



Product Change Notification / NTDO-06UCYA969

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**Date:**

09-Dec-2021

**Product Category:**

8-bit Microcontrollers

**PCN Type:**

Manufacturing Change

**Notification Subject:**

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

**Affected CPNs:**

[NTDO-06UCYA969\\_Affected\\_CPN\\_12092021.pdf](#)  
[NTDO-06UCYA969\\_Affected\\_CPN\\_12092021.csv](#)

**Notification Text:**

**PCN Status:**Initial 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 additional final test site for selected Atmel ATTINY212, ATTINY402 and ATTINY412 families available in 8L SOIC (.150in) package.

**Pre and Post Change Summary:**

	Pre Change	Post Change

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		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
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 additional final test site.

**Change Implementation Status:**In Progress

**Estimated Qualification Completion Date:**January 2022

Note: Please be advised the qualification completion times may be extended because of unforeseen business conditions however implementation will not occur until after qualification has completed and a final PCN has been issued. The final PCN will include the qualification report and estimated first ship date. Also note that after the estimated first ship date guided in the final PCN customers may receive pre and post change parts.

**Time Table Summary:**

	December 2021					January 2022			
Workweek	4	5	5	5	5	1	2	3	4
	9	0	1	2	3				

Initial PCN Issue Date		x							
Qual Report Availability								x	
Final PCN Issue Date								x	

**Method to Identify Change:**Traceability code

**Qualification Plan:**Please open the attachments included with this PCN labeled as PCN\_#\_Qual\_Plan.

**Revision History:**December 9, 2021: Issued initial 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\\_NTDO-06UCYA969\\_Qual\\_Plan.pdf](#)
- [PCN\\_NTDO-06UCYA969\\_Pre and Post Change Summary.pdf](#)

Please contact your local [Microchip sales office](#) with questions or concerns regarding this notification.

**Terms and Conditions:**

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**



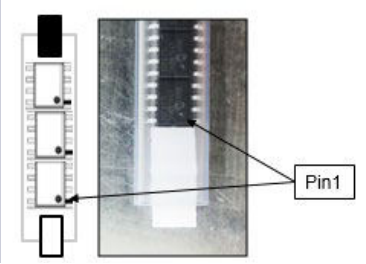
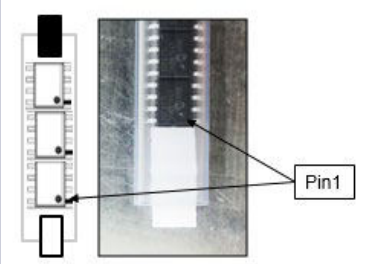
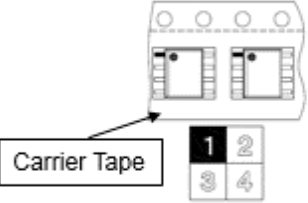
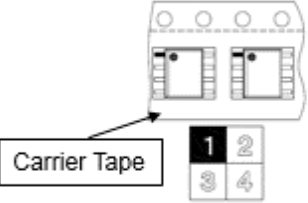
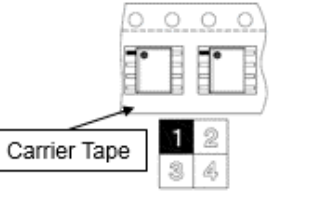
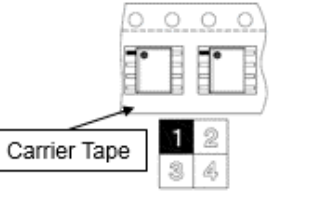
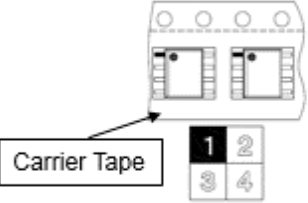
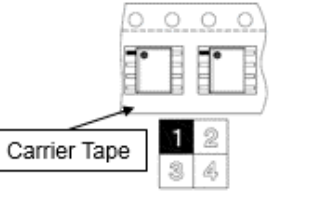
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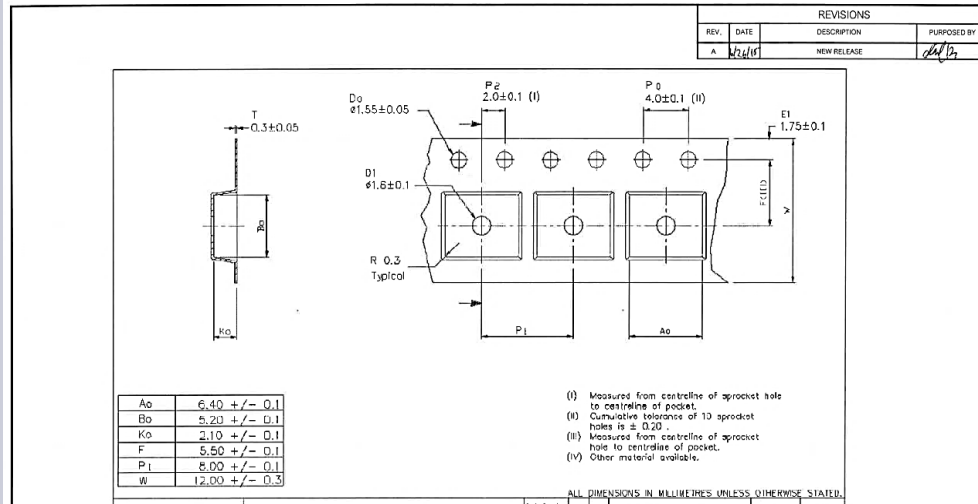
# Pre and Post Change Summary

		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

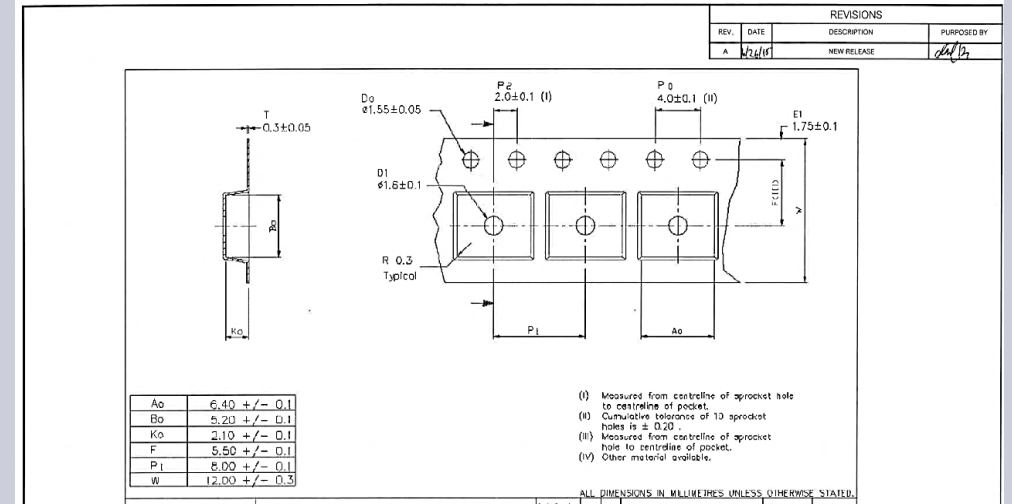
Carrier tape

## 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



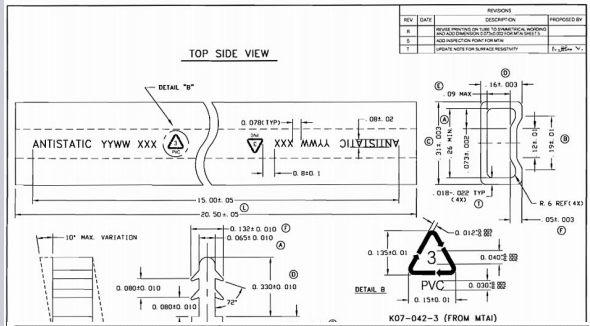
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# Pre and Post Change Summary

## MPHL MTAI

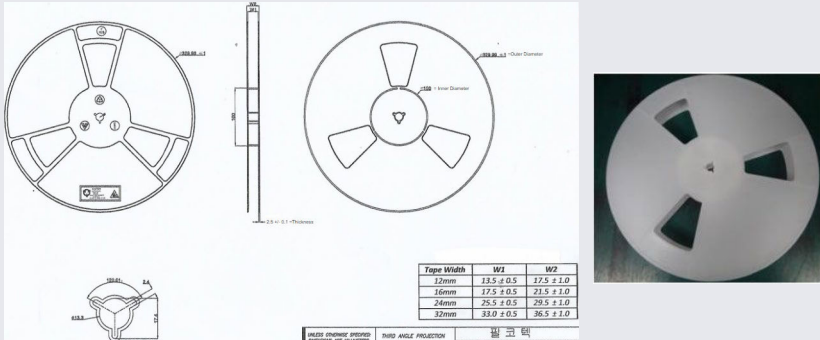
Tube

As received from Assembly

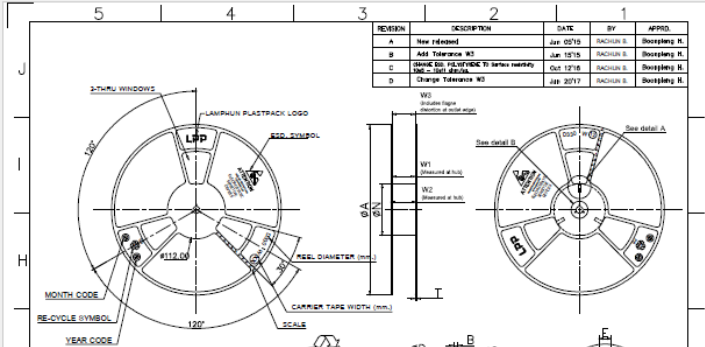


Length	Dimension	Color
20.50 +/-0.05 inch	See on drawing	Clear

Tape and Reel



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

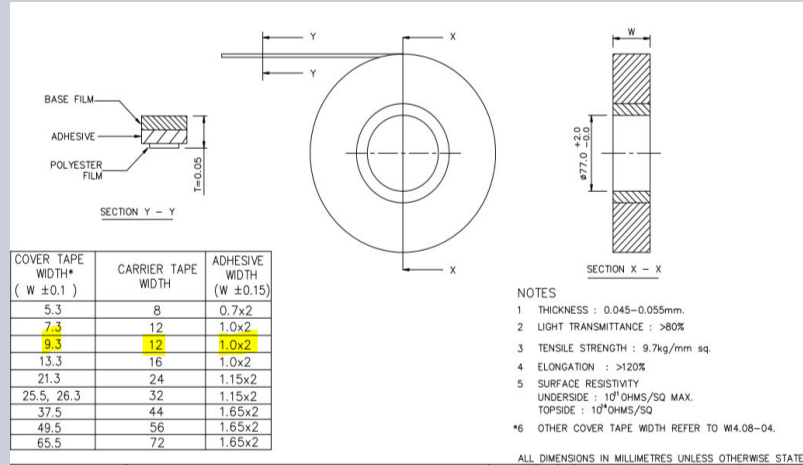


Width	Hub	Color
12mm	4inch (100mm)	Dark Blue



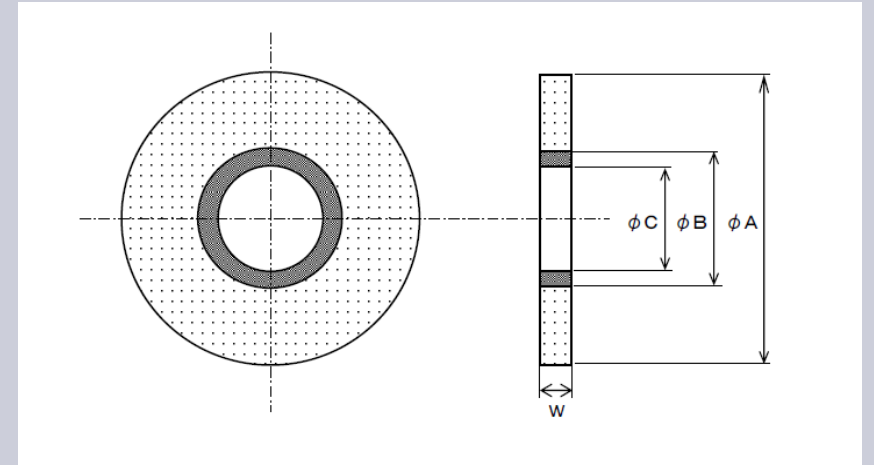
# Pre and Post Change Summary

## MPHL



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

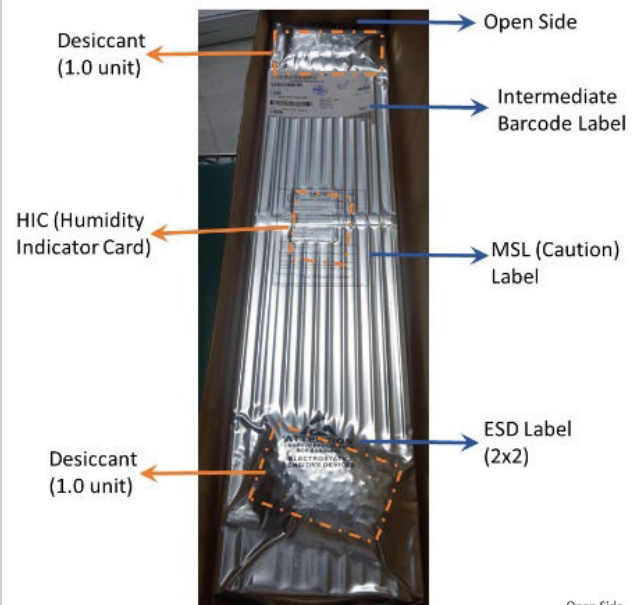





## MTAI



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

Cover tape

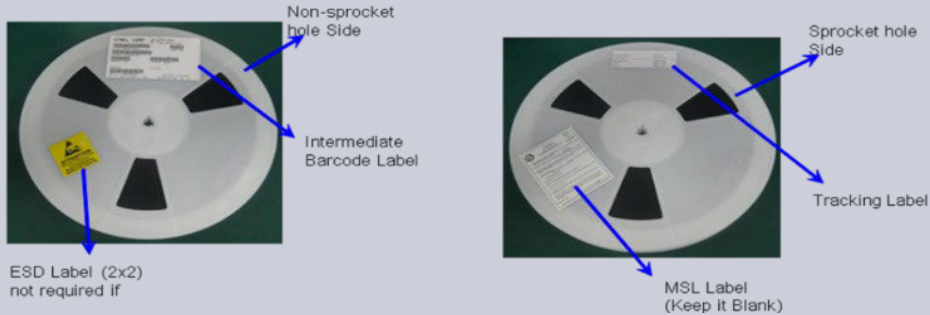
# Pre and Post Change Summary

	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)

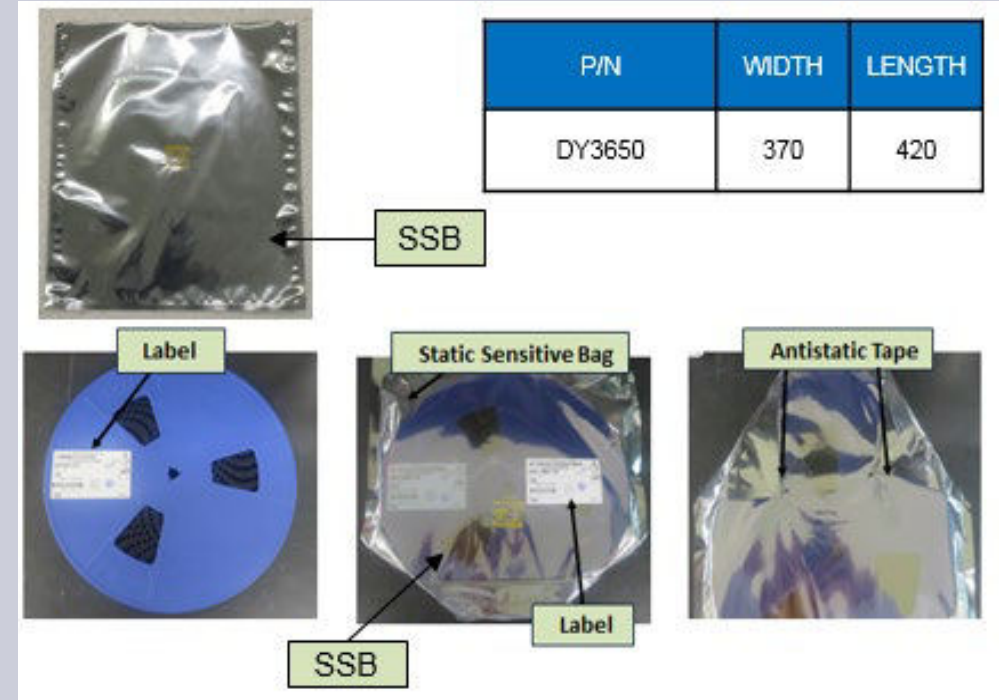
### MPHL



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
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Carton Box  
(T/R)



Length	Width	Height
375 mm	352 mm	53 mm



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





**MICROCHIP**

**QUALIFICATION PLAN SUMMARY**

**PCN #: NTDO-06UCYA969**

**Date:**

**July 22, 2021**

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

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

**CCB No.:** 3547.004

<b>Test / Evaluation</b>	<b>Test Conditions / Parameters</b>
Datalog/Bin Comparison	<ul style="list-style-type: none"><li>• Compare test numbers, test names, test sequence bin assignments &amp; pass/fail results</li><li>• Accept if all match or justify the differences</li></ul>
Site by site verification	<ul style="list-style-type: none"><li>• Verifies the channel map has the correct site assignments and tester/handler communications work correctly</li></ul>
Correlation lot report	<ul style="list-style-type: none"><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 0.1%</li></ul>
Unit to unit parametric correlation	<ul style="list-style-type: none"><li>• A full assembly strip characterized on both systems and graphed vs each other &amp; the data sheet limits</li></ul>
Test stability verification	<ul style="list-style-type: none"><li>• 50 loop test performed with no datalog delays<ul style="list-style-type: none"><li>○ Accept on 0 fails</li></ul></li></ul>
Parametric test stability verification	<ul style="list-style-type: none"><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>