



## STANDARDS NEW ACTIVITY REPORT FORM (SNARF)

Date Prepared: 2017/2/15

Revised (if Applicable):

**SNARF for:** New Standard: Specification for Dry etching Patterned Sapphire Substrate (DPSS)

**Originating Global Technical Committee:** HB-LED Committee

**Originating TC Chapter:** China

**Task Force (TF) in which work is to be carried out:** Patterned Sapphire Substrate Task Force

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Refer to *Procedure Manual* § 2.2.4.2 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.)

Rapid development of HB-LED and PSS (Patterned Sapphire Substrate) industry demands establishment of standards for PSS products, By doing so, a clear and common basis will be shared by all parties of research and development, production, sales, etc. Because the PSS industry belongs to the upstream in the whole LED industry. Sound standards and specifications will thus benefit the other related fields. At the moment, for PSS products, definition of key parameters and characterization methods are not clear and widely accepted, there are no unified standards for products. All these issues are challenging for customers, manufacturers and R&D personals, Therefore, it is necessary to establish the standards for PSS products.

因 HB-LED 和 PSS 行业的快速发展需要建立 PSS 产品标准, 从而使各方在研发、生产、销售过程中有明确与共同依据。本项目在 LED 产业属于上游重要基础性领域, 需要更多的研究和规范。健全的标准和规范也将使其他领域受益。目前对于蓝宝石图形化衬底产品的关键参数的定义和表征方法不明确和广泛接受, 没有统一的产品标准, 给客户、生产商以及研究机构的工作带来不便, 因此有必要建立蓝宝石图形化衬底的产品标准。

#### 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
- 2: Major effect on an industry sector - identify the relevant sector: DPSS Industry
- 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:**

The project has no corresponding international standard and industry standards; This standard will be related to the PSS production of terms and definitions, addressed the specifications of pattern parameter (such as height, width and pitch etc.), PSS surface quality specifications (such as partical, pattern loss , etc.) 。

该项目没有相应的国际标准和行业标准；该标准将说明 DPSS 产品的术语和定义，图形的规格(如高度、宽度和间距等)，规范 DPSS 表面质量规格(如颗粒、图形缺陷等)。

**b: Expected result of activity**

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> New Standard or Safety Guideline (including replacement of an existing Standard or Safety Guideline)                               | <input type="checkbox"/> Reapproval of a Standard or Safety Guideline   |
| <input type="checkbox"/> New Subordinate Standard to an existing Standard or to a new Primary Standard to be developed concurrently with this new Subordinate Standard | <input type="checkbox"/> Removal of a Standard or Safety Guideline  |
| <input type="checkbox"/> New Preliminary Standard  | <input type="checkbox"/> Withdrawal of a Standard or Safety Guideline   |
| <input type="checkbox"/> Major revision to an existing Standard or Safety Guideline  | <input type="checkbox"/> Reinstatement of a Standard or Safety Guideline  |
| <input type="checkbox"/> Line-item revision to an existing Standard or Safety Guideline  | <input type="checkbox"/> New Auxiliary Information  |
| <input type="checkbox"/> Line-item revision to two or more existing Standards or Safety Guidelines   | <input type="checkbox"/> Modification of existing Auxiliary Information   |
|  | <input type="checkbox"/> Publication of an existing Standard or Safety Guideline as an American National Standard |

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
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For Standards, identify the Standard Subtype below:

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- |   |   |
|---|---|
| <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 below) |   |
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### 3. Projected Timetable for Completion:

#### a: General Milestones

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|--|--|
| a. Activity Start: 2017/2/20           | b. 1 <sup>st</sup> Draft by: 2017/8/20 |
| c. (Optional) Informational Ballot by: | d. Letter Ballot by: 2017/12/20        |
| e. TC Chapter Approval By:2018/4/20    |  |

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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.)**

HB-LED Committee NA Chapter

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#### b: Intercommittee Ballots (check one):

- will be issued – identify the recipient global technical committee(s):
- will not be issued
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### 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.

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### 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:**

- 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):**

- 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, 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.

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**7. Comments, Special Circumstances:**

None

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**8. TC Member Review (Check one):**

- took place between (*put dates here: MM/DD/YYYY and MM/DD/YYYY*) 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)

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**9. Approval Dates:**

TC Chapter or GCS: TC Chapter: 2017/4/20  
Recorded in TC Chapter Minutes: 2017/4/20

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