WIDTH</th> <th>ADHESIVE WIDTH (W ±0.15)</th> </tr> </thead> <tbody> <tr><td>5.3</td><td>8</td><td>0.7x2</td></tr> <tr><td>7.3</td><td>12</td><td>1.0x2</td></tr> <tr><td>9.3</td><td>12</td><td>1.0x2</td></tr> <tr><td>13.3</td><td>16</td><td>1.0x2</td></tr> <tr><td>21.3</td><td>24</td><td>1.15x2</td></tr> <tr><td>25.5, 26.3</td><td>32</td><td>1.15x2</td></tr> <tr><td>37.5</td><td>44</td><td>1.65x2</td></tr> <tr><td>49.5</td><td>56</td><td>1.65x2</td></tr> <tr><td>65.5</td><td>72</td><td>1.65x2</td></tr> </tbody> </table>	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	<p>NOTES</p> <ol style="list-style-type: none"> <li>THICKNESS : 0.045-0.055mm.</li> <li>LIGHT TRANSMITTANCE : &gt;80%</li> <li>TENSILE STRENGTH : 9.7kg/mm sq.</li> <li>ELONGATION : &gt;120%</li> <li>SURFACE RESISTIVITY            UNDERSIDE : 10<sup>9</sup> OHMS/SQ MAX.            TOPSIDE : 10<sup>10</sup> OHMS/SQ</li> </ol> <p>*6 OTHER COVER TAPE WIDTH REFER TO W4.08-04.</p> <p>ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED.</p>	
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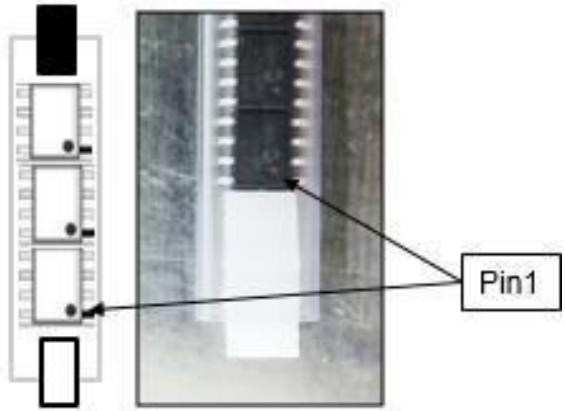
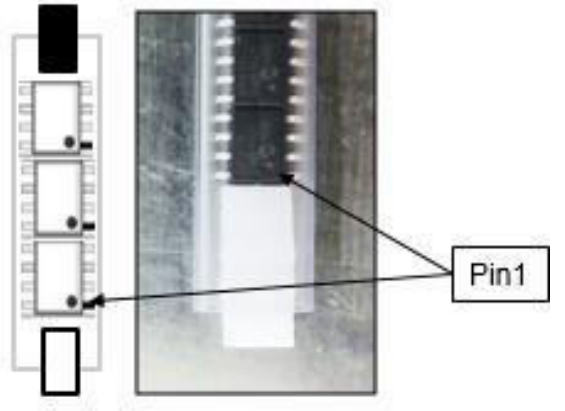
MTAI					
<p><b>STRUCTURE</b></p>					
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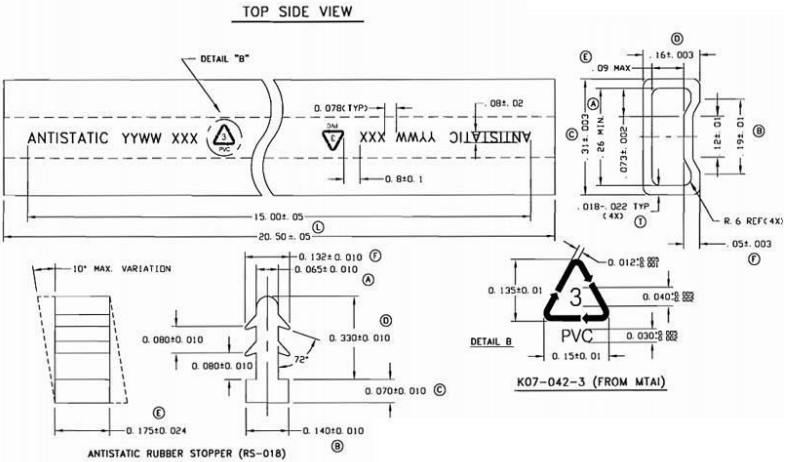

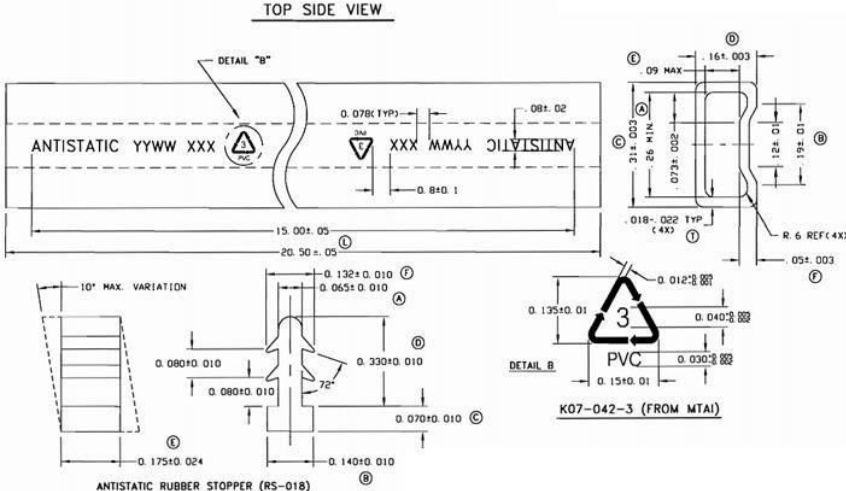

# Carrier Reel

	MPHL	MTAI																																																																																																			
Color	White	Dark Blue																																																																																																			
Drawing and Dimensions	 <table border="1" data-bbox="1217 821 1426 896"> <thead> <tr> <th>Tape Width</th> <th>W1</th> <th>W2</th> </tr> </thead> <tbody> <tr> <td>12mm</td> <td>13.5 ± 0.5</td> <td>17.5 ± 1.0</td> </tr> <tr> <td>16mm</td> <td>17.5 ± 0.5</td> <td>21.5 ± 1.0</td> </tr> <tr> <td>24mm</td> <td>25.5 ± 0.5</td> <td>29.5 ± 1.0</td> </tr> <tr> <td>32mm</td> <td>33.0 ± 0.5</td> <td>36.5 ± 1.0</td> </tr> </tbody> </table>	Tape Width	W1	W2	12mm	13.5 ± 0.5	17.5 ± 1.0	16mm	17.5 ± 0.5	21.5 ± 1.0	24mm	25.5 ± 0.5	29.5 ± 1.0	32mm	33.0 ± 0.5	36.5 ± 1.0	 <table border="1" data-bbox="1630 928 2254 1035"> <thead> <tr> <th>PART NO.</th> <th>MCP P/N</th> <th>CARRIER TAPE WIDTH</th> <th>ØH (H)</th> <th>Ø (H)</th> <th>ØC (H)</th> <th>ØD (H)</th> <th>E (H)</th> <th>F (H)</th> <th>ØF (H)</th> <th>T (ØD) (H)</th> <th>W1 (H)</th> <th>W2 (H)</th> <th>W3</th> </tr> </thead> <tbody> <tr> <td>R13-12-04-E</td> <td>22000028</td> <td>12</td> <td>330</td> <td>1.90</td> <td>19.00</td> <td>20.20</td> <td>2.90</td> <td>10</td> <td>100</td> <td>2.90</td> <td>12.40</td> <td>16.40</td> <td>Shell</td> </tr> <tr> <td>R13-16-04-E</td> <td>22000028</td> <td>16</td> <td>330</td> <td>1.90</td> <td>19.00</td> <td>20.20</td> <td>2.90</td> <td>10</td> <td>100</td> <td>2.90</td> <td>16.40</td> <td>22.40</td> <td>Accommodate</td> </tr> <tr> <td>R13-24-04-E</td> <td>22000034</td> <td>24</td> <td>330</td> <td>1.90</td> <td>19.00</td> <td>20.20</td> <td>2.90</td> <td>10</td> <td>100</td> <td>2.90</td> <td>24.40</td> <td>30.40</td> <td>Tape Width</td> </tr> <tr> <td>R13-32-04-E</td> <td>22000032</td> <td>32</td> <td>330</td> <td>1.90</td> <td>19.00</td> <td>20.20</td> <td>3.00</td> <td>10</td> <td>100</td> <td>2.90</td> <td>32.40</td> <td>38.40</td> <td>Without</td> </tr> <tr> <td>R13-44-04-E</td> <td>22000022</td> <td>44</td> <td>330</td> <td>1.90</td> <td>19.00</td> <td>20.20</td> <td>3.00</td> <td>10</td> <td>100</td> <td>2.90</td> <td>44.40</td> <td>50.40</td> <td>Interference</td> </tr> </tbody> </table>	PART NO.	MCP P/N	CARRIER TAPE WIDTH	ØH (H)	Ø (H)	ØC (H)	ØD (H)	E (H)	F (H)	ØF (H)	T (ØD) (H)	W1 (H)	W2 (H)	W3	R13-12-04-E	22000028	12	330	1.90	19.00	20.20	2.90	10	100	2.90	12.40	16.40	Shell	R13-16-04-E	22000028	16	330	1.90	19.00	20.20	2.90	10	100	2.90	16.40	22.40	Accommodate	R13-24-04-E	22000034	24	330	1.90	19.00	20.20	2.90	10	100	2.90	24.40	30.40	Tape Width	R13-32-04-E	22000032	32	330	1.90	19.00	20.20	3.00	10	100	2.90	32.40	38.40	Without	R13-44-04-E	22000022	44	330	1.90	19.00	20.20	3.00	10	100	2.90	44.40	50.40	Interference
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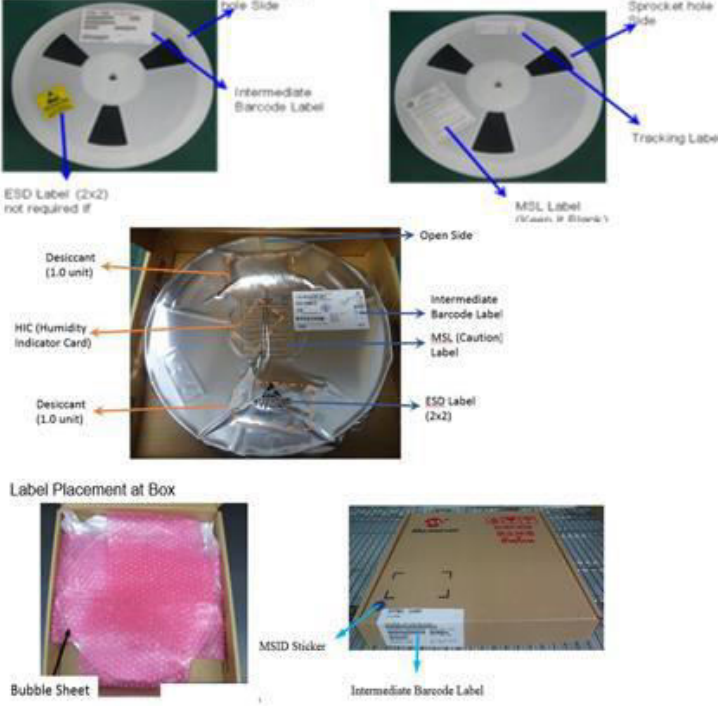
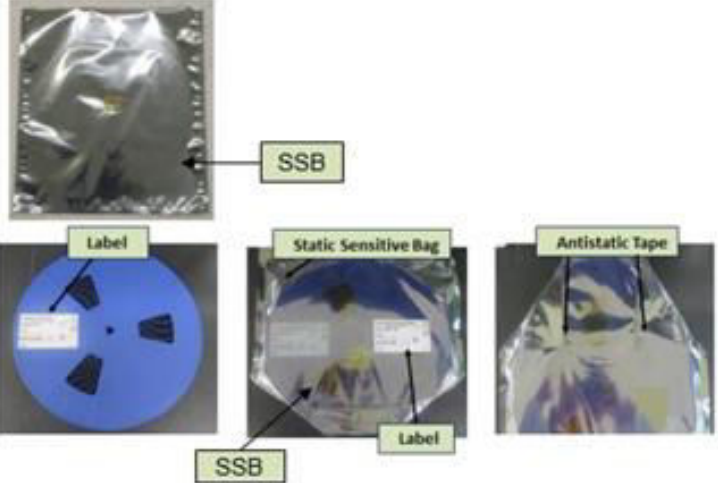
# Tube- MSL-1

	MPHL	MTAI												
<b>Base Quantity Multiple (BQM)</b>	57	57												
<b>Pin 1 orientation</b>	 <p>The diagram shows a side view of the MPHL package with a white label and a black label. A callout box labeled 'Pin1' points to the first pin on the left side of the package. Below the diagram is a table:</p> <table border="1"> <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	 <p>The diagram shows a side view of the MTAI package with a white label and a black label. A callout box labeled 'Pin1' points to the first pin on the left side of the package. Below the diagram is a table:</p> <table border="1"> <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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TUBE	White	Black												
Media	Pin1 Side	Opposite Side												
TUBE	White	Black												



# Tube

	MPHL	MTAI
Color	Clear	Clear
Drawing and Dimensions	 <p>1.  (Recycle Symbol) Refers to MS-16220</p> <p>2. Tube to be coated (inside and outside) with anti-static agent (MS-15094) and the surface resistivity <math>\geq 1 \times 10^{10} \Omega</math> and <math>&lt; 1 \times 10^{11} \Omega</math> shall be between surface resistance <math>\geq 1 \times 10^{10} \Omega</math> and <math>&lt; 1 \times 10^{11} \Omega</math>.</p> <div data-bbox="930 1071 1141 1196" style="border: 1px solid black; padding: 5px; text-align: center;"> <p style="background-color: #0056b3; color: white; padding: 2px;">Length</p> <p>20.50 +/-0.05 inch</p> </div>	 <p>1.  (Recycle Symbol) Refers to MS-16220</p> <p>2. Tube to be coated (inside and outside) with anti-static agent (MS-15094) and the surface resistivity <math>\geq 1 \times 10^{10} \Omega</math> and <math>&lt; 1 \times 10^{11} \Omega</math> shall be between surface resistance <math>\geq 1 \times 10^{10} \Omega</math> and <math>&lt; 1 \times 10^{11} \Omega</math>.</p> <div data-bbox="1885 1071 2097 1196" style="border: 1px solid black; padding: 5px; text-align: center;"> <p style="background-color: #0056b3; color: white; padding: 2px;">Length</p> <p>20.50 +/-0.05 inch</p> </div>

# Tape & Reel - Packing Material/Method

	MPHL	MTAI
<p><b>Procedure</b></p>	 <p>The MPHL packing procedure includes the following steps and components:</p> <ul style="list-style-type: none"> <li><b>Reel Labeling:</b> Two views of a reel are shown. The left view shows an <b>ESD Label (2x2)</b> and an <b>Intermediate Barcode Label</b>. The right view shows an <b>MSL Label (Caution, if Blank)</b> and a <b>Tracking Label</b>.</li> <li><b>Open Side:</b> A diagram shows the reel inside a clear plastic bag with labels: <b>Desiccant (1.0 unit)</b>, <b>HIC (Humidity Indicator Card)</b>, <b>Intermediate Barcode Label</b>, <b>MSL (Caution) Label</b>, and <b>ESD Label (2x2)</b>.</li> <li><b>Label Placement at Box:</b> Two diagrams show the final box packing. The left shows a <b>Bubble Sheet</b> inside the box. The right shows the <b>MSID Sticker</b> and <b>Intermediate Barcode Label</b> on the box.</li> </ul>	 <p>The MTAI packing procedure includes the following steps and components:</p> <ul style="list-style-type: none"> <li><b>SSB:</b> A <b>Static Sensitive Bag</b> (SSB) containing the reel.</li> <li><b>Label:</b> A <b>Label</b> is placed on the SSB.</li> <li><b>Static Sensitive Bag:</b> The SSB is placed inside a larger <b>Static Sensitive Bag</b>.</li> <li><b>Label:</b> A <b>Label</b> is placed on the outer SSB.</li> <li><b>Antistatic Tape:</b> <b>Antistatic Tape</b> is used to secure the SSB.</li> </ul>

# Tube - Packing Material/Method

	MPHL	MTAI
<p>Procedure</p>	 <p>The diagram illustrates the MPHL packing procedure. It shows a vertical view of a tube with labels for 'Desiccant (1.0 unit)', 'HIC (Humidity Indicator Card)', 'Open Side', 'Intermediate Barcode Label', 'MSL (Caution) Label', and 'ESD Label (2x2)'. Below this, a photograph shows a pink bubble sheet being placed into a box, labeled 'Bubble Sheet'. To the right, a photograph of a cardboard box is shown with labels for 'Open Side of Box', 'MSD Sticker', and 'Intermediate Label'.</p>	 <p>The diagram illustrates the MTAI packing procedure. It shows three images: a top view of a tube labeled 'SSB', a side view of a tube, and a close-up of a tube with 'ANTI-STATIC TAPE' applied to the top.</p>

# Tape and Reel – Carton Box

## MPHL



Length	Width	Height
375 mm	352 mm	53 mm

## MTAI



Carton	Dimension W x L x H (cm)	Total Reel per Box
M01-011 (TT)	36.5x38x39.5	14
M01-013 (B2)	35.5x35.5x4	1
M01-014 (B3)	35.5x35.5x6	2
M01-015 (B8)	35.5x35.5x16.5	6

# Tube – Carton Box

**MPHL**



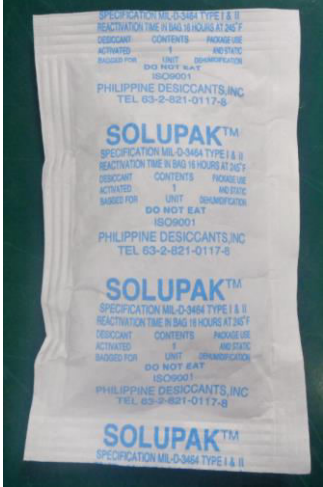
Length	Width	Height
560 mm	130 mm	78 mm

**MTAI**



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

# Desiccant

MPHL	MTAI
<p>1-unit desiccant</p>  <p>The image shows three identical white desiccant packets stacked vertically. Each packet is labeled 'SOLUPAK™' and 'SPECIFICATION MIL-D-3464 TYPE I &amp; II'. It also includes the text 'REACTIVATION TIME IN BAG 18 HOURS AT 26°C', 'DESICCANT CONTENTS 1 PACKAGE USE', 'ACTIVATED 1 METRIC', 'BAGGED FOR UNIT 30MMSPICATOR', 'DO NOT EAT', 'ISO9001', and 'PHILIPPINE DESICCANTS, INC TEL 63-2-821-0117-8'.</p>	<p>N/A</p>