Exhibit 1

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ELM 3DS INNOVATIONS, LLC, Plaintiff, v. SAMSUNG ELECTRONICS CO., LTD.., et al., Defendants.	C.A. No. 14-cv-1430-LPS-CJB JURY TRIAL DEMANDED

PLAINTIFF ELM 3DS'S FIFTH SET OF INTERROGATORIES TO SAMSUNG

Under Federal Rules of Civil Procedure 26 and 33, Plaintiff Elm 3DS Innovations, LLC ("Elm 3DS") requests that Defendants Samsung Electronics Co., Ltd., Samsung Semiconductor, Inc., Samsung Electronics America, Inc. and Samsung Austin Semiconductor, LLC (collectively "Samsung"), answer the following interrogatories in writing, under oath, and serve a copy of the answers upon Bartlit Beck LLP, 1801 Wewatta Street, Suite 1200, Denver, CO 80202 within 30 days of service of these interrogatories. These interrogatories are continuing in nature and must be supplemented or corrected, or both, in a timely manner.

DEFINITIONS

1.   The term "Elm 3DS" refers to the Plaintiff in these actions and all parents, subsidiaries, affiliates, assignees, predecessors, employees, and agents thereof.

2.   The term "Elm 3DS Patents" refers to the asserted patents in these actions.

3.   The terms "You" and "Your" mean the Samsung Defendants in these actions and their parents, subsidiaries, divisions, affiliates, predecessors, assignees, successors, and acquired assets of business units, and any of their present or former officers, directors, trustees, employees, agents, representatives, attorneys, patent agents, and all other persons acting on their behalf.

4.   The term "Product(s)" means any stacked semiconductor product that is sold by you, or incorporated into a product that is sold by you, that contains a semiconductor layer with a thickness of 50 microns or less. For the avoidance of doubt, "Product(s)" include all types of semiconductor

products that meet the above definition, regardless of their function (e.g., memory, image sensor, control, etc.). In addition, although Elm expects that there may be Products that are not included in the following documents, the term Product(s) specifically includes each Product listed in, or included in other products listed in, the following documents: Samsung-Elm-000062357 – Samsung-Elm-000062374.

5.   The term "Physical Dimensions" includes height, width, and thickness.

6.   The term "Relevant Die" means any die with a thickness of 50 microns or less. For the avoidance of doubt, this thickness measurement refers only to the semiconductor die itself, and not to the dielectric, metal, or other material that may be deposited on the die.

7.   The term "Material Properties" means every known, estimated, or measured property of the material, including each of the following:

        a.   Young's modulus

        b.   Shear modulus

        c.   Poisson's ratio

        d.   Coefficient of thermal expansion

        e.   Density

        f.   Heat capacity

        g.   Thermal conductivity.

8.   The term "Stress Target" means a desired level or range of stress for a given entity, such as a die or a dielectric layer within a die.

9.   The term "Stress Measurement" means any determination or estimation of stress that involves the use of physical measurements.

10.   The term "Stress Simulation" means any determination or estimation of stress that involves the use of modeling or simulation techniques.

11.   The term "Rigid Carrier" means a carrier that is used to facilitate processing of a die or wafer through one or more manufacturing process steps, but that ultimately does not become part of the product or remain with the die.

INSTRUCTIONS

1.   *Lost or Destroyed Documents*: If any document or tangible thing for which identification is requested was formerly in existence or in your possession but no longer exists, or no longer is within your possession, custody or control, your response should state, for each such document or thing: (a) an identification of the document or thing and, if a document, its author and addressee; (b) the date and circumstances of such loss or destruction; and (c) the reason or justification for such loss or destruction.

2.   *Documents for Which a Privilege Is Claimed*: To the extent of any claim that any information or document is privileged or in any other way free from discovery under the Federal Rules of Civil Procedure, you are requested, in lieu of producing said information or document, to produce a description of the information or document sufficient to allow Elm 3DS a specific understanding of the nature of the objection; and if a document, the identification of the author, the date of the document, the addressee(s), the person(s) who received copies of the document, and the general subject matter of the document.

3.   *Ongoing Duty to Supplement*: Pursuant to Federal Rule of Civil Procedure 26(e), you are required to supplement your response to include further information that may become available after the date of your response to these interrogatories.

INTERROGATORIES

6. Separately for each stacked semiconductor product that constitutes, or is included in, a Product, identify the die included in the Product, including the following data:

a.   Identifier(s) of each die in the stack (e.g. part number);

    b.   The Physical Dimensions of each die in the stack;

    c.   The type of die (e.g., DRAM, NAND, controller, etc.);

    d.   The process node used to make the die; and

    e.   The quantity of each type of die in the packaged product.

7.   Separately for each Relevant Die in each stacked semiconductor product that constitutes, or is included in, a Product, identify each dielectric, including without limitation each pre-metal dielectric, inter-layer dielectric, inter-metal dielectric, and passivation layer(s) that is deposited on the die, including the following information about each dielectric:

    a.   Any identifiers You use to describe or identify the dielectric;

    b.   Material composition of the dielectric;

    c.   Material Properties of the dielectric; and

    d.   All process parameters and equipment used for deposition of the dielectric.

8.   For each dielectric identified in response to Interrogatory Number 7, identify all stress data, whether from ongoing process monitoring, quality control, simulation, or process qualification, including the following:

    a.   All Stress Targets for the dielectric;

    b.   All Stress Measurements of the dielectric; and

    c.   All Stress Simulations of the dielectric.

9.   Separately for each Relevant Die in each stacked semiconductor product that constitutes, or is included in, a Product, identify when in the manufacturing process the die is thinned to 50 microns (or less), including the following:

    a.   Whether it is thinned to 50 microns (or less) before or after it is stacked with another die; and

DOCKET ALARM

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts

Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research

With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips

Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS
Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS
Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS
Sync your system to PACER to automate legal marketing.