

Product Change Notification - JAON-08PTJN759

Date: 03 Aug 2016
Product Category: Supertex
Notification subject: CCB 2514 Final Notice: Qualification of GTK assembly site for selected Supertex products using wafers with Au backside coating available in 3L TO-92 package.
Notification text: **PCN Status:**
Final notification

Microchip Parts Affected:

Please open the attachments found in the attachments field below labeled as PCN_#_Affected_CPN.

NOTE: For your convenience Microchip includes identical files in two formats (.pdf and .xls).

Description of Change:

Qualification of GTK assembly site for selected Supertex products using wafers with Au backside coating available in 3L TO-92 package.

Pre Change:

Assembled at CRTK assembly site

Post Change:

Assembled at GTK assembly site

Pre and Post Change Summary:

	Pre Change	Post Change
Assembly Site	CRTK assembly site	GTK assembly site
Wire material	Au wire	Au wire
Die attach material	84-1 LMISR4	8060T
Molding compound material	EME-G600	G600F
Lead frame material	KFC	A194
Die Thickness	11 mil	11 mil

Impacts to Data Sheet:

None

Change Impact:

None

Reason for Change:

To improve productivity by qualifying GTK assembly site.

Change Implementation Status:

In Progress

Estimated First Ship Date:
September 4, 2016 (date code: 1635)

NOTE: Please be advised that after the estimated first ship date customers may receive pre and post change parts.

Time Table Summary:

	June 2016					July 2016					August 2016				September 2016				
WW	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	
Initial PCN Issue Date		X																	
Qual Report Availability										X									
Final PCN Issue Date										X									
Estimated Implementation Date														X					

Method to Identify Change:
Traceability code

Qualification Report:
Please open the attachments included with this PCN labeled as PCN_#_Qual Report.

Revision History:
June 8, 2016: Issued initial notification.
August 3, 2016: Issued final notification. Attached the qualification report. Provided estimated first ship date on September 4, 2016.

The change described in this PCN does not alter Microchip's current regulatory compliance regarding the material content of the applicable products.

- Attachment(s):**
- [PCN_JAON-08PTJN759_Qual_Report.pdf](#)
 - [PCN_JAON-08PTJN759_Affected_CPN.pdf](#)
 - [PCN_JAON-08PTJN759_Affected_CPN.xls](#)

Please contact your local [Microchip sales office](#) with questions or concerns regarding this notification.

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Affected Catalog Part Numbers (CPN)

PCN_JAON-08PTJN759
CATALOG_PART_NBR
2N7000-G
2N7000-G-D596
2N7008-G
DN2530N3-G
DN2535N3-G
DN2535N3-G-P003
DN2535N3-G-P013
DN2540N3-G
DN2540N3-G-P003
DN3545N3-G
TN0104N3-G
TN0104N3-G-P003
TN0104N3-G-P014
TN0106N3-G
TN0106N3-G-P003
TN0106N3-G-P013
TN0110N3-G
TN0110N3-G-P002
TN0604N3-G
TN0604N3-G-P005
TN0604N3-G-P013
TN0606N3-G
TN0610N3-G
TN0610N3-G-P003
TN0610N3-G-P013
TN0620N3-G
TN0620N3-G-D163
TN0620N3-G-P002
TN0620N3-G-P014
TN0702N3-G
TN2106N3-G
TN2540N3-G
TN2540N3-G-P002
TN2640N3-G
TN5325N3-G
TN5325N3-G-P002
TP0604N3-G
TP0606N3-G
TP0606N3-G-P002
TP0606N3-G-P003
TP0620N3-G
TP2104N3-G
TP2104N3-G-P003

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Affected Catalog Part Numbers (CPN)

PCN_JAON-08PTJN759
CATALOG_PART_NBR
TP2535N3-G
TP2540N3-G
TP2540N3-G-P002
TP2635N3-G
TP2640N3-G
VN0104N3-G
VN0104N3-G-P013
VN0106N3-G
VN0106N3-G-P003
VN0109N3-G
VN0300L-G
VN0300L-G-P002
VN0550N3-G
VN0550N3-G-P013
VN0606L-G
VN0606L-G-P003
VN0808L-G
VN10KN3-G
VN10KN3-G-P002
VN10KN3-G-P003
VN10KN3-G-P013
VN10KN3-G-P014
VN1206L-G
VN1206L-G-P002
VN2106N3-G
VN2210N3-G
VN2222LL-G
VN2222LL-G-P003
VN2222LL-G-P013
VN2224N3-G
VN2406L-G
VN2410L-G
VN2410L-G-P013
VN2410L-G-P014
VN2450N3-G
VN2460N3-G
VN2460N3-G-P003
VN2460N3-G-P014
VN3205N3-G
VN3205N3-G-P002
VN4012L-G
VP0104N3-G
VP0106N3-G

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Affected Catalog Part Numbers (CPN)

PCN_JAON-08PTJN759
CATALOG_PART_NBR
VP0109N3-G
VP0550N3-G
VP0550N3-G-D559
VP0550N3-G-P013
VP0808L-G
VP2106N3-G
VP2206N3-G
VP2206N3-G-P003
VP2450N3-G
VP3203N3-G



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QUALIFICATION REPORT
RELIABILITY LABORATORY

PCN #: JAON-08PTJN759

Date
July 06, 2016

Qualification of GTK assembly site for selected Supertex products using wafers with Au backside coating available in 3L TO-92 package.

Distribution

Fernando C	Greg P
Arthur N	Vassilis D
Joe F	Wichai K
Surasit P	Somnuek T.
Mitch R	Simeon Iliev
Chaweng W	Atthapong W
Chalermpon P	Arnel M
Irina K	Sunisa K
Maitree Y	Jeffrey J
Supakorn L	Ponpitug Y
Rhoderick O	Marco Ho
Maria Luisa	Fannie Lin

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PACKAGE QUALIFICATION REPORT

Purpose	Qualification of GTK assembly site for selected Supertex products using wafers with Au backside coating available in 3L TO-92 package.
CN	BC160507
QUAL ID	Q16107
MP CODE	63003QA2XK14
Part No.	TN0620N3-G-P014
Bonding No.	BDM-000994 Rev. A
CCB No.	2514
<u>Package</u>	
Type	3L TO-92
Die thickness	11 mils
Die size	44.9 x 44.9 mils
<u>Lead Frame</u>	
Paddle size	140 x 100 mils
Material	A194
Surface	Ag Plated
Process	Stamped
Lead Lock	No
Part Number	2186B
Treatment	None
<u>Die attach material</u>	
Epoxy	8060T
Wire	Au wire
Mold Compound	G600F
Plating Composition	Matte Tin



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Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
GTK-165200014.000	TMPE215517968.B00	161249U
GTK-165200015.000	TMPE215517968.B00	161249Y
GTK-165200016.000	TMPE215517968.B00	16124A4

Result

Pass Fail _____

3L TO-92 assembled by GTK pass reliability test per QCI-39000.

Prepared By: Wittawat P. Date: July 06, 2016 (Reliability Engineer)

(Mr. Wittawat Premniwat)

Approved By: Somnuek Date: July 06, 2016 (Reliability Manager)

(Mr. Somnuek Thongprasert)

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Electrical Test	Electrical Test: +25°C System: IMPACT	JESD22- A113	693(0)	693		Good Devices
Temp Cycle	Stress Condition: -65°C to +150°C, 500 Cycles System : TABAI ESPEC TSA-70H Inspection: External crack inspection all units under 40X Optical magnification Electrical Test: + 25°C System: IMPACT Bond Strength: Wire Pull (> 4.0 grams) Bond Shear (30.00 grams)	JESD22- A104		231		
			231(0)	0/231	Pass	77 units / lot
			15 (0)	0/15	Pass	
			15 (0)	0/15	Pass	
UNBIASED-HAST	Stress Condition: +130°C/85%RH, 96 hrs. System: HAST 6000X Electrical Test: +25°C System: IMPACT	JESD22- A118		231		
			231(0)	0/231	Pass	77 units / lot

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
HAST	Stress Condition: +130°C/85%RH,96 hrs. Bias Volt: 42 Volts System: HAST 6000X Electrical Test: +25°C System: IMPACT	JESD22-A110	231(0)	231 0/231	Pass	77 units / lot
High Temperature Storage Life	Stress Condition: Bake 175°C, 504 hrs System: SHEL LAB Electrical Test: +25°C System: IMPACT	JESD22-A103	45(0)	45 0/45	Pass	45 units
Solderability Temp 215 °C	Steam Aging: Temp 93°C,8Hrs System: SAS-3000 Solder Dipping: Solder Temp.215°C Solder material: SnPb Sn63,Pb37 System: ERSA RA 2200D Visual Inspection: External Visual Inspection	JESD22B-102E	22 (0)	22 22 0/22	Pass	
Solderability Temp 245 °C	Steam Aging: Temp 93°C,8Hrs System: SAS-3000 Solder Dipping:Solder Temp.245°C Solder material:Pb Free Sn 95.5Ag3.9 Cu0.6 System: ERSA RA 2200D Visual Inspection: External Visual Inspection	JESD22B-102E	22 (0)	22 22 0/22	Pass	
Lead Integrity	45 Leads from a minimum of 5 units, 1 lot. System: Strain	JESD22-B105D	45(0) Leads	0/45	Pass	
Physical Dimensions	Physical Dimension, 30 units from 1 lot	JESD22-B100/B108	30(0) Units	0/30	Pass	
Bond Strength Data Assembly	Wire Pull (> 4.0 grams)	M2011	30 (0) Wires	0/30	Pass	
	Bond Shear (30.00 grams)	JESD22-B116	30 (0) bonds	0/30	Pass	