

Date 9/23/2004

Qualification Plan # 3524B-9-23-2004-296

Group Definition 5

New or Major Change in Assembly Process/Package for a Qualified Device

Device	3524B	Mask Rev	PE	Package	DW-16	Process	40V	BondWire	Au 1.25
Die Attach	84-1 LMI SR4	Mold Compd:	G600	Pkg Suppl:	(B)	Pretest Pgm:	S1524B.FT		
Lead Finish:	Matte Tin (Sn)	Bond Diagram	BD1524B/PE-DW	Burn-in Ckt:	1524BDW	Posttest Pgm:	S1524B.QA		
Lot Number	1 E404017J	2 E443051J	3	4	5	6			
Date Code	1 0409A	2 0451A	3	4	5	6			

Life Test			<i>Hrs/Cycles</i>						
<i>Qual Num</i>	<i>Lot</i>	<i>Condition</i>	<i>Plan</i>	<i>Actual</i>	<i>Start</i>	<i>End</i>	<i>S/S</i>	<i>Rej Notes:</i>	
2004-RM-220	E404017J	125	1000hrs	1000	10/5/2004	11/23/2004	48	0 Passed	
Thermal Shock			<i>Hrs/Cycles</i>						
<i>Qual Num</i>	<i>Lot</i>	<i>Condition</i>	<i>Plan</i>	<i>Actual</i>	<i>Start</i>	<i>End</i>	<i>S/S</i>	<i>Rej Notes:</i>	
2004-RM-220	E404017J	-55C to +125C	100 cycles	100	10/2/2004	10/13/2004	50	0 Passed	
2004-RM-275	E443051J	-55C to +125C	100 cycles	100	12/27/2004	1/7/2005	50	0 Passed	
Temperature Cycle			<i>Hrs/Cycles</i>						
<i>Qual Num</i>	<i>Lot</i>	<i>Condition</i>	<i>Plan</i>	<i>Actual</i>	<i>Start</i>	<i>End</i>	<i>S/S</i>	<i>Rej Notes:</i>	
2004-RM-220	E404017J	-65C to +150C	100 cycles	100	10/2/2004	10/5/2004	49	0 Passed	
2004-RM-275	E443051J	-65C to +150C	100 cycles	100	1/4/2005	1/7/2005	50	0 Passed	
Autoclave			<i>Hrs/Cycles</i>						
<i>Qual Num</i>	<i>Lot</i>	<i>Condition</i>	<i>Plan</i>	<i>Actual</i>	<i>Start</i>	<i>End</i>	<i>S/S</i>	<i>Rej Notes:</i>	
2004-RM-220	E404017J	121C, 15 psig	96 hours	98	10/2/2004	10/7/2004	50	0 Passed	
2004-RM-275	E443051J	121C, 15 psig	96 hours	96	12/31/2004	1/5/2005	50	0 Passed	
Physical Dimensions			<i>Hrs/Cycles</i>						
<i>Qual Num</i>	<i>Lot</i>	<i>Condition</i>			<i>Start</i>	<i>End</i>	<i>S/S</i>	<i>Rej Notes:</i>	
2004-RM-220	E404017J	SGQ1044			1/20/2005	1/21/2005	3	0 Passed	
Marking Permanency			<i>Hrs/Cycles</i>						
<i>Qual Num</i>	<i>Lot</i>	<i>Condition</i>			<i>Start</i>	<i>End</i>	<i>S/S</i>	<i>Rej Notes:</i>	
2004-RM-220	E404017J	SGQ1038			10/2/2004	10/5/04	12	0 Passed	
Solderability			<i>Hrs/Cycles</i>						
<i>Qual Num</i>	<i>Lot</i>	<i>Condition</i>			<i>Start</i>	<i>End</i>	<i>S/S</i>	<i>Rej Notes:</i>	
2004-RM-220	E404017J	SGQ1041			10/2/2004	10/5/2004	22	0 Passed	
2004-RM-275	E443051J	SGQ1041			1/3/2004	1/5/2005	22	0 Passed	
Moisture Sensitivity			<i>Hrs/Cycles</i>						
<i>Qual Num</i>	<i>Lot</i>	<i>Condition</i>			<i>Start</i>	<i>End</i>	<i>S/S</i>	<i>Rej Notes:</i>	
2004-RM-220	E404017J	JSTD-020B			10/2/2004	11/1/2004	12	0 Passed Pb free MSL level 1	

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Construction Analysis

<i>Qual Num</i>	<i>Condition</i>	<i>CA Report #</i>	<i>CA By</i>	<i>Start</i>	<i>End</i>	<i>S/S</i>	<i>Rej Notes:</i>
2004-RM-220	SGQ1343	35489	Photometrics	10/5/2004	10/21/2004		Approved by Michelle Hazard

Supporting Data:

CEI_16Ld_SOIC_PbFree_Qual_Report. MSL1 report including reliability testing - (500 temp cycles, 1000 hours high temp bake, autoclave)
SG3534B_CEI_16Ld_SOWB_PbFree (Photometrics Construction Analysis)

Comments:

Pb-free package family qualification
Vendor data substitutes for 1 lot

Signatures:

Responsible Engineer

Responsible Engineering Manager

Reliability Manager