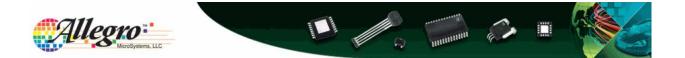


There is no change to the Form, Fit, or Function of the device.



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

Product/Process Is a PPAP update required?	<b>Change Notification (PCN)</b> Yes	No X
<b>Is reliability testing required?</b> (If Yes, refer to attached plan) Per the below plan: Per JEDEC and AECQ100 standards	Yes X	No (explain)

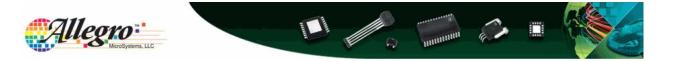
## **Reliability Qualification Plan/Results**

Device: 7877, (3977) Fab Location: UMC Assy Lot #: 1246396UAAA Package: LP (TSSOP) Number of Leads: 28 Assembly Location: Unisem Lead Finish: 100% Sn Tracking Number: 2104

Reason For Qualification: 7877-Microstepping DMOS Driver with Translator

Reliability Qualification Test Plan/Results								
7877 - STR#2104					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	260	0 Rejects		
HAST	HAST	A2	JESD22-A110	130°C, 2 ATM, 85% RH, 0, 96 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 +150°C, 0, 500 Cycles	77	0 Rejects		
High Temperature Operating Life	HTOL	B1	JESD22-A108	125°C, 0, 1000 hrs	77	0 Rejects		
Early Life Failure Rate	ELFR	В2	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 =2.5 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	1 lot	0 Rejects; Cpk>1.67		

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



## Expected completion date for internal qualification: Complete

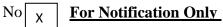
Expected PPAP availability date: N/A

Target implementation date: 11/1/2013

Estimated date of first shipment: 1/1/2014

Expected sample availability date: Available Now

Customer Approval Required:



cc: Allegro Sales/Marketing/Quality