



QUALIFICATION PLAN

PCN #: JAON-29FMVF751

Date
March 23, 2016

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

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

CCB No.: _____ 2513

MP code: _____ 650164A2XB00

Part No.: _____ CL2N3-G

BD No: _____ BDM-000995 Rev.A

Package:

Type _____ 3L TO92

Die thickness: _____ 8 mils

Die size: _____ 30.3 x 36.6 mil

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 _____ CRM-1076DJ-G

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.

JAON-29FMVF751 - CCB 2513 Final Notice: Qualification of GTK assembly site for selected Supertex products using wafers with non-Au backside coating available in 3L TO-92 package.

Affected Catalog Part Numbers (CPN)

PCN_JAON-29FMVF751
CATALOG_PART_NBR
CL25N3-G
CL2N3-G
CL2N3-G-D591
CL2N3-G-D602
CL2N3-G-P002
CL520N3-G
CL525N3-G
LND150N3-G
LND150N3-G-P002
LND150N3-G-P003
LND150N3-G-P013
LND150N3-G-P014
LP0701N3-G