ON Semiconductor®

Final Product/Process Change Notification

Document #:FPCN22951Y3
Issue Date:22 Jun 2021

Title of Change:	E7100: Transfer of the bumping process from Amkor to ASEKH.
Proposed First Ship date:	30 Sep 2021 or earlier if approved by customer
Contact Information:	Contact your local ON Semiconductor Sales Office or Ivo.Rotthier@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.
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or Tara.McDonald@onsemi.com
Type of Notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change. ON Semiconductor will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact PCN.Support@onsemi.com
Marking of Parts/ Traceability of Change:	By date code
Change Category:	Assembly Change
Change Sub-Category(s):	Manufacturing Site Transfer

Sites Affected:

ON Semiconductor Sites	**External Foundry/Subcon Sites**
None	AMKOR, Taiwan T1
	ASEKH, Taiwan (Kaohsiung)

Description and Purpose:

This Final Product Change Notification (FPCN) announces the transfer of the bumping process from Amkor to ASEKH.

	Before Change Description	**After Change Description**
Other Changes: Bump Location	Amkor T1	ASEKH
Other: UBM size	78µm	87µm
Other: Sputter film thickness/material	1KA TiW/ 1.5KA Cu	1KA Ti/ 5KA Cu
Other: UBM thickness/material	2µm/Ni	3µm/Ni

There is no change in bump ball composition.

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

Reliability Data Summary:

QV DEVICE NAME : E7120-102A59-AG
RMS : P72893, P74565, I67800, O67799
PACKAGE : 59 pad SIP, bumped die are flip chip

Test	Specification	Condition	Interval	Results
TC	JESD22-A104	Ta= -55°C to +125°C	1000 cyc	0/84
TCx	JESD22-A104	Ta= -40°C to +85°C	1000 cyc	0/84
THB	JESD22-A101	85°C, 85% RH, bias	1026 hrs	0/78
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/84
PC	J-STD-020 JESD-A113	MSL 3 @ 260 °C		0/335
SD	J-STD-002	Ta = 245C, 5 sec	5 sec	0/15
SBS	JESD22-B117	Cpk > 1.67		Passed
ESD CDM	JS-002-2018	Room temperature	250V 500V 750V	0/3 0/3 0/3
PD	Physical Dimension	Per case outline		0/12

Electrical Characteristics Summary:

Electrical characteristics are not impacted.

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
E7100-102WC66-AG	E7120-102A59-AG
E7100-102WC66-BG	E7120-102A59-AG