

PCN # 1658N

DATE: September 21, 2018

EXPECTED PCN SHIP DATE: September 21, 2018



Quality Assurance
160 Rio Robles
San Jose, CA 95134

www.maximintegrated.com

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)
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CHANGE FROM: - Maxim products in SSOP package manufactured at current subcontractor	CHANGE TO: - Additional Assembler Greatek in Taiwan/R.O.C.
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JUSTIFICATION: - Maxim has selected Greatek to expand assembly capacity. Greatek is an established assembly subcontractor and is certified under QS 9000, ISO/TS 16949, ISO 14001. This new partnership will enhance Maxim's Supply-Chain to meet capacity demands, flexibility and on-time delivery. Qualification results are reflected in Maxim's Reliability report attached (R29186CQ). There are no changes to the form, fit, function or quality of the devices.

TRACEABILITY: Maxim Integrated maintains full traceability by device marking, packaging labels and shipment documents.
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Maxim Integrated's Change Notification System is designed to keep our customer base apprised of major product, manufacturing, or facility improvements.

Nasser Ali Chaouche

Nasser AliChaouche / PCN Coordinator

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

Contact your local Maxim Integrated Company Representative or Nasser AliChaouche, PCN Coordinator
408-601-5660 / pcn.coordinator@maximintegrated.com

1) PURPOSE

To qualify assembler Greatek to build SSOP packages with 1.0/1.3 mil Au-wire

2) SUMMARY

Qualification lots assembled in Greatek have passed reliability qualification (Conditional Qualification Requirements / Acceptance Criteria). Therefore, assembler Greatek is conditionally qualified to build SSOP packages with Au-wire. These packages, as tested MSL1, are not moisture sensitive, therefore, requires no bake-and-bag precautions for shipment and/or storage.

3) Package Coverage

The following packages can be covered by QBE with these qualification results.

A16+2	A20+5	A28+1
A16+3	A24+1	A28+2
A20+1	A24+2	A28+3
A20+2	A24+3	A28+4

4) QUALIFICATION REQUIREMENTS AND RESULTS

Rel#	R29186A	R29186B		
Lot#	N77ABA544AB	N77ABA544AC		
Device:	MAX4661CAE+	MAX4661CAE+		
Die Type:	AH45Z	AH45Z		
Die Size (mils)	140x163	140x163		
Package Type (code):	16L SSOP (A16+2)	16L SSOP (A16+2)		
Date Code:	1734	1734		
Topmark:	MAXIM MAX4661 CAE 1734 +	MAXIM MAX4661 CAE 1734 +		
Stress Test	Duration	Sampling Plan	Result	Result
Convection Reflow ^{*1,2,3} 260°C Peak	MSL 1, 3X	0/400	0/400	0/400
HAST 130°C / 85% R.H. ^{*1,2,3}	96 hrs.	0/77	0/77	0/77
Unbiased HAST 130°C / 85% R.H. ^{*1,3}	96 hrs.	0/77	0/77	0/77
Temperature Cycle ^{*1,2,3} -65°C to 150°C (Condition C)	500 cyc	0/77	0/77	0/77
High Temperature Storage 150°C ^{*1,2,3}	500 hrs.	0/77	0/77	0/77
C-SAM*1	T (0)	0/22	0/22	0/22
Wire Bond Pull Minimum 5 grams-force	T (0)	0/20	0/20	0/20
Solderability (Lead-Free,245C)	T (0)	0/15	0/15	0/15
Physical Dimension (PD)	T (0)	0/20	0/20	0/20
Bond Crater Check	Post-Precon	0/20	0/20	0/20
Solder Shock*3	T0	0/15	0/15	0/15

Note:

*1. Convection reflow is used as preconditioning for SMD packages.

*2. Electrical tests pre- and post-stress were performed at +70°C.

*3. Electrical tests pre- and post-stress were performed at +25°C.

Rel#	R29186E		R29186F	
Lot#	JAGV8A161AB		JAGV8A161AC	
Device:	MXL1543CAI+		MXL1543CAI+	
Die Type:	RS99Y		RS99Y	
Die Size (mils)	144x278		144x278	
Package Type (code):	28L SSOP (A28+3)		28L SSOP (A28+3)	
Date Code:	1816		1816	
Topmark:	MAXIM MXL1543CAI +1816		MAXIM MXL1543CAI +1816	
Stress Test	Duration	Sampling Plan	Result	Result
Convection Reflow *1,2,3, 260°C Peak	MSL 1, 3X	0/400	0/400	0/400
Unbiased HAST 130°C / 85% R.H. *1,3	96 hrs.	0/77	0/77	0/77
Temperature Cycle *1,2,3 -65°C to 150°C (Condition C)	500 cyc	0/77	0/77	0/77
High Temperature Storage 150°C *1,2,3	500 hrs.	0/77	0/77	0/77
C-SAM*1	T (0)	0/22	0/22	0/22
Wire Bond Pull Minimum 5 grams-force	T (0)	0/20	0/20	0/20
Solderability (Lead-Free,245C)	T (0)	0/15	0/15	0/15
Physical Dimension (PD)	T (0)	0/20	0/20	0/20
Bondcrater	Post-Precon	0/20	0/20	0/20
Solder Shock *3	T0	0/15	0/15	0/15

Note:

- *1. Convection reflow is used as preconditioning for SMD packages.
- *2. Electrical tests pre- and post-stress were performed at +70°C.
- *3. Electrical tests pre- and post-stress were performed at +25°C.

HTOL Data taken from other packages with same Mold Compound and LF material

Rel#	R29113A		R29113B		R29113C		R29114K	
Lot#	TAOM5A060CE		TAOM5A060CF		TAOM5A060CG		JQ9CHA128JA	
Device:	MAX17840AGUN/V+CQ		MAX17840AGUN/V+CQ		MAX17840AGUN/V+CQ		MAX6198BESA+	
Die Type:	BP11C-0B		BP11C-0B		BP11C-0B		RF23Z-2Z	
Die Size (mils)	246 X 127		246 X 127		246 X 127		44X31	
Package Type (code):	U56+1		U56+1		U56+1		S8+2	
Date Code:	1720		1720		1720		1742	
Stress Test	Duration	Sample Plan	Result	Result	Result	Result	Result	
HTOL *2,3,4 135°C	1000 hrs.	0/77	0/77	0/77	0/77	0/77	0/77	

Note:

- *2. Electrical tests pre- and post-stress were performed at +25°C.
- *3. Electrical tests pre- and post-stress were performed at +105°C (Die Type BP11C) and +85°C (Die Type RF23Z).
- *4. Electrical tests pre- and post-stress were performed at -40°C.

Affected pr Customer	PCN Proposed Ship Date
MAX1245BEAP+	21-Sep-18
MAX1270ACAI+	21-Sep-18
MAX1270AEAI+	21-Sep-18
MAX1270BCAI+	21-Sep-18
MAX127AEAI+	21-Sep-18
MAX1403CAI+	21-Sep-18
MAX1452AAE+	21-Sep-18
MAX1452EAE+	21-Sep-18
MAX147BCAP+	21-Sep-18
MAX1496EAI+	21-Sep-18
MAX1758EAI+	21-Sep-18
MAX192AEAP+	21-Sep-18
MAX208EEAG+	21-Sep-18
MAX221EEAE+	21-Sep-18
MAX242CAP+	21-Sep-18
MAX3161CAG+	21-Sep-18
MAX3161ECAG+	21-Sep-18
MAX3162CAI+	21-Sep-18
MAX31865AAP+	21-Sep-18
MAX3224CAP+	21-Sep-18
MAX3224EAP+T	21-Sep-18
MAX3224EEAP+	21-Sep-18
MAX3225EAAP+	21-Sep-18
MAX3225EAP+	21-Sep-18
MAX3319EAE+	21-Sep-18
MAX3319EEAE+	21-Sep-18
MAX350EAP+	21-Sep-18
MAX4530EAP+	21-Sep-18
MAX4533CAP+	21-Sep-18
MAX4602CAE+	21-Sep-18
MAX4602EAE+	21-Sep-18
MAX4663EAE+	21-Sep-18
MAX4690EAE+	21-Sep-18
MAX505BEAG+	21-Sep-18
MAX528EAG+T	21-Sep-18
MAX5322EAI+	21-Sep-18
MAX6956AAI+	21-Sep-18
MAX6957AAI+	21-Sep-18
MAX7300AAI+T	21-Sep-18
MAX767TEAP+	21-Sep-18