

**PROCESS CHANGE NOTICE**
 **PRODUCT CHANGE NOTICE**
**MAXIM INTEGRATED HEREBY ISSUES NOTIFICATION OF CHANGE  
 THAT MAY AFFECT THE FOLLOWING CATEGORIES:**

<input type="checkbox"/> DESIGN	<input type="checkbox"/> WAFER FAB	<input checked="" type="checkbox"/> ASSEMBLY	<input type="checkbox"/> TEST	<input type="checkbox"/> ELEC/MECH SPECS
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**AFFECTED PRODUCT:**

Ordering P/N: (See PN listing XLS in PCN ZIP file)

**CHANGE FROM:** Current assembler(s): UTAC Thai Limited (UTL) and/ or Carsem, Malaysia with nonconductive die attach epoxy for the SOT23 package, 3 thru 8 leads, leaded devices

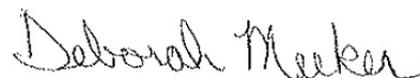
**CHANGE TO:** Additional Assembler: Amkor Technology Philippines (ATP) with nonconductive die attach epoxy for the SOT23 package, 3 thru 8 leads, leaded devices

**JUSTIFICATION:** This addendum adds the devices with tin-lead (SnPb) lead finish that were not included in PCN 1370A, issued 17 Feb 2014.

ATP has passed the qualification requirements and already assembles other Maxim devices. Qualification results are reflected in Maxim's Reliability report R26534FQR below. R26534FQR qualifies the tin-lead finish by extension.

**TRACEABILITY:** Maxim Integrated maintains full traceability by device marking, packaging labels and shipment documents.

Maxim Integrated's Change Notification System is designed to keep our customer base apprised of major product, manufacturing, or facility improvements.



Deborah Meeker / PCN Coordinator

For further information, please contact either of the people listed below.

**Contact your local Maxim Integrated Company Representative** or Deborah Meeker, PCN Coordinator  
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# PACKAGE QUALIFICATION

## Rel Project #: 26534FQR

### SUMMARY:

All qualification lots assembled at Amkor Philippines have shown good reliability performance. Therefore, assembler Amkor Philippines is qualified to build 6L (2.9x1.62x1.1 mm) lead-free split pad SOT23 package. This package has completed moisture soak level 1 testing per JEDEC J-STD-020D, and solder reflow test at 260°C peak temperature (Tp). This package is classified as non-moisture sensitive and does not require bake-and-bag precautions for shipment and storage.

 Thomas Huang SMTS, Reliability Engineer	 Alex Arreola PMTS, Reliability Engineer	 Ping Lin Director, Reliability
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**1) SUBJECT**

Amkor Philippines 6L (2.9x1.62x1.1 mm) Lead-Free Split Pad SOT23 2<sup>nd</sup> Source Package and Assembly Site Qualification.

**2) PURPOSE**

Qualify assembler Amkor Philippines to build 6L (2.9x1.62x1.1 mm) lead-free split pad SOT23 package with Sumitomo G600 molding compound, C194 core copper alloy lead-frame, pre-plated NiPdAu lead finish, non-conductive Henkel ATB-F125E DAF die attach, and 1.0 mil diameter gold bond wire. MAX8880EUT+T in 6L SOT23 package was used as a test vehicle.

**3) CONCLUSION**

All qualification lots assembled at Amkor Philippines have shown good reliability performance. Therefore, assembler Amkor Philippines is qualified to build 6L (2.9x1.62x1.1 mm) lead-free split pad SOT23 package.

**4) Package Coverage**

Packages that can be covered by this qualification result in accordance with Maxim Qual By Extension (QBE) policy are listed as follows:

3/4/5/6/8L SOT23 Pb-free and PbSn Packages.

**5) Qualification Test Results/Lot Information**
**Table 1: Qualification Test Results**

Rel#		R26534A	R26534B	R26534C
Lot#		J7GAIA111Q1	J7GAIA111Q2	J7GAIA111Q3
Device:		MAX8880EUT+T	MAX8880EUT+T	MAX8880EUT+T
Die Type:		PY17X	PY17X	PY17X
Die Size (mils)		60x41x8	60x41x8	60x41x8
Package Type (code):		U6SN-/+1	U6SN-/+1	U6SN-/+1
Date Code:		1333	1333	1333
Backmark:		AAQ1	AAQ2	AAQ3
Stress Test	Duration	Result	Result	Result
HTOL 135C *3	1000 hrs	0/77	0/77	0/77
Convection Reflow *1	MSL 1, 260C, 3x	0/600	0/599	0/600
THB *2, 3	1000 hrs	0/90	0/90	0/90
uHAST *2	100 hrs	0/80	0/80	0/80
Temperature Cycling *2, 3	1000 cycles	0/80	0/80	0/80
High Temp Storage *2, 3	1000 hrs	0/80	0/80	0/80
Wire Bond Pull	Fresh	0/20 units (all wires)	0/20 units (all wires)	0/20 units (all wires)
Wire Bond Pull (info only)	Post TC 1000x	0/20 units (all wires)	0/20 units (all wires)	0/20 units (all wires)
Solderability	245C	0/15	0/15	0/15
Solderability Backward Compatibility	215C	0/15	0/15	0/15
Bond Crater *2	Post Reflow	0/20	0/20	0/20
CSAM (info only) *2	Post Reflow	0/20	0/20	0/20
Plating Thickness	Fresh	0/10	0/10	0/10
Resist to Solder Heat	300C 10sec	0/15	0/15	0/15
Physical Dimensions	Fresh	0/15	0/15	0/15

**Note:**

- \*1. Moisture sensitivity level 1 (85°C/85% RH 168hrs) is used as preconditioning.
- \*2. Used convection reflow as preconditioning.
- \*3. All electrical tests pre- and post-stress were performed at +25°C & +85°C (only on first lot). Electrical test pre- and post-HTOL stress was also performed at -40°C (only on first lot).