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PCN Date: 12/7/2012		Effective Date: 3/12/2013
Title: Adding test and shipping site, with different tape & reel material (lokreel, cover tape and carrier tape) for EM357		
Originator: KF Lee	Phone: 65 6511 6428	Dept: SM/QA
Customer Contact: Kathy Haggar	Phone: 1-512-532-5261	Dept: Sales
PCN Type: <input checked="" type="checkbox"/> Datasheet <input type="checkbox"/> Foundry <input checked="" type="checkbox"/> Packing <input type="checkbox"/> Product Revision <input type="checkbox"/> Assembly <input type="checkbox"/> Labeling <input type="checkbox"/> Discontinuance <input checked="" type="checkbox"/> Test <input type="checkbox"/> Other		
Last Order Date: Not Applicable		
PCN Details		
Description of Change: Silicon Labs is adding ASE Chung Li, Taiwan (ASECL) as a test and shipping site for EM357 in addition to the current site; STATS Chippac Malaysia (SCM). As a result, Silicon Labs is required to use different packing materials (lokreel, cover tape & carrier tape) for EM357 as per the description below;		
	SCM	ASECL
Package	Carrier Tape part #	Carrier Tape part #
48QFN 7X7	R021-0700X	BD0700X0700J
	SCM	ASECL
Package	Lokreel part #	Lokreel part #
48QFN 7X7	R021-1462X	43000051P1
	SCM	ASECL
Package	Cover tape part #	Cover tape part #
48QFN 7X7	R021-0114B	CP99-133A
Refer to Appendix A for carrier tape comparison on 48QFN 7X7. Appendix B for cover tape comparison on 48QFN 7X7. Appendix C for lokreel comparison on 48QFN 7X7.		
Reason for Change: The new test location will use existing qualified packing materials at ASECL for lokreel, cover tape & carrier tape.		

Impact on Form, Fit, Function, Quality, Reliability:

There is no impact to form, fit, function, quality or reliability of the product. The packing material does change as described in attached Appendices.

Product Identification:

The following part numbers are affected by this transition

Part number	Package
EM357-RTR	48QFN 7X7

Last Date of Unchanged Product: Not Applicable

Qualification Samples:

Mechanical samples in new packing materials are available upon request.

Samples of parts tested at the new site are also available upon request.

Please contact your Silicon Labs Sales Representative. A list of Silicon Labs Sales Representatives is available at www.silabs.com

Customer Early Acceptance Sign Off:

Customers may approve early PCN acceptance by completing the information below:

Early Acceptance: Date: _____

 Name: _____

 Company: _____

Email your early Acceptance approval to: katherine.hagggar@silabs.com

Qualification Data:

Table 1 below sets out the qualification tests being carried out by Silicon Labs at ASECL to ensure that the testing of EM357 parts at ASECL achieves the same rigorous standard of testing currently applied at SCM. When this work is complete, Silicon Labs will prepare a report summarizing the results of qualification and these results can be made available to customers on request.

Table 1: Qualification Tests for the EM35x Device Family

Qualification Tests	Test Golden Units	Test Known Good Correlation Units	Test Rejected Correlation Units	Test Qualification Lot(s)
Passing Criteria	All Must Pass	All Must Pass	All Must Fail	100% Retest of Good Devices. All must pass

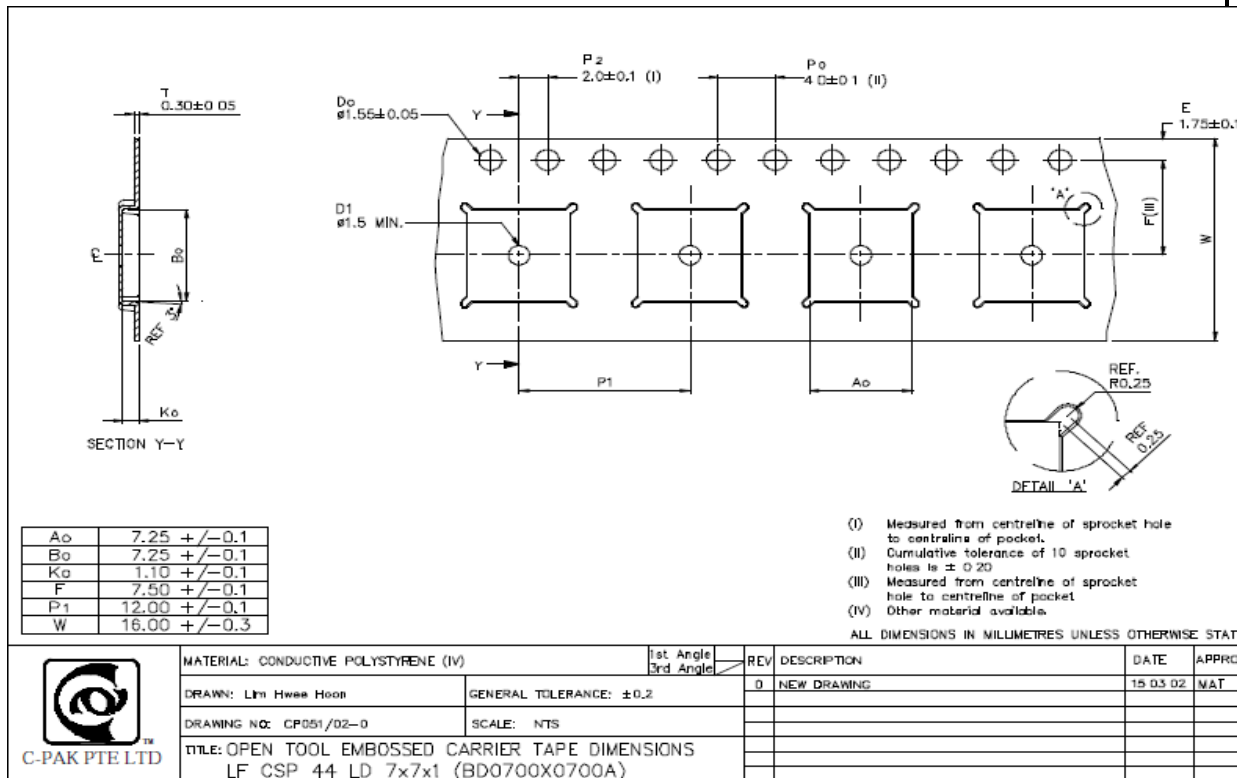
See Appendices below for detailed information about the tape & reel material differences.

Embed File(s):

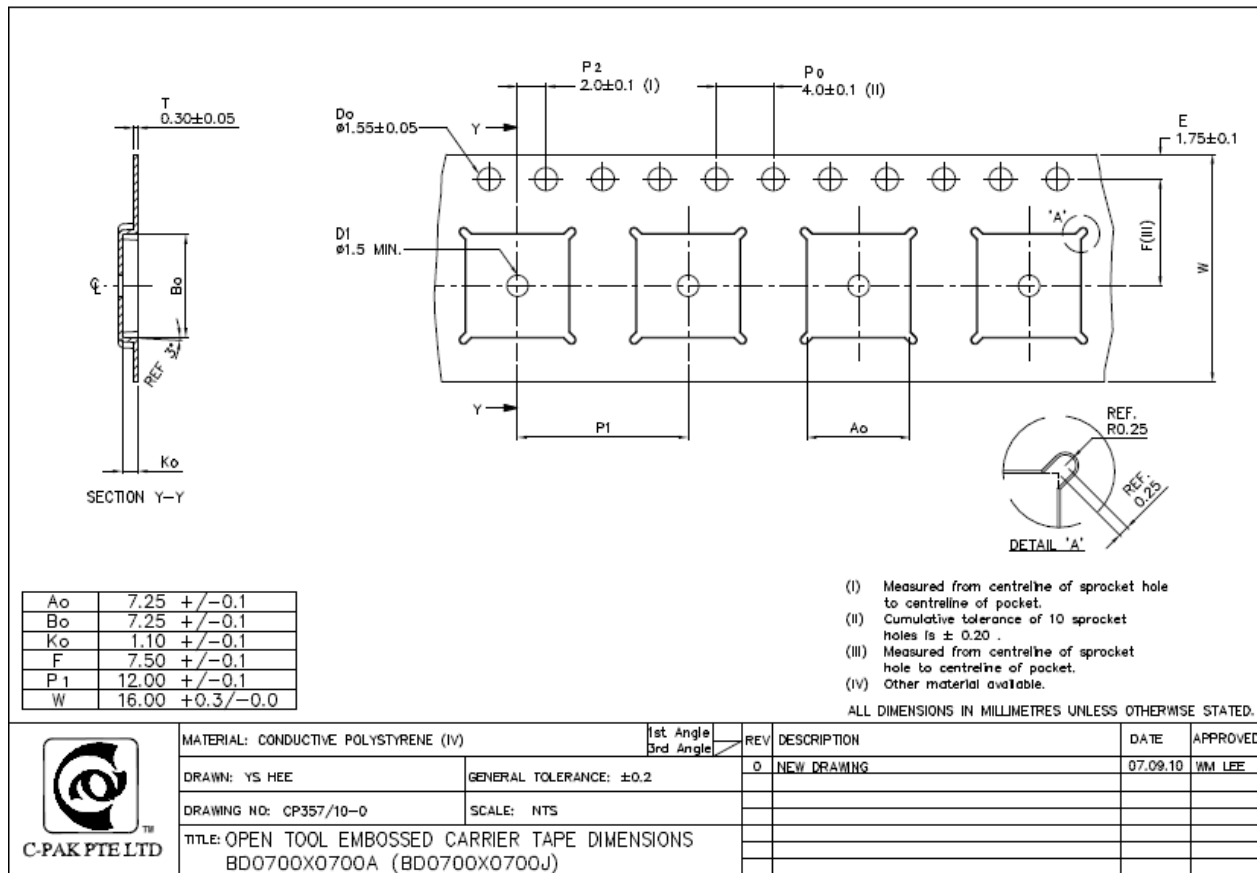
APPENDIX A (carrier tape comparison for 48QFN 7X7)

Critical dimension/package type	SCM	ASECL	Comparison Remarks
Material	Carrier Tape	Carrier Tape	
Vendor	Cpak	Cpak	
Part #	R021-0700X	BD0700X0700J	
Measurement Unit	MM	MM	MM
Carrier tape width	15.7 - 16.3	16.0 - 16.3	OK
Pocket pitch	11.9 - 12.1	11.9 - 12.1	OK
Rail hole pitch	3.9 - 4.1	3.9 - 4.1	OK
Pocket position to sprocket hole	7.4 - 7.6	7.4 - 7.6	OK
Sprocket hole diameter	1.5 - 1.6	1.5 - 1.6	OK
Ao	7.15 - 7.35	7.15 - 7.35	OK
Bo	7.15 - 7.35	7.15 - 7.35	OK
Ko	1.0 - 1.2	1.0 - 1.2	OK

SCM carrier drawing for 48QFN 7X7



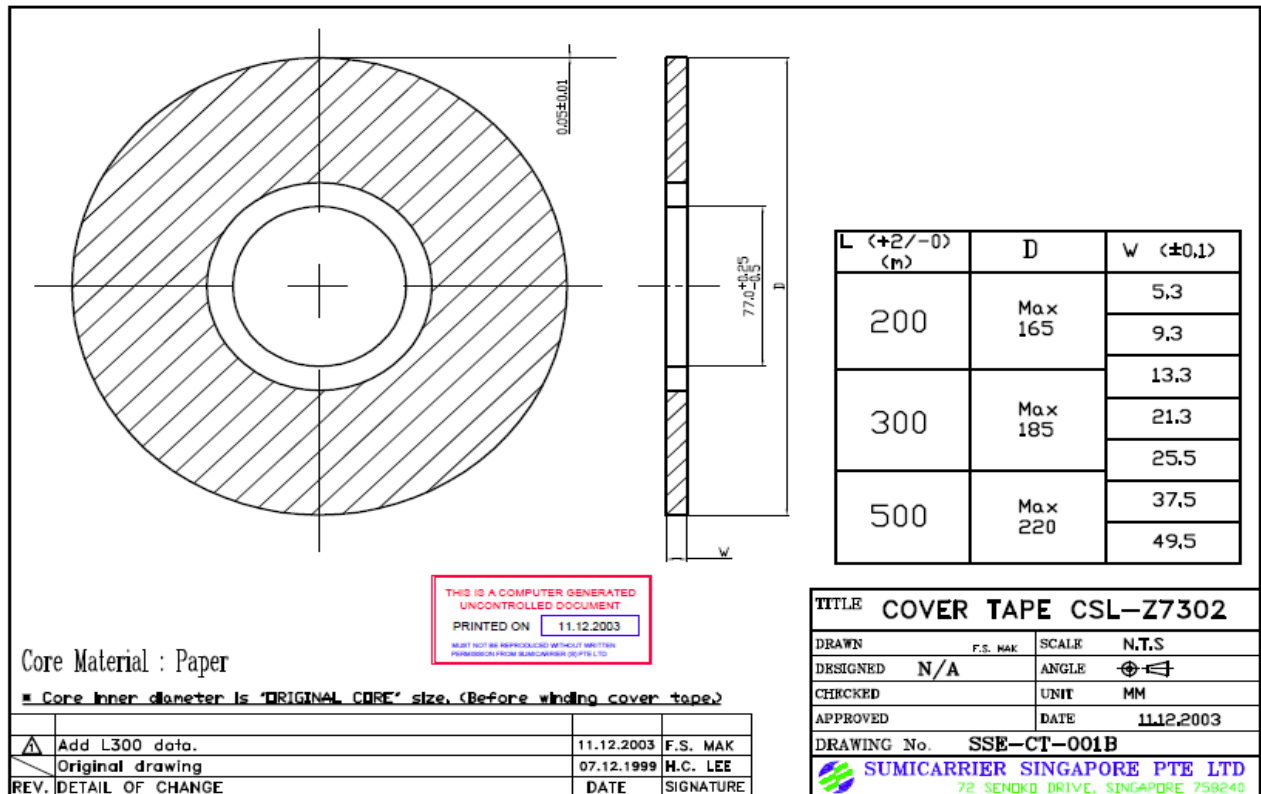
ASECL carrier drawing for 48QFN 7X7



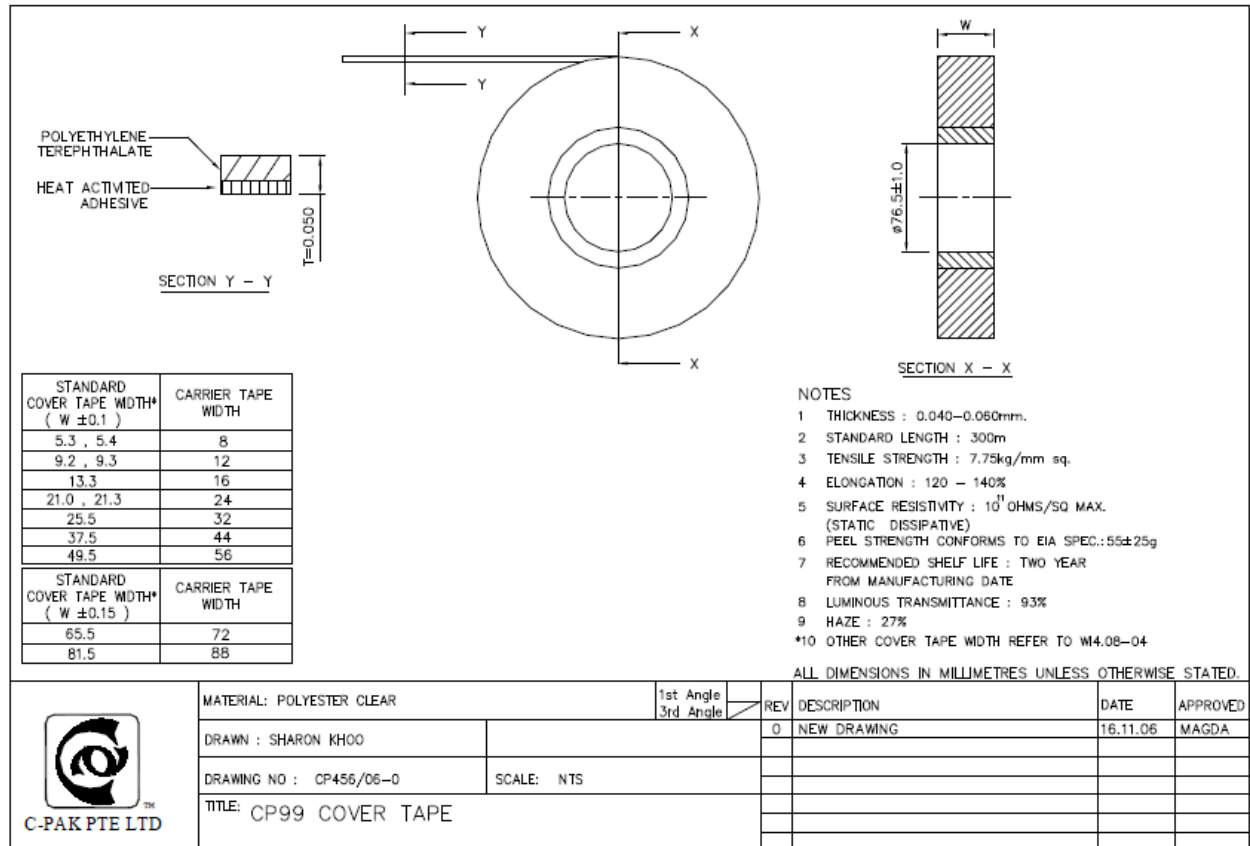
APPENDIX B (cover tape comparison on 48QFN 7X7)

Critical dimension/package type	SCM	ASECL	Comparison Remarks
Material	Cover Tape	Cover Tape	
Vendor	Sumi Carrier	Cpak	
Part #	R021-0114B	CP99-133A	
Measurement Unit	MM	MM	MM
Width	13.2 - 13.4	13.2 - 13.4	OK
Length	302 Meter	300 Meter	OK
ESD Properties			
Surface Resistivity (Ohms / SQ)	10^{11}	10^{11}	OK

SCM cover tape drawing



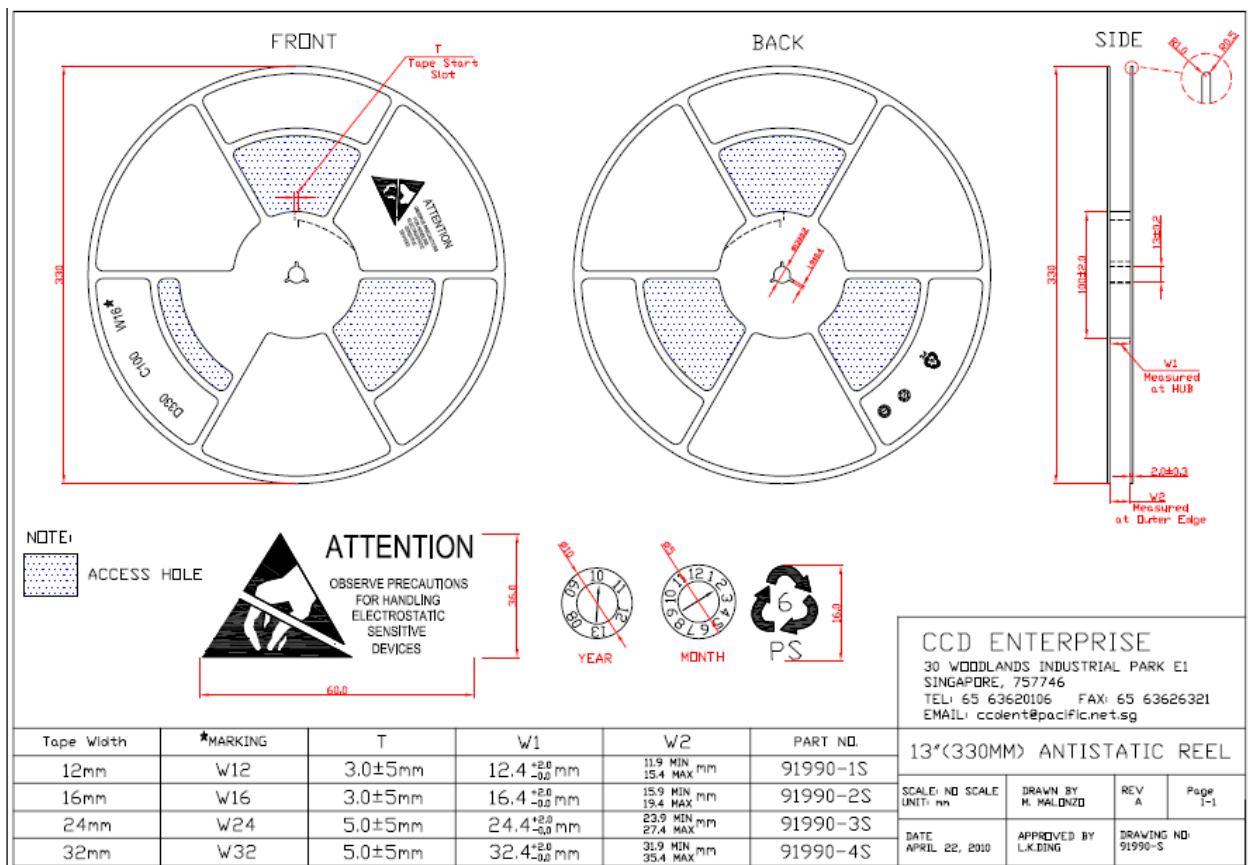
ASECL cover tape drawing



APPENDIX C (lokreel comparison on 48QFN 7X7)

Critical dimension/package type	SCM	ASECL	Comparison Remarks
Material	Lock Reel	Lock Reel	
Vendor	CCD Enterprise	Cpak	
Part No	R021-1462X	43000051P1	
Measurement Unit	MM	MM	MM
Reel Hub Width (W1)	16.4 - 16.6	16.4 - 16.6	OK
Reel Outer Width (W2)	15.9 - 19.4	16 - 22.4	Difference 0.1 - 3 (meeting EIA 481 spec.)
ESD Properties			
Surface Resistivity (Ohms / SQ)	$10^6 - 10^{11}$	$10^6 - 10^{12}$	OK

SCM lokreel drawing



ASECL lokreel drawing

