



Cypress Semiconductor Corporation, 198 Champion Court, San Jose, CA 95134. Tel: (408) 943-2600

## PRODUCT INFORMATION NOTIFICATION

**PIN:** PIN193803

**Date:** September 26, 2019

**Subject:** Qualification of New Cover Tape (CPAK) for Tape and Reel Shipment at Cypress Philippines

**To:** FUTURE ELECTRONICS  
 FUTURE ELE  
 pcn.system@futureelectronics.com

**Change Type:** Minor

### Description of Change:

Cypress has qualified an EIA standard outline cover tape for all tape and reel shipment at Cypress Philippines (CML, Gateway Business Park, SEPZA, Brgy., Javalera, General Trias, Cavite, Philippines). The new cover tape meets the Cypress specification and demonstrates the same quality as the current cover tape.

The new cover tape has the following details:

Site	Material	Supplier	Qual Report	Application
CML	Cover Tape	CPAK	193006	Packages that use 9.2/13.3/21.0/25.5/37.5 mm width tape

Carrier Tape Width	Current Cover Tape		Newly Qualified Cover Tape		Remarks
	HUB Type	Color	CP38 Type	Color	
12 mm	9.2 mm	Transparent	9.2 mm	Natural	Same width dimension. Same in transparency during visual inspection
16 mm	13.3 mm		13.3 mm		
24 mm	21.0 mm		21.0 mm		
32 mm	25.5 mm		25.5 mm		
44 mm	37.5 mm		37.5 mm		

No changes made to the following attributes:

- Storage: Environment 20°C - 25°C and relative humidity 50% - 75%
- Unit orientation on carrier pocket
- Carrier tape material
- Color of carrier tape
- Length and width

**Benefit of Change:**

This change is part of Cypress' continuous quality improvement to standardize tape and reel materials at manufacturing site.

**Affected Parts:** 2111

See the attached 'Affected Parts List' file for the part number affected by this change. Note that any new parts that are introduced after the publication of this PIN will include all changes outlined in this PIN.

**Qualification Status:**

The new cover tape is qualified through a series of tests detailed in the Qualification Test Plan QTP#193006. The QTP report can be found as an attachment to this notification.

**Approximate Implementation Date:**

This change will be implemented on October 15, 2019.

**Response Required:**

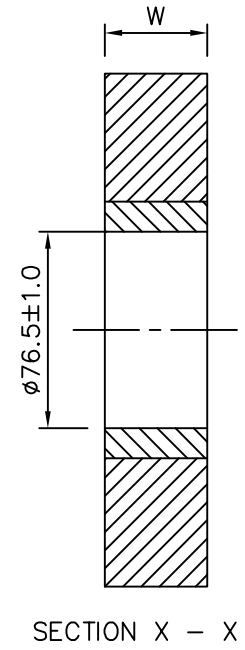
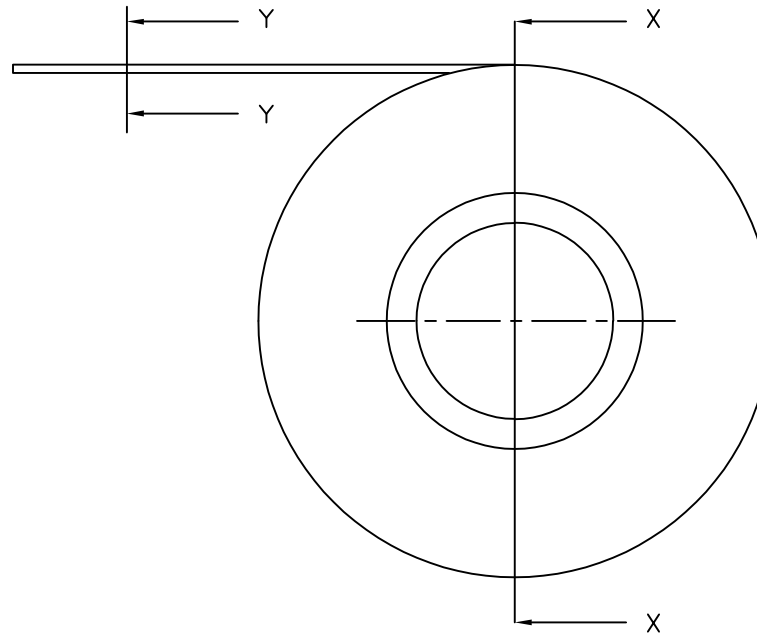
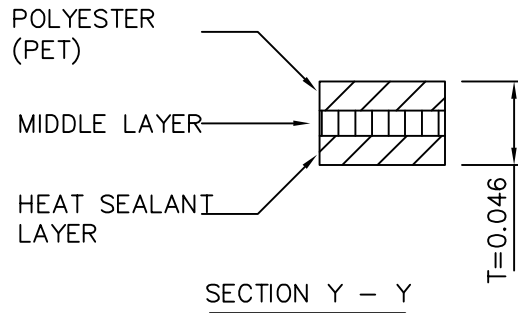
This is an information only announcement. No response is required.

For additional information regarding this change, contact your local sales representative or contact the PCN Administrator at [pcn\\_adm@cypress.com](mailto:pcn_adm@cypress.com).

Sincerely,

Cypress PCN Administration


REVISIONS						
PAGE	ZONE	REV	ECN	DESCRIPTION	DATE	APPROVED
ALL	ALL	**	6663022	NEW RELEASE	08/28/19	LKSU



### NOTES

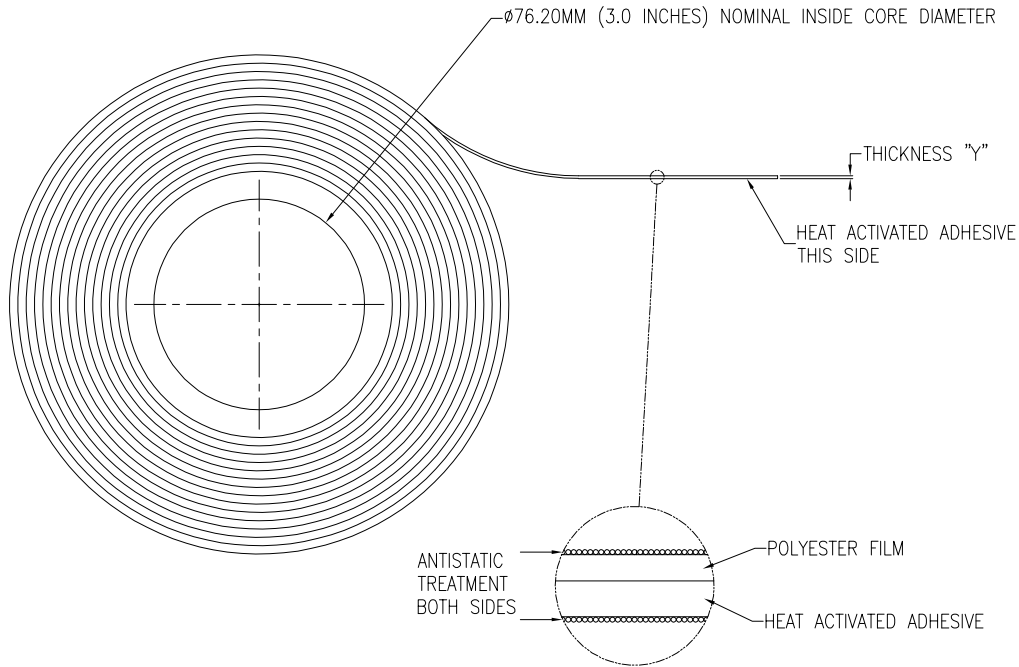
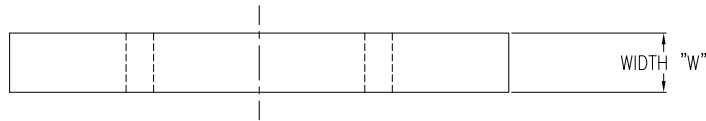
- THICKNESS : 0.041 - 0.051
- STANDARD LENGTH : 300m or 500m
- TENSILE STRENGTH : 6.42 kg/mm sq.
- ELONGATION : 75%
- TOP SURFACE RESISTANCE: 1E+4 TO 9.9E+10 ohms.  
TOP SURFACE RESISTIVITY: 1E+5 TO 9.9E+11 ohms/sq.  
ADHESIVE SURFACE RESISTANCE: 1E+4 TO 9.9E+8 ohms.  
ADHESIVE SURFACE RESISTIVITY: 1E+5 TO 9.9E+9 ohms/sq.
- PEEL STRENGTH CONFORMS TO EIA SPEC: 20 TO 80g
- RECOMMENDED SHELF LIFE : 2 YEARS  
FROM MANUFACTURING DATE
- LUMINOUS TRANSMITTANCE : 85%
- HAZE :  $\leq 25\%$

COVER TAPE WIDTH (W $\pm$ 0.1)	CARRIER TAPE WIDTH	CYPRESS P/N	SUPPLIER P/N
9.2	12	CP38-9.2	CP38-0092
13.3	16	CP38-13.3	CP38-0133
21.0	24	CP38-21.3	CP38-0213
25.5	32	CP38-25.5	CP38-0255
37.5	44	CP38-37.5	CP38-0375

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN MILLIMETERS STANDARD TOLERANCES ARE: DECIMALS .X $\pm$ .XX $\pm$ .XXX $\pm$ .XXXX $\pm$ ANGLES $\pm$	DESIGNED BY DEFAULT TEXT	DATE DEFAULT TEXT	 CYPRESS Company Confidential
	DRAWN BY KWTE	DATE 08/28/19	
	CHECKED BY DEFAULT TEXT	DATE DEFAULT TEXT	TITLE CP38 STATIC DISSIPATIVE COVER TAPE (C-PAK)
	APPROVED BY LKSU	DATE 08/28/19	SIZE A PART NO. CP38-* DWG NO 002-28292 REV **
MATERIAL TRANSPARENT	APPROVED BY CGON	DATE 08/28/19	SCALED TO FIT
FINISH BLACK	APPROVED BY DEFAULT TEXT	DATE DEFAULT TEXT	ENG'G REV ENG-00 SHEET 1 OF 1

THIS DRAWING CONTAINS INFORMATION WHICH IS THE PROPRIETARY PROPERTY OF CYPRESS SEMICONDUCTOR CORPORATION. THIS DRAWING IS RECEIVED IN CONFIDENCE AND ITS CONTENTS MAY NOT BE DISCLOSED WITHOUT WRITTEN CONSENT OF CYPRESS SEMICONDUCTOR CORPORATION.

REVISIONS						
PAGE	ZONE	REV	ECN	DESCRIPTION	DATE	APPROVED
1	-	**	50199	NEW RELEASE	05/30/97	
1	-	*A	125233	ADDED CY PN COLUMN ON THE ADVANTEK TABLE. ADDED ITW TABLE.CHANGE TITLE TO "COVER TAPE, ANTISTATIC", REMOVE PART NO. AND PUT IT IN THE TABLE. REMOVE FROM THE NOTES COLOR AND LENGTH OF THE COVER TAPE. ADDED IN THE NOTES "ALL DIMENSIONS IN MILLIMETERS".	03/09/03	
1	-	*B	127260	ADDED STRIP THICKNESS TOLERANCE.	05/23/03	
1	-	*C	428640	USED SYMBOL "Y" FOR THICKNESS. ADDED COLUMN FOR ADVANTEK AND ITW TABLE FOR Y VALUE.	03/16/06	
1	-	*D	3195919	UPDATED DRAWING BASED ON SUPPLIER'S LATEST DRAWING REVISION CHANGE DRAWING TEMPLATE	03/23/11	
1	-	*E	4299668	INCLUDE HUB CY PART NUMBER, HUB0092 TAR2012HUB,HUB0163 TAR2016HUB, HUB0210 TAR2024HUB, HUB0255 TAR2032HUB, and HUB0375 TAR2044HUB	03/06/14	
1	-	*F	4320214	ALIGN HUB THICKNESS BASE ON CnC and TDS CHANGE FROM 0.056 TO 0.048	03/25/14	
1	-	*G	4324874	SWITCH HUB DETAILS CY PART AND ADVANTEK PN	03/28/14	
1	-	*H	4523289	SUNSET REVIEW. UPDATED TEMPLATE.	10/03/14	
1	-	*I	5040004	UPDATE ADVANTEK PN HUB0133 TO CY PART# TAR2016HUB	12/09/15	
1	-	*J	6038544	ADDED ADVANTEK "HUC" AND "AD" COVER TAPE	01/26/18	
1	-	*K	6503533	ADDED ADVANTEK HUC0133 COVER TAPE	03/07/19	



CY PART#	ADVANTEK PN	WIDTH "W"	THICKNESS "Y"
TAR2012	AA09205NP	9.2 ± 0.1	0.056 ± 0.005
TAR2016	AA13305NP	13.3 ± 0.1	0.056 ± 0.005
TAR2024	AA21005NP	21.0 ± 0.1	0.056 ± 0.005
TAR2032	AA25505NP	25.5 ± 0.1	0.056 ± 0.005
TAR2044	AA37505NP	37.5 ± 0.1	0.056 ± 0.005
TAR2008AD	AD0054	5.4 ± 0.1	0.048 ± 0.005
TAR2012AD	AD0092	9.2 ± 0.1	0.048 ± 0.005
TAR2012HUB	HUB0092	9.2 ± 0.1	0.048 ± 0.005
TAR2016HUB	HUB0133	13.3 ± 0.1	0.048 ± 0.005
TAR2024HUB	HUB0210	21.0 ± 0.1	0.048 ± 0.005
TAR2032HUB	HUB0255	25.5 ± 0.1	0.048 ± 0.005
TAR2044HUB	HUB0375	37.5 ± 0.1	0.048 ± 0.005
TAR2008HUC	HUC0054	5.4 ± 0.1	0.050 ± 0.01
TAR2012HUC	HUC0092	9.2 ± 0.1	0.050 ± 0.01
TAR2016HUC	HUC0133	13.3 ± 0.1	0.050 ± 0.01

CY PART#	ADVANTEK PN	WIDTH "W"	THICKNESS "Y"
TAR2014	ST100210	21.0 ± 0.1	0.050 ± 0.01

- NOTES:  
 1. REEL TO CONTAIN 300 METERS OF SPLICE FREE MATERIAL  
 2. COLOR: TRANSPARENT PALE BLUE

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN MILLIMETERS STANDARD TOLERANCES ON:	DESIGNED BY	DATE
DECIMALS	DRAWN BY	DATE
.XX ± 0.2	KWTE	03/07/19
.XXX ± 0.10	CHECKED BY	DATE
.XXXX ± 0.003	N/A	N/A
ANGLES	APPROVED BY	DATE
± 1°	LKSU	03/07/19
MATERIAL	APPROVED BY	DATE
SEE NOTES	COON	03/07/19
FINISH	APPROVED BY	DATE



TITLE COVER TAPE, ANTISTATIC			
SIZE A	PART NO. SEE TABLE	DWG NO 51-51048	REV *K
SCALED TO FIT	ENG'G REV	SHEET 1 OF 1	

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# Cypress Semiconductor Indirect Material Qualification Report

**QTP# 193006 VERSION \*\*  
September 2019**

**Qualification of C-PAK Cover Tape  
CML-Philippines (RA/R)**

**FOR ANY QUESTIONS ON THIS REPORT, PLEASE CONTACT  
[reliability@cypress.com](mailto:reliability@cypress.com)**

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Honesto Sintos  
Reliability Engineer

**Reviewed By:**  
Lorena Zapanta  
Reliability Manager

**Approved By:**  
David Hoffman  
Reliability Director

### INDIRECT MATERIAL QUALIFICATION HISTORY

<b>QTP Number</b>	<b>Description of Qualification Purpose</b>	<b>Date</b>
193006	Qualification of C-PAK Cover Tape at CML-Philippines (RA/R)	Sep 2019

<b>MAJOR MATERIAL INFORMATION USED IN THIS QUALIFICATION</b>	
<b>MATERIAL IDENTIFICATION</b>	
Material Designation:	Cover Tape
Tape and Reel Part No:	HEATCT-13.3CP38, HEATCT-9.2CP38, HEATCT-21.0CP38, HEATCT-25.5CP38, HEATCT-37.5CP38
Surface Resistivity:	Adhesive (1x10 <sup>5</sup> to 9.9 x10 <sup>9</sup> Ohms/sq) Top (1x10 <sup>5</sup> to 9.9 x10 <sup>11</sup> Ohms/sq)
Material Name:	CP38
Chemical Name:	Polyethylene terephthalate
Content:	40-60%
Formula:	Trade secret
CAS no.:	25038-59-9
Impurities contributing to Hazards:	Not Intentionally added. Refer to SGS rohs report.
<b>PHYSICAL DATA</b>	
Appearance:	Heat activated seal film , Solid odorless Translucent film
Melting Temperature:	Not Available
Solubility:	Water insoluble , Toluene Permeation or dissolve partially
Specific Gravity:	N/A
<b>STABILITY AND REACTIVITY</b>	
Reactivity with mold compound:	N/A
Stability:	Stable at normal temperature
Thermal Decomposition Gases	Under the conditions of melt processing, thermal decomposition may include carbon monoxide, carbon dioxide, hydrocarbons and other organic vapor.
<b>TOXICOLOGICAL INFORMATION</b>	
Irritation irritant to:	Not Available
Acute oral toxicity (LD50):	Inactive physiologically and there is no special acute action to a human body.
Mutagenicity	Not Available
<b>ECOLOGICAL INFORMATION</b>	
Degradation accumulation and fish toxicity	Since a sheet is considered to be stable that it is hard to decompose, it must not be abandoned anywhere to prevent sea living things and birds to take in.
<b>HAZARD IDENTIFICATION</b>	
Most Important Hazards:	Not Applicable
Adverse Human Health Effects	Refer to CP38 SDS First aid measures
Environmental Effects	The material shall be disposed of in accordance with the laws,

	regulations and ordinances concerning the disposal of wastes. Since the amount of heat released is large in the case of incineration, a special incinerator shall be used for incineration a large quantity of the substance.
<b>MAJOR MATERIAL INFORMATION USED IN THIS QUALIFICATION</b>	
<b>FIRST AID MEASURES</b>	
Physical and Chemical Hazards	None
Inhalation	Avoid exposing for a long time to the environment of burning. If uncomfortable, please move to the place with much fresh air at once. If breath absent or difficult, please give artificial respiration or oxygen and hospitalize at once.
Skin Contact	Avoiding touching for a long time. No stimulation under normal use of the product. If there are allergic phenomena, please wash with soap and water.
Eye Contact	Please wash continuously with much clean water. If there are pain senses, seek medical advice as soon as possible.
Ingestion	Unless a large amount of the product is swallowed, no treatment is needed but inquiry of medical advice is suggested. If swallowing a large amount, seek medical advice as soon as possible.
<b>FIRE-FIGHTING MEASURES</b>	
Extinguishing Media	Water, carbon dioxide, dry powder or foam
Special Fire-Fighting Procedure	On the airtight space, the fire fighter should wear the complete safeguard.
Fire and Explosion Hazards	The respiratory tract pains
<b>ACCIDENTAL RELEASE MEASURES</b>	
Methods for Cleaning up	None
Personal Precautions	None
Environmental precautions	None
<b>HANDLING AND STORAGE</b>	
Handling	None
Storage	Store it in dry clean place under 25 degrees Centigrade. Avoid contacting the flammable material.



<b>MAJOR MATERIAL INFORMATION USED IN THIS QUALIFICATION</b>	
<b>EXPOSURE CONTROLS / PERSONAL PROTECTION</b>	
Ventilation	There must be proper ventilation facilities, keep away from the spark and flame.
Personal Protection	None
<b>DISPOSAL CONSIDERATIONS</b>	
Waste Disposal	Incinerate in high temperature or bury clearly. Please deal with in accordance with the relevant environmental protection regulation.

## PROCESS ENGINEERING QUALIFICATION PERFORMED PER SPECIFICATION REQUIREMENTS

Test	Test Condition (Reference Specifications)	Result P/F
Substance Check	European Union RoHS 2002/95/E REACH XVII	P
Dimensional Measurement	POD Drawing-JESD22-B100B	P
Surface Resistivity Measurement	Conductive Packing/shipping material: $10^5 \Omega/\text{sq}$ Static dissipative Packing/shipping material: $10^5\text{-}10^{12} \Omega/\text{sq}$	P
Functionality Test	Pass Manufacturability	P
Drop Test	Non-Dry Packed Material: No tears & punctures Boxes: No Complete structural damage, No progressive crumpling/deformed, no tears & punctures.	P
Detaping	No cover tape tearing	P
Peel Back Force Test	Min $\geq 30$ , Average = $50 \pm 5\text{g}$ , Max $< 70$	P
Quick Hand Pull Test	No cover tape tearing	P



## Reliability Test Data

### QTP #: 193006

Device	Material	Part #	Package	Finish Site	Duration	Samp	Rej	Failure Mechanism
<b>STRESS: CADFIT ANALYSIS</b>								
N/A	COVER TAPE	CP38-0133	SOIC 16	CML-RA/R	COMP	1	0	
N/A	COVER TAPE	CP38-0255	TSOP 44	CML-RA/R	COMP	1	0	
N/A	COVER TAPE	CP38-0092	QFN 44	CML-RA/R	COMP	1	0	
N/A	COVER TAPE	CP38-0210	TQFP 100	CML-RA/R	COMP	1	0	
N/A	COVER TAPE	CP38-0375	SOJ 44	CML-RA/R	COMP	1	0	
<b>STRESS: SUBSTANCE CHECK</b>								
N/A	COVER TAPE	CP38-0133	SOIC 16	CML-RA/R	COMP	1	0	
N/A	COVER TAPE	CP38-0255	TSOP 44	CML-RA/R	COMP	1	0	
N/A	COVER TAPE	CP38-0092	QFN 44	CML-RA/R	COMP	1	0	
N/A	COVER TAPE	CP38-0210	TQFP 100	CML-RA/R	COMP	1	0	
N/A	COVER TAPE	CP38-0375	SOJ 44	CML-RA/R	COMP	1	0	
<b>STRESS: FIT &amp; FORM VISUAL INSPECTION</b>								
N/A	COVER TAPE	CP38-0133	SOIC 16	CML-RA/R	COMP	25	0	
N/A	COVER TAPE	CP38-0255	TSOP 44	CML-RA/R	COMP	25	0	
N/A	COVER TAPE	CP38-0092	QFN 44	CML-RA/R	COMP	25	0	
N/A	COVER TAPE	CP38-0210	TQFP 100	CML-RA/R	COMP	25	0	
N/A	COVER TAPE	CP38-0375	SOJ 44	CML-RA/R	COMP	25	0	
<b>STRESS: DIMENSIONAL MESAUREMENT</b>								
N/A	COVER TAPE	CP38-0133	SOIC 16	CML-RA/R	COMP	10	0	
N/A	COVER TAPE	CP38-0255	TSOP 44	CML-RA/R	COMP	10	0	
N/A	COVER TAPE	CP38-0092	QFN 44	CML-RA/R	COMP	10	0	
N/A	COVER TAPE	CP38-0210	TQFP 100	CML-RA/R	COMP	10	0	
N/A	COVER TAPE	CP38-0375	SOJ 44	CML-RA/R	COMP	10	0	
<b>STRESS: SURFACE RESISTIVITY MEASUREMENT</b>								
N/A	COVER TAPE	CP38-0133	SOIC 16	CML-RA/R	COMP	10	0	
N/A	COVER TAPE	CP38-0255	TQFP 100	CML-RA/R	COMP	10	0	
N/A	COVER TAPE	CP38-0092	QFN 44	CML-RA/R	COMP	10	0	
N/A	COVER TAPE	CP38-0210	TQFP 100	CML-RA/R	COMP	10	0	
N/A	COVER TAPE	CP38-0375	SOJ 44	CML-RA/R	COMP	10	0	

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## Reliability Test Data

### QTP #: 193006

<i>Device</i>	<i>Material</i>	<i>Part #</i>	<i>Package</i>	<i>Finish Site</i>	<i>Duration</i>	<i>Samp</i>	<i>Rej</i>	<i>Failure Mechanism</i>
<b>STRESS: FUNCTION TEST</b>								
N/A	COVER TAPE	CP38-0133	SOIC 16	CML-RA/R	COMP	10	0	
N/A	COVER TAPE	CP38-0255	TQFP 100	CML-RA/R	COMP	10	0	
N/A	COVER TAPE	CP38-0092	QFN 44	CML-RA/R	COMP	10	0	
N/A	COVER TAPE	CP38-0210	TQFP 100	CML-RA/R	COMP	10	0	
N/A	COVER TAPE	CP38-0375	SOJ 44	CML-RA/R	COMP	10	0	
<b>STRESS: DROP TEST</b>								
N/A	COVER TAPE	CP38	QFN 44	CML-RA/R	COMP	30	0	
<b>STRESS: SPLIT PBFT TEST</b>								
N/A	COVER TAPE	CP38	QFN 44	CML-RA/R	COMP	10	0	
<b>STRESS: DETAPING</b>								
N/A	COVER TAPE	CP38	QFN 44	CML-RA/R	COMP	10	0	



## Document History Page

Document Title: QTP#193006: QUALIFICATION OF C-PAK COVER TAPE CML-PHILIPPINES (RA/R)  
Document Number: 002-28513

Rev.	ECN No.	Orig. of Change	Description of Change
**	6676884	HSTO	Initial Spec Release