

PCN Number: 1604-4  
Chgnot.doc rev. \_\_ 8/16

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

**Customer:** NEWARK ELECTRONICS

**Date:** 24 August 2016

**Customer Part # affected:** A1106LUA-T, A1212LUA-T, A1214LUA-T

**Originator:** Stylianos Kalakonas

**Phone:** 603-626-2484

**Fax:** 603-641-5336

**Duration of Change:**

**Permanent**

**Temporary (explain)**

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

**Process Change:**

**Other:**

This notification encompasses both a wafer and package change to the subject device.

**1. Wafer Fabrication:**

The subject device will change from Polar Semiconductor, LLC's (PSL) 6" wafer line to PSL's 8" wafer line using the same DABIC5 design process technology. The transfer is consistent with the industry's trend to pare down older capacity (< 8"). In addition to the inherent quality improvements associated with this transfer Allegro will be able to extend the products life and remain competitive by mitigating the escalating costs of maintaining the 6" wafer line which is scheduled to close with final wafer starts in the 2<sup>nd</sup> half of 2017.

**2. Package:**

Allegro is investing invest in our next generation UA SIP featuring advancements in assembly technology, a matrix high density (HD) leadframe, and state of the art mold compound.

**What is the part or process changing from?**

**1. Wafer Fabrication:**

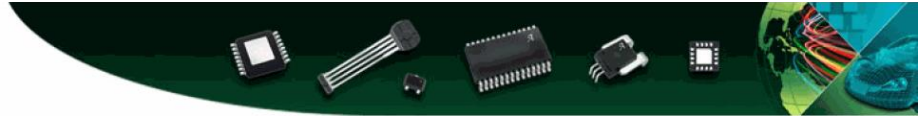
This device is manufactured from wafers fabricated on PSL's 6" wafer line. This line is located in a class 100 clean room with 0.50 um process capability. The 6" wafer line uses batch processing with a combination of automatic, semi-automatic and manual equipment with limited automatic recipe download capabilities.

**2. Package:**

Mold Compound: MG52F, legacy mold compound

**3. Top Branding:**

See attached picture for existing Allegro legacy UA package branding.



**What is the part or process changing to?**

**1. Wafer Fabrication:**

This device will be manufactured from wafers fabricated on PSL’s 8” wafer line. This line is located in a class 10 clean room with 0.35 um process capability. The 8” wafer line uses single wafer processing with automatic and robotic equipment with automatic recipe download.

**2. Package:**

Mold Compound: G700-LS, Rohs compliant low stress, green mold compound

**3. Top Branding:**

Please see attached picture of top brand of Matrix HD UA package.

Other minor changes in the flow and BOM internal to the package will be provided in the PPAP.

There is no impact to form, fit or function for these part changes.

**Note:** Validation of equivalence within a specific application is at the discretion of the Customer.

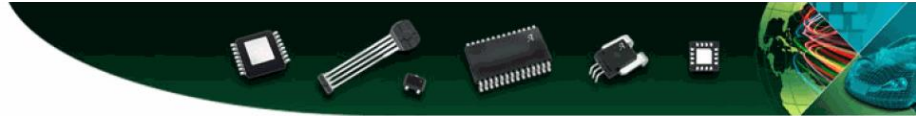
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**Is a PPAP update required?**

Yes  No

**Reliability testing required?**

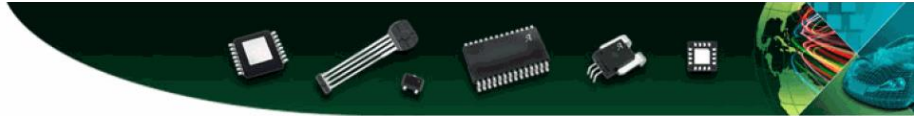
Yes  No (explain)



## Top Branding Comparison

Legacy UA	Matrix HD UA
<b>01E</b>	<b>101</b>

- **Legacy UA Top Branding:**  
Last two digits of part number + Temperature range designator
- **Matrix HD UA Top Branding:**  
Last three digits of the part number



**Expected completion date for internal qualification:** November 2016

**Expected PPAP availability date:** Dec. 2016 / Jan. 2017  
(Three weeks upon request)

**Estimated date of first shipment:** March 2017

**Expected sample availability date:** Available

<b>Customer Approval Required:</b>	<b>Yes</b> <input type="checkbox"/>	<b>Date Required:</b> _____ or earlier
	<b>No</b> <input checked="" type="checkbox"/>	<b>Notification Only</b>

In the event the customer cannot approve the change Allegro will support Non-Cancellable Non-Returnable Last Time Buy (LTB) orders for the existing solution. LTB purchase orders must have requested delivery no later than 12 months from date below with a quantity that cannot exceed one year of demand unless there is a separate agreement with Allegro.

**Final Date to place LTB orders:** August, 2017

**Please note:** It is our intention to inform our customer of changes as early as possible. Under Allegro’s procedure for product/process change notification, Allegro strives, based on its technical judgment, to provide notification of significant changes that may affect form, fit or function. However, as Allegro cannot ensure evaluation of product/process changes for each and every application; the customer retains responsibility to validate the impact of a change on its application suitability. If samples are needed for validation of a change, requests may be made via the contact information provided herein. Please contact your Account Manager or local Sales contact for any questions. We would kindly request your consideration so we can meet our target date for implementation. Unless both parties agree to extend the implementation date, this change will be implemented as scheduled.

cc: Allegro Sales/Marketing/Quality