ON Semiconductor®

Initial Product/Process Change Notification

Document #:IPCN23141Y
Issue Date:28 Feb 2020

Title of Change:	Bumping process transfer from Amkor Taiwan to JCAP China on EA2M-SWC8A1G
Proposed First Ship date:	21 Feb 2021 or earlier if approved by customer
Contact Information:	Contact your local ON Semiconductor Sales Office or Lynda.Wu@onsemi.com
PCN Samples Contact:	Contact your local ON Semiconductor Sales Office or <PCN.samples@onsemi.com>. Sample requests are to be submitted no later than 30 days from the date of first notification, Initial PCN or Final PCN, for this change. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.
Type of Notification:	This is an Initial Product/Process Change Notification (IPCN) sent to customers. An IPCN is an advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plan.The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCN). This IPCN notification will be followed by a Final Product/Process Change Notification (FPCN) at least 90 days prior to implementation of the change. In case of questions, contact <PCN.Support@onsemi.com>
Marking of Parts/ Traceability of Change:	None
Change Category:	Assembly Change
Change Sub-Category(s):	Manufacturing Site Transfer, Manufacturing Process Change, Material Change

Sites Affected:

ON Semiconductor Sites	**External Foundry/Subcon Sites**
None	AMKOR, Taiwan T5
	JCAP, China

Description and Purpose:

Qualify JCAP as a new bumping site to replace Amkor T5 by end of 2020 for EA2M-SWC8A1G. The purpose of the change is to improve the capacity and material flow.

	Before Change Description	**After Change Description**
Bumping site	Amkor Taiwan	JCAP china –qualified bumping site for other Onsemi products
RDL design	Linewidth > 60um	Linewidth 55um+/-6um
Bump design	PI2 opening (90um) UBM size (110um +/-3um)	Larger PI2 opening (103um+/-10um) and UBM size (123um) to match the bump height
BOM material	Seed layer material is Tiw/Cu	Use Ti/Cu seed layer
Case outline	Current	Match the existing case outline

There is no product marking change as a result of this change

Qualification Plan:

QV DEVICE NAME EA2M-SWC8A1G
RMS To be determined
PACKAGE WLCSP

Test	Specification	Condition	Interval
HTOL	JESD22-A108	TA=125C, Vcc=1.2xVccopmax not to exceed Vccabs = 4.2V	1008h
HTSL	JESD22-A103	Ta=150C	1008h
TC	JESD22-A104	-40°C to +125°C, >1min soak dual chamber	850cy
HAST	JESD22-A110	Temp = 130C, 85% RH, ~ 18.8 psig, bias = 3.6V on supply pins and 1/2 I/O pins.	96h
uHAST	JESD22-A118	Temp = 130C, 85% RH, ~ 18.8 psig,	96h
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C	3x
SD	JSTD002	Ta = 245C, 5 sec	

Estimated date for qualification completion: 20 May 2020

List of Affected Parts:

Note: *Only the standard (off the shelf) part numbers are listed in the parts list. Any custom parts affected by this PCN are shown in the customer specific PCN addendum in the PCN email notification, or on the* ***PCN Customized Portal****.*

Part Number	Qualification Vehicle
EA2M-SWC8A1G	EA2M-SWC8A1G