

STANDARDS NEW ACTIVITY REPORT FORM (SNARF)

Date Prepared: 10/08/2014

Revised (if Applicable):

SNARF for: Guide for Wafer Edge Trimming for 3DS-IC Process

Originating Global Technical Committee: 3DS-IC Originating Technical Committee Region: Taiwan Task Force in which work is to be carried out: Middle-End Process

Submitted by: Erh Hao Chen email: <u>erhhao.chen@itri.org.tw</u> Phone: 886-3-5915936 Company: EOL/ITRI

Fax: 886-3-5918496

1. Rationale:

a: Describe the need or problem addressed by this activity.

(Indicate the customer, what benefits they will receive, and if possible, quantify the impact on the return on investment [ROI] if the Document is implemented.)

3DS-IC wafer edge trimming process is a key step for successful wafer thinning after the wafer bonded in the 3DS-IC process. Therefore, the guide will provide a feasible approach to perform the wafer edge trimming. This guide will address the specs of edge trimming and resultant particle residue to ensure the successful wafer thinning process after the wafer edge trimming.

b: Estimated Effect on Industry Check one of the following:

- □ 1: Major effect on entire industry or on multiple important industry sectors
- ✓ 2: Major effect on an industry sector 3DS-ICs
- $\hfill\square$ 3: Major effect on a few companies identify the relevant companies
- □ 4: Slight effect or effect not determinable

c: Estimated Technical Difficulty of the Activity Check one of the following:

□ I: No Difficulty – Proven concepts and techniques exist or quick agreement is anticipated

- ✓ II: Some Difficulty Disagreements on known requirements exist but developing consensus is possible
- □ III: Difficult Limited expertise and resources exist and/or achieving consensus is difficult
- □ IV: Extremely Difficult Expertise and resources are scarce and/or achieving consensus is very difficult

2. Scope:

a: Define the technical areas to be covered or addressed by this Document development activity. For Subordinate Standards, list common concepts or criteria that the Subordinate Standard inherits from the Primary Standard, as well as differences from the Primary Standard:

Define specs for wafer edge trimming and resultant particle residue to provide a feasible approach in edge trimming process. The trimming width, depth, and resultant particle size and count will be addressed in this guide. The outcome of this applicable wafer edge trimming approach will be helpful to the subsequent wafer thinning process in the 3DS-IC process.

b: Expected result of activity

 New Standard or Safety Guideline (including replacement of an existing Standard or Safety Guideline) 	□ Reapproval of a Standard or Safety Guideline
New Preliminary Standard	\Box Removal of a Standard or Safety Guideline
\Box Revision to an existing Standard or Safety Guideline	□ Withdrawal of a Standard or Safety Guideline
Addition of one or more Subordinate Standards to an existing Standard or Safety Guideline	□ Reinstatement of a Standard or Safety Guideline
 Addition of one or more Appendices or Related Information sections to an existing Standard or Safety Guideline 	□ Publication of an existing Standard or Safety Guideline as an American National Standard
 Addition of one or more Other Supplementary Materials to an existing Standard or Safety Guideline 	□ New Auxiliary Information

For Subordinate Standards, identify the Primary Standard here:

3. Projected Timetable for Completion:		
a: General Milestones		
a. Activity Start: 2014/09/30	b. 1 st Draft by: 2015/08/05	
c. Preballot by: 2015/10/05	d. Letter Ballot by: 2015/10/30	
e: Committee Approval By: 2015/09/05		

4. Liaisons with other Regions/Committees/Subcommittees/Task Forces: a. List committees, subcommittees, or task forces in your or other regions that should be kept informed regarding the progress of this activity. (Refer to SEMI organization charts and charters as needed.)

NA 3DS-IC Committee

b: Intercommittee ballots (check one):

□ will be issued – identify the recipient committee(s)

 $\checkmark\,$ will not be issued

5. Safety Considerations:

The resulting Document is expected (Check one):

☐ to be a Safety Guideline

✓ NOT to be a Safety Guideline

NOTE FOR "to be a Safety Guideline": When all safety-related information is removed from the Document, the Document is NOT technically sound and complete – Refer to § 14.1 of the *Regulations* for special procedures to be followed.

NOTE FOR "<u>NOT to be a Safety Guideline</u>": When all safety-related information is removed from the Document, the Document is still technically sound and complete.

6. Intellectual Property Considerations:

a: In complying with the Standard or Safety Guideline to be developed (Check one):

□ there is no alternative to the use of patented technology or copyrighted item(s)

□ Letter of Intent received □ Letter of Intent not received

✓ the use of patented technology or a copyrighted item(s) is NOT required

NOTE FOR "there is no alternative to the use of patented technology or copyrighted item(s)": The provisions of § 15 of the *Regulations* must be followed.

NOTE FOR "the use of patented technology or a copyrighted item(s) is NOT required": If in the course of developing the Document, it is determined that patented technology or copyrighted item(s) must be used to comply with the Document, the provisions of § 5 of the *Regulations* must be followed.

b: The body of the Document and any Appendices, Related Information sections, or Other Supplementary Materials that consist of formal part of the Document by reference (Check one):

□ will include copyrighted material

✓ will NOT include copyrighted material

NOTE FOR "will include copyrighted material": Written permission must be obtained from the copyright owner.

7. Comments, Special Circumstances:

8. Approval Dates: Technical Committee or GCS Recorded in Technical Committee Minutes Reviewed by Technical Architects

If you do not have email capability, you may fax this form to the nearest SEMI office:

SEMI HQ: 1.408.943.7943 Europe: 32.2.416.6448 Japan: 81.3.3222.5757 Korea: 82.2.551.3406 North America: 1.408.943.7943 Taiwan: 886.3.573.3355