



STANDARDS NEW ACTIVITY REPORT FORM (SNARF)

Date Prepared: July 1, 2019 Revised (if Applicable): _____

SNARF for: New Standard: Specification for Glass Carrier Characteristics for Panel Level Packaging (PLP) Applications

Originating Global Technical Committee: 3D Packaging and Integration

Originating TC Chapter: Japan

Task Force (TF) in which work is to be carried out: Panel Level Packaging Glass Carrier

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Refer to *Procedure Manual* § 2.2.4 for more information on properly filling out the SNARF.

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.)

Panel Level Packaging (PLP) technology has been introduced and it is expected to become a critical 3D integration and packaging process.

Various PLP panel manufacturing processes and technologies are discussed and used for the production. These manufacturing processes require various materials, especially the carrier material for the panel processing. Glass material is commonly used for carrier material.

The characteristics for PLP carrier are different from one for Wafer Level packaging glass carrier. So, the specification of PLP glass carrier is required.

b: Estimate effect on industry. Check one of the following:

☒ 1: Major effect on entire industry or on multiple important industry sectors

- identify the relevant sectors: Middle end of the line and substrate fabricators

☐ 2: Major effect on an industry sector

- identify the relevant sector: _____

☐ 3: Major effect on a few companies

- identify the relevant companies: _____

☐ 4: Slight effect or effect not determinable

c: Estimate 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: Describe 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.)

This document will specify the critical characteristics of PLP glass carrier, for example, dimensional, physical, and thermal characteristics of glass as a base material for use in the supporting material at PLP panel fabrication process. This document will also specify ID marking, edge exclusion, as well as geometrical parameters such as total thickness variation (TTV), warp, etc.

The glass substrate is in shape of a panel (square or rectangular) but can be of any geometrical shape as specified.

Methods of measurements suitable for determining the characteristics in the document will be also specified.

b: Expected result of activity

☒ New Standard or Safety Guideline (including replacement of an existing Standard or Safety Guideline)

☐ New Subordinate Standard to an existing Standard or to a new Primary Standard to be developed concurrently with this new Subordinate Standard

☐ New Preliminary Standard

☐ Major revision to an existing Standard or Safety Guideline

☐ Line-item revision to an existing Standard or Safety Guideline

☐ Line-item revision to two or more existing Standards or Safety Guidelines

☐ Reapproval of a Standard or Safety Guideline

☐ Removal of a Standard or Safety Guideline

☐ Withdrawal of a Standard or Safety Guideline

☐ Reinstatement of a Standard or Safety Guideline

☐ Publication of an existing Standard or Safety Guideline as an American National Standard

☐ New Auxiliary Information

☐ Modification of existing Auxiliary Information

For a new Subordinate Standard, identify the Primary Standard here: _____

For revision of existing Standard(s) or Safety Guideline(s), identify the Standard(s) or Safety Guideline(s) that are to be revised here: _____, and identify which parts of the Standard(s) or Safety Guideline(s) that are to be revised. *(Check all that apply.)*

☐ **Modification of an existing part of Standard(s) or Safety Guideline(s) including Appendices, Complementary Files, and Supplementary Materials**

☐ **Addition of one or more Appendices or Complementary Files to an existing Standard or Safety Guideline**

☐ **Addition of one or more Related Information sections or Various Materials to an existing Standard or Safety Guideline**

☐ **Revision or addition of one or more Subordinate Standards to an existing Primary Standard**

For Standards, identify the Standard Subtype below:

- | | |
|--|---|
| <input type="checkbox"/> Classification | <input type="checkbox"/> Guide |
| <input type="checkbox"/> Practice | <input checked="" type="checkbox"/> Specification |
| <input type="checkbox"/> Test Method | <input type="checkbox"/> Terminology |
| <input type="checkbox"/> Miscellaneous (describe:) | |
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3. Projected Timetable for Completion:**a: General Milestones**

- | | |
|--|---|
| a. Activity Start: <u>6/7/2019</u> | b. 1 st Draft by: <u>12/1/2019</u> |
| c. (Optional) Informational Ballot by: _____ | d. Letter Ballot by: <u>2/28/2020</u> |
| e. TC Chapter Approval By: <u>3/31/2020</u> | |
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4. Liaisons with other Global Technical Committees/TC Chapters/Subcommittees/TFs:

a: List Global Technical Committees, TC Chapters, Subcommittees, or Task Forces in your or other Regions/Locales that should be kept informed regarding the progress of this activity.

(Refer to SEMI Standards organization charts and global technical committee charters as needed.)

Physical Interfaces & Carriers

b: Intercommittee Ballots (check one):

- ☒ will be issued – **identify the recipient global technical committee(s):** Physical Interfaces & Carriers
- ☐ 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 § 15.1 of the *Regulations* for special procedures to be followed.

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

6. Intellectual Property Considerations:**a: For a new Standard or Safety Guideline and for any part to be modified or added in a Revision of published Standards and Safety Guidelines (Check one):**

☒ the use of patented technology is NOT required.

- ☐ patented technology is intended to be included in the proposed Standard(s) or Safety Guideline(s).

(If the second box is checked, check one):

- ☐ Letter of Intent received
- ☐ Letter of Intent not received



b: For Revision, Reapproval, Reinstatement, or Withdrawal of existing Standard(s) and Safety Guideline(s) (Check one):

- ☐ there is no known material patented technology necessary to use or implement the Standard(s) and Safety Guideline(s)
- ☐ there is previously known material patented technology necessary to use or implement the Standard(s) and Safety Guideline(s)

c: The body of the Document and any Appendices, Complementary Files, Related Information sections, or Various Materials that may or may not be a part of the Document by reference (Check one):

- ☐ will include reproduced copyrighted material
- ☒ will NOT include reproduced copyrighted material

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 *Regulations* § 16 must be followed.

NOTE FOR 'will include reproduced copyrighted material': A copyright release letter must be obtained from the copyright owner.

7. Comments, Special Circumstances:

8. TC Member Review (Check one):

☒ took place between (put dates here: 08/2/2019 and 08/15/2019) before approval at the TC Chapter Meeting, or

☐ took place between (put dates here: MM/DD/YYYY and MM/DD/YYYY) before approval by the GCS, or

☐ is not required for this SNARF.

NOTE FOR 'TC Member Review': A TC Member Review is required by the *Regulations* for a period of at least two weeks before approval of a new, or a major revision of an existing, Standard or Safety Guideline. (See *Regulations* ¶ 8.2.1)

9. Approval Dates:

TC Chapter or GCS: 2019/10/11

Recorded in TC Chapter Minutes: 2019/10/11

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

SEMI HQ: 1.408.428.9600

China: 86.21.6027.8511

Europe: 49.30.8187.8879

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Korea: 82.2.551.3406

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