

PCN Number: 04032017

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

**Customer: DIGI-KEY**

**Date: 04-03-2017**

**Customer Part #: A4930GETTR-T**

**Originator: R. Fennelly**

**Phone: 508-853-5000**

**Duration of Change:** Permanent  Temporary (explain)

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

- Allegro currently manufactures the A4930GETTR-T at wafer fab, Polar Semiconductor LLC (PSL), Bloomington, MN, USA, utilizing 6" ABCD4 technology. The 6" wafer line is closing. Allegro will be changing wafer fab manufacturing to the 8" ABCD4 technology wafer line at Polar Semiconductor LLC (PSL), Bloomington, MN, USA

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

- Allegro currently manufactures the A4930GETTR-T at wafer fab, Polar Semiconductor LLC (PSL), Bloomington, MN, USA, utilizing 6" ABCD4 technology. The 6" wafer line is closing.

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

- Allegro will be changing wafer fab manufacturing to the 8" ABCD4 technology wafer line at Polar Semiconductor LLC (PSL), Bloomington, MN, USA.

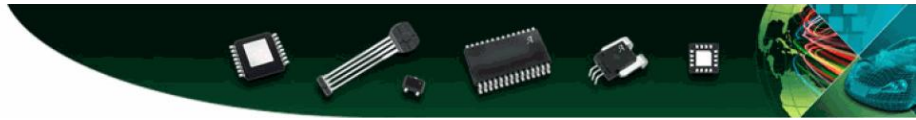
**Note:** Validation of equivalence within a specific application is at the discretion of the Customer

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**Is a PPAP update required?** Yes  No

**Is reliability testing required?** (If Yes, refer to attached plan) Yes  No (explain)



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**Reliability Qualification Results**

Device: 4930 (4630)  
Assy Lot #: 1642865LAAA  
Number of Leads: 28  
Fab Location: UMC

Package: LP (eTSSOP)  
Assembly Location: Carsem  
Lead Finish: 100% Sn  
Tracking Number: 3761

Reason for Qualification: 4930 (4630) - Single Phase Fan Pre-Driver

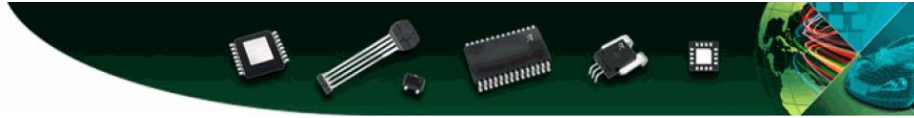
Reliability Qualification Results						
4930 (4630), STR#3761						Requirements
Stress Test	Abv.	Test #	Test Method	Test Conditions	S.S.	Results
Preconditioning	PC	A1	JESD22-A113 / J-STD-020	85°C/60% RH, 168 hrs, Peak Reflow=260°C; MSL2, (HAST, AC, TC)	231	0 Rejects
HAST	HAST	A2	JESD22-A110	Ta=130°C, 2 ATM, 85% RH, 0, 96 hrs	77	0 Rejects
Autoclave	AC	A3	JESD22-A102	Ta=121°C, 100% RH, 15 psig, 0, 96 hrs	77	0 Rejects
Temperature Cycle	TC	A4	JESD22-A104	Ta = -65°C to +175°C, 0, 500, 1000 Cycles	77	0 Rejects
High Temperature Operating Life	HTOL	B1	JESD22-A108	Ta = 125°C, 0, 1000 hrs	77	0 Rejects
Early Life Failure Rate	ELFR	B2	AEC-Q100-008 / JESD22-A108	Ta = 125°C, 0, 48 hrs	800	0 Rejects
Wire Bond Pull	WBP	C2	Mil-Std-883 Method 2011	Temp conditions and sample size are defined in the test method. (after TC)		0 Rejects; Ppk>1.67
Electrostatic Discharge Human Body Model(STR#3813)	HBM	E2	AEC-Q100-002 / JS-001-2014	Test Conditions, Sampling Size are defined in the Test Method		Classification 1C, HBM =1.5 kV
Electrostatic Discharge Charged Device Model	CDM	E3	AEC-Q100-011	Test Conditions, Sampling Size are defined in the Test Method		Classification = C6, > 1kV
Latch-Up	LU	E4	JESD78	Test Conditions, Sampling Size are defined in the Test Method		Class II, Level B
Electrical Distributions	ED	E5	AEC Q100-009	Tri-Temp Electrical Distributions	30 pcs	0 Rejects; Cpk>1.67

*This device qualification is considered to be passing all environmental stress evaluations per the Allegro MicroSystems, 900019 specification and AEC-Q100.*

Approved by:

Bob Demers

Bob Demers  
Product Safety and Reliability  
Allegro MicroSystems, LLC



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

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

**Target implementation date:** March 2018

**Estimated date of first shipment:** April 2018

**Expected sample availability date:** Available Upon Request

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**Customer Approval Required:** Yes  **Date Required:** N/A  
No  **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 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.

Customer comments/Conditions of Acceptance:

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_ Title: \_\_\_\_\_  
cc: Allegro Sales/Marketing/Quality