

**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 JURY TRIAL DEMANDED FILED UNDER SEAL
ELM 3DS INNOVATIONS, LLC, Plaintiff, v. MICRON TECHNOLOGY, INC., et al., Defendants.	C.A. No. 14-cv-1431-LPS JURY TRIAL DEMANDED FILED UNDER SEAL
ELM 3DS INNOVATIONS, LLC, Plaintiff, v. SK HYNIX INC., et al., Defendants.	C.A. No. 14-cv-1432-LPS JURY TRIAL DEMANDED FILED UNDER SEAL

**PLAINTIFF'S RESPONSE TO DEFENDANTS' MOTION FOR AN EXPEDITED
SCHEDULE AND LEAVE TO FILE ITS SUMMARY JUDGMENT MOTION ON
INDEFINITENESS OF THE "LOW STRESS" TERMS**

INTRODUCTION

The Defendants' motion for early summary judgment on indefiniteness proceeds under the false premise that indefiniteness is a discrete issue in the case that can be lopped off from infringement. It is not. The indefiniteness and infringement inquiries overlap significantly, and the Defendants' front-loaded indefiniteness proposal would prejudice Elm and adds nothing to the efficiency of the case.

The documents showing how the Defendants measure dielectric stress in the design and manufacture of the accused products will help prove the Defendants' infringement and demonstrate

that the stress terms are not indefinite. The same experts opining on the Defendants' established methods to measure and control dielectric stress for indefiniteness purposes will describe how those methods prove infringing stress levels in the accused products. And the same fact witnesses—many of whom are in South Korea and currently unavailable—will testify regarding how three of the largest semiconductor manufacturers in the world measure stress during the manufacturing of the accused chips, which supports both the definiteness of the stress terms and infringement.

The Defendants mention exactly zero of these issues, instead stating without support that the parties can “quickly fill out [the] record” through a “parallel schedule.” D.I. 284 at 2-3 (14-cv-1430)¹. To the contrary, the Defendants' proposal would either require all the infringement discovery to be addressed during their proposed breakneck schedule or else largely duplicated later. This is the opposite of the “efficiency” and lack of prejudice promised by the Defendants. Given the factual overlap and the nature of the inquiries, the Court's claim construction order rightly recognizes that indefiniteness should be determined with everything else “at the summary judgment stage (and, if necessary, at trial).” D.I. 266 at 14. The Court should deny the Defendants' motion.

BACKGROUND

The accused products in this case are semiconductors in which silicon substrates are thinned and stacked for use in three-dimensional memory products such as flash memory. The “low stress” terms in this case relate to the deposition of a dielectric (or insulating) material on a substrate in a way that does not curve the substrate after it is thinned. A central concern in semiconductor manufacturing is ensuring the substrates are planar or flat. Dielectric layers are formed on top of the substrate. When deposited on to a substrate, stress in the dielectric can cause the substrate to curve after it is thinned. The thinner the substrate, the more the stress imparted by the deposited dielectric

¹ All docket citations in this response are to C.A. No. 14-cv-1430-LPS.

will curve it, defeating the goal of a planarized substrate for semiconductor manufacturing and stacking. *See generally* D.I. 266 at 14-15.

The Defendants argued during claim construction that the low stress terms are indefinite because a “person of ordinary skill in the art would not know what type of stress to measure, or how and when to measure that stress on a dielectric layer.” D.I. 266 at 14. The Court rejected these arguments, noting that the factual record is insufficient at this stage in the case and deferring resolution until summary judgment or trial. *Id.*

Since then, discovery has proceeded in earnest. Under the current schedule, the parties are to substantially complete document production for all the factual issues by June 29, 2020. D.I. 263 at 4. Fact discovery is currently scheduled to end four months later on October 26, 2020. Almost all of the depositions have yet to occur and will likely be in Asia for Samsung and SK witnesses. *Id.* Expert discovery would then proceed for another six months through April 2021. *Id.*

ARGUMENT

Discovery into indefiniteness and infringement cannot be bifurcated because the evidence establishing that the claims are both definite and infringed overlaps extensively. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

As discussed at claim construction [REDACTED] the basic method for evaluating stress in a dielectric layer is by measuring the curvature/deformation caused by the dielectric on a thin

substrate. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] As the Defendants' experts explained during claim construction, there are several techniques to conduct this measurement, and "[a]t the time of the inventions in the Asserted Patents, and afterwards, the 'typical commercial equipment available to determine stress' all 'measure curvature or shape.'" D.I. 239, Ex. C, Murray Decl. ¶ 39.²

Any fact deposition [REDACTED] would address both infringement and the definiteness of the measurement techniques. Using a technique known to produce certain stress values is evidence of infringement, Defendants' knowledge of their infringement, and of the definiteness of the "low stress" claim terms. Elm cannot ask the Defendants' employees only what they do generally to manage stress (indefiniteness) without also being able to ask what they do specifically to manage stress with respect to the accused products (infringement). Nonetheless, Defendants want Elm to ask the indefiniteness questions on a separate track from the infringement questions.

Further, deposing employees with knowledge of these techniques will result in wasteful duplication. Putting aside the logistical hurdles posed by the pandemic, Elm would have to take separate depositions on the same document. Or if Elm is only allowed a single deposition, Elm would have to somehow depose these fact witnesses in the three weeks between the end of

² Thus, the Defendants cannot argue in reply that the different time frames for infringement and validity make it possible to excise indefiniteness from infringement.

document production on infringement (June 29th) and the proposed close of indefiniteness fact discovery (July 17th). D.I. 284 at 4-5.³

Elm's expert discovery would be similarly affected. In addition to the Defendants' documents, dielectric stress values can be measured experimentally, as shown above. D.I. 240-1, Baker Decl. at 24-30. Such expert work would necessarily employ methods that demonstrate both infringement and the definiteness of the "low stress" terms. The experts would use established methods to measure dielectric stress to prove infringement (and by implication the reasonably certain meaning of the claims). *Id.* Under the Defendants' proposal, an expert would have to either conduct these experiments twice or frontload any infringement analysis to meet the new schedule. Even then, the Defendants ask that expert discovery regarding indefiniteness end a month before fact depositions would be completed for the rest of the case. Those depositions will also likely inform the experts' analyses.

The Defendants' proposal also flies in the face of their own recognition that the infringement and indefiniteness inquiries are intertwined. During claim construction, Defendants' expert Dr. Fair criticized Elm's expert for failing to offer infringement opinions in response to the Defendants' claims that the "low stress" terms are indefinite. D.I. 239, Ex. B, Fair Rebuttal Decl. ¶ 41 ("Dr. Baker does not explain whether a dielectric layer having an average stress above the claimed threshold value, but with some locations having a stress within the claimed range, would infringe these claims."). Their expert Dr. Murray said the question of indefiniteness turned on whether infringement could be shown, saying a person of skill in the art had "to distinguish with reasonable certainty between infringing and non-infringing stress values." D.I. 239, Ex. D, Murray Rebuttal

³ The Defendants oppose setting a trial date in late 2021 because the pandemic allegedly imposes uncertainty on the parties' ability to complete discovery. D.I. 285 at 2. And they alert the Court in their motion that they may not meet their discovery obligations. Yet here they demand that Elm complete all discovery on stress in a matter of weeks.

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.