



PCN Number: 1109 Chgnot.doc rev 10 04/13 - NO

Product/Process Change Notification (PCN)

Customer: NAM & ASIA Distributors	Date: 10/14/2013						
Customer Part # and/Allegro part #: A8295SESTR-T Originator: J. Hurley Phone: 508-854-5491 Fax: 508-853-3353							
Duration of Change:	Permanent X Temporary (explain)						
Summary description of change: Part Cha	nge: X Process Change: Other:						

Allegro currently manufactures the A8295SESTR-T at wafer fab, Polar Semiconductor Inc. (PSI), Bloomington, MN, USA, with Gold Bond Wires. We will add a second source wafer fab known as United Microelectronics Corporation (UMC), Hsinshu, Taiwan, and change to Copper Bond Wires.

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

The A8295SESTR-T is manufactured at wafer fab, Polar Semiconductor Inc. (PSI), Bloomington, MN, USA, with Gold Bond Wires, using BCD Generation 5 technology.

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

The A8295SESTR-T will be manufactured at wafer fab, United Microelectronics Corporation (UMC), Hsinshu, Taiwan, with Copper Bond Wires, using BCD Generation 6.5 technology.

Describe how this change affects the customer:

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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Is a PPAP update required?

Yes

Yes

No x

No (explain)

Is reliability testing required?

(If Yes, refer to attached plan) Per the below plan:



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					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	А3	JESD22-A102	121°C, 100% RH, 15 PSIG, 0, 96 hrs	77	0 Rejects		
Temperature Cycle	TC	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 defined in the Test Method		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		Classification = IV, > 1kV		
Latch-Up	LU	E4	AEC Q100- 004	Test Conditions, Sampling Size are defined in the Test Method		Class II, Level 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 1, 2013

Estimated date of first shipment: January 1, 2014

Expected sample availability date: October, 2013

For Notification Only

Customer Approval Required:

No

cc: Allegro Sales/Marketing/Quality