



## PRODUCT AND PROCESS CHANGE NOTIFICATION UPDATE

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**ISSUE DATE:** 25-Jun-2015  
**NOTIFICATION:** 16157C  
**TITLE:** SENSOR AIRBAG ACCELEROMETER 6X6 QFN ASSEMBLY  
 TRANSFER FROM AMKOR KOREA K1 TO ASE CHUNG LI;  
 INCLUDES AU TO CU WIRE CHANGE  
**EFFECTIVE DATE:** 14-Dec-2015

### DEVICE(S)

| MPN          |
|--------------|
| MMA1618KWR2  |
| MMA1631NKWR2 |
| MMA1725WR2   |
| MMA2612KWR2  |
| MMA2612NKWR2 |
| MMA2631NKWR2 |
| MMA2702WR2   |
| MMA2712WR2   |
| MMA2718JWR2  |
| MMA2718WR2   |
| MMA2725JWR2  |
| MMA2725WR2   |
| MMA2737WR2   |
| MMA5106KWR2  |
| MMA5106LWR2  |
| MMA5112KWR2  |
| MMA5112LWR2  |
| MMA5124KWR2  |
| MMA5148KWR2  |
| MMA5206KWR2  |
| MMA5212AKWR2 |
| MMA5212KWR2  |
| MMA5224AKWR2 |

|              |
|--------------|
| MMA5224KWR2  |
| MMA5224LWR2  |
| MMA5248KWR2  |
| MMA5248LWR2  |
| MMA6519KWR2  |
| MMA6525KWR2  |
| MMA6527KWR2  |
| MMA6555KWR2  |
| MMA6556KWR2  |
| MMA6801KWR2  |
| MMA6811BKWR2 |
| MMA6811KWR2  |
| MMA6813BKWR2 |
| MMA6813KWR2  |
| MMA6821BKWR2 |
| MMA6821KWR2  |
| MMA6823BKWR2 |
| MMA6823KWR2  |
| MMA6825BKWR2 |
| MMA6825KWR2  |
| MMA6826BKWR2 |
| MMA6826KWR2  |
| MMA6827BKWR2 |
| MMA6827KWR2  |
| MMA6851BKWR2 |
| MMA6852KWR2  |
| MMA6853BKWR2 |
| MMA6853KWR2  |
| MMA6854KWR2  |
| MMA6855BKWR2 |

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**AFFECTED CHANGE CATEGORIES**

- ASSEMBLY SITE

**DESCRIPTION OF CHANGE**

This update notice to PCN #16157B is to modify the title to help provide a clearer, high-level description of the change and to provide additional details of the change in the 'Description of Change' section which were included in the Pre-Alert but excluded in the previous update.

Freescale Semiconductor is announcing the qualification of the ASE Chung Li (Taiwan) assembly site for the assembly of 6x6 QFN sensor accelerometers products. This transfer includes the following changes:

1. Bond wire change from gold to copper.
2. Mold compound change.
3. Change from the Amkor Korea K1's "Dimpled" wettable flanks to ASE Chung Li's standard "Step Cut" wettable flanks.
4. Change from Amkor Korea K1's asic die attach to ASE Chung Li's standard asic die attach.

| <b>Milestone</b>            | <b>Target Date</b>               |
|-----------------------------|----------------------------------|
| Pre-Alert issued            | 13-Mar-2014                      |
| Planned Implementation      | See 'Effective Date'             |
| Qualified Samples Available | See 'Sample Availability Date'   |
| Backlog Conversion          | Assembly site qualification only |
| PPAP                        | As Requested                     |

### **REASON FOR CHANGE**

Amkor Korea K1 site is closing by end of 2016.

### **ANTICIPATED IMPACT OF PRODUCT CHANGE(FORM, FIT, FUNCTION, OR RELIABILITY)**

There will be no impact on fit, function or reliability.

The device form will change due to the "step cut" wettable flanks.

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According to JEDEC Standard JESD46, lack of acknowledgement of this PCN within 30 days will be considered acceptance of change. To request further data or inquire about the notification, please enter a [Service Request](#).

For sample inquiries - please go to [www.freescale.com](http://www.freescale.com)

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**RELATED NOTIFICATION(S):**

16157B- SENSOR AIRBAG ACCELEROMETER 6X6 QFN ASSEMBLY TRANSFER FROM AMKOR KOREA K1 TO ASE CHUNG LI FACILITY

TO VIEW the GENERIC copy, click on the notification number above.

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**QUAL DATA AVAILABILITY DATE:** 20-Apr-2015

**QUALIFICATION STATUS:** COMPLETED

**QUALIFICATION PLAN:**

Freescale Semiconductor Manufacturing standard specification for assembly transfers was followed for the Assembly Transfer

**RELIABILITY DATA SUMMARY:**

See attached report

**ELECTRICAL CHARACTERISTIC SUMMARY:**

Comparison between Amkor Korea (ATK1) and ASE Chung Li (ASECL) was completed. Parameters show no significant difference.

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**CHANGED PART IDENTIFICATION:**

The assembly site, among other information, is reflected in the package trace code. The format for the Freescale standard trace code: AWLYWW is the following:

A=Assembly Site, WL=Wafer Lot, Y=Year, WW=Work Week.

The current assembly site marking for Amkor Korea K1 is A = I  
The marking for proposed assembly ASE Chung Li is A = X

The orderable ASECL part numbers will add in a "C" to the existing part number. Below is an example:

| Current Freescale Part Number | ASECL Part Number     |
|-------------------------------|-----------------------|
| MMA6525KWR2                   | MMA6525K <b>C</b> WR2 |

ASECL samples can be ordered with part numbers that start with a "P" will add in a "C" to the existing part number. Below is an example:

| Current Freescale Part Number | ASECL Part Number              |
|-------------------------------|--------------------------------|
| MMA6525KWR2                   | <u>P</u> MMA6525K <u>C</u> WR2 |

**SAMPLE AVAILABILITY DATE:** 09-Apr-2015

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**ATTACHMENT(S):**

External attachment(s) FOR this notification can be viewed AT:

[16157C 150409 ASECL SycamoreXY Qual Data.pdf](#)

[16157C Amkor Kr transfer to ASECL 3metal-](#)

[layer Qual Plan GeneralMarket Ver results 20Mayr15.pdf](#)

[16157C 150414 CofDC Comparison ASECL SycamoreXY.pdf](#)

[16157C 150601 ASECL Oroya2X Qual Data.pdf](#)

[16157C Amkor Kr transfer to ASECL 4metal-](#)

[layer Qual Plan GeneralMarket Ver results 7Mayr15.pdf](#)

[16157C 150409 ASECL MesquiteXY Qual Data.pdf](#)

[16157C 150601 ASECL Oroya2Z Qual Data.pdf](#)

[16157C 150612 ASECL Assembly Transfer 6x6 QFN PCN Presentation.pdf](#)

[16157C PCN-Delta-Qualification-Matrix-ZVEI-2\\_1 ASECL Auto Transfer 24Jun15.pdf](#)

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