Allegro MicroSystems, LLC		. HURBERGER	۵	A Co
				<b>nber:</b> 1315 c rev 10 04/13 - NO
Product/P	rocess Change Not	ification (P	PCN)	
Customer: North American & A	Asia Distributors	Date	e: 10/11/20	13
Customer Part # and/Allegro pa	art #:			
A8304SESTR-T				
<b>Originator:</b> J. Hurley	<b>Phone:</b> 508	8-854-549	1 <b>Fax:</b> 508-	-853-3353
Duration of Change:	Perma	anent X	Temporary	(explain)

Summary description of change: Part Change:	X	Process Change:	Other:
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Allegro currently assembles the 3 x 3 QFN package type at Stats ChipPAC, Kuala Lumpur, Malaysia, (SCM). Stats ChipPAC Malaysia (SCM) has informed Allegro that they will be closing this facility in June of 2014. Allegro will move the assembly site for the 3 x 3 QFN package type from Stats ChipPAC Malaysia (SCM) to Carsem Suzhou, China (CRC).

## What is the part or process changing from (provide details)?

Allegro currently assembles the 3 x 3 QFN package type at Stats ChipPAC, Kuala Lumpur, Malaysia. Stats ChipPAC Malaysia (SCM) has informed Allegro that they will be closing this facility in June of 2014.

## What is the part or process changing to (provide details)?

Allegro will move the assembly site for the 3 x 3 QFN package type to Carsem Suzhou, China.

## Describe how this change affects the customer:

Carsem Suzhou, China has been primary QFN source for many years. Allegro has performed the necessary qualification and electrical tests to ensure the device is functionally equivalent to the data sheet specification.



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# Product/Process Change Notification (PCN) Is a PPAP update required? Yes No x Is reliability testing required? Yes x No (explain) (If Yes, refer to attached plan) Yes x No (explain) Per the below plan: Ves x Ves x

Reliability Qualification Plan/Results

Device: 9295/9296 Assy Lot #: 1310085LNAA Fab Location: UMC Package: ES (MLP) Number of Leads: 20 Assembly Location: Carsem Tracking Number: 2258 Lead Finish: 100% Sn

Reason For Qualification: 9295/9296 Single LNB Supply and Control Voltage Regulator

Reliability Qualification Test Plan/Results							
9295, 9296 - STR#2258					Re	Requirements	
Stress Test	Abv.	Test #	Test Method	Test Conditions	s.s.	Results	
Preconditioning	PC	A1	JESD22-A113	85°C/60% RH, 168 hrs, Peak Reflow=260°C	236	0 Rejects	
Temperature Humidity Bias	тнв	A2	JESD22-A101	85°C, 85% RH, 0, 1000 hrs	77	0 Rejects	
Autoclave	AC	A3	JESD22-A102	121°C, 100% RH, 15 PSIG, 0, 96 hrs	77	0 Rejects	
Temperature Cycle	тс	A4	JESD22-A104	-65°C to +175°C, 0, 500, 1000 Cycles	77	0 Rejects	
High Temperature Storage Life	HTSL	A6	JESD22-A103	150°C, 0, 1000 hrs	77	0 Rejects	
High Temperature Operating Life (STR#2334)	HTOL	B1	JESD22-A108	125°C, 0, 408, 1000 hrs	77	0 Rejects	
Early Life Failure Rate	ELFR	B2	AEC-Q100- 008 / JESD22-A108	125°C, 0, 48 hrs	800	0 Rejects	
Wire Bond Pull	WBP	C2	800021	Temp conditions and sample size are defined in the test method. 0 Rejects; Cpk>1.33			
Electrostatic Discharge Human Body Model	нвм	E2	JESD22-A114	Test Conditions, Sampling Size are H2,		Classification H2, HBM =2.0 kV	
Electrostatic Discharge Charged Device Model	CDM	E3	JESD22-C101	Test Conditions, Sampling Size are defined in the Test Method IV, > 1kV			
Latch-Up	LU	E4	AEC Q100- 004	Test Conditions, Sampling Size are Class II, Level defined in the Test Method A			
Electrical Distributions	ED	E5	AEC Q100- 009	Tri-Temp Characterization         30 pieces         0 Rejects; Cpk>1.67			

This device qualification is considered to be passing all environmental stress evaluations per the *Allegro MicroSystems*, *Inc.* 900019.



Expected completion date for internal qualification: Complete

# Expected PPAP availability date: N/A

Target implementation date: December 2013

Estimated date of first shipment: January 2014

Expected sample availability date: December 2013

Customer Approval Required	:	For Notification Only
No	х	

cc: Allegro Sales/Marketing/Quality