

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF VIRGINIA  
Richmond Division**

SAMSUNG ELECTRONICS CO., LTD.,  
Plaintiff,

v.

Civil Action No. 3:14cv757

NVIDIA CORPORATION,  
Defendant.

**MEMORANDUM OPINION**

This matter came before the Court on NVIDIA'S MOTION TO STRIKE THE TESTIMONY AND REVERSE ENGINEERING REPORTS OF DR. JEONGDONG CHOE PURSUANT TO RULE 37(c) (Docket No. 744). Having considered the associated papers and oral arguments, and for the reasons stated below, the Court orally granted the motion in part and denied the motion in part. The Court granted a mistrial as to the 6,287,902 ("902") and 8,252,675 ("675") patents in order to provide sufficient time during which NVIDIA Corporation might engage in curative expert discovery, but denied the motion as it pertained to striking the testimony or reports of Dr. Jeongdong Choe. This Memorandum Opinion followed.

**BACKGROUND**

This patent infringement action was brought by Samsung Electronics Co., Ltd. ("Samsung") against NVIDIA Corporation ("NVIDIA"), alleging infringement of the '902 and '675 patents, as well as the 6,819,602 patent ("602"). (Second Am. Compl.,

Docket No. 81).<sup>1</sup> As to the '675 and '902 patents, Samsung alleged, inter alia, that NVIDIA had infringed by importing, selling, and offering to sell infringing products that were made by an infringing process and under an infringing design. (Second Am. Compl., ¶¶ 1323-2135, 2288-2596). More specifically, Samsung alleged that NVIDIA sold, offered for sale and imported the accused products from non-party Taiwan Semiconductor Manufacturing Company ("TSMC"). Id.

During discovery, Samsung sought evidence from TSMC regarding the design and the manufacturing of the allegedly infringing products (computers and the chips). (E.g., Pl.'s Opp. to NVIDIA's Mtn. to Strike, Docket No. 755, 17) ("Pl.'s Choe Mem."). TSMC was non-responsive to entreaties from the parties and the Court. Id. In the absence of evidence from TSMC about the design and the manufacturing process, Samsung elected to have an expert "tear down" the allegedly infringing chips and offer an opinion about the design of the accused chips and how TSMC had made them. Id. Samsung chose Dr. Jeongdong Choe ("Dr. Choe"), an expert in reverse engineering employed by TechInsights, Inc. ("TechInsights") to provide an expert report

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<sup>1</sup> Other parties and claims were originally part of the action. By the time of trial, the parties had been whittled down to Samsung and NVIDIA, and the claims had been whittled down to infringement of the '602, '675, and '902 patents.

on the design and structure of the allegedly infringing chips and the process that TSMC used to make those chips. Id.

At the outset of the case, the parties, with the approval of the Court, altered some of the disclosure obligations of Fed. R. Civ. P. 26 through a Stipulated Discovery Order, which provided that "all materials generated by a testifying expert with respect to that person's work are exempt from discovery unless relied upon by the expert in forming any opinions in this litigation." (Docket No. 198, 8-9) (emphasis added).<sup>2</sup> In the run-up to trial, NVIDIA served a Request for Production of documents seeking "documents and things generated by You or other(s) on your behalf ... for litigation or non-litigation purposes, including but not limited to any teardown or reverse engineering reports, electron microscope images, product sample analysis, or product comparison reports." (Docket No. 751, Ex. A). In response to that discovery request and pursuant to the Stipulated Discovery Order, Samsung committed to provide NVIDIA with the reverse engineering documents relied upon by Dr. Choe

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<sup>2</sup> The Stipulated Discovery Order, like the Federal Rules, protected communications between counsel and testifying experts. (Docket No. 193 ¶ 5); see also, e.g., Republic of Ecuador v. Mackay, 742 F.3d 860, 869-70 (9th Cir. 2014); Republic of Ecuador v. Hinchee, 741 F.3d 1185, 1195 (11th Cir. 2013); Republic of Ecuador v. For Issuance of a Subpoena Under 28 U.S.C. Sec. 1782(a), 735 F.3d 1179, 1186 (10th Cir. 2013); Siemens Med. Sols. USA, Inc. v. Saint-Gobain Ceramics & Plastics, Inc., 637 F.3d 1269, 1286 (Fed. Cir. 2011).

in connection with his expert report. (Def.'s Mem. in Supp. of Mtn. to Strike the Testimony and Reverse Engineering Reports of Dr. Jeongdong Choe Pursuant to R. 37(c), Docket No. 745, 4-5 ("Def.'s Choe Mem."); Docket No. 751, Exs. B-E).

Dr. Choe ultimately produced an expert report that included thirteen (and, following a supplement, fifteen) reverse engineering reports that cited numerous cross-sectional images of the allegedly infringing chips. (Def.'s Choe Mem. 6-8; Docket No. 751, Exs. H-J). At his deposition, Dr. Choe testified that his expert reports and exhibits were accurate and complete. (Def.'s Choe Mem. 8; Docket No. 751, Ex. K 19:7-11; 41:16-42:11; 46:16-17:14; 47:17-48:22; 289:13-19). Dr. Choe's report served as the foundation upon which both parties built their infringement cases because both parties' infringement experts based their analyses on Dr. Choe's explanation of the design and manufacture of accused chips produced for NVIDIA by TSMC. (E.g., Pl.'s Choe Mem. 16).

During cross-examination at trial, Dr. Choe testified that, in forming his opinions, he had relied on images that were disclosed neither in his expert reports nor to counsel for either side. (Def.'s Choe Mem. 9-14; see also, e.g., Tr. Jan. 28, 2016 518:1-519:22, 697:14-16; 705:16-21). In particular, Dr. Choe testified that he had reviewed a large number of so-called EDS and EEL images that were not disclosed, and that he had

relied on some of those images in reaching the conclusions stated in his expert reports and in his testimony at trial. In essence, Dr. Choe explained that he had used both the disclosed and undisclosed images: (1) to select the most representative images for disclosure in his report; and (2) to confirm that the images that he had reproduced in his reports and testified to at trial were accurate. According to Dr. Choe, the process that he followed is a standard process used both by TechInsights specifically and by practitioners of semi-conductor reverse-engineering generally. Id.

The Court instructed Samsung to procure the undisclosed images from TechInsights and to provide them to NVIDIA immediately. (Tr. Jan. 29, 2016 744:8-21). Samsung did so. Id. Thereafter, and while trial was progressing on the '602 patent, NVIDIA's expert witness on infringement, Dr. Jack Lee ("Dr. Lee"), performed a brief preliminary exam of the previously undisclosed images. NVIDIA concluded that some of the previously undisclosed materials upon which Dr. Choe relied demonstrated that silicon was present in the TiN/TaTiN layer of the allegedly infringing chips. (Def.'s Choe Mem. 9). The presence of silicon in that layer is an important aspect of NVIDIA's non-infringement defense in this case. Id. The parties agreed upon an accelerated briefing schedule to address how this apparent discovery violation should be handled. (Tr. Jan. 29,

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