

PCN # 1702R2

DATE: October 30, 2020

EXPECTED PCN SHIP DATE: October 30, 2020



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 SOIC(N) package manufactured at current subcontractor	CHANGE TO: - Additional Assembler Greatek in Taiwan/R.O.C.
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JUSTIFICATION: - Adding Greatek to expand Maxim's Supply-Chain to meet capacity demands, flexibility and on-time delivery. Greatek is an established assembly subcontractor and is certified under QS 9000, ISO/TS 16949, ISO 14001. Qualification results are reflected in Maxim's Reliability report attached (R29114FQ_Greatek_SOIC(N)). There are no regulatory compliance changes to the material content of the devices. There are no changes to the form, fit, function of the devices.
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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  
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## 1) PURPOSE

To qualify assembler Greatek to build SOIC(N) packages with 0.8/1.0/1.3/2.0 mil Au-wire

## QUALIFICATION REQUIREMENTS AND RESULTS

Rel#	R29114A	R29114C	R29114D		
Lot#	JQ3AHA023DC	JQ3AHA023DE	JQ3AHA023DG		
Device:	MAX1709ESE+	MAX1709ESE+	MAX1709ESE+		
Die Type:	PX35Y	PX35Y	PX35Y		
Die Size (mils)	86X193 mil	86X193 mil	86X193 mil		
Package Type (code):	S16+8	S16+8	S16+8		
Date Code:	1738	1738	1738		
Topmark:	ZQ3A JCF	ZQ3A JCF	ZQ3A JCF		
<b>Stress Test</b>	<b>Duration</b>	<b>Sampling Plan</b>	<b>Result</b>	<b>Result</b>	<b>Result</b>
Convection Reflow *2,3 260°C Peak	MSL 1, 3X	0/400	0/399	0/400	0/400
HAST 130°C / 85% R.H. *1,2,3	96 hrs.	0/77	0/77	0/77	0/77
Unbiased HAST 130°C / 85% R.H. *1,2	96 hrs.	0/77	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	0/77
High Temperature Storage 150°C *1,2,3	1000 hrs.	0/77	0/77	0/77	0/77
HTOL*2,3,4	1000 hrs	0/77		0/77	
C-SAM*1	T0, Post-Precon	0/25	0/25	0/25	0/25
Wire Bond Pull Minimum 5 grams-force	T (0), Post-TC	0/200 wires	0/200wires	0/200wires	0/200wires
Solderability (Lead-Free,245C)	T (0)	0/15	0/15	0/15	0/15
Physical Dimension (PD)	T (0)	0/20	0/20	0/20	0/20
Bondcrater	Post-Precon	0/20	0/20	0/20	0/20
Solder Shock		0/15	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 +85°C.
- \*3. Electrical tests pre- and post-stress were performed at +25°C.
- \*4. Electrical tests pre- and post-stress were performed at -40°C.

Rel#	R29114E	R29114F	R29114G		
Lot#	J6Y5GA819FA	J6Y5GA819FB	N380B3108CA		
Device:	MAX5033BASA+	MAX5033BASA+	MAX494CSD+		
Die Type:	NP25U-5Z	NP25U-5Z	OX56Y		
Die Size (mils)	85 X 145	85 X 145	69 X 100		
Package Type (code):	S8+5	S8+5	S14+1		
Date Code:	1744	1744	1744		
Topmark:	Z DM	Z DM	Z380 NCX		
Stress Test	Duration	Sampling Plan	Result	Result	Result
Convection Reflow <sup>*2,3,5</sup> 260°C Peak	MSL 1, 3X	0/400	0/400	0/400	0/400
HAST 130°C / 85% R.H. <sup>*1,2,3,5</sup>	96 hrs.	0/77	0/77	0/77	0/77
Unbiased HAST 130°C / 85% R.H. <sup>*1,2</sup>	96 hrs.	0/77	0/77	0/77	0/77
Temperature Cycle <sup>*1,2,3,5</sup> -65°C to 150°C (Condition C)	500 cyc	0/77	0/77	0/77	0/77
High Temperature Storage 150°C <sup>*1,2,3</sup>	1000 hrs.	0/77	0/77	0/77	0/77
HTOL <sup>*2,3,4</sup>	1000 hrs	0/77	0/77		
C-SAM*1	T0, Post-Precon	0/25	0/25	0/25	0/25
Wire Bond Pull Minimum 5 grams-force	T (0), Post-TC	0/200 wires	0/200wires	0/200wires	0/200wires
Solderability (Lead-Free,245C)	T (0)	0/15	0/15	0/15	0/15
Physical Dimension (PD)	T (0)	0/20	0/20	0/20	0/20
Bondcrater	Post-Precon	0/20	0/20	0/20	0/20
Solder Shock		0/15	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 +125°C.
- \*3. Electrical tests pre- and post-stress were performed at +25°C.
- \*4. Electrical tests pre- and post-stress were performed at -40°C.
- \*5. Electrical tests pre- and post-stress were performed at +70°C.

<b>Rel#</b>	R29114K		R29114L	
<b>Lot#</b>	JQ9CHA128JA		JQ9CHA128JB	
<b>Device:</b>	MAX6198BESA+		MAX6198BESA+	
<b>Die Type:</b>	RF23Z-2Z		RF23Z-2Z	
<b>Die Size (mils)</b>	44X31		44X31	
<b>Package Type (code):</b>	S8+2		S8+2	
<b>Date Code:</b>	1742		1742	
<b>Topmark:</b>	MAX6198BESA+ / 1742		MAX6198BESA+ / 1742	
<b>Stress Test</b>	<b>Duration</b>	<b>Sampling Plan</b>	<b>Result</b>	<b>Result</b>
<b>Convection Reflow *2,3 260°C Peak</b>	MSL 1, 3X	0/400	0/400	0/400
<b>HAST 130°C / 85% R.H. *1,2,3</b>	96 hrs.	0/77	0/77	0/77
<b>Unbiased HAST 130°C / 85% R.H. *1,2</b>	96 hrs.	0/77	0/77	0/77
<b>Temperature Cycle *1,2,3 -65°C to 150°C (Condition C)</b>	500 cyc	0/77	0/77	0/77
<b>High Temperature Storage 150°C *1,2,3</b>	1000 hrs.	0/77	0/77	0/77
<b>HTOL *2,3,4</b>	1000 hrs	0/77	0/77	
<b>Solderability (Lead-Free,245C)</b>	-	0/15	0/15	0/15
<b>C-SAM*1</b>	-	0/25	0/25	0/25
<b>Wire Bond Pull Minimum 5 grams-force</b>	T (0), Post-TC	0/200 wires	0/200 wires	0/200 wires
<b>Physical Dimension (PD)</b>	T (0)	0/20	0/20	0/20
<b>Bondcrater</b>	Post-Precon	0/20	0/20	0/20
<b>Solder Shock</b>		0/15	0/20	0/20

**Note:**

- \*1. Convection reflow is used as preconditioning for SMD packages.
- \*2. Electrical tests pre- and post-stress were performed at +85°C.
- \*3. Electrical tests pre- and post-stress were performed at +25°C.
- \*4. Electrical tests pre- and post-stress were performed at -40°C.

## 2) CONCLUSION

Qualification lots assembled in Greatek have passed reliability qualification (Full Qualification Requirements / Acceptance Criteria). Therefore, assembler Greatek is fully qualified to build SOIC(N) packages with 0.8/1.0/1.3/2.0 mil 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 this qualification result.

S14+1	S14+6	S16+5	S8+17	S8+20	S8+4
S14+4	S16+1	S16+6	S8+18	S8+21	S8+5
S14+5	S16+3	S16+8	S8+2	S8+22	

Affected product numbers

DG418CY+  
DG418LDY+  
DG419DY+  
DG419LDY+  
DG419LDY+T  
DS1085Z-10+  
DS1085Z-25+  
DS1100LZ-100+  
DS1100LZ-20+  
DS1100LZ-200+T  
DS1100LZ-50+  
DS1100LZ-500+  
DS1100Z-100+  
DS1100Z-30+  
DS1100Z-500+  
DS1135LZ-25+  
DS1135LZ-30+  
DS1232LPSN-2+  
DS1232LPSN-2+T&R  
DS1233MS-5+  
DS1312S-2+  
DS1312S-2+T&R  
DS1314S-2+  
DS1340Z-33+  
DS1340Z-33+T&R  
DS1388Z-33+  
DS1388Z-33+T&R  
DS1621S+  
DS1631Z+  
DS1672S-33+T&R  
DS1682S+  
DS1682S+T&R  
DS1683S+  
DS1683S+T&R  
DS1706SESA+  
DS1706TESA+  
DS1721S+  
DS1830AS+  
DS1832S+  
DS1832S+T&R  
DS1834AS+  
DS1834AS+T&R  
DS18B20Z+  
DS18B20Z+T&R  
DS2438Z+  
DS2438Z+T&R

DS2460S+T&R  
DS2480B+  
DS2480B+T&R  
DS2482S-100+  
DS2482S-100+T&R  
ICL7660CSA+  
ICL7660CSA+T  
MAX1044CSA+  
MAX1044CSA+T  
MAX1240BESA+  
MAX1243BCSA+  
MAX13054AEASA+T  
MAX13081EASA+  
MAX13081ECSA+  
MAX13081EESA+  
MAX13082EESA+  
MAX13082EESA+T  
MAX13442EASA+  
MAX13442EASA+T  
MAX13443EASA+T  
MAX13488EESA+T  
MAX14781EESA+  
MAX14781EESA+T  
MAX14783EESA+  
MAX14783EESA+T  
MAX1487EESA+  
MAX1626ESA+T  
MAX1627ESA+T  
MAX1673ESA+  
MAX1673ESA+T  
MAX1681ESA+  
MAX17600ASA+  
MAX1822ESA+  
MAX3071EASA+  
MAX3071EESA+  
MAX3071EESA+T  
MAX3074EASA+  
MAX3075EESA+  
MAX3075EESA+T  
MAX3081ESA+  
MAX3087EESA+  
MAX3087ESA+  
MAX31855KASA+T  
MAX320ESA+T  
MAX323ESA+  
MAX323ESA+T  
MAX324CSA+

MAX3483CSA+  
MAX3483CSA+T  
MAX3483ECSA+T  
MAX3483EESA+  
MAX3483EESA+T  
MAX3483ESA+  
MAX3483ESA+T  
MAX3486CSA+  
MAX3486CSA+T  
MAX3486ECSA+  
MAX3486EESA+  
MAX3486EESA+T  
MAX3486ESA+  
MAX3486ESA+T  
MAX3488ECSA+  
MAX3488EESA+  
MAX3488EESA+T  
MAX3488ESA+T  
MAX3490ESA+  
MAX3490ESA+T  
MAX4016ESA+  
MAX407CSA+  
MAX4080SASA+  
MAX4080SASA+T  
MAX4081FASA+T  
MAX4092ASA+T  
MAX4126ESA+  
MAX4132ESA+  
MAX4173FESA+  
MAX4194ESA+T  
MAX4213ESA+T  
MAX4271ESA+  
MAX4272ESA+  
MAX4332ESA+  
MAX4420CSA+  
MAX4420ESA+T  
MAX4426CSA+  
MAX4427ESA+  
MAX4427ESA+T  
MAX4462HESA+  
MAX4462HESA+T  
MAX4471ESA+  
MAX4486ASA+T  
MAX4658ESA+  
MAX4659ESA+T  
MAX481CSA+  
MAX481CSA+T

MAX481ESA+T  
MAX488CSA+  
MAX488ESA+T  
MAX490ECSA+  
MAX490EESA+  
MAX490EESA+T  
MAX5033BASA+  
MAX5033DASA+  
MAX5033DASA+T  
MAX5035BASA+T  
MAX5035BUSA+  
MAX5035DASA+  
MAX5035DASA+T  
MAX5056BASA+  
MAX5057BASA+T  
MAX5094AASA+  
MAX517ACSA+T  
MAX538BCSA+  
MAX538BCSA+T  
MAX543AESA+  
MAX5920BESA+  
MAX5948BESA+  
MAX6006AESA+T  
MAX6029ESA25+  
MAX6120ESA+  
MAX6126AASA21+  
MAX6126AASA25+  
MAX6126AASA25+T  
MAX6126AASA50+  
MAX6126AASA50+T  
MAX6133AASA25+  
MAX6133AASA25+T  
MAX6161AESA+  
MAX6166BESA+  
MAX6173BASA+  
MAX6175AASA+  
MAX6177AASA+  
MAX6190AESA+T  
MAX6192AESA+  
MAX6220ASA-5.0+  
MAX6225BCSA+  
MAX6225BCSA+T  
MAX6225BESA+  
MAX6250AESA+  
MAX6250BCSA+  
MAX626CSA+  
MAX627CSA+



MAX627ESA+T  
MAX628CSA+  
MAX629ESA+  
MAX629ESA+T  
MAX6301CSA+  
MAX6301CSA+T  
MAX6303CSA+  
MAX6303CSA+T  
MAX6303ESA+  
MAX6303ESA+T  
MAX6341CSA+  
MAX635AESA+  
MAX640ESA+T  
MAX660CSA+  
MAX662ACSA+T  
MAX662AESA+T  
MAX6633MSA+  
MAX6634MSA+  
MAX6634MSA+T  
MAX6635MSA+  
MAX663CSA+  
MAX664CSA+  
MAX664CSA+T  
MAX6658MSA+  
MAX6662MSA+  
MAX666CSA+  
MAX667ESA+  
MAX6684ESA+  
MAX6684ESA+T  
MAX674ESA+  
MAX675CSA+T  
MAX675ESA+T  
MAX690ACSA+  
MAX690AESA+  
MAX690AESA+T  
MAX690SESA+  
MAX692AESA+  
MAX703CSA+  
MAX703ESA+  
MAX704ESA+  
MAX704TESA+  
MAX706ASESA+  
MAX707CSA+T  
MAX708RCSA+T  
MAX708SCSA+  
MAX708SESA+T  
MAX709LCSA+

MAX735CSA+  
MAX749ESA+  
MAX756CSA+  
MAX756CSA+T  
MAX765CSA+  
MAX765ESA+  
MAX770ESA+  
MAX774CSA+  
MAX774ESA+  
MAX775ESA+  
MAX795TESA+T  
MAX8069ESA+  
MAX806TCSA+T  
MAX814LCSA+  
MAX814TESA+  
MAX815LESA+  
MAX818LCSA+  
MAX8211ESA+  
MAX845ESA+  
MAX845ESA+T  
MAX857ESA+  
MAX860ESA+T  
MAX860ISA+  
MAX861ISA+  
MAX876BESA+  
MAX887HESA+  
MAX889RESA+  
MAX889RESA+T  
MAX889SESA+  
MAX890LESA+  
MAX890LESA+T  
MAX893LESA+  
MAX893LESA+T  
MAX9000ESA+  
MAX903ESA+  
MAX9109ESA+  
MAX913ESA+  
MAX9142ESA+  
MAX9142ESA+T  
MAX920ESA+  
MAX921CSA+  
MAX921CSA+T  
MAX921ESA+  
MAX921ESA+T  
MAX922CSA+  
MAX922MSA/PR+T  
MAX923ESA+

MAX923MSA/PR+T

MAX931CSA+T

MAX933ESA+T

MAX941ESA+T

MAX961ESA+

MAX961ESA+T

MAX962ESA+

MAX965ESA+

MAX9691ESA+

MAX976ESA+

MAX998ESA+