



MICROCHIP

QUALIFICATION PLAN

PCN #: JAON-08PTJN759

Date:
March 23, 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

Microchip Technology (Thailand) Co., Ltd.
14 Moo 1 T. Wangtakien A. Muangchacherngsao,
Chacherngsao, Thailand, 24000
Tel. (6638) 857119-45, 857311-19 ext. 1231
Fax (6638) 857149-50

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

MP code: _____ 63003QA2XK14

Part No. _____ TN0620N3-G-P014

BD No: _____ BDM-000994 Rev.A

CCB No.: _____ 2514

Package:

Type _____ 3L TO92

Die thickness: _____ 11 mils

Die size: _____ 44.9 x 44.9 mil

MSL: _____ n/a

Lead frame:

Paddle size: _____ 140 x 100

Material _____ A194

Plating _____ Ag Plated

Surface Treatment _____ none

Process _____ Stamped

Leadlock _____ No

Part Number _____ 2186B

Wire:

Material _____ Au

Die Attach Epoxy:

Part Number _____ 8060T

Conductive _____ Yes

Mold Compound:

Part Number _____ G600F

Lead finish: _____ Matte Tin

Test Name	Conditions	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Qty of Lots	Total Units	Fail Accept Qty	Est. Dur. Days	Special Instructions
Standard Pb-free Solderability	JESD22B-102E; Perform 8 hour steam aging for Matte tin finish and 1 hour steam aging for NiPdAu finish prior to testing. Standard Pb-free: Matte tin/ NiPdAu finish, SAC solder, wetting temp 245°C for both SMD & through hole packages.	22	5	1	27	> 95% lead coverage	5	Standard Pb-free solderability is the requirement. SnPb solderability (backward solderability- SMD reflow soldering) is required for any plating related changes and highly recommended for other package BOM changes.
Backward Solderability	JESD22B-102E; Perform 8 hours steam aging for Matte tin finish and 1 hour steam aging for NiPdAu finish prior to testing. Backward: Matte tin/ NiPdAu finish, SnPb solder, wetting temp 215°C for SMD.	22	5	1	27	> 95% lead coverage	5	
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	3	24	0 fails after TC	5	30 bonds from a minimum of 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	3	24	0	5	30 bonds from a minimum of 5 devices.
Physical Dimensions	Measure per JESD22 B100 and B108	10	0	3	30	0	5	
Lead Integrity	JESD22 B105	5	0	1	5	0 (No lead breakage or cracks)	5	10 leads from each of 5 parts. Not required for SMD, only required for through-hole.
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5	
HTSL (High Temp Storage Life)	+175 C for 504 hours or 150°C for 1008 hrs. Electrical test pre and post stress at +25°C	45	5	1	50	0	10	Must be in progress at time of package release to production, but completion is not required for release to production.
HAST	+130°C/85% RH for 96 hours or 110°C/85%RH for 264 hours. Electrical test pre and post stress at +25°C	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Unbiased HAST	+130°C/85% RH for 96 hrs or +110°C/85% RH for 264 hrs. Electrical test pre and post stress at +25°C	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.

Test Name	Conditions	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Qty of Lots	Total Units	Fail Accept Qty	Est. Dur. Days	Special Instructions
Temp Cycle	-65°C to +150°C for 500 cycles. Electrical test pre and post stress at +25°C; 3 gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	15	Spares should be properly identified. Use the parts which have gone through Pre- conditioning.

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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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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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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