Premstätten, November 20, 2020

Process Change Notification PCN 49-2020

I.   Description and Purpose:

The purpose of this PCN is to notify customer of the implementation of a new AC013 dispensing material (barrier gel) that is being used on the package of the TMF8801/TMF8701 products.

II.   Scope and Limitation

This PCN document applies to TMF8801 and TMF8701.

III.   Background:

This is a part of the continuous improvement program (CIP) at assembly to address final test yield issue and risk of low defect rate problem that customer may encounter at their production line.

Subsequent experiments done by ams AG determined that failures might occur when the parts are subjected to high temperature reflow. Based on failure mechanism, the **current dispensing material (barrier gel) AB025** has fillers that can induced mechanical damages on the die surface when the product goes through solder reflow.

ams AG then investigated a potential improvement and found that the introduction of the **new dispensing material (barrier gel) AC013** will completely prevent the mechanical damage encountered by the current dispensing material.
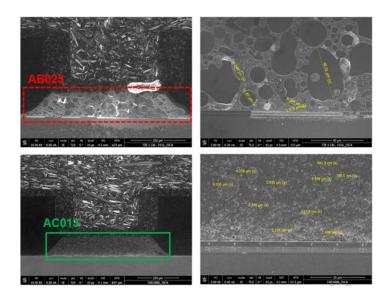

Figure 1. SEM images of the dispensing materials AB025 (current) and AC013 (new). Main difference is the sizes of the filler that could cause mechanical damage when product is subjected to high temperature solder reflow.

IV. Implementation Strategy

Phase / Stage	Status
• Phase 1: Risk assessment	Completed
• Phase 2: Evaluation / Experiment	Completed
• Phase 3: Product Qualification Completion	CW02'2021
• Phase 4: Shipment of Mass Production Material	CW08'2021

V. Affected Product(s):

- **TMF8801**
- **TMF8701**

ams AG ensures full traceability of the new material via trace code to be provided to the customer. Furthermore, there will be no difference in the devices' form, fit and function.

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

Maximino de Leon II

AOS Key Customer Quality Engineering Director