

PCNNumber: 1315  
Chgnot.doc rev 10 04/13 - NO

**Product/Process Change Notification (PCN)**

**Customer: NAM & ASIA DISTRIBUTION**

**Date: 10/8/13**

**Customer Part # and/Allegro part #:**

A4987SESTR-T
A4986SESTR-T

**Originator: J. Hurley**

**Phone: 508-854-5491 Fax: 508-853-3353**

**Duration of Change:**

Permanent  Temporary (explain)

**Summary description of change:** Part Change:  Process Change: Other:

Allegro currently assembles the 4 x 4 QFN package type at Stats ChipPAC, Kuala Lumpur, Malaysia, (SCM) with Gold Bond Wires. 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 4 x 4 QFN package type from Stats ChipPAC Malaysia (SCM) to Carsem Suzhou, China (CRC) and will change to Copper Bond Wires.

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

Allegro currently assembles the 4 x 4 QFN package type at Stats ChipPAC, Kuala Lumpur, Malaysia with Gold Bond Wires. 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 4 x 4 QFN package type to Carsem Suzhou, China with Copper Bond Wires.

**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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Is a PPAP update required? Yes  No

Is reliability testing required? Yes  No (explain)

(If Yes, refer to attached plan)

Per the below plan:

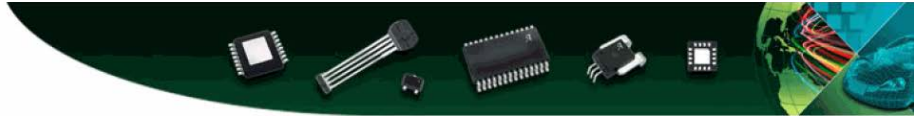
**Summary:** This qualification is considered to be passing all environmental stress evaluations per the Allegro MicroSystems, LLC 900019 specification for Carsem-SZ, MLP/QFN 0.75mm package thickness family of devices.

**Detailed Data:** *Carsem-SZ*

Package: 4x4 QFN 0.75mm thickness, ES  
 Assembly Location: Carsem-SZ  
 Mold Compound: G770  
 Lead Frame: 4220  
 Lead Finish: 100% Tin  
 Die Attach Material: QMI-519

**Tests Summary**

Stress	Test Method	Test Condition	Sample Size	Results	# of Lots
Preconditioning	J-STD-020	85°C/60 RH, 168 hrs	231	0 Rejects	3
HAST	JESD22-A110	130°C/85% RH, 96 hrs	77	0 Rejects	3
AC	JESD22-A102	121°C, 100% RH, 96 hrs	77	0 Rejects	3
TC	JESD22-A104	-65°C to +175°C, 500 cyc	77	0 Rejects	3
HTSL	JESD22-A103	150°C, 1000 hrs	77	0 Rejects	1
HTOL	JESD22-A108	125°C, 1000 hrs	77	0 Rejects	3
ELFR	AEC-Q100-008	125°C, 48 hrs	800	0 Rejects	3
Latch-Up	Q100-004		6	0 Rejects	1
Wire Bond Pull	Mil-STD-2011	Method 2011	5	Cpk > 1.67	3
Solderability	JESD22-B102		15	0 Rejects	1
Saw Kerf			5	Cpk > 1.67	1
Die Shear Strength			5	Cpk > 1.67	1
Ball Shear Strength			30	Cpk > 1.67	1
Wire Pull Strength			30	Cpk > 1.67	1
Stitch Pull			30	Cpk > 1.67	1
Wire Sweep			10	Cpk > 1.67	1
Plating Thickness			5	Cpk > 1.67	1
Physical Dimensions (X)			5	Cpk > 1.67	1
Physical Dimensions (Y)			5	Cpk > 1.33	1



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**Expected completion date for internal qualification:** Complete

**Expected PPAP availability date:** N/A

**Target implementation date:** November 1, 2013

**Estimated date of first shipment:** December 1, 2013

**Expected sample availability date:** October 31, 2013

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**Customer Approval Required:** For Notification Only

No

cc: Allegro Sales/Marketing/Quality