

## **Automotive Process Change Notification**

### **-Revised-**

## **AU-14-168\_Public**

## **AU-14-168A**

**Date:** October 22, 2014

**PCN Reference:** AU-14-168-Public-R

D-Pak Leadframe and Bill of Materials (BOM ) - Revised; removed some devices only.

**Product Reference:** Automotive Planar Gen5.x and 7.x MOSFETs in D-Pak packages, IR Mexico Assembly Site

### **To Our Valued Customer:**

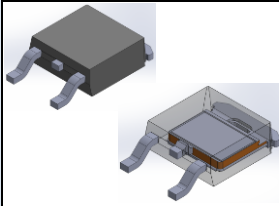
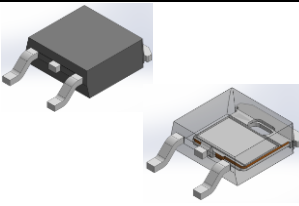
We thank you for your use of International Rectifier (IR) semiconductor products. Our commitment to customer satisfaction and continuous improvement is demonstrated by our change plans to enhance capacity, quality and reliability. We would like to express our sincere appreciation for your cooperation regarding the following changes, and IR will work closely with you to support your requirements during this transition.

### **Type of Change Notification:**

- Leadframe base material
- Plating material
- Die attach material (specific parts only - see table)
- Mold compound material (specific parts only - see table)
- Assembly process flow / lead appearance

### **Description of Change:**

The leadframe will change from a single row dual gauge thickness with selective Ni plating (excluding the die attach area), to a matrix single gauge thickness with selective Ni plating (T-post area only). The backend process flow will change from Trim – Plating - Leadform / Singulation to Plating - Trim / Form / Singulation.

	CURRENT BOM: Dpak SR DG + Current Solder	OPTION 2: DpakM SG Sel Ni t-post + 95.5C3 Solder
<b>Visual Description</b>		
<b>Leadframe</b>	0.035" on heatsink thickness 0.020" on leads thickness Sel Nickel plated except diepad 30 units per LF	0.020" on heatsink thickness 0.020" on leads thickness Sel Nickel except t-post 4 rows, 112 unit per LF

A passivation layer will be added to those parts without a protective top layer.

## Reason for the Change:

Material standardization, reduced scrap, and improved solderability. Adding passivation will improve robustness and reliability.

## Effective Date:

March 26, 2015

## Impact of Change:

No changes to form, fit, or function. Datasheet specifications will not be changed. The location for assembly and final test will not change.

## Products Affected:

PN	CHANGE	FROM IRMX QUERY_DIE ATTACH	TO IRMX QUERY_DIE ATTACH	FROM IRMX QUERY_MC	TO IRMX QUERY_MC
64-4111PBF	Change MC & LF & Die Attach	RM,SOLDER 97%PB/3%AG WIR	RM, SOLDER 95.5PB, 2SN, 5AG SSD-C3	RM,MC 6600DG 16X8.5	RM,MC CEL9240HF10L8 16X8
94-2138PBF	Change LF & Die Attach	RM,SOLDER 97%PB/3%AG WIR	RM, SOLDER 95.5PB, 2SN, 5AG SSD-C3	RM,MC KMC2110G 40X60	NO CHANGE
AUIRFR3504	Change MC & LF	RM,SOLDER 30ML PBSN2AG2.5	NO CHANGE	RM,MC KMC2110G-7S 16X8.6	RM,MC CEL9240HF10L8 16X8
AUIRFR3504TRL	Change MC & LF	RM,SOLDER 30ML PBSN2AG2.5	NO CHANGE	RM,MC KMC2110G-7S 16X8.6	RM,MC CEL9240HF10L8 16X8
AUIRFR4105	Change MC & LF	RM,SOLDER 30ML PBSN2AG2.5	NO CHANGE	RM,MC KMC2110G 40X60	RM,MC CEL9240HF10L8 16X8
AUIRFR4105TRL	Change MC & LF	RM,SOLDER 30ML PBSN2AG2.5	NO CHANGE	RM,MC KMC2110G-7S 16X8.6	RM,MC CEL9240HF10L8 16X8
AUIRFR5305	Change LF	RM,SOLDER 30ML	NO CHANGE	RM,MC KMC2110G-	NO CHANGE

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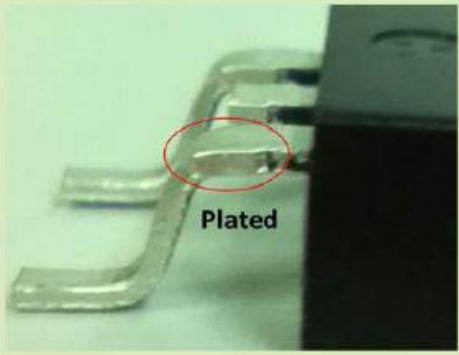
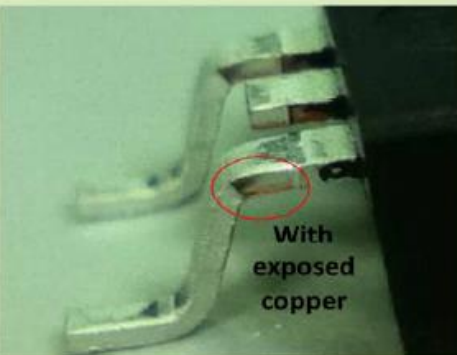
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		PBSN2AG2.5		7S 16X8.6	
AUIRFR5305TRL	Change LF	RM,SOLDER 30ML PBSN2AG2.5	NO CHANGE	RM,MC KMC2110G- 7S 16X8.6	NO CHANGE
AUIRFR5410	Change LF	RM,SOLDER 30ML PBSN2AG2.5	NO CHANGE	RM,MC KMC2110G- 7S 16X8.6	NO CHANGE
AUIRFR5410TRL	Change LF	RM,SOLDER 30ML PBSN2AG2.5	NO CHANGE	RM,MC KMC2110G- 7S 16X8.6	NO CHANGE
AUIRFR5505	Change LF	RM,SOLDER 30ML PBSN2AG2.5	NO CHANGE	RM,MC KMC2110G- 7S 16X8.6	NO CHANGE
AUIRFR5505TRL	Change LF	RM,SOLDER 30ML PBSN2AG2.5	NO CHANGE	RM,MC KMC2110G- 7S 16X8.6	NO CHANGE
AUIRFR6215	Change LF	RM,SOLDER 30ML PBSN2AG2.5	NO CHANGE	RM,MC KMC2110G 40X60	NO CHANGE
AUIRFR6215TRL	Change LF	RM,SOLDER 30ML PBSN2AG2.5	NO CHANGE	RM,MC KMC2110G- 7S 16X8.6	NO CHANGE
AUIRFR9024N	Change LF	RM,SOLDER 30ML PBSN2AG2.5	NO CHANGE	RM,MC KMC2110G- 7S 16X8.6	NO CHANGE
AUIRLR2703TRL	Change MC & LF	RM,SOLDER 30ML PBSN2AG2.5	NO CHANGE	RM,MC KMC2110G- 7S 16X8.6	RM,MC CEL9240HF10L8 16X8
AUIRLR2905	Change MC & LF	RM,SOLDER 30ML PBSN2AG2.5	NO CHANGE	RM,MC KMC2110G- 7S 16X8.6	RM,MC CEL9240HF10L8 16X8
AUIRLR2905TRL	Change MC & LF	RM,SOLDER 30ML PBSN2AG2.5	NO CHANGE	RM,MC KMC2110G- 7S 16X8.6	RM,MC CEL9240HF10L8 16X8
AUIRLR2908	Change MC & LF	RM,SOLDER 30ML PBSN2AG2.5	NO CHANGE	RM,MC KMC2110G- 7S 16X8.6	RM,MC CEL9240HF10L8 16X8
AUIRLR2908TRL	Change MC & LF	RM,SOLDER 30ML PBSN2AG2.5	NO CHANGE	RM,MC KMC2110G- 7S 16X8.6	RM,MC CEL9240HF10L8 16X8
AUIRLR3105	Change MC & LF	RM,SOLDER 30ML PBSN2AG2.5	NO CHANGE	RM,MC KMC2110G- 7S 16X8.6	RM,MC CEL9240HF10L8 16X8
AUIRLR3105TRL	Change MC & LF	RM,SOLDER 30ML PBSN2AG2.5	NO CHANGE	RM,MC KMC2110G 40X60	RM,MC CEL9240HF10L8 16X8
AUIRLR3410	Change MC & LF	RM,SOLDER 30ML PBSN2AG2.5	NO CHANGE	RM,MC KMC2110G 40X60	RM,MC CEL9240HF10L8 16X8
AUIRLR3410TRL	Change MC & LF	RM,SOLDER 30ML PBSN2AG2.5	NO CHANGE	RM,MC KMC2110G- 7S 16X8.6	RM,MC CEL9240HF10L8 16X8
AUIRLR3714	Change MC & LF	RM,SOLDER 30ML PBSN2AG2.5	NO CHANGE	RM,MC KMC2110G- 7S 16X8.6	RM,MC CEL9240HF10L8 16X8
AUIRLR3714TRL	Change MC & LF	RM,SOLDER 30ML PBSN2AG2.5	NO CHANGE	RM,MC KMC2110G- 7S 16X8.6	RM,MC CEL9240HF10L8 16X8
AUIRLR3915	Change MC & LF	RM,SOLDER 30ML PBSN2AG2.5	NO CHANGE	RM,MC KMC2110G- 7S 16X8.6	RM,MC CEL9240HF10L8 16X8

## **Method of Identifying Changed Product:**

A date code transition for the change will be made available for lot identification.

Parts manufactured with the new backend flow will show bare copper where the dambar was removed:

<b>Current Process flow</b>	<b>Propose Process Flow</b>	<b>Differences</b>
 <p>Plated</p>	 <p>With exposed copper</p>	<p>Exposed copper after dambar cut on Trim/Form/Singulation Integration. This condition is similar on lead cut and heatsink cut on the current process flow.</p>

## **Qualification and Supporting Data Availability:**

Supporting data as requested will be sent separately.

## **Sample Availability:**

Available now.

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