QUALIFICATION PLAN SUMMARY

PCN #: RMES-24DZDY117

Date:
May 30, 2019

Qualification of GTK as a new assembly site for selected Micrel products of the 0.11 um wafer technology at DBHU available in 64L LQFP (10x10x1.4mm) package.

Purpose: **Qualification of GTK as a new assembly site for selected Micrel products of the 0.11 um wafer technology at DBHU available in 64L LQFP (10x10x1.4mm) package.**

Misc.	Assembly site	GTK
	BD Number	GTK1905159A
	MP Code (MPC)	XKBA11CFAA01
	Part Number (CPN)	KSZ8852HLEYA
	MSL information	MSL 3 260
	Assembly Shipping Media (T/R, Tube/Tray)	Tray (Hwa Shu 150'C EAC101001-10)
	Base Quantity Multiple (BQM)	8x20 = 160units
	Reliability Site	SJ Rel
	CCB Number	3847
Lead-Frame	Paddle size	275 x 275 mils
	Material	C7025
	DAP Surface Prep	Double Ring
	Treatment	None
	Process	Etched
	Lead-lock	No
	Part Number	11-08064-206
	Lead Plating	Matte Sn
	Strip Size	215.5*45.7mm
	Strip Density	Matrix (2 rows), 20unit/strip, 2x10
Bond Wire	Material	Au
Die Attach	Part Number	EN4900
	Conductive	Yes
MC	Part Number	G700H
PKG	PKG Type	LQFP (epad)
	Pin/Ball Count	64
	PKG width/size	10x10x1.4
Die	Die Thickness	19 mils
	Die Size	111x111 mils
	Fab Process (site)	Dongbu 0.11um

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	J-STD-002D ; 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.
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0 fails after TC	5	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5	0	5	30 bonds from a min. 5 devices.
Physical Dimensions	Measure per JESD22 B100 and B108	10	0	3	30	0	5	
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5	
Preconditioning - Required for surface mount devices	+150°C Bake for 24 hours, moisture loading requirements per MSL level + 3X reflow at peak reflow temperature per Jedec-STD-020E for package type; Electrical test pre and post stress at +25°C. MSL3 260'C	231	15	3	738	0	15	Spares should be properly identified. 77 parts from each lot to be used for HAST, Autoclave, Temp Cycle test.
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 and hot temp.	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
UHAST	+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.
Temp Cycle	-65°C to +150°C for 500 cycles. Electrical test pre and post stress at hot temp; 3 grams 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