



Title of Change:	Silicon Etch in Post Fab to replace Mechanical First Cut in Assembly
Proposed first ship date:	1 December 2019
Contact information:	Contact your local ON Semiconductor Sales Office or <eben.lim@onsemi.com>
Samples:	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 <Nicky.Siu@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>
Change Part Identification:	Affected parts will have the date code of 1949 onwards (WW49, 2019)
Change Category:	☐ Wafer Fab Change ☐ Assembly Change ☐ Test Change ☒ Other <u>Post Fab Process Change</u>

Change Sub-Category(s):

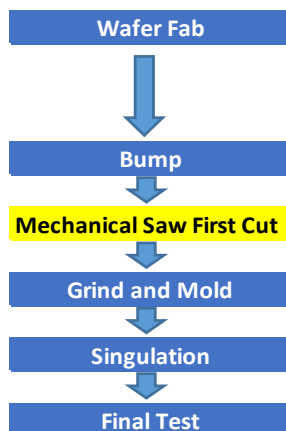
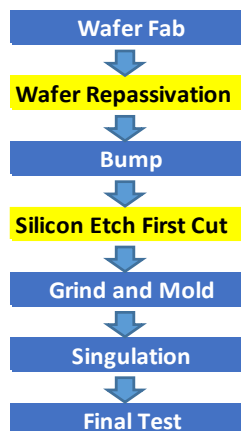
- | | | |
|--|--|---|
| ☐ Manufacturing Site Addition | ☐ Material Change | ☐ Datasheet/Product Doc change |
| ☐ Manufacturing Site Transfer | ☐ Product specific change | ☐ Shipping/Packaging/Marking |
| ☒ Manufacturing Process Change | ☐ Other: _____ | |

Sites Affected:
 ON Semiconductor Sites:
 ON Niigata, Japan

 External Foundry/Subcon Sites:
 None
Description and Purpose:

This Final Product Change Notification (FPCN) is notifying customers regarding the addition of Silicon etch process in Niigata(Japan) to replace mechanical first cut in Seremban(Malaysia). A wafer Repassivation layer of WPR-5100 will be added on the part with this change.

	Before Change Description	After Change Description
Wafer Repassivation	None	WPR-5100 (WLP Insulation film)

Process Flow before and after Implementation**Before****After**

**Reliability Data Summary:**QV DEVICE NAME : ESDM1131MX4T5GRMS: 41700PACKAGE : X4DFN-2, 0.445x0.24, 0.27P

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta = 150°C, V=100% rated Vrwm = 3.5V	1008 hrs	0/240
HTSL	JESD22-A103	Ta = 150°C	1008 hrs	0/240
PC	J-STD-020, JESD22-A113	MSL 1 @ 260 °C	-	0/720
TC	JESD22-A104	Ta = -40°C to +125°C (TC -40/125°C 1700 cycles Equates to 1000 cycles on -65/150°C)	1700 cycs	0/240
HAST	JESD22-A110	Ta = 130°C, 85% RH, V=100% rated Vrwm=3.5V, psig = ~ 18.8	96 hrs	0/240
UHAST	JESD22-A118	Ta = 130°C, 85% RH, No Voltage bias, psig = ~ 18.8	96 hrs	0/240
IOL	MIL-STD-750 Method 1037	Ta=+25°C, DeltaTj=100°C, On/off=2mins	15000 cycs	0/240
SD	J-STD-002	Ta = 245°C, 5 sec	-	0/45

Electrical Characteristic Summary:

There are no changes in electrical characteristic; product performance meets data sheet specifications. Characterization data is available upon request.

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
ESDM1131MX4T5G	ESDM1131MX4T5G