Product Change Notification / ASER-08ZOZQ343

Date:

18-Oct-2022

Product Category:

Wireless Modules

PCN Type:

Manufacturing Change

Notification Subject:

CCB 5275 Initial Notice: Qualification of MMT as an additional assembly site for selected ATWINC3400-MR210CA and ATWINC1500-MR210PB device families (CPN) available in 28L Module (21.72x14.73xmm) and 36L (14.73x22.43mm) Module packages.

Affected CPNs:

ASER-08ZOZQ343_Affected_CPN_10182022.pdf
ASER-08ZOZQ343_Affected_CPN_10182022.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 MMT as an additional assembly site for selected ATWINC3400-MR210CA and ATWINC1500-MR210PB device families (CPN) available in 28L Module (21.72x14.73xmm) and 36L (14.73x22.43mm) Module packages.

Pre and Post Change Summary:

<table>
<tr><th colspan="2"></th><th>Pre Change</th><th colspan="2">Post Change</th></tr>
<tr><td rowspan="2">Assembly Site</td><td>ATWINC3400-MR210CA
36L Module
(14.73x22.43mm)</td><td>Delta Electronics, Inc.

(DEI5)</td><td>Delta Electronics, Inc.

(DEI5)</td><td>Microchip Technology Thailand

(MMT)</td></tr>
<tr><td>ATWINC1500-MR210PB

28L Module
(21.72x14.73xmm)</td><td>Might Electronic Co.,Ltd

(MEC5)</td><td>Might Electronic Co.,Ltd

(MEC5)</td><td>Microchip Technology Thailand

(MMT)</td></tr>
<tr><td rowspan="6">Tray</td><td rowspan="2">Type</td><td>Plastic Tray</td><td>Jedec Tray</td><td>Jedec Tray</td></tr>
<tr><td colspan="3">See Pre and Post Change Summary attachment for comparison.</td></tr>
<tr><td>BQM</td><td>50</td><td>72</td><td>72</td></tr>
<tr><td>Pin 1 Orientation</td><td>Quadrant 3</td><td>Quadrant 3</td><td>Quadrant 3</td></tr>
<tr><td>Bakeable?</td><td>Not Bakeable</td><td>Bakeable</td><td>Bakeable</td></tr>
<tr><td>Packaging</td><td colspan="3">See Pre and Post Change Summary attachment for comparison.</td></tr>
<tr><td rowspan="5">T/R</td><td rowspan="2">Reel</td><td>Black</td><td>Black</td><td>Dark Blue</td></tr>
<tr><td colspan="3">See Pre and Post Change Summary attachment for comparison.</td></tr>
<tr><td>BQM</td><td>500</td><td>500</td><td>500</td></tr>
<tr><td>Pin 1 Orientation</td><td>Quadrant 1</td><td>Quadrant 1</td><td>Quadrant 1</td></tr>
<tr><td>Carrier Tape</td><td colspan="3">Minor dimensional changes.

See Pre and Post Change Summary attachment for comparison.</td></tr>
</table>

	Cover Tape	Minor dimensional changes. See Pre and Post Change Summary attachment for comparison.
	Packaging	See Pre and Post Change Summary attachment for comparison.

Impacts to Data Sheet: None

Change Impact None

Reason for Change: To improve productivity by qualifying MMT as an additional assembly site.

Change Implementation Status: In Progress

Estimated Qualification Completion Date: November 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:

	October 2022					**November 2022**				
Workweek	40	41	42	43	44	45	46	47	48	49
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: October 18, 2022: 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 ASER-08ZOZQ343_Qual Plan.pdf
PCN_ASER-08ZOZQ343_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.

ASER-08ZOZQ343 - CCB 5275 Initial Notice: Qualification of MMT as an additional .
assembly site for selected ATWINC3400-MR210CA and ATWINC1500-MR210PB device families (CPN)
available in 28L Module (21.72x14.73xmm) and 36L (14.73x22.43mm) Module packages
Affected Catalog Part Numbers(CPN)

ATWINC1500-MR210PB1952
ATWINC1500-MR210PB1954
ATWINC1500-MR210PB1961
ATWINC1500-MR210PB1952-T
ATWINC1500-MR210PB1944
ATWINC1510-MR210PB1944
ATWINC1510-MR210PB1952
ATWINC1510-MR210PB1954
ATWINC1510-MR210PB1961
ATWINC1510-MR210PB1963
ATWINC1510-MR210PB1963-T
ATWINC1510-MR210PB1967
ATWINC1500-MR210PB
ATWINC1510-MR210PB
ATWINC1500-MR210PBA0
ATWINC1500-MR210PB1172
ATWINC1510-MR210PB1140
ATWINC1500-MR210PB1140
ATWINC1500-MR210UB
ATWINC1510-MR210UB
ATWINC1500-MR210UB1140
ATWINC1510-MR210UB1140
ATWINC1500-MR210UB1954
ATWINC1500-MR210UB1944
ATWINC1500-MR210UB1961
ATWINC1510-MR210UB1944
ATWINC1510-MR210UB1952
ATWINC1510-MR210UB1954
ATWINC1510-MR210UB1961
ATWINC1500-MR210PB1961-T
ATWINC1500-MR210PB1965-T
ATWINC1510-MR210PB1961-T
ATWINC1500-MR210UB1961-T
ATWINC3400-MR210CA122
ATWINC3400-MR210UA122
ATWINC3400-MR210CA123
ATWINC3400-MR210CA123-T
ATWINC3400-MR210CA122-T
ATWINC3400-MR210CA142
ATWINC3400-MR210UA142
ATWINC3400-MR210CA131
ATWINC3400-MR210UA131

ATWINC3400-MR210CA131-T
ATWINC3400-MR210UA131-T
ATWINC3400-MR210CA142-T
ATWINC3400-MR210UA142-T
ATWINC1500-MR210PB1976
ATWINC1510-MR210PB1976
ATWINC1500-MR210UB1976
ATWINC1510-MR210UB1976
ATWINC1500-MR210PB1976-T
ATWINC1510-MR210PB1976-T
ATWINC1500-MR210UB1976-T
ATWINC1510-MR210UB1976-T
ATWINC3400-MR210CA143
ATWINC3400-MR210UA143
ATWINC3400-MR210CA143-T
ATWINC3400-MR210UA143-T
ATWILC1000-MR110PB
ATWILC1000-MR110UB
ATWILC1000-MR110UB-T
ATWILC1000-MR110PB-T
ATWILC3000-MR110CA
ATWILC3000-MR110UA
ATWILC3000-MR110UA-T

QUALIFICATION PLAN SUMMARY

PCN #: ASER-08ZOZQ343

Date:
September 01, 2022

Qualification of MMT as an additional assembly site for selected ATWINC3400-MR210CA and ATWINC1500-MR210PB device families (CPN) available in 28L Module (21.72x14.73xmm) and 36L (14.73x22.43mm) Module packages.

Purpose: Qualification of MMT as an additional assembly site for selected ATWINC3400-MR210CA and ATWINC1500-MR210PB device families (CPN) available in 28L Module (21.72x14.73xmm) and 36L (14.73x22.43mm) Module packages.

CCB: 5275

BOM:

BOM: ZY00P7LCBA54

Item Description	Usage	Design Reference	Component Type
PCB ATWINC1500_PB 42PCS PER PNL	1	PCB	PCB
RF SHIELD ATWINC&ATWILC	1	RF SHIELD	RF Shield
IC WiFi 40QFN	1	U1	IC
CRYSTAL 26MHZ 10PF SMD	1	Y1	Crystal
FERRITE BEAD 120 OHM 0402 1LN	3	FB1, FB2, FB3	Ferrite Bead
FERRITE BEAD 120 OHM 200MA 0201	1	FB04	Ferrite Bead
FIXED Inductor 15NH 450MA 320 MOHM	1	L4	Inductor
FIXED Inductor 3.3NH 450MA 250 MOHM	2	L2, L5	Inductor
FIXED Inductor 2.2UH 750MA 375 MOHM	1	L1	Inductor
Resistor SMD 0 OHM JUMPER 1/20W 0201	1	C21	Resistor
Capacitor CER 4.7UF 4V 20% X5R 0402	1	C25	Capacitor
Capacitor CER 3.3PF 50V NP0 0402	1	R2	Capacitor
Capacitor CER 0.22UF 6.3V X5R 0402	2	C8, C11	Capacitor
Capacitor CER 0.47PF 50V NPO 0402	2	C6, C7	Capacitor
Capacitor CER 1.0uF 20% X5R 0402 6.3V	2	C5, C12	Capacitor
Capacitor CER 1PF 50V NP0 0201	2	C23, C24	Capacitor
Capacitor CER 1.2PF 50V NP0 0201	1	C20	Capacitor
Capacitor CER 0.1UF 16V X5R 0402	5	C2, C3, C4, C9, C10	Capacitor
Capacitor CER 1.8PF 50V C0G NP0 0201	2	C15, C16	Capacitor
Capacitor CER 1UF 4V 20% X6S 0201	1	C1	Capacitor

BOM: ZY00Q7LDBM15

Item Description	Usage	Design Reference	Component Type
PWB L4 E1 I1 FR-4 HTG 22.38*14.73*0.8	1	PCB	PCB
Shield (13.66x12.70x1.3mm)	1	SH1	RF Shield
IC/SOC/WiFi Bluetooth & FM Combo/48QFN	1	U1	IC
Antenna/ceramic/2.4-2.5GHz/50ohm/-40 - ?	1	E1	Antenne
CRYSTAL/26MHz/CL=8pF/15ppm/-40-85C/ESR=60/2.5x2mm	1	Y1	Crystal
FERRITE/120 OHM @100MHz/200mA/0201/-55-125C	3	FB1, FB2, FB3	Ferrite Bead
Inductor/Multilayer/15nH/5%/350mA/Q=8@100MHz/0402	1	L5	Inductor
POWER Inductor/1uH/20%/940mA/0.125ohms/0603/shielded/-40-85c	1	L1	Inductor
Inductor/1.8nH/0.2nH/Q=14@500MHz/SRF=15GHz/0201/-55-125C	1	C20	Inductor
Inductor/3.0nH/0.2nH/Q=14@500MHz/SRF=9.5GHz/0201/-55-125C	1	L11	Inductor
Inductor/4.7nH/3%/Q=14@500MHz/SRF=4.4GHz/0201/-55-125C	1	L10	Inductor
Inductor/3.3nH/0.2nH/Q=13@500MHz/SRF=8.1GHz/0201/-55-125C	3	L8, L9, R1	Inductor
Resistor/Thick Film/0 ohm/0201	2	R8, R9	Resistor
Capacitor/CER/2.2uF/10%/X5R/0402/6.3V/-55-85C	1	C3	Capacitor
Capacitor/CER/0.5pF/0.1pF/NPO/0201/25V/-55-125C	1	C33	Capacitor
Capacitor/CER/1.5pF/0.25pF/COG/0201/25V/-55-125C	2	R2, R3	Capacitor
Capacitor/CER/0.01uF/10%/X7R/0201/10V/-55-125C	1	C1	Capacitor
CHIP MONO 0402 10uF 6.3V +-20% X5R	1	C10	Capacitor
Capacitor/CER/1.0uF/10%/X5R/0402/6.3V/-55-85C	1	C7	Capacitor
Capacitor/CER/1.0pF/0.1pF/NPO/0201/25V/-55-125C	2	C17, C32	Capacitor
CHIP MONO 0201 5.6pF 25V +-0.5pF	2	C15, C16	Capacitor
Capacitor/CER/10pF/0.5pF/NPO/0201/25V/-55-125C	3	C18, C23, C24	Capacitor
Capacitor/CER/0.1uF/10%/X5R/0201/6.3V/-55-125C	6	C2, C4, C5, C6, C8, C9	Capacitor

Reliability Test Plan

Test Name	Conditions	Sample Size	Qty of Lots	Total Units	Fail Accept Qty	Est. Dur. Days	ATE Test Site	REL Test Site	Special Instructions
Preconditioning - Required for surface mount devices per MSL3	+150°C Bake for 24 hours, moisture loading requirements per MSL level, + 3X reflow at peak reflow temperature per Jedec-STD-020D for package type; Electrical test pre and post stress at +25°C. JESD22A113	8	3	24	0	15	**MMT**	**MMT**	Spares should be properly identified. 24 parts from each lot to be used for Temp Cycle test.
Temp Cycle	: JESD22A104. -40°C to +125°C for 1000 cycles (ATWINC1500-MR210PB) -65°C to +150°C for 1000 cycles (ATWINC3400-MR210CA). Read points at 0, 500, and 1000 cycles. Electrical test pre and post stress at +25°C	8	3	24	0	30	**MMT**	**MMT**	Spare should be properly identified. Use the parts which have gone through Pre-conditioning.

CCB 5275

Pre and Post Change Summary

PCN# ASER-08ZOZQ343

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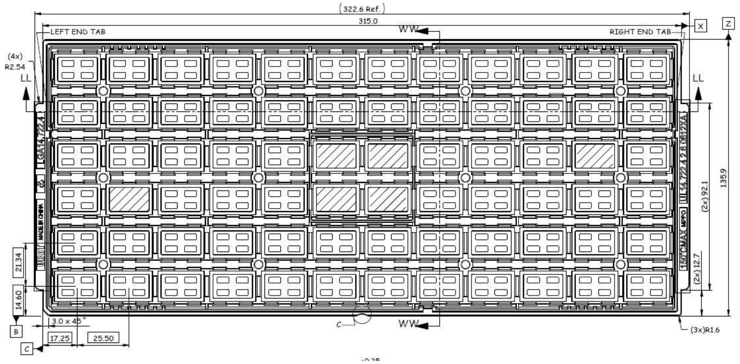
Tray Comparison

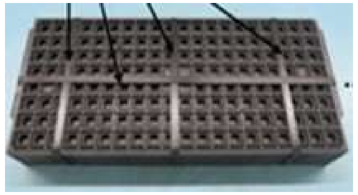
Pre Change	Post Change

Pre Change

Media	Style	Bake?	Units per Tray	Dimensions
Tray	PET Clear Tray	Not Bakeable	50	142x330mm

Post Change



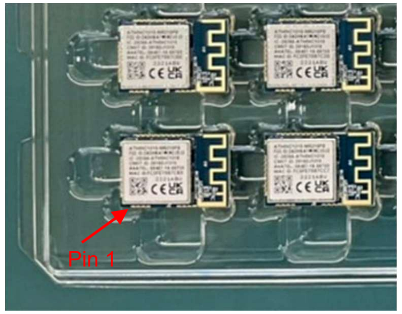


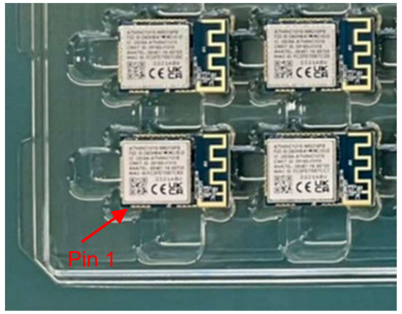
Media	Style	Bake?	Units per Tray	Dimensions
Tray	Jedec Tray	Bakeable	72	135.9x322.6mm

Tray Comparison – Pin 1 Orientation

Pre Change

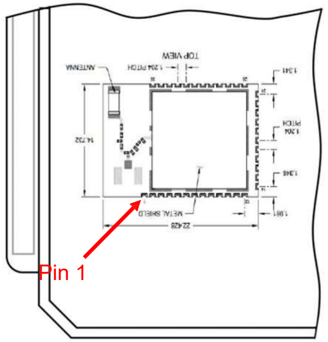
Pin 1

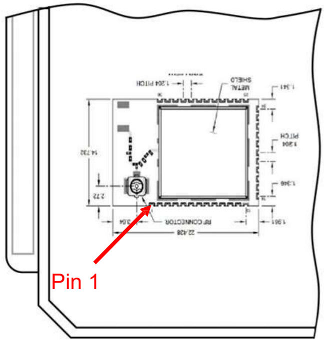


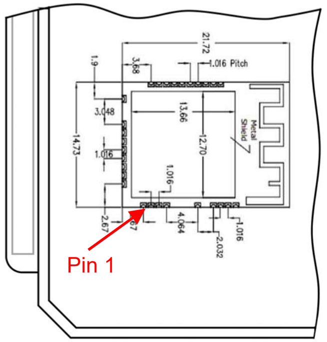


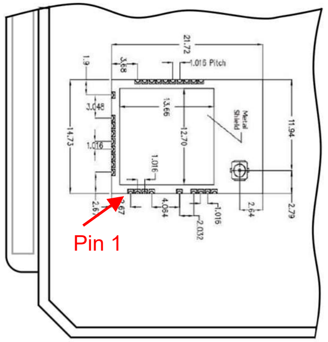
Pin 1 Orientation
Quadrant 3

Post Change







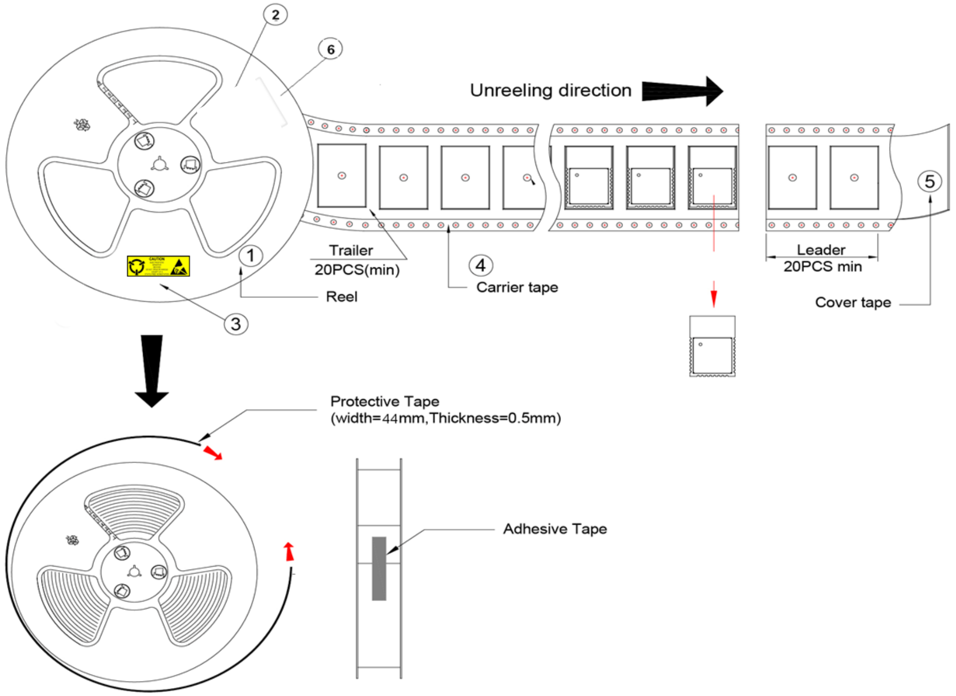
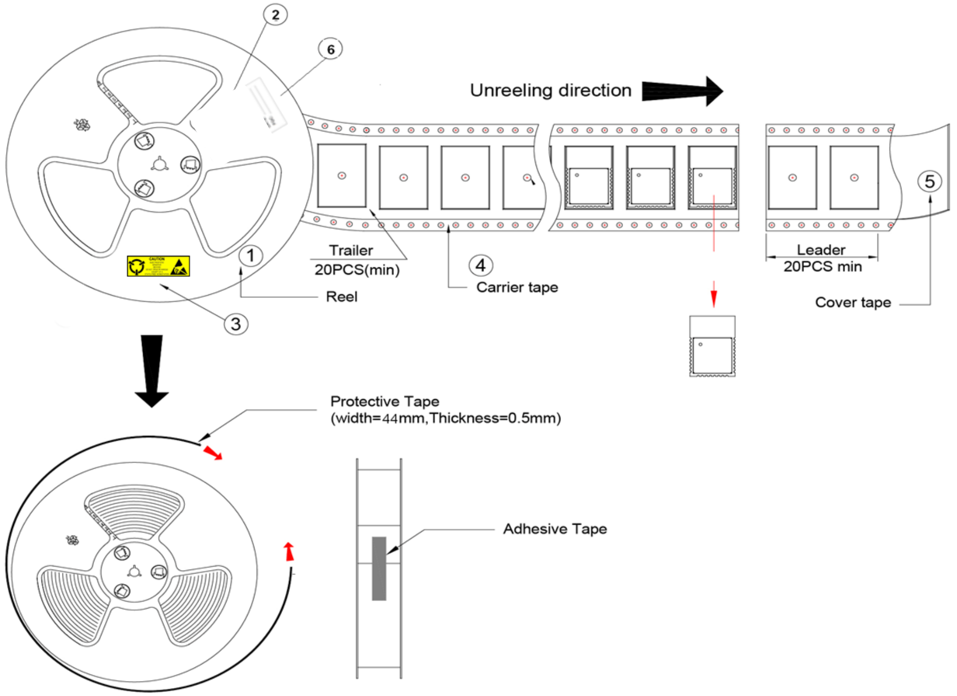


Pin 1 Orientation
Quadrant 3

Tray Packing Media Comparison

Pre Change	Post Change
	

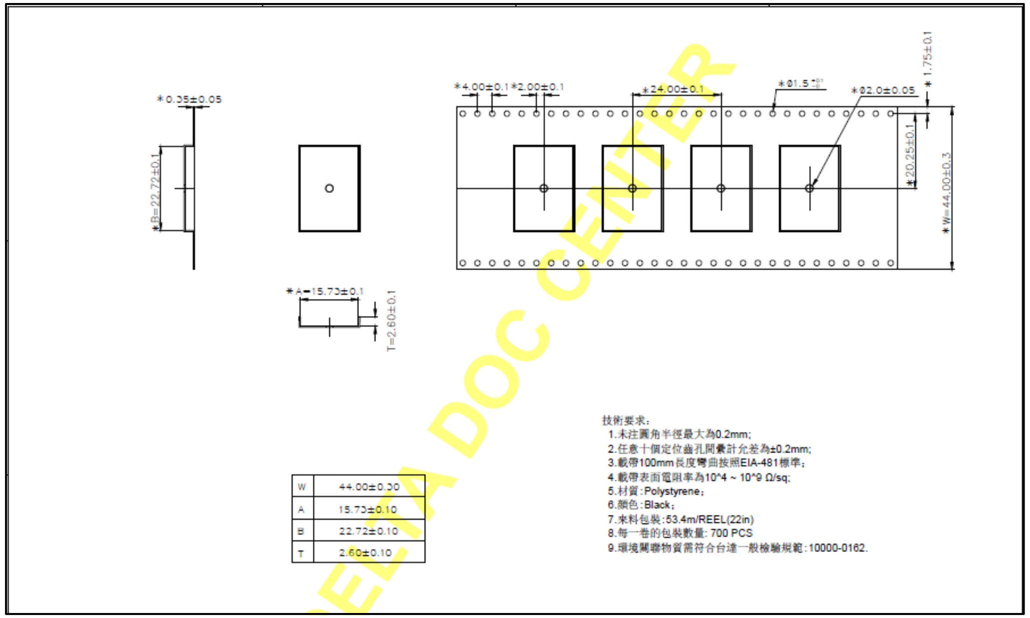
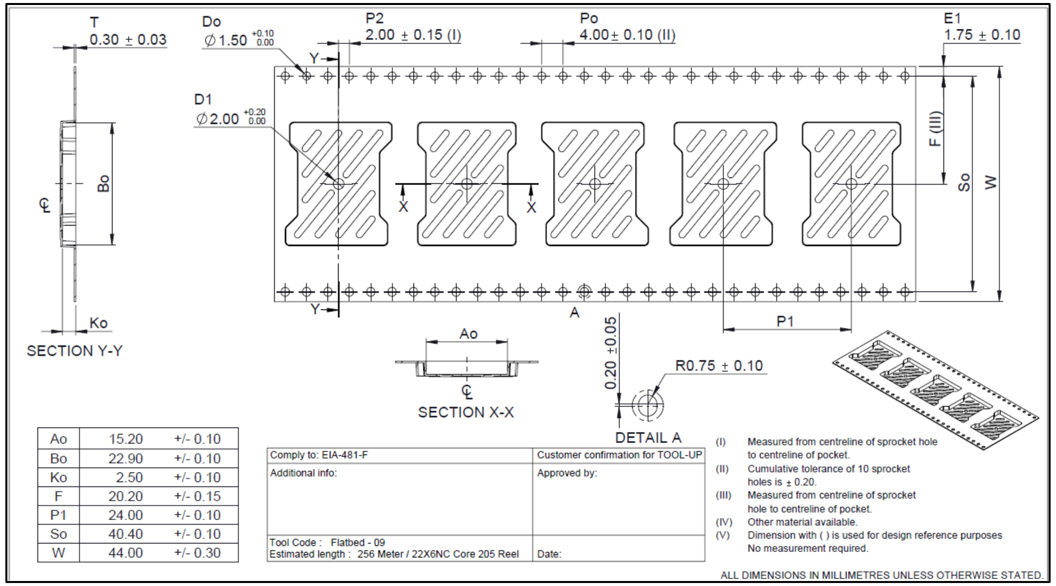
Tape and Reel Comparison – Pin 1 Orientation

DEI5 & MEC5	MTAI
	

Pin 1 Orientation
Quadrant 1

Pin 1 Orientation
Quadrant 1

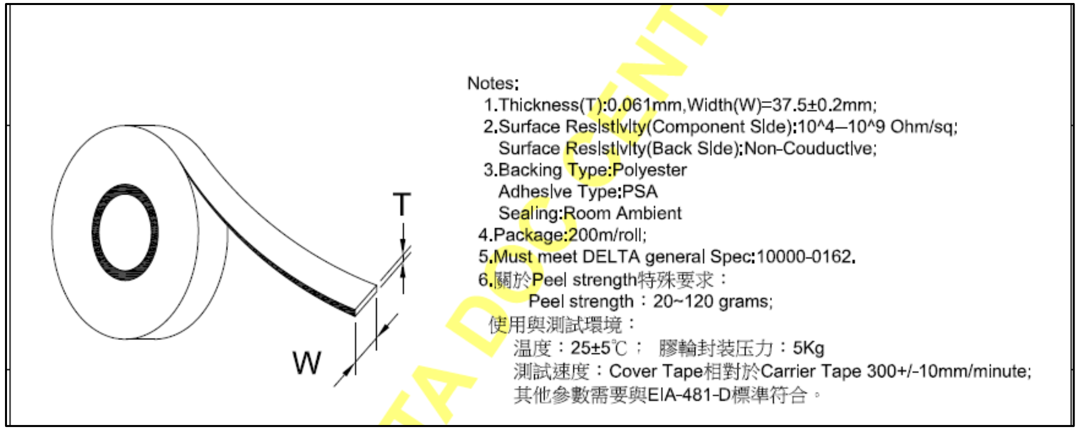
Tape and Reel Comparison – Carrier Tape

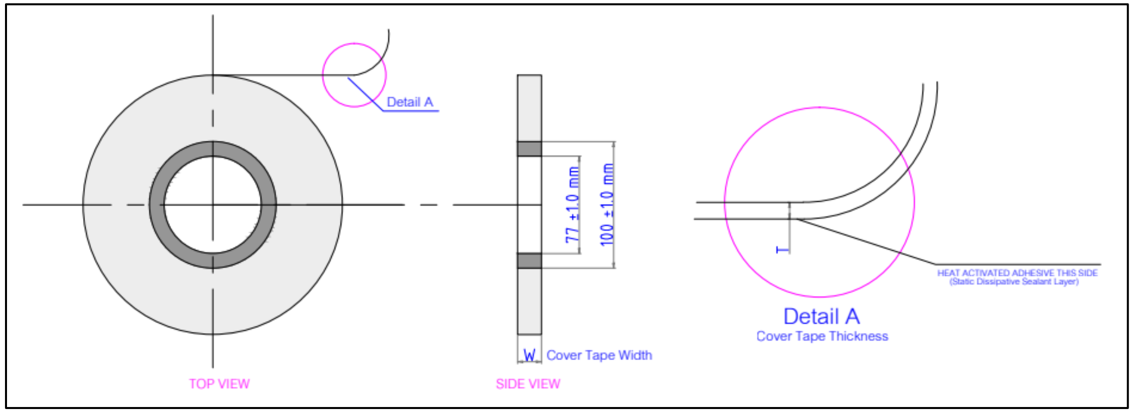
DEI5 & MEC5	MTAI
	

W (mm.)	P (mm.)	A0 (mm.)	B0 (mm.)	K0 (mm.)	K1 (mm.)	Thickness	BQM
44.00 ±0.30	24.00 ±0.10	15.73±0.10	22.72 ±0.10	2.60 ±0.10	-	0.35 ±0.05	500
44.00 ±0.30	24.00 ±0.10	15.20±0.10	22.90 ±0.10	2.50 ±0.10	-	0.30 ±0.03	500

Tape and Reel Comparison – Cover Tape

DEI5 & MEC5	MTAI

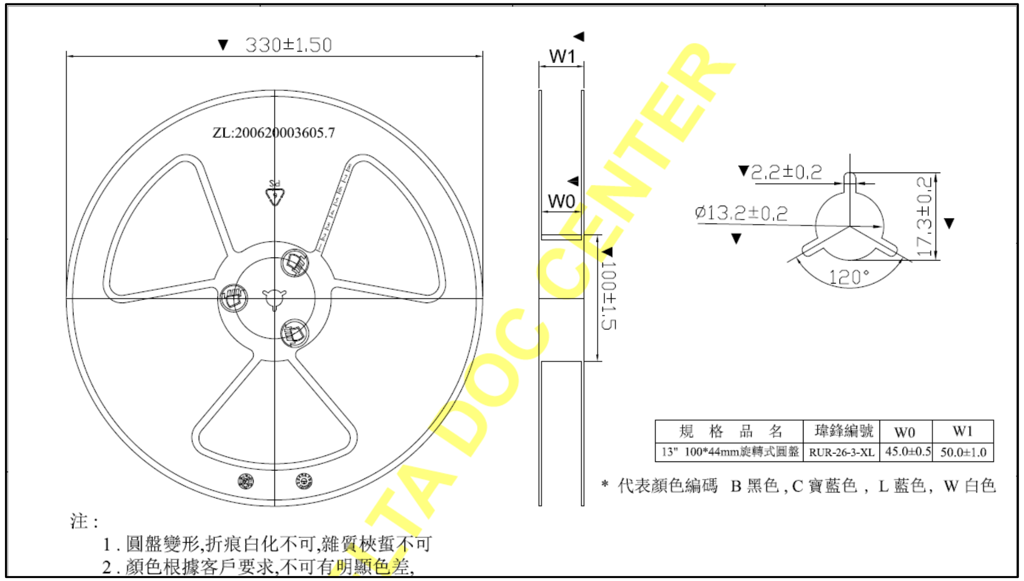




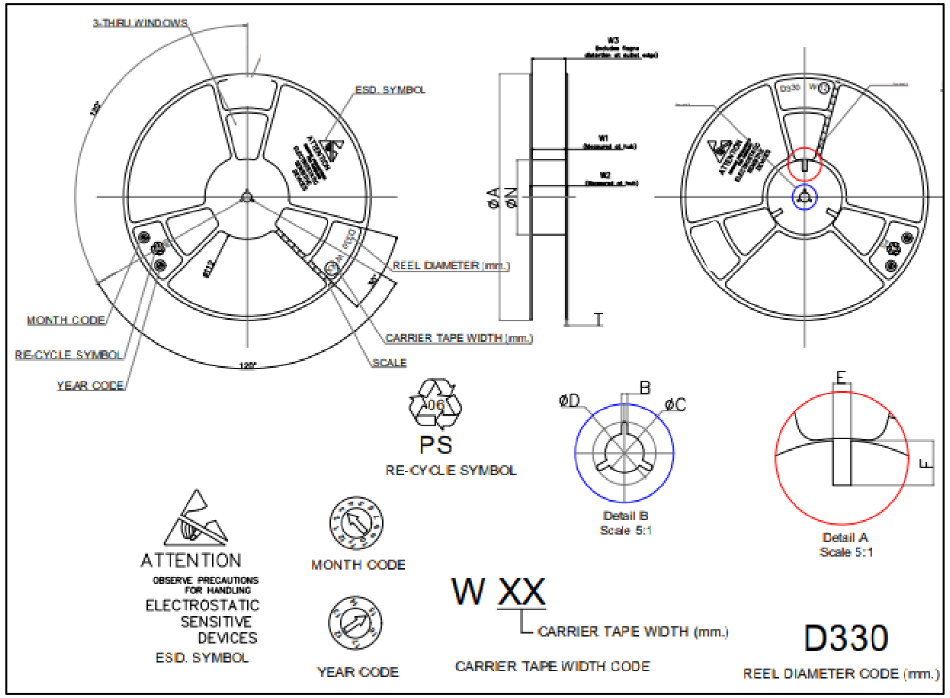
Width W (mm.)	Thickness T (mm.)	Colour	Sealing Methodology
37.5 ±0.2	0.061	Transparent	Room ambient
37.5 ±0.1	0.050 ±0.010	Clear	Heat Seal

Tape and Reel Comparison – Plastic Reel

DEI5 & MEC5



MTAI



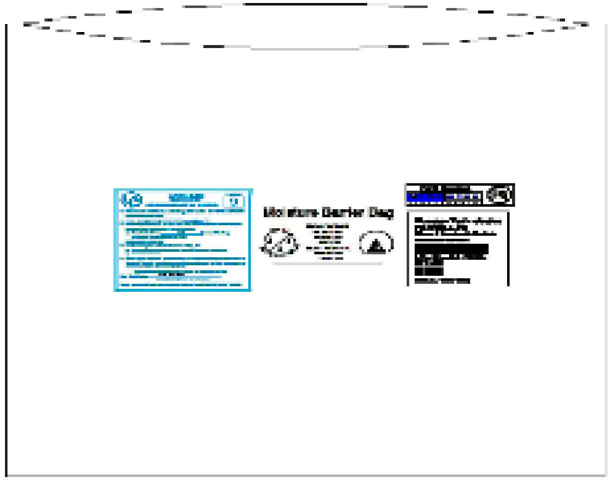
W (mm.)	P (mm.)	A0 (mm.)	B0 (mm.)	K0 (mm.)	K1 (mm.)	Thickness	BQM
44.00 ±0.30	24.00 ±0.10	15.73±0.10	22.72 ±0.10	2.60 ±0.10	-	0.35 ±0.05	500
44.00 ±0.30	24.00 ±0.10	15.20±0.10	22.90 ±0.10	2.50 ±0.10	-	0.30 ±0.03	500

MICROCHIP

Tape and Reel Comparison – Moisture Barrier Bag

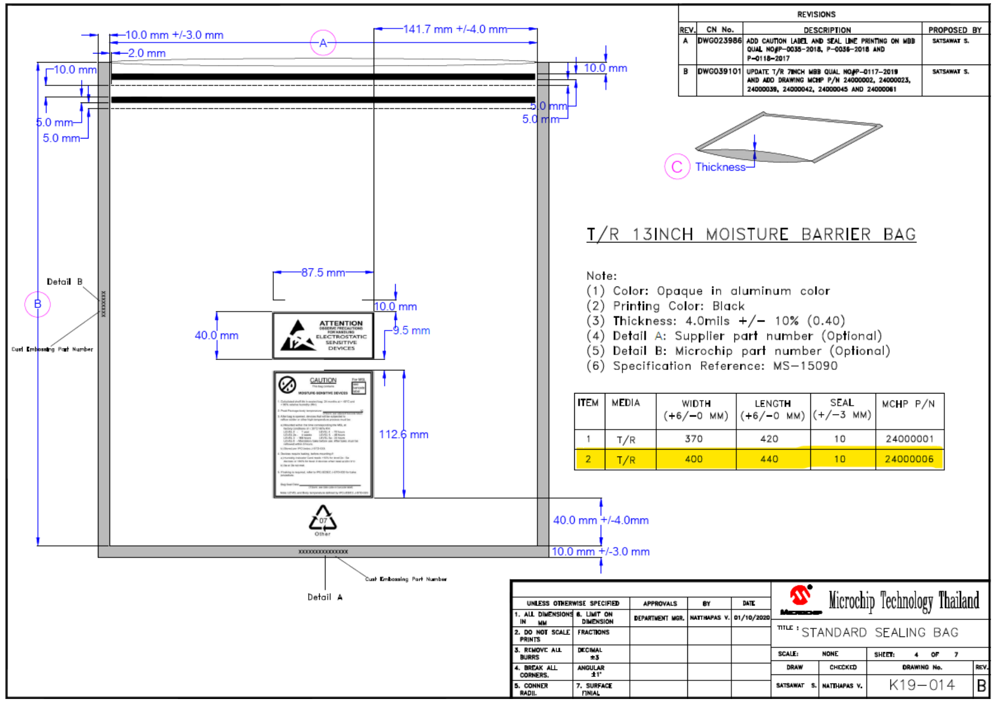
DEI5 & MEC5	MTAI

DEI5 & MEC5



Anti-static Bag
(465*450 mm)

MTAI

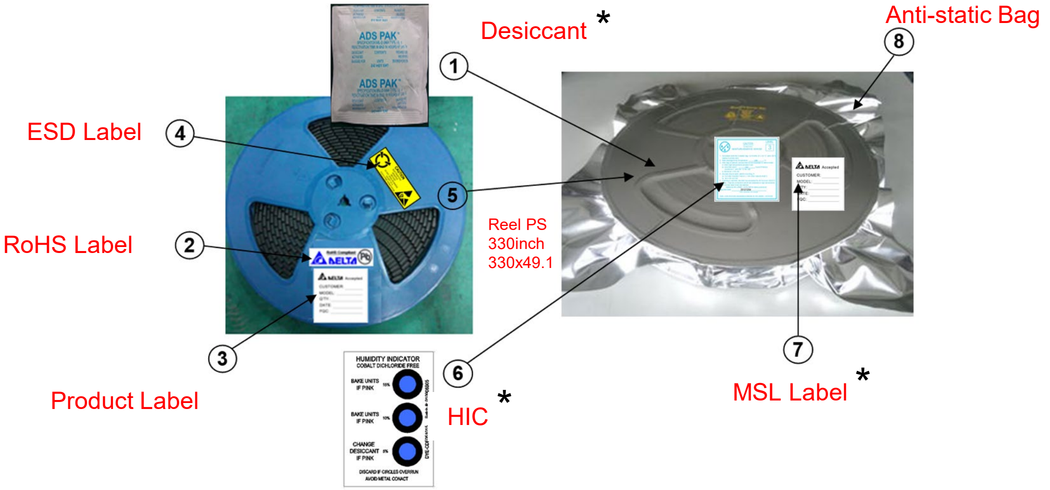


ITEM	MEDIA	WIDTH (+6/-0 MM)	LENGTH (+6/-0 MM)	SEAL (+/-3 MM)	MCHP P/N
1	T/R	370	420	10	24000001
2	T/R	400	440	10	24000006

Length (mm)	Width (mm)	Thickness (mils)	Colour
450	465	N/A	Aluminum
440 +6.0/-0.0	400 +6.0/-0.0	4.0 ±0.4	Aluminum

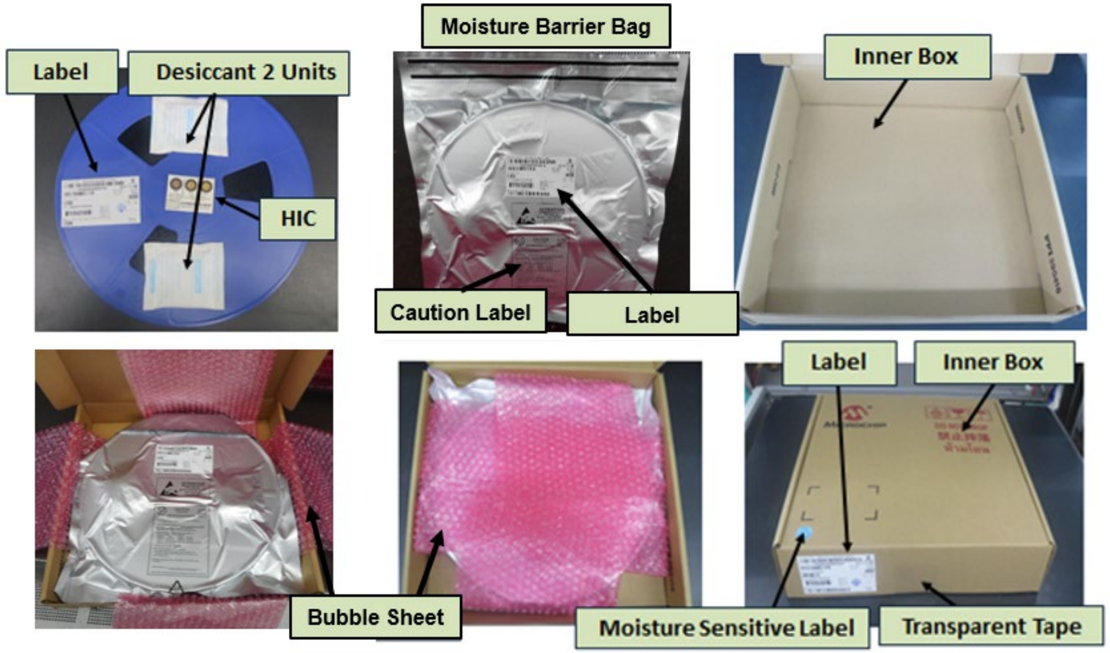
Tape and Reel Comparison – Packing

DEI5 & MEC5



Dimension of Box CRGD paper (Inner box)
36.0x34.0x6.5 cm

MTAI



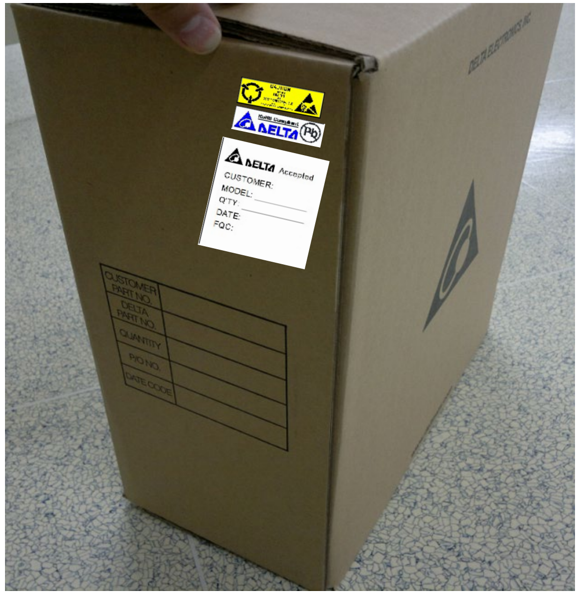
Inner box	
Drawing number	Dimension W x L x H (cm)
M02-016 (Large)	37x35.3x7.7

Tape and Reel Comparison – Packing

DEI5 & MEC5

Dimension of Carton CRGD Paper (Outer)	Number Inner box per carton
35.5x18.0x37.5 cm	2 : 1

Note; Outer carton label.
1. Static Sensitive label
2. Delta label
3. RoHS label



MTAI

Carton	Dimension W x L x H (cm)	Number of Inner box(es) per carton
M01-044 (SM)	37.0x38.0x11.0	1 : 1
M01-045 (S4)	37.0x38.0x22.5	2 : 1
M01-046 (S5)	37.0x39.0x39.0	4 : 1
M01-039 (TR)	28.6x37.5x36.2	4 : 1
M01-047 (S3)	42.0x66.0x39.0	8 : 1

Note; Outer carton label.
1. Static Sensitive screen on outer carton
2. Microchip label

Example