



Premstätten, January 22, 2020

Process Change Notification PCN 03-2020

I. Description and Purpose:

The purpose of this PCN is to notify customers of the implementation of a 1x reflow temperature cycle during the device production process as part of our ongoing ams quality initiative. This added process step will minimize potential for production failures during first-reflow processes in production customer assemblies

II. Scope and Limitation

This PCN covers the process change at ASE CL Taiwan and will be implemented on TMF8701 and TMF8801 products.

III. Details of the target process change and conditions:

ASE CL Assembly Process Steps – Current vs New (upon introduction of 1x reflow step)

Process Flow Comparison

Before 1x Reflow Implementation



After 1x Reflow Implementation



Figure 1. The new process will be introduced between singulation and AOI steps.



IV. Product level validation

A product level validation through reliability testing is ongoing. Final report will be provided once completed.

Accelerated Stress Test	Industry Standard	Condition	Sample Size
High-Temperature Storage Life Test (HTSL)	JESD22-A103	500h, 85°C	1 lot / 77 samples
Preconditioning (PC)	J-STD-020	Depending on the package technology (MSLx). This is a requirement before doing TC and THB	1 lot / 77 samples
Temperature Cycling (TC)	JESD22-A104	500c, -40°C/85°C	1 lot / 77 samples
Temperature Humidity Stress (THS)	JESD22-A101	500h, 85%RH/85 °C	1 lot / 77 samples

Reliability Test Flow

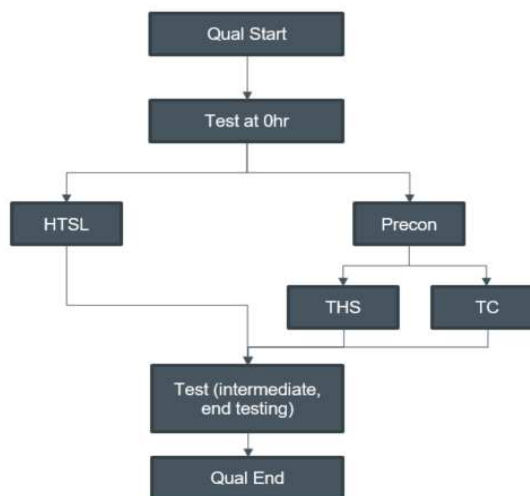


Figure 2. The product level validation that will be performed thru reliability testing.



V. Implementation Strategy

Phase / Stage	Status
• Phase 1: Product Level Validation	17-March-2020
• Phase 2: Safe Launch	19-March-2020
• Phase 3: Process Release	27-March-2020

VI. Affected Product(s):

- TMF8701
- TMF8801

<u>material ID</u>	<u>product description</u>
503520019	TMF8701-1B OLGA12 LF T&RDP
503520020	TMF8701-1BM OLGA12 LF T&RDP
503520021	TMF8701-1AM OLGA12 LF T&RDP
503520022	TMF8801-1B OLGA12 LF T&RDP
503520023	TMF8801-1BM OLGA12 LF T&RDP

VII. Implementation Date:

- 27-March-2020

Please be advised that unless we receive your written refusal concerning this PCN within 30 days, the PCN shall be deemed accepted.

Roy Morta
Customer Quality Engineer