MICROCHIP

QUALIFICATION PLAN SUMMARY

PCN#: KSRA-05XGMC821

Date:
June 12, 2019

Qualification of ASE as a new assembly site for selected products available in 100L LFBGA (9x9x1.38mm and 10x10x1.42mm) packages.

Purpose: Qualification of ASE as a new assembly site for selected products available in 100L LFBGA (9x9x1.38mm and 10x10x1.42mm) packages.

CCB No.: 3861 and 3861.001

Misc.	Assembly site	ASE
	BD Number	AAH@A271170004-0
	MP Code (MPC)	TARA17AAAA02
	Part Number (CPN)	KSZ8842-16MBLI
	MSL information	MSL3 / 260
	Assembly Shipping Media (T/R, Tube/Tray)	Tray (Shinon 150'C SL-BG101024TJ-4)
	Base Quantity Multiple (BQM)	240pcs (10x24) - tray MPC 1000pcs – TR MPC
	Reliability Site	MCHP SJ Rel
Substrate	Core Material	HL832NX
	Core Thickness	200+/-30
	L1/L2 Thickness	18um
	SM Material	AUS308
	Process	Normal
	SM Thickness	30+/-10
	Part Number	1224038101 (design# A27117-0)
	Drill Size	150 (5.9mil)
	Line/Space Specs	50 (1.97mil)
Bond Wire	Material	Au
Die Attach	Part Number	2100AC
	Conductive	Yes
MC	Part Number	KE-G1250NAS
PKG	PKG Type	LFBGA
	Pin/Ball Count	100
	PKG width/size	10x10x1.42mm
	Ball Pitch/Size	1.0mm / 0.5mm
	Solder Ball Material	SAC405
Die	Die Thickness	7 mils
	Die Size	120x190mils
	Fab Process (site)	TSMC 0.15um

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
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		5	30 bonds from a min. 5 devices.
Solder Ball Shear	JESD22B117A	5	0	3	15		5	10 balls/5 units. Parts should gone Preconditioning
High Temperature Storage Life (HTSL)	JESD22A-103. 150°C for 1008 hours. Read points at 0, 504, and 1008 hours. Electrical test pre and post stress at +25°C and hot temp.	45	5	1	50	0	45	Spare should be properly identified.
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. JESD22A113. MSL3 260'C	231	15	3	738	0	15	Spares should be properly identified. 231 parts from each lot to be used for HAST, UHAST & Temp Cycle test.
Unbiased HAST	JESD22A110. +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	Spare should be properly identified. Use the parts which have gone through Pre-conditioning.
Temp Cycle	JESD22A104. -55°C to +125°C for 1000 cycles or -65°C to +150°C for 500 cycles . Electrical test pre and post stress at hot temp. WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	30	Spare should be properly identified. Use the parts which have gone through Pre-conditioning.