



| PCN Number: | July 2015 |
|--|-----------------|
| Product/Process Change Notification (PCN) | |
| Customer: Digi-Key Date | : July 20, 2015 |
| Catalog / Customer Part # and/or Lot# affected: A4403GEUTR-T | |
| Originator: J. Hurley Phone: 508.854.5431 Email: Jhurley@allegro | omicro.com |
| | |
| Duration of Change: Permanent χ Temporary (expla | ain) |
| Summary description of change: Part Change: X Process Change: Othe | r: |

- 1. The **A4403GEUTR-T** will change from being manufactured on the 6" wafer line at wafer fab, Polar Semiconductor LLC (PSL), Bloomington, MN, USA utilizing ABCD4 technology to the 8" wafer line at Polar Semiconductor LLC (PSL), Bloomington, MN, USA utilizing ABCD4-8 technology.
- 2. The **A4403GEUTR-T** will change from being manufactured with Gold Bond Wires at Carsem China to being manufactured with Copper Bond Wires at Carsem China.
- 3. The **A4403GEUTR-T** will change from Final Test at Allegro MicroSystems, Inc. Manila, Philippines (AMPI) to Final Test at Allegro MicroSystems Thailand, Company Ltd. (AMTC)

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

- 1. Allegro currently manufactures the **A4403GEUTR-T** on the 6" wafer line at wafer fab, Polar Semiconductor LLC (PSL), Bloomington, MN, USA, utilizing ABCD4 technology.
- 2. The A4403GEUTR-T is manufactured with Gold Bond Wires at Carsem China.
- 3. Allegro currently final tests the **A4403GEUTR-T** at Allegro MicroSystems, Inc. Manila, Philippines (AMPI)

What is the part or process changing to (describe the anticipated impact of this change on form, fit and/or function)?

- 1. The **A4403GEUTR-T** will be manufactured on the 8" wafer line at wafer fab, Polar Semiconductor LLC (PSL) Bloomington, MN, USA, utilizing ABCD4-8 technology.
- 2. The A4403GEUTR-T will be manufactured with Gold Bond Wires at Carsem China.
- 3. Allegro will be expanding its manufacturing capabilities with the addition of a new, wholly-owned integrated circuit test facility located in Saraburi, Thailand. The same make and model test equipment will be utilized and test site transfer buy off data will be on file for each device before production begins.

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





PCN Number: Chgnot.doc rev 13 1/14

| Is a PPAP update required? | Yes | No X |
|---|-------|--------------|
| Is reliability testing required? (If Yes, refer to results below) | Yes X | No (explain) |
| Reliability Qualification Results | | |
| | | |

 Device:
 2403, 4403
 Number of Leads:
 16

 Assy Lot #:
 1451046PXAA
 Assembly Location:
 Ampi

 Fab Location:
 PSL
 Tracking Number:
 2961

 Package:
 EU (4x4 MLP)
 Lead Finish:
 100% Sn

Reason For Qualification: 2403, 4403 - Valley Current Mode Control Buck Converter

| Reliability Qualification Results | | | | | | |
|---|-----------|-----------|------------------|-----------------------------------|---------------|---|
| 2403, 4403 - STR#2961 | | | Requirements | | | |
| Stress Test | Abv. | Test # | Test Method | Test Conditions | s.s. | Results |
| Electrical Distributions | ED | E5 | AEC Q100- 009 | Tri-Temp Electrical Distributions | 30 pcs/lot | 0 Rejects; Cpk>1.67 |
| Review of previous Electrical Distributions vs. New results | A- vsB | E5-B | AEC Q100- 009 | Tri-Temp Electrical Distributions | 30 pcs/lot | 0 Rejects; Cpk>1.67 Review Approved. |

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





| Expected completion date for internal qualification: Wafer fab and Assembly Complete | |
|--|----|
| The same make and model test equipment will be utilized and test site transfer buy off ata will be on file for each device before production begins. | |
| Expected PPAP availability date: N/A | |
| Target implementation date: September 1, 2015 | |
| Estimated date of first shipment: October 1, 2015 | |
| Expected sample availability date: June 2015. | |
| Yes Date Required: Customer Approval Required: No X Notification Only | |
| 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 degree, 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 pplication; the customer retains responsibility to validate the impact of a change on its application uitability. If samples are needed for validation of a change, requests may be made via the contact. | 01 |

1 n 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.

| Customer comments/Conditions of Acceptance: | | | | | | |
|---|-------|--------|--|--|--|--|
| Approved by: cc. Allegro Sales/Marketing/Quality | Date: | Title: | | | | |