STANDARDS NEW ACTIVITY REPORT FORM (SNARF)

Date Prepared: 08/20/2019
Revised (if Applicable): ______________

SNARF for: New Standard: Test Method for Motion Blur of Laptop Displays

Originating Global Technical Committee: Flat Panel Display (FPD) – Metrology
Originating TC Chapter: Korea
Task Force (TF) in which work is to be carried out: Perceptual Image Quality Task Force

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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.)

   The performance of motion blur is continuously developed at hold-type displays. The frame frequency is higher, and it is possible to perform the variable sync such as, adaptive sync, free sync and G-sync could have a VRR (variable refresh rate) function in the laptop displays.

   To measure the motion blur of displays, the display should be normally connected with the signal generator to display to show a scroll pattern and synchronized with the camera, so far. But it is hard to do a display of the laptop set, because there is not a port in the laptop to connect with the signal generator to give a signal to the laptop. For that reason, in this standard, the high-speed camera to capture the display images and scroll movie contents could be displayed on the laptop display, individually, should be applied.

   Based on the system, the blur characteristic of display would be captured and analyzed. The most of report is blurred edge width (BEW) or blurred edge time (BET). It is rarely to reflect the different slope of blur shape and knee of curve of rising and falling area. Even though subjective results are different, depending on the slope shapes, the result would be the same, based on the current method. It could not be the information to report the display performance.

   Human eye can detect and perceive the shape of pattern, based on the different contrast. Therefore, the customized evaluation method should be considered to be suitable to the motion blur performance. In order to evaluate the high-performance display, motion blur should be measured and calculated by considering blurred width and MTF, mainly.

   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: Anyone evaluating laptop display characteristics
   □ 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 proposal suggests to create a new Standard to introduce how to measure and evaluate the motion blur for laptop displays.

**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:

- Classification
- Practice
- Test Method
- Miscellaneous (describe: )
- Guide
- Specification
- Terminology

3. Projected Timetable for Completion:

a: General Milestones
   a. Activity Start: 09/05/2019
   b. 1st Draft by: 11/14/2019
   c. (Optional) Informational Ballot by: 
   d. Letter Ballot by: 11/14/2019
   e. TC Chapter Approval By: 02/05/2021

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.)

Global FPD Metrology Technical Committee

b: Intercommittee Ballots (check one):
   - will be issued – identify the recipient global technical committee(s): 
   - 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 incorporate Copyrighted Item
■ the incorporation of Copyrighted Item will NOT be required

NOTE FOR 'the use of patented technology or the incorporation of Copyrighted Item(s) is NOT required': If in the course of developing the Document, it is determined that the use of patented technology or Copyrighted Item(s) is necessary for the Document, the provisions of Regulations § 16 must be followed.

NOTE FOR 'will incorporate Copyrighted Item': A copyright release letter must be obtained from the copyright owner prior to publication.

7. Comments, Special Circumstances:

8. TC Member Review (Check one):

■ took place between (put dates here: 08/21/2019 and 09/04/2019) 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:
Recorded in TC Chapter Minutes:

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
Japan: 81.3.3222.5757
Korea: 82.2.551.3406
Taiwan: 886.3.560.1555

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