IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF DELAWARE

TECHNOPROBE S.P.A.,	)	
	)	
Plaintiff,	)	
	)	
v.	)	C.A. No. 23-842-GBW
	)	
FORMFACTOR, INC.,	)	**JURY TRIAL DEMANDED**
	)	
Defendant.	)	

AMENDED COMPLAINT FOR PATENT INFRINGEMENT AND
FALSE AND MISLEADING PRODUCT CLAIMS

Technoprobe S.p.A. ("Technoprobe"), by and through its undersigned counsel, brings this first amended complaint for patent infringement and materially false and misleading product claims against Defendant FormFactor, Inc. ("FormFactor"), and alleges upon information and belief as follows:

I. NATURE AND SUMMARY OF THE ACTION

1. Technoprobe brings this civil action against FormFactor for (i) infringement of U.S. Patent No. 11,035,885 ("the '885 patent") pursuant to 35 U.S.C. § 271; and (ii) materially false and misleading advertising claims in violation of § 43(a) of the Lanham Act, 15 U.S.C. § 1125(a).

2. Not only do FormFactor's probe cards infringe the '885 patent, but FormFactor encourages and induces probe card consumers, including its customers and others to do the same with the knowledge that FormFactor's probe cards infringe the '885 patent. As evidenced by a recent presentation given by FormFactor at SWTest 2023 conference, FormFactor's latest probe cards include proprietary metallized guide plate technology that was invented by engineers at Technoprobe. FormFactor presented Technoprobe's technology as its own, repeatedly playing up the advantages of Technoprobe's technology, including the benefits the technology has on the

current carrying capability ("CCC") of a probe card. FormFactor did so with knowledge of both the '885 patent and the fact that their own probe cards infringed that patent or with willful blindness to the existence of the '885 patent and FormFactor's infringement of that patent. At the same SWTest 2023 conference, Technoprobe presented its new metallized guide plate technology and noted that the technology is a "Technoprobe Patented solution." Technoprobe's presentation was attended by many participants at the SWTest 2023 conference—including FormFactor.

3. Furthermore, FormFactor's commercial promotion and advertising of its probe cards feature literally false and misleading claims that assert superiority over its direct competitors, including Technoprobe, regarding the CCC of its probe cards—a material product attribute that even FormFactor itself concedes "matter[s]" to customers. In bar graphs and textual claims alike, FormFactor tells consumers (and consumers have been and will be falsely and mistakenly led to understand) that FormFactor's own probe cards offer as much as 50% and 65% improvement over "previous generation probes" or "current gen. MEMS probes"—broad designations that refer to directly competing products including those made by Technoprobe. These false and misleading claims have been publicly disseminated by FormFactor to current and potential probe card customers attending a recent industry conference (SWTest 2023) and on FormFactor's customer-facing commercial website *See* Technical Papers, FORMFACTOR https://www.formfactor.com/applications/technical-papers/ (last visited October 4, 2023). Consumers are being falsely and mistakenly led to purchase FormFactor's probe cards rather than those of its competitors, including Technoprobe, because of such false and misleading claims.

4. Technoprobe is a leading innovator and provider of electronic probe cards, headquartered outside of Milan, Italy. Technoprobe designs, manufactures, promotes, and sells probe cards for testing electronic semiconductor chips. Technoprobe's probe cards allow some of the largest technology brands in the world to accurately test their chips to confirm they operate

properly. Technoprobe's cutting-edge probe card technologies have been lauded and adopted time and again by the industry and have received patent protection in the United States and other countries.

5. FormFactor designs, manufactures, markets, promotes, offers for sale, sells, and imports probe cards (the "Accused Products") for testing semiconductor chips to distributors and customers in the United States, including in Delaware.

6. FormFactor's acts of making, using, promoting, offering for sale, selling, and importing the Accused Products infringe U.S. Patent No. 11,035,885 ("the '885 patent"), owned by and assigned to Technoprobe. Exhibit A.

7. To attract customers and cause them to purchase FormFactor's probe cards rather than those of Technoprobe, FormFactor is making materially false and misleading claims about its probe cards and the probe cards of its competitors, which include Technoprobe's probe cards, at public presentations and its website directly to probe card consumers. FormFactor's materially false and misleading product claims are calculated to cause and have caused probe card consumers to purchase and use FormFactor's probe cards instead of Technoprobe's probe cards. FormFactor's probe cards do not measure up to their materially false and misleading claims, be that improved or enhanced product performance or otherwise, resulting in consumer confusion, mistake, and deception and, ultimately, diverted sales from Technoprobe to FormFactor and irreparable injury to Technoprobe's substantial goodwill and reputation.

II. PARTIES

8. Plaintiff Technoprobe is an Italian corporation with its principal place of business at Via Cavalieri di Vittorio Veneto 2, 23870 Cernusco Lombardone (LC), Italy. Technoprobe is the assignee and owner of the '885 patent.

9. Defendant FormFactor is a corporation organized and existing under the laws of the State of Delaware with its principal place of business at 7005 Southfront Road, Livermore, CA 94551.

10. Defendant FormFactor is in the business of, inter alia, manufacturing, marketing, promoting, and selling probe cards throughout the United States, including the State of Delaware.

III. JURISDICTION AND VENUE

11. This Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331, 1338, 1367(a), and 15 U.S.C. § 1125 because this action involves claims relating to infringement of a registered U.S. patent in violation of 35 U.S.C. § 271 and false product claims in violation of § 43(a) of the Lanham Act, 15 U.S.C. § 1125(a).

12. This Court has personal jurisdiction over FormFactor because FormFactor is incorporated in Delaware and resides in Delaware.

13. This Court also has personal jurisdiction over FormFactor because FormFactor has, directly and/or through intermediaries, committed acts within Delaware giving rise to this action and/or has established minimum contacts with Delaware such that the exercise of jurisdiction would not offend traditional notions of fair play and substantial justice. Moreover, FormFactor has, directly and/or through intermediaries, purposefully directed activities at residents of Delaware, this action arises out of or relates to those activities, and the assertion of personal jurisdiction is reasonable and fair.

14. Venue is proper in this District under 28 U.S.C. §§ 1391 and 1400(b) because FormFactor is a Delaware corporation and thus resides in this District.

IV. BACKGROUND

A. Technoprobe's Products

15. In its labs outside of Milan, Italy, Technoprobe designs probe cards for the very critical and important purpose of accurately testing or characterizing electronic semiconductor chips to confirm they operate properly. A probe card has an electromechanical interface that connects to an electronic chip when the chip is still on the wafer or before the chip is individually packaged. Each Technoprobe probe card has a variety of important technical features and can have more than 50,000 contacts; the distance between them can be as small as 40µm (4 hundredths of a millimeter).

16. Technoprobe's probe cards are the result of many years of investment in substantial research and development. Technoprobe's innovative designs solve long-standing problems in the industry, for which Technoprobe has been granted patents in the United States and other countries.

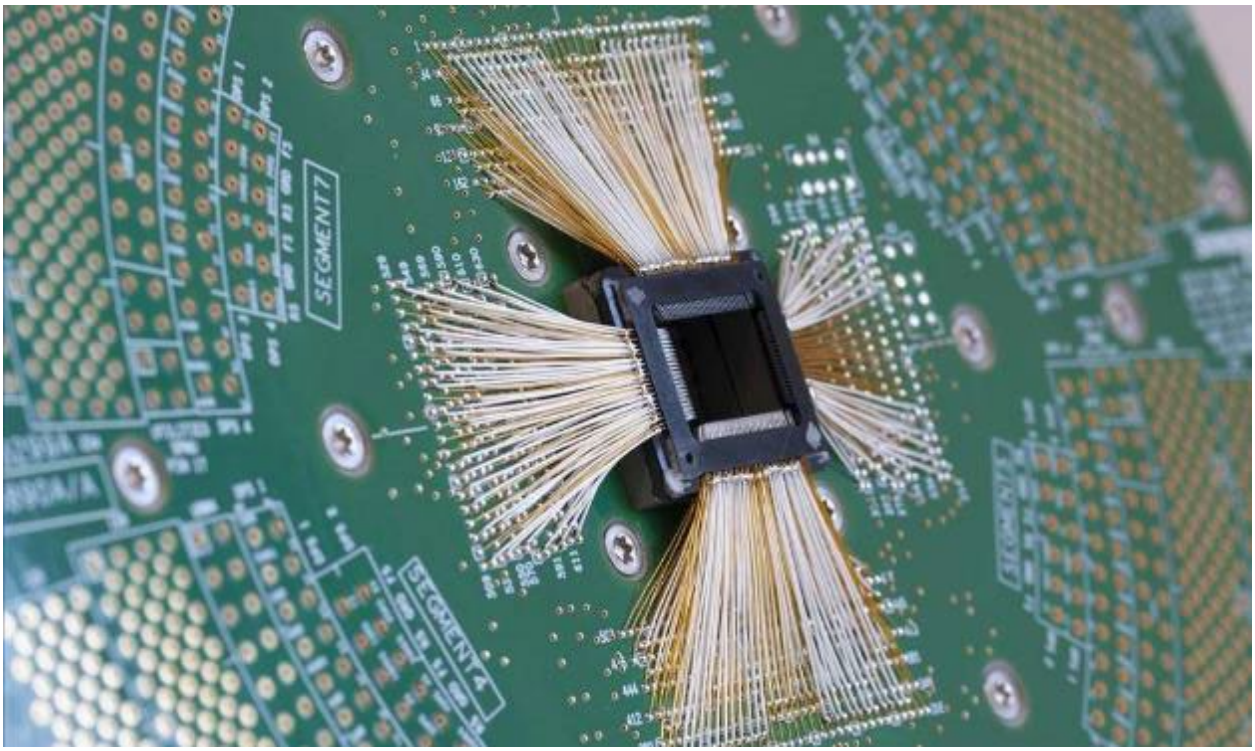
17. Technoprobe's cutting-edge probe cards have been lauded and adopted time and again by the industry. For example, in 2023, Technoprobe was the highest-rated testing product supplier (including probe cards) for the sixth year in a row by TechInsights, beating out FormFactor in customer satisfaction. *See* Exhibit B (2023); *see also* Exhibit C (2022).

18. Some of the most widely recognized chip manufacturers in the world rely on Technoprobe to test their electronic chips and hold Technoprobe and its testing products in high regard. Intel, for instance, awarded Technoprobe its "EPIC Distinguished Supplier Award" in 2022. "As one of only 26 Distinguished Supplier Award recipients across the Intel global supply chain, Technoprobe has been crucial to Intel's success while offering agility and flexibility during the ongoing volatile supply chain environment," said Keyvan Esfarjani, Executive Vice President and Chief Global Operations Officer at Intel. *See Technoprobe Earns Intel's 2022 EPIC Distinguished Supplier Award*, Technoprobe, https://www.technoprobe.com/news-and-

press/news-events-publications/

technoprobe-earns-intels-2022-epic-distinguished-supplier-award (last visited October 4, 2023).

19. An exemplary close-up of a Technoprobe probe card is shown below:



See Our Technologies, TECHNOPROBE, https://www.technoprobe.com/technologies-and-products/our-technologies (last visited October 4, 2023). Each Technoprobe probe card is tailored to meet the needs and requirements of the chip manufacturer as each chip has a different circuitry and layout.

20. Technoprobe and FormFactor are the two leading producers of probe cards, as Technoprobe is FormFactor's largest competitor by market share. *See Probe Card Market hit 2.5B in 2021*, TECH INSIGHTS, https://www.techinsights.com/blog/probe-card-market-hit-25b-2021 (last accessed October 4, 2023). Probe card consumers, including those who attended SWTest 2023, are aware that Technoprobe and FormFactor are the two leading producers of probe cards.

21. As one of its efforts to improve its probe cards, Technoprobe sought to make its individual microscopic contacts (or pins) more resilient to spikes in electrical voltages and currents that can arise during testing of the electronic chips. After years of research, Technoprobe devised an innovative solution. By grouping individual pins across one or more electrically conductive layers in Technoprobe's probe cards, voltage or current spikes occurring during testing could be distributed over a plurality of pins, instead of being carried by an individual pin that might have been destroyed or degraded by those spikes. And Technoprobe was granted the '885 patent in part based on this innovative technology. Exhibit A.

22. Figure 2C of the '885 patent shows one embodiment of this technology:

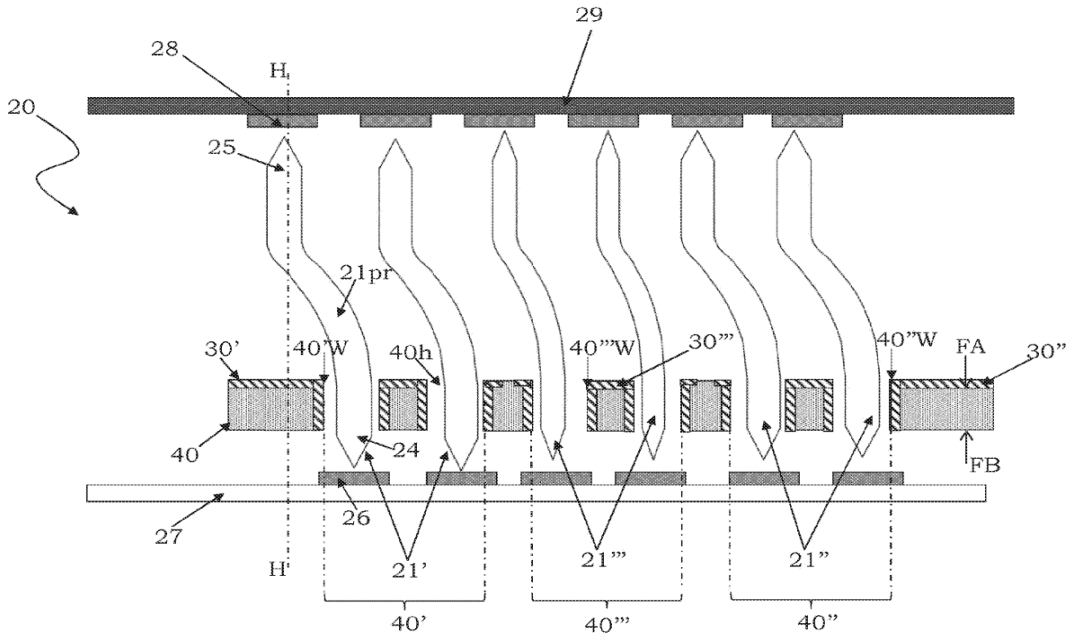
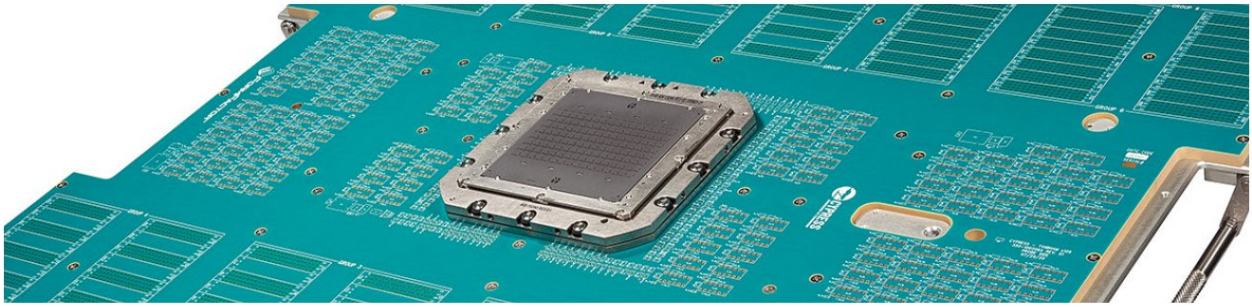


FIG. 2C

Exhibit A, Fig. 2C. As the '885 patent explains, Figure 2C depicts a guide **40** with, among other things, a conductive portion **30'** that includes and electrically connects the holes of a group **40'** of the guide holes **40***h* to each other. *Id.*, 7:31—48, 9:11-26. Thus, current or voltage may be distributed over pins **21'** via the conductive portion **30'**.

B. FormFactor's Products

23. FormFactor's products include, without limitation, FormFactor's "Apollo," "Kepler," "Altius," or "QiLin" product lines as well as other products incorporating the features promoted by FormFactor at the SWTest 2023 Conference from June 5-7, 2023 ("SWTest 2023"). As one example, one of FormFactor's "Kepler™ Vertical MEMS Probe Cards" is pictured below:



High pin count, multi-site Kepler probe card (shown for V93K Direct-Dock).

See Exhibit D, 2.

24. FormFactor implemented Technoprobe's current distribution technology in FormFactor's products. After Technoprobe developed metalized plates to share current across groups of pins, FormFactor began promoting the same technology for its own probe cards. For example, FormFactor promoted this feature for its own products at SWTest 2023:

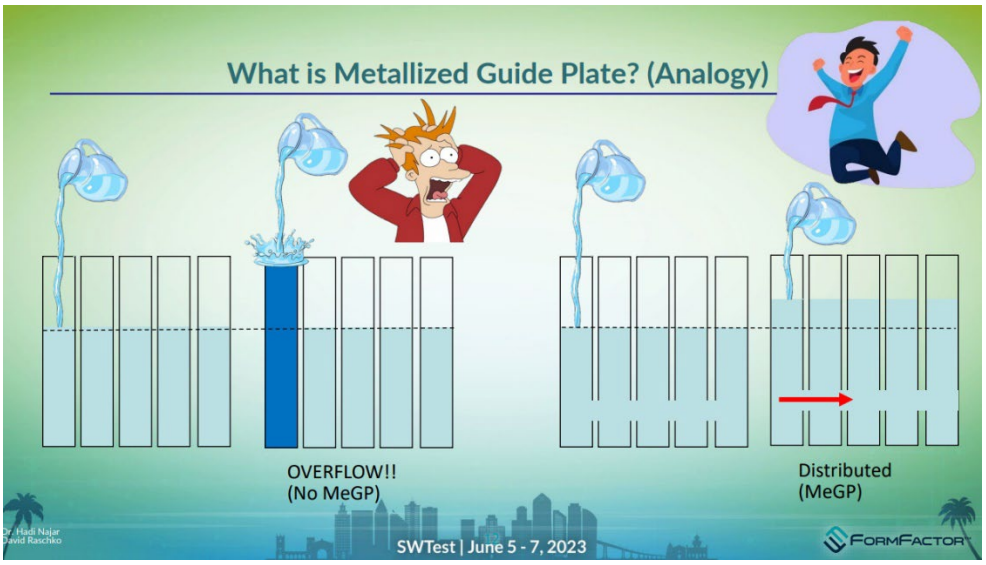


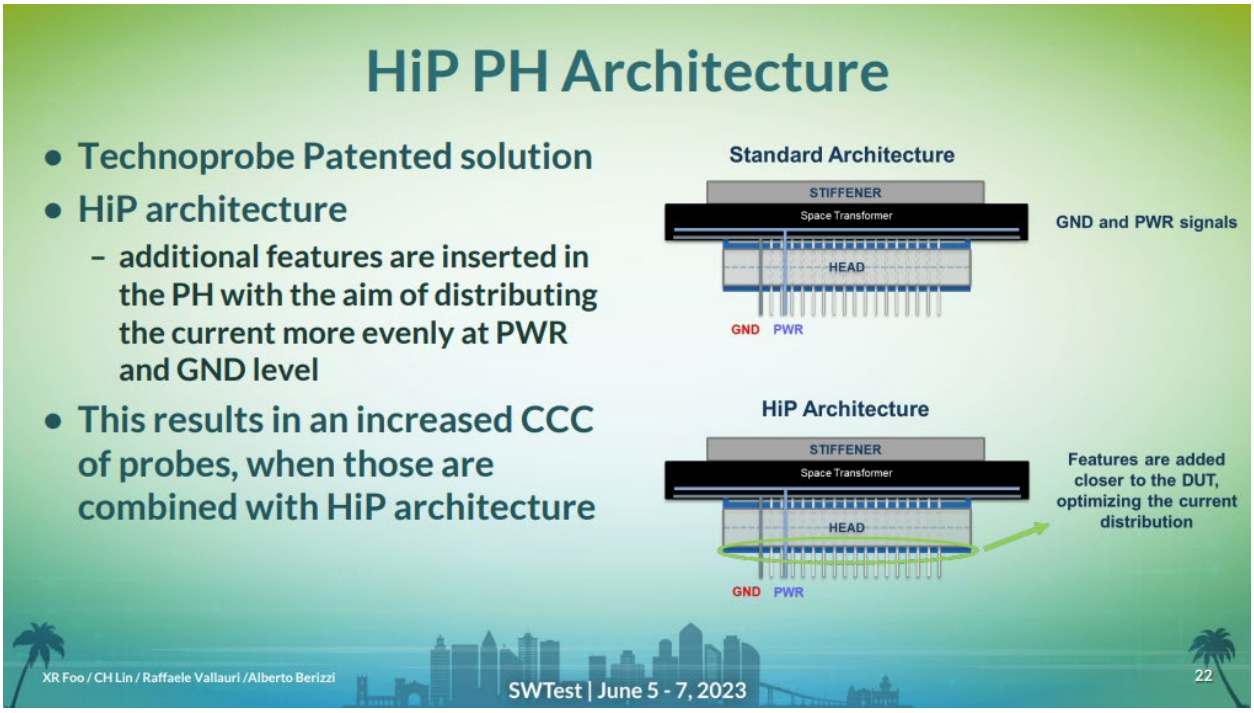
Exhibit E, 12 (FormFactor promotional presentation from SWTest 2023).

C. FormFactor's Promotion of Infringing Probe Cards at SWTest 2023

25. SWTest 2023 was a two-day conference held a few months ago from June 5 to June 7, 2023, hosted at Omni La Costa in Carlsbad, California. The conference, also known as the "Semiconductor Wafer Test" conference, was attended by more than 500 members of the probe card testing industry, including consumers of probe cards, such as Qualcomm, Advanced Micro Devices ("AMD"), Taiwan Semiconductor Manufacturing Company ("TSMC"), Texas Instruments, and others. *See* Exhibit G, 12-13; *see also SWTest 2022 – It's a Wrap*, YOUTUBE.COM https://www.youtube.com/watch?v=lCRfi0ggnX8&t=35s (last accessed October 4, 2023) (SWTest 2022 attendee describing the conference as "a great mix of partners and customer[s]"). Suppliers of probe cards, such as Technoprobe and FormFactor, use presentations at SWTest 2023 in part to inform current and potential consumers of their latest technologies and offerings and generate interest and purchases of such products.

26. Technoprobe's patented guide plate technology was publicly presented at SWTest 2023 in collaboration with AMD. Exhibit H. Technoprobe and AMD's presentation showed an

embodiment of the patented guide plate technology, along with the text "Technoprobe Patented solution":



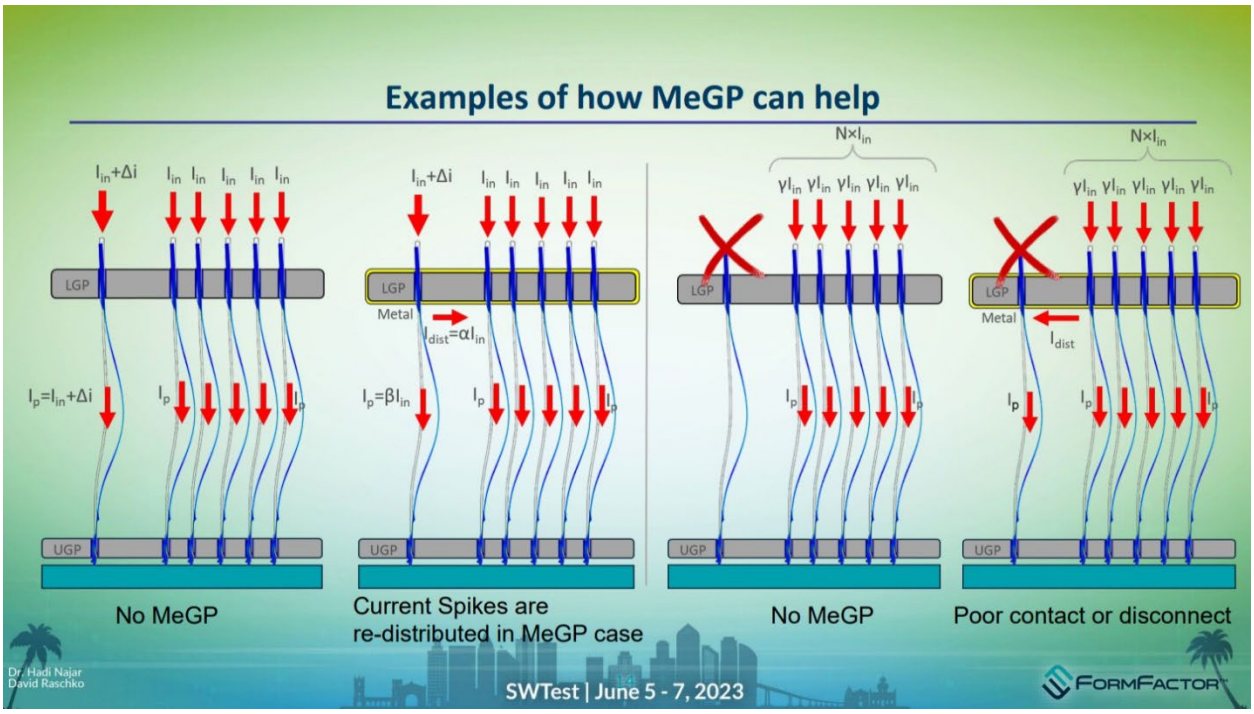
See, e.g., Exhibit H, 22 (Slide from Technoprobe and AMD's SWTest 2023 Presentation).

27. The above slide from that presentation explained that Technoprobe's patented technology "results in an increased CCC of probes." *Id.* CCC refers to "current carrying capability," or the ability of the probe card to handle high electrical currents. A probe card's CCC is material to consumers because a higher CCC can allow a probe card to handle a higher electric load and last longer during regular use. *See* Exhibit E, 5. One or more representatives from FormFactor attended Technoprobe's presentation, which include the slide disclosing that this technology was a "Technoprobe Patented solution."

28. At the same conference, FormFactor publicly promoted the use of Technoprobe's patented technology in its *own* products to conference attendees. FormFactor's listed exhibitor at SWTest 2023 was Cameron Harker, who is a product marketing and business development director from FormFactor with the title "Senior Director of Product Marketing and Business

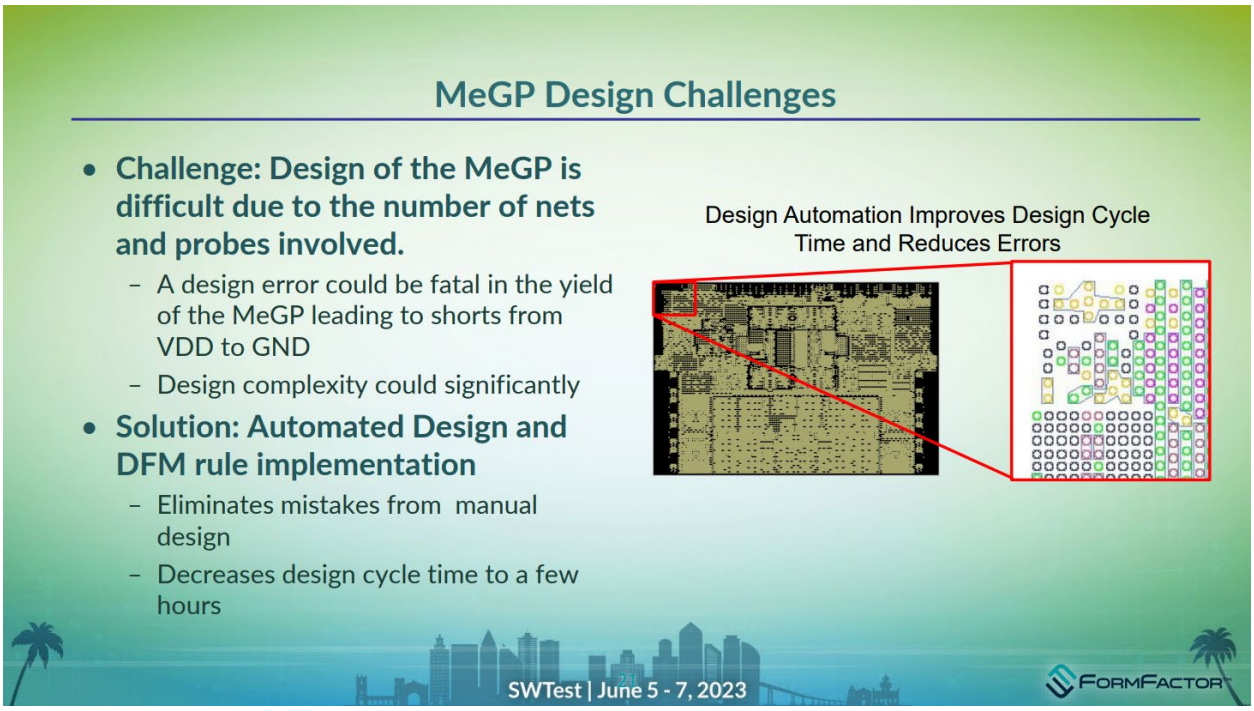
Development." *See SWTest Exhibitors*, SWTEST.ORG, https://www.swtest.org/expo/ (last accessed October 4, 2023).

29. In its public presentations at the conference, FormFactor promoted its own products as using the same technology patented by Technoprobe. Rather than crediting Technoprobe, FormFactor instead referred to this technology generically as a "Metallized Guide Plate" or "MeGP" and touted the relatively high CCC of its new and upcoming products making use of this new technology. As one example, the following slide is taken from a promotional presentation given by David Raschko and Hadi Najar on behalf of FormFactor to conference attendees at SWTest 2023:



Id., 14.

30. In these promotional materials, FormFactor promoted its probe card products. As one example, FormFactor promoted one of its probe cards with groupings of pins illustrated in colors and/or boxes on a slide (*see* Exhibit E, 21), titled "MeGP Design Challenges":



Id.

31. One or more attendees from probe card consumers, such as Qualcomm, and/or AMD were in attendance for FormFactor's presentation. FormFactor presented its technology to convince probe card consumers to buy FormFactor products instead of those sold by its competition, including its closest competitor Technoprobe in terms of marketshare.

D. FormFactor's Promotion of Infringing Probe Cards on Its Customer-Facing Website

32. In addition to publicly promoting its infringing probe cards to consumers at SWTest in June 2023, FormFactor has also publicly promoted its probe card products to consumers through its consumer-facing website. Among other promotional materials appearing on FormFactor's website, the very same public presentation given at SWTest 2023 is posted. *See* Technical Papers, FORMFACTOR, https://www.formfactor.com/applications/technical-papers/ (last visited October 4, 2023).

33. In describing that presentation, FormFactor directly ties it to the challenges faced by probe card consumers, noting that the "continuous increase in device output power creates several challenges regarding wafer test [sic], particularly with maintaining contactor integrity at high current in high-temperature environments." *Id.* FormFactor states to "combat" this problem, higher CCC can be used during test and adds that its SWTest 2023 presentation "will address several techniques that can be utilized in the probe card to maximize CCC . . . to maintain probe integrity in a high-stress, high-current environment." *Id.*

34. FormFactor's website, posted SWTest 2023 presentation, and description of such presentation is publicly available to the relevant consuming public of probe cards. FormFactor website is calculated to promote and solicit sales, including FormFactor's "more than 50 analytical probe models for wafer, package, and board level characterization," instead of the probe cards offered and sold by its competitors, including Technoprobe. Products, FORMFACTOR, https://www.formfactor.com/products/ (last visited October 4, 2023).

35. FormFactor's products, including its probe cards, may be ordered and purchased directly from FormFactor's website. *See, e.g.*, *Kepler*, FORMFACTOR, https://www.formfactor.com/product/probe-cards/foundry-logic/kepler/ (last accessed October 4, 2023). FormFactor does not restrict access to its website nor its presentation of the infringing probe cards and is thus freely available to consumers of probe cards to access and make product purchases based on the materially false, misleading, and infringing content that FormFactor publicly provides.

36. FormFactor's website is also accessible by probe card consumers directly through the SWTest conference website. *See, e.g.*, *SWTest Exhibitors*, SWTEST, https://www.swtest.org/expo/ (last accessed October 6, 2023). At that link, FormFactor is promoted as "a leading provider of essential test and measurement technologies along the full IC

life cycle – from characterization, modeling, reliability, and design de-bug, to qualification and production test." *Id.* The same materially false, misleading, and infringing, content contained in FormFactor's SWTest presentation is freely available to consumers of probe cards to access from such link and make product purchasing decisions.

E. U.S. Patent No. 11,035,885

37. On June 15, 2021, the U.S. Patent and Trademark Office ("USPTO") duly and legally issued the '885 patent, titled "Testing Head Having Improved Frequency Properties." A true and correct copy of the '885 patent is attached as Exhibit A.

38. Technoprobe owns the right, title, and interest in the '885 patent necessary to bring this action, including the exclusive right to enforce the '885 patent in the United States. Inventor Flavio Maggioni, who was employed by Technoprobe at the time he invented the invention of the '885 patent, assigned his interest in the '885 patent as an inventor to Technoprobe by virtue of an assignment executed on July 30, 2019, and recorded on September 10, 2019, at the USPTO at reel 050325, frame 0421.

39. The '885 patent is directed to a testing head to verify the operation of a device under test integrated on a semiconductor wafer. Exhibit A, Abstract. The testing head includes a plurality of contact elements, also known as contact probes, which are typically used in probe cards to check for defects in an integrated circuit. Claim 1 of the '885 patent recites as follows:

1. A testing head configured to verify the operation of a device under test integrated on a semiconductor wafer, the testing head comprising:

a plurality of contact elements, each comprising a body that extends between a first end portion and a second end portion, and

at least one guide provided with a plurality of guide holes configured to house the contact elements,

wherein the at least one guide comprises:

a first conductive portion that includes and electrically connects a first group of guide holes, of the plurality of guide holes, to each other and is configured to contact corresponding first contact elements, of the plurality of contact elements, configured to carry a first type of signal; and

a second conductive portion that includes and electrically connects the holes of a second group of the guide holes to each other, the second group housing second contact elements of the plurality of contact elements, the second contact elements being configured to carry a second type of signal, the first and second types of signals chosen between ground signals and power signals.

Id., 18:30-52.

40. Figure 2A of the ’885 patent demonstrates one embodiment of the invention:

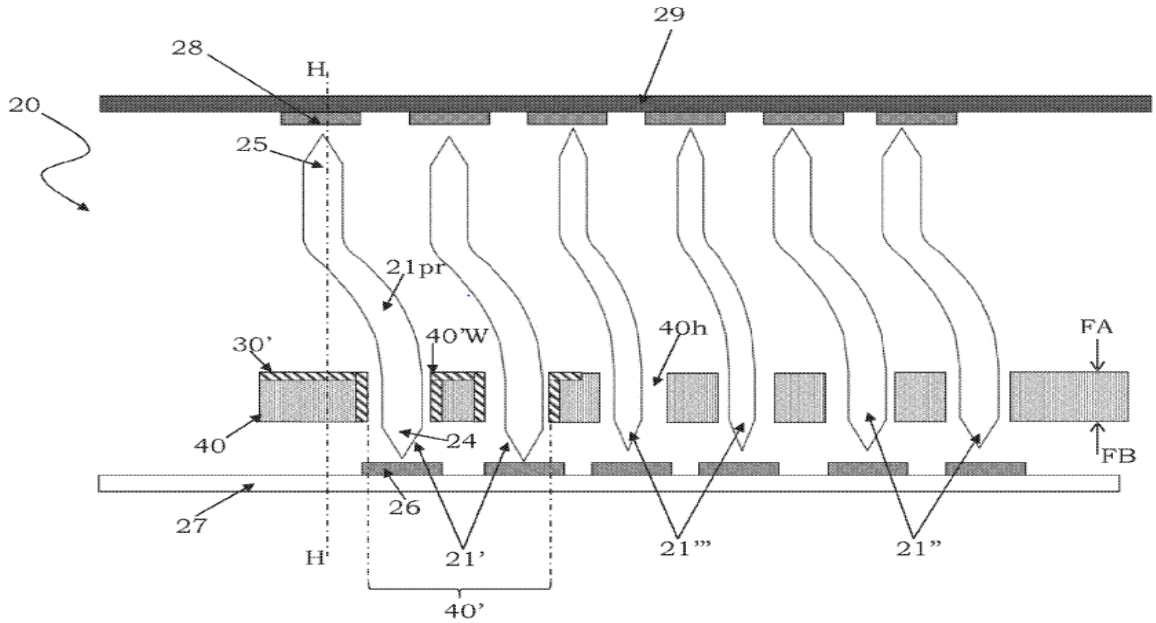


FIG. 2A

Exhibit A, Fig. 2A. As illustrated in Figure 2A, one testing head embodiment includes at least one guide **40** with a plurality of guide holes **40***h*. *Id.*, 6:15-18. These guide holes "house a plurality of first contact elements **21**', which are apt to carry a first type of signal" and "a plurality of second contact elements **21**", which are apt to carry a second type of signal." *Id.*, 6:18-22.

41. The '885 patent is valid and enforceable.

F. FormFactor's Materially False Claims on CCC Comparison

42. In promoting its products to probe card consumers, FormFactor makes materially false and/or misleading claims and comparisons between the current carrying capability ("CCC") of its probe cards and the probe cards of its competitors, which include Technoprobe. Current carrying capability ("CCC") is a feature that is material to the function of probe cards and material to those who purchase and use probe cards. FormFactor itself asks and answers why CCC matters. In a presentation slide entitled "Why Does CCC Matter?" from SWTEST 2023, FormFactor tells probe card consumers about the critical importance of CCC, specifically noting that CCC "prevents probe burning when something goes wrong during wafer testing" and that "High CCC Probes improve[] uptime and [mean time between failures]." Exhibit E, 5.

43. The following slide is taken from FormFactor's promotional presentation at SWTest 2023, which was attended by probe card consumers:

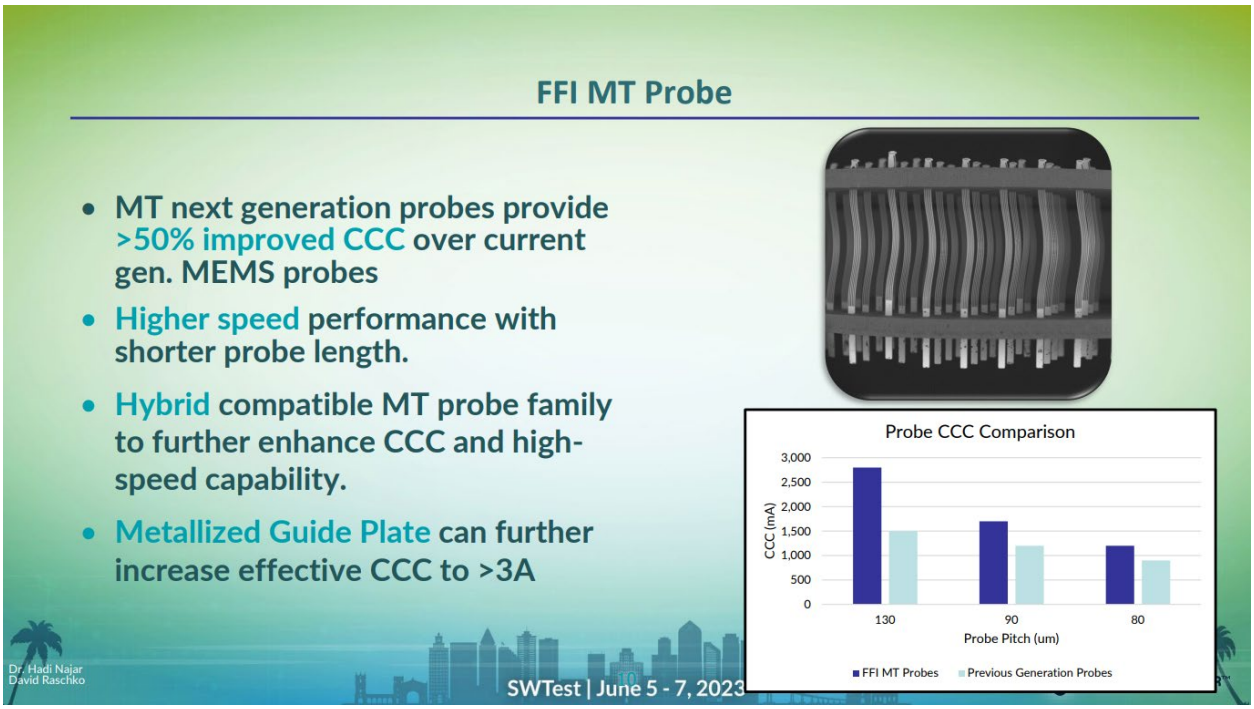
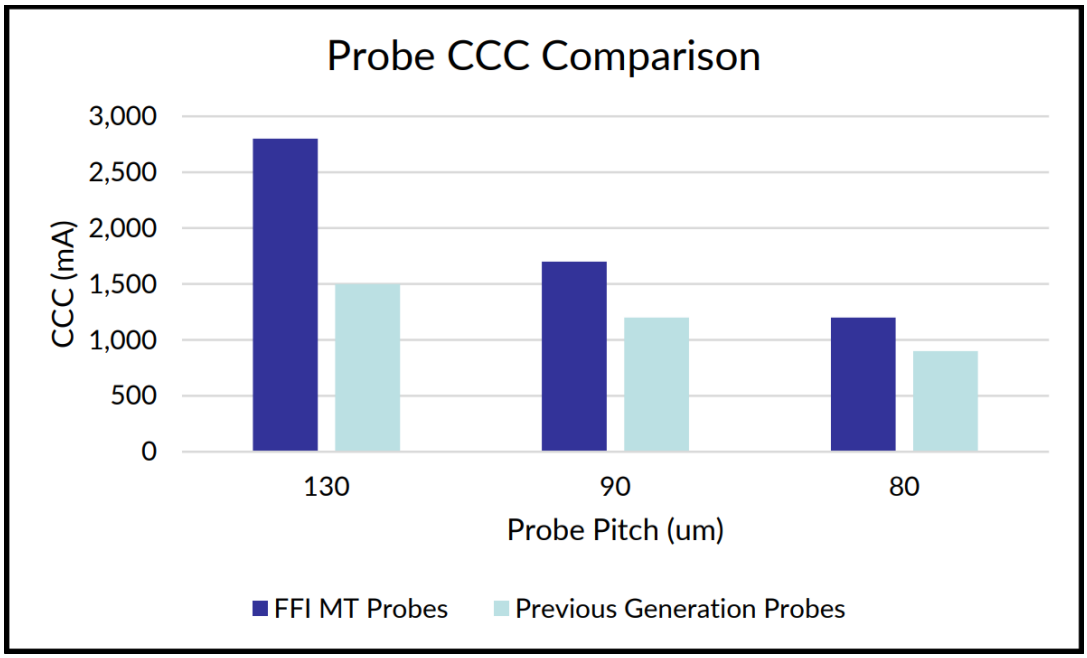


Exhibit E, 10. This slide makes materially false and misleading product claims comparing FormFactor's probe cards and the probe cards of its competitors, including Technoprobe. One such claim is found in the "Probe CCC Comparison" chart on the bottom right. Below is an expanded view of that chart:



Id.

44. The Probe CCC Comparison Claims are literally false. The dark blue bars represent "FFI [FormFactor, Inc.] MT Probes." The light blue bars, by contrast, represent "Previous Generation Probes"—a broad, unlimited category that notably fails to exclude products made by competitors including Technoprobe. Unlike the "FFI MT Probes" category, which expressly references "FFI" (i.e., FormFactor), the "Previous Generation Probes" classification is not expressly limited to FormFactor probes alone. The unlimited scope of the "Previous Generation Probes" title is further underscored by FormFactor's use of the plural ("Probes"), which indicates that the comparison refers to not one precursor product, but a marketplace of probes—including Technoprobe. The numbers provided by FormFactor are not accurate since Technoprobe's probe cards provide greater CCC than shown in the graph—including at least the same or like CCC as those made and/or sold by FormFactor.

45. In the alternative, the Probe CCC Comparison Claims are materially misleading because even if true (they are not), those claims create a false and misleading claims. For example, the captions underneath the bar graph provided on slide 10 compares "FFI MT Probes" and "Previous Generation Probes." By presenting the increased CCC probes as "FFI MT Probes" and the lower CCC probes as "Previous Generation Probes" and *omitting* FormFactor's "FFI" moniker from the latter, FormFactor misleads consumers into wrongly believing that the lower CCC "Previous Generation Probes" include *competitor* products, including those of its closest competitor Technoprobe's. This is especially so as FormFactor makes favorable comparisons of its products to competitor products throughout its SWTest 2023 presentation. For example, on slide 23, FormFactor represents that "FFI has achieved the first >3A CCC Probe card at 90um pitch." Exhibit E, 23. Such reference to FormFactor in the context of the market competition deepens the misleading impressions that the false claims at issue are likewise comparisons of FormFactor products to competitor marketplace products.

46. In yet another example, FormFactor's "Probe CCC Comparison" slide omits highly relevant and material testing protocol disclosures. FormFactor fails to disclose (a) the specific products FormFactor tested, (b) how FormFactor tested those products, (c) how many products FormFactor tested, (d) how long FormFactor tested those products, (e) whether the "Previous Generation Probes" products are currently sold or manufactured, and/or (f) whether the mix of tested "Previous Generation Probes" products included low CCC probes from competitors *other* than Technoprobe as a means of artificially deflating the CCC specific to Technoprobe's products. Even if FormFactor's representations were true in some limited circumstance (which they are not), its "Probe CCC Comparison" slide deceives by neglecting to disclose or clarify such critical factors.

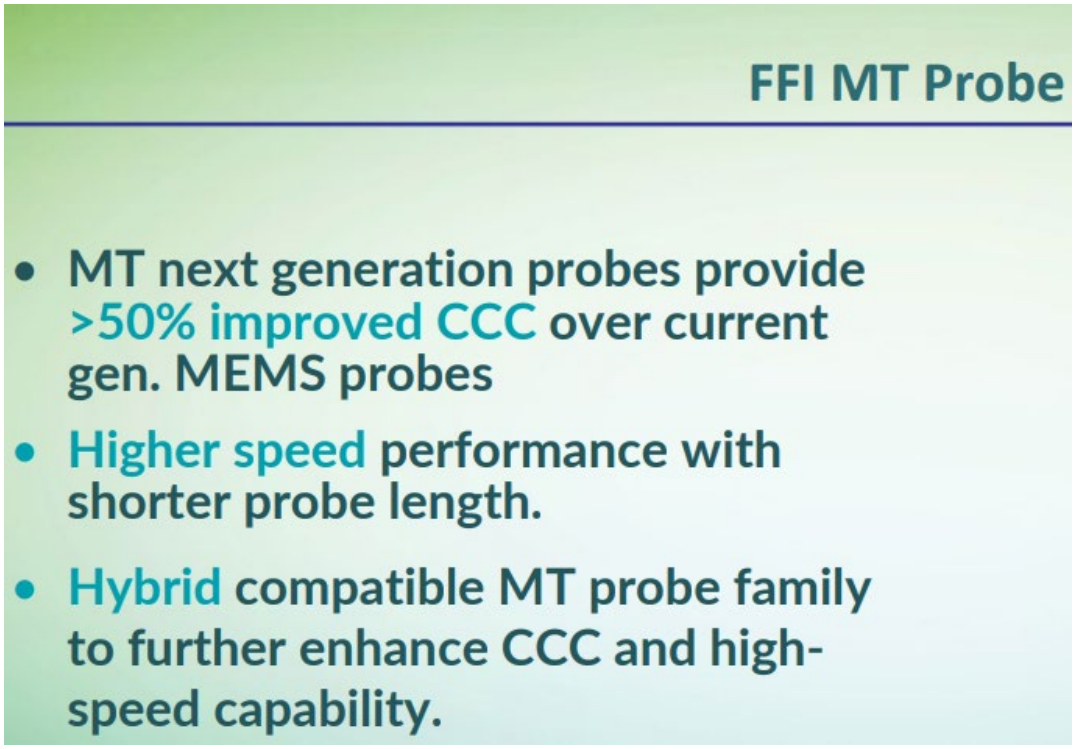
47. The blanket product claims of the CCC of the "FFI MT Probes" versus the "Previous Generation Probes" are expressly and implicitly false or misleading, including the takeaway that FormFactor's MT probes provide increased and enhanced performance over the probe cards of others, including Technoprobe.

48. The Probe CCC Comparison Claims are false and deceptive and likely to deceive and mislead, will be and are understood by probe card consumers as alleged above, are material to the purchase and use of probe cards, and have injured and will continue to injure Technoprobe through the diversion of sales from Technoprobe to FormFactor and the irreparable harm caused to the significant goodwill that Technoprobe has built and that its industry-leading probe cards enjoy.

G. FormFactor's Materially False Claims on >50% Improved CCC

49. FormFactor claims and promotes to consumers that its "next generation" MT probe cards "provide >50% improved CCC over current gen. MEMS probes" (the ">50% Improved CCC

Claim"). Exhibit E, 10. For example, FormFactor's slide 10 from SWTest 2023 makes the following material claims:



Id.

50. The >50% Improved CCC Claim is literally false. The >50% Improved CCC Claim is quantitative and not open to a different meaning. Even if FormFactor's "Probe CCC Comparison" chart was accurate (it is not), it would only evidence a >50% increase in CCC for 130µm probe pitches and *not* 90µm or 80µm probe pitches. *See* Exhibit E, 10. Furthermore, reference to >50% Improved CCC Claim over "current gen. MEMS probes" makes a comparison to all other current generation MEMS probes on the market, including those made by Technoprobe. The implied misleading improvement upon other probe cards, including Technoprobe's, is false. Technoprobe's probe cards, in fact, provide at least similar CCC to those of FormFactor.

51. In the alternative, the >50% Improved CCC Claim is materially misleading because it creates a false impression or takeaway. For example, to the extent FormFactor's ">50%

Improved CCC Claim" refers only to FormFactor products, probe card consumers would understand it as a comparison of the advertised FormFactor technology against current generation competitor products including Technoprobe—a comparison that artificially inflates the CCC of FormFactor's probes compared to those of its competitors. In particular, FormFactor's presentation makes no qualification that the "current gen. MEMS probes" could refer *only* to FormFactor products rather than current generation MEMS probes as a whole, including products sold by Technoprobe.

52. As another example, the >50% Improved CCC Claim is materially misleading because the claim omits highly relevant and material testing protocol disclosures. For example, FormFactor fails to disclose (a) the specific products FormFactor tested, (b) how FormFactor tested those products, (c) how many products FormFactor tested, (d) how long FormFactor tested such products, (e) whether the "current gen. MEMS probes" are products still sold or manufactured, or (f) whether the mix of tested "current gen. MEMS probes" products included low CCC probes from competitors *other* than Technoprobe as a means of artificially deflating the CCC specific to Technoprobe's products.

53. The >50% Improved CCC Claim is expressly and implicitly false or misleading, including the takeaway that all of FormFactor's MT probes have at least 50% improved CCC over comparable probe cards of FormFactor's competitors, including Technoprobe.

54. The >50% Improved CCC Claim is false and deceptive and likely to deceive and mislead, will be and is understood by probe card consumers as alleged above, is material to the purchase and use of probe cards, and has injured and will continue to injure Technoprobe through the diversion of sales from Technoprobe to FormFactor and the irreparable harm caused to the significant goodwill that Technoprobe has built and that its industry-leading probe cards enjoy.

H. FormFactor's Materially False 65% Improved CCC Claim

55. FormFactor claims and promotes that, by using a metallized guide plate ("MeGP"), FormFactor "[i]mproves [e]ffective CCC by 65% depending on the probe architecture" (the "65% Improved CCC Claim"). Exhibit E, 23. In addition, FormFactor's slide 23 from SWTest 2023 states that "FFI has achieved the first… pitch using Next generation MT Probes..."

56. Slide 23 from FormFactor's promotional presentation at SWTest 2023 makes the following material claims:

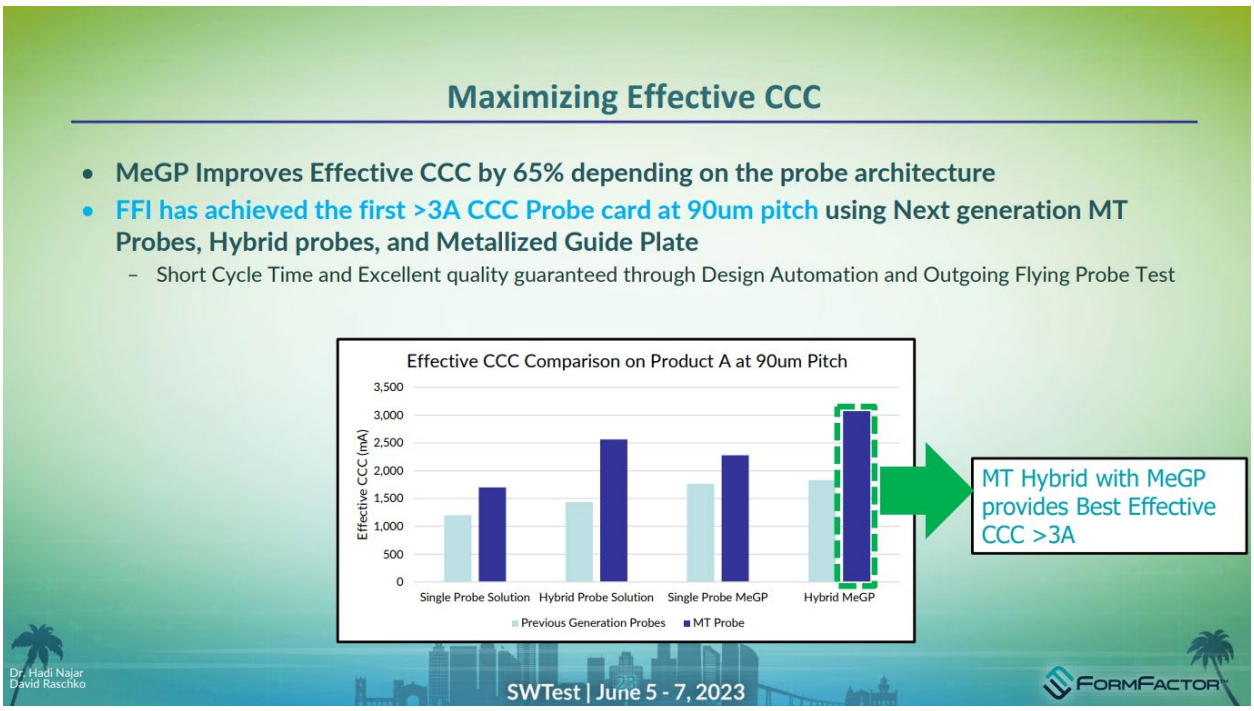


Exhibit E, 23.

57. The 65% Improved CCC Claim is literally false. The 65% Improved CCC Claim is quantitative and not open to a different meaning. Further, the comparison is not limited to FormFactor's own products, and therefore communicates that the improved CCC claim is against other products in the market, including Technoprobe's probe cards. The two statements on the presentation combined equate FFI with the "next generation" and thereby equate previous

generations to non-FFI probes. Technoprobe's probe cards, in fact, provide at least similar CCC to those of FormFactor.

58. In the alternative, the 65% Improved CCC Claim is materially misleading because it creates a false impression or takeaway. For example, to the extent FormFactor's 65% Improved CCC Claim refers only to FormFactor products, probe card consumers would understand it as a comparison of the advertised FormFactor technology against current generation competitor products including Technoprobe—a comparison that artificially inflates the CCC of FormFactor's probes compared to those of its competitors. In particular, FormFactor's claim makes no qualification that the as-compared-to probes refer *only* to FormFactor products rather than "Previous Generation Probes" as a whole, including products sold by Technoprobe. Instead, it is falsely implied by reference to "Next generation MT" that products sold by others in the market, including Technoprobe, are the referenced previous generation technology.

59. As another example, the 65% Improved CCC Claim is materially misleading because such claim omits highly relevant and material testing protocol disclosures. For example, FormFactor fails to disclose (a) the specific products FormFactor tested, (b) how FormFactor tested those products, (c) how many products FormFactor tested, (d) how long FormFactor tested such products, (e) whether the "Previous Generation Probes" are products still being sold or manufactured, or (f) whether the mix of "Previous Generation Probes" included low CCC probes from competitors *other* than Technoprobe as a means of artificially deflating the CCC specific to Technoprobe's products.

60. The 65% Improved CCC Claim is expressly and implicitly false or misleading, including the takeaway that use of FormFactor's MeGP probes will improve and enhance performance over the probe cards of FormFactor's competitors, including Technoprobe.

61. The 65% Improved CCC Claim is false and deceptive and likely to deceive and mislead, will be and is understood by probe card consumers as alleged above, is material to the purchase and use of probe cards, and has injured and will continue to injure Technoprobe through the diversion of sales from Technoprobe to FormFactor and the irreparable harm caused to the significant goodwill that Technoprobe has built and that its industry-leading probe cards enjoy.

COUNT I
INFRINGEMENT OF U.S. PATENT NO. 11,035,885

62. Technoprobe realleges and incorporates herein by reference the allegations of the foregoing paragraphs as if fully restated herein.

63. The Accused Products, including without limitations, FormFactor's "Apollo," "Kepler," "Altius," or "QiLin" probe cards, include each element of at least claim 1 of the '885 patent.

64. FormFactor, in violation of 35 U.S.C. § 271(a), has directly infringed and is directly infringing at least claim 1 of the '885 patent by selling, offering to sell, making, using, and/or importing the Accused Products in the United States, including in Delaware.

65. The Accused Products include "[a] testing head configured to verify the operation of a device under test integrated on a semiconductor wafer," as recited in claim 1.

66. For example, FormFactor describes a "Probe Card Cross-Section" in the Accused Products as follows:

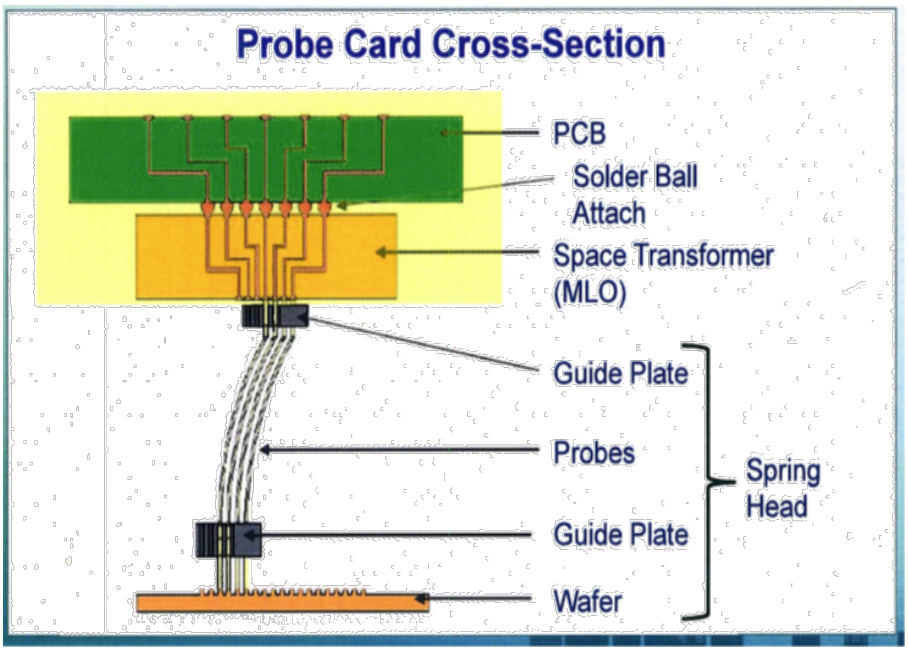


Exhibit F, 8. As shown in Exhibit F, the Accused Products include a "Spring Head" that has two "Guide Plate[s]" and "Probes" configured to verify the operation of a device under test integrated on a semiconductor wafer. *Id.*

67. The Accused Products include "a plurality of contact elements, each comprising a body that extends between a first end portion and a second end portion," as recited in claim 1.

68. As shown in Exhibit F, the Accused Products include "Probes," each comprising a body that extends between a first end portion and a second end portion. *See* Exhibit F, 8.

69. The Accused Products include "at least one guide provided with a plurality of guide holes configured to house the contact elements," as recited in claim 1.

70. As shown in Exhibit F, the Accused Products include "Guide Plate[s]," each provided with a plurality of guide holes configured to house the contact elements. *See* Exhibit F, 8.

71. Each "Guide Plate" in the Accused Products includes "a first conductive portion that includes and electrically connects a first group of guide holes, of the plurality of guide holes,

to each other and is configured to contact corresponding first contact elements, of the plurality of contact elements, configured to carry a first type of signal," as recited in claim 1.

72. For example, FormFactor describes a testing head in the Accused Products that includes an Upper Guide Plate (designated as "UGP") and a Lower Guide Plate (designated as "LGP") as follows:

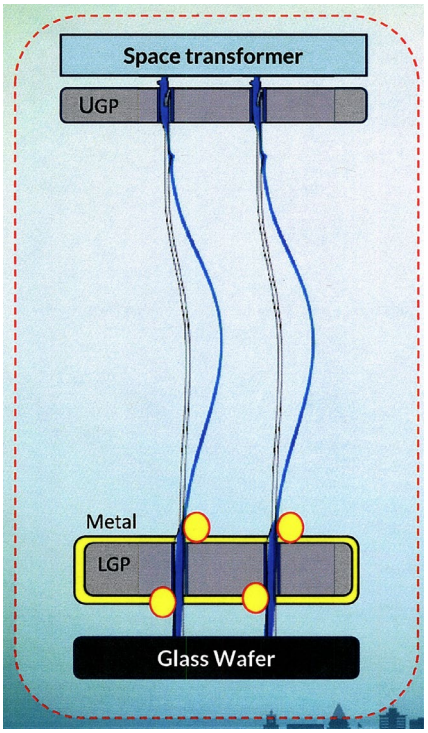
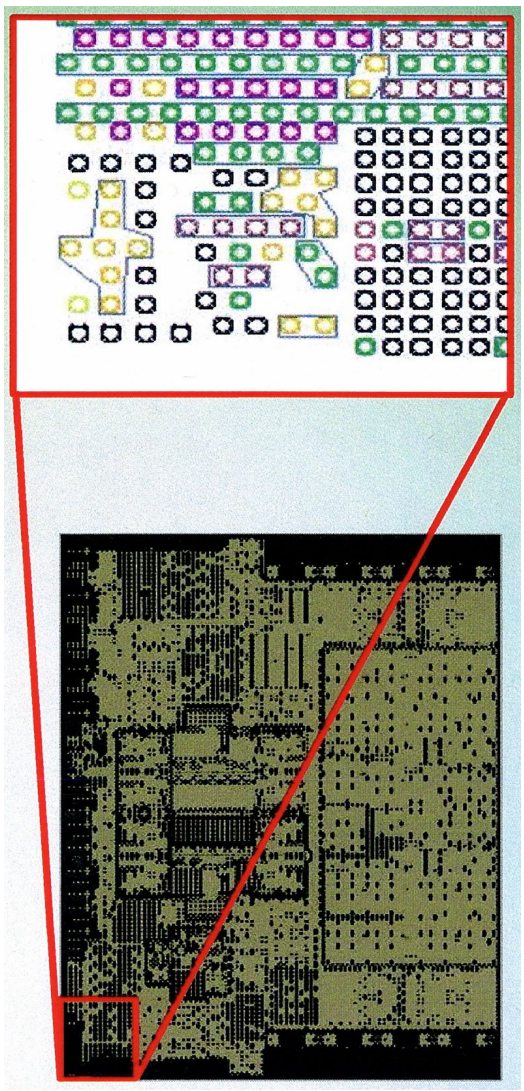


Exhibit E, 15. As shown in Exhibit E, the Accused Products include a "Metal" layer on a Lower Guide Plate (designated as "LGP"). *Id.*

73. As also shown in Exhibit E, the Accused Products include a first conductive portion that includes and electrically connects a first group of guide holes, of the plurality of guide holes, to each other and is configured to contact corresponding first contact elements, of the plurality of contact elements. *See* Exhibit E, 21.



See id. (rotated 90 degrees counterclockwise). As also shown in Exhibit E, the Accused Products include a first conductive portion that includes and electrically connects a first group of guide holes, of the plurality of guide holes, to each other and is configured to contact corresponding first contact elements, of the plurality of contact elements, configured to carry a first type of signal.

- **Metallized Guide Plates (MeGP) connect VDD and GND nets together through metal patterns on the Guide Plate**
  - **Provides alternative current path when overcurrent events occur**
  - **Enables Improved Contact with the DUT through alternative current paths**

See id., 13 (illustrating that power (VDD) or ground (GND) signals may be connected together using metal patterns on the guide plate).

74. As shown in Exhibit E, the Accused Products also include "a second conductive portion that includes and electrically connects the holes of a second group of the guide holes to each other, the second group housing second contact elements of the plurality of contact elements, the second contact elements being configured to carry a second type of signal, the first and second types of signals chosen between ground signals and power signals," as recited in claim 1. *See* Exhibit E, 13, 15, 21.

75. FormFactor, in violation of 35 U.S.C. § 271(b), has also indirectly infringed and is indirectly infringing at least claim 1 of the '885 patent by inducing third parties to sell, promote, offer to sell, make, use, and/or import the Accused Products in the United States, and particularly in Delaware. Through distribution and/or sales agreements with third-party distributors and customers, FormFactor is doing so with actual or constructive knowledge of the '885 patent, knows or should know that the acts of the third-party customers and/or distributors will result in infringement of the '885 patent, and has specific and actual intent to cause the third-party customers and/or distributors to infringe the '885 patent.

76. FormFactor, in violation of 35 U.S.C. § 271(b), actively instructs, encourages, and/or aids such infringement through various acts, including instructing and training its distributors and customers to use one or more of the Accused Products in a manner covered by at least claim 1 of the '885 patent.

77. As merely one example, FormFactor's presentation repeatedly promotes the CCC benefits of using Technoprobe's patented solution to both consumers and other industry members who attended SWTest 2023 as well as consumers encountering FormFactor's presentation on FormFactor's website. By emphatically playing up the CCC benefits of this technology,

FormFactor is encouraging consumers and others in the industry and its own customers to try to make and use Technoprobe's patented solution as well—all without providing those members with any warning or notice that the solution is actually patented by someone other than FormFactor.

78. FormFactor has willfully infringed the '885 patent, justifying the assessment of treble damages pursuant to 35 U.S.C. § 284.

79. As one example, FormFactor has known since at least June 7, 2023 at the SWTest 2023 conference that its probe cards implementing its advertised "Metallized Guide Plate" technology infringed Technoprobe's intellectual property. At least one FormFactor representative, such as David Raschko, attended Technoprobe's presentation with AMD at SWTest 2023 wherein Technoprobe specifically explained that this technology was a "Technoprobe Patented solution." Despite learning that Technoprobe has patented technology relating to metallized guide plates for improving CCC, FormFactor proceeded with either direct knowledge of the '885 patent and its infringement or willfully blind to the existence of the '885 patent and its infringement.

80. As another example, FormFactor has known since at least the filing or service of the original Complaint in this action that its probe cards infringe Technoprobe's '885 patent as explained in the original Complaint. By continuing to make, use, import, and/or sell its infringing probe cards in the United States despite having knowledge of its infringement, FormFactor is committing and has committed willful infringement subject to 35 U.S.C. § 284.

81. Technoprobe contends that each element of at least claim 1 is literally present in the Accused Products. If, as a result of the Court's constructions or other determinations, one or more claim elements is not literally present, Technoprobe contends that each such element is present under the doctrine of equivalents.

82. FormFactor has been aware of the '885 patent's existence at least as early as June 7, 2023 or the filing or service of Technoprobe's original Complaint in this action and has no

reasonable basis for believing that manufacturing, importing, offering for sale, selling, and/or using the Accused Products does not infringe the ’885 patent. FormFactor also has no reasonable basis for believing that the ’885 patent is invalid or otherwise unenforceable.

83. By reason of FormFactor’s infringement of the ’885 patent, Technoprobe has suffered, and will continue to suffer, substantial damages in an amount to be determined at trial.

84. FormFactor’s conduct has caused Technoprobe to suffer, and, unless enjoined by the Court, will continue to cause Technoprobe to suffer, damage to its reputation and goodwill, and will suffer the loss of sales and profits that Technoprobe would have made but for FormFactor’s acts. FormFactor has been, and will continue to be, unjustly enriched by its unlawful acts. Accordingly, Technoprobe is entitled to injunctive relief. The public interest would not be disserved by injunctive relief.

COUNT II
FALSE ADVERTISING UNDER 15 U.S.C. § 1125(a)(1)(B)

85. Technoprobe realleges and incorporates herein by reference the allegations of the foregoing paragraphs as if fully restated herein.

86. In connection with the promotion and sale of FormFactor’s products, FormFactor has made materially false or misleading descriptions of fact and false or misleading representations of fact that misrepresent the nature, characteristics, or qualities of FormFactor’s probe cards and the probe cards of its competitors, including Technoprobe, in violation of § 43(a) of the Lanham Act, 15 U.S.C. § 1125(a)(1)(B).

87. FormFactor’s materially false or misleading probe card product claims have caused and, unless enjoined, will continue to cause: (a) confusion, deception, and mistake among probe card consumers whose product purchasing and use decisions are or are likely to be irreparably materially impacted by FormFactor’s false and misleading product claims about the true nature,

characteristics, and qualities of its probe cards and the probe cards of its competitors, including Technoprobe; (b) Technoprobe to suffer as a direct and proximate cause of such false and misleading product claims, loss of goodwill, sales, and profits; (c) FormFactor to be unfairly enriched and obtain sales and profits to which FormFactor is not entitled; and (d) irreparable harm to Technoprobe and its reputation and goodwill.

88. FormFactor's materially false or misleading representations of fact have misled probe card consumers. FormFactor intentionally made materially false and misleading statements as well as intentionally omitted disclosure of material facts relating to its probe cards and the probe cards of its competitors, including those of Technoprobe because FormFactor knew probe card consumers will be less likely to purchase and use FormFactor's products if they knew the truth behind its materially false and misleading facts as presented in its consumer-facing promotional and advertising materials.

89. FormFactor has made materially false or misleading statements of fact that have, and are likely to, materially impact and wrongly influence the purchasing decisions of consumers of probe cards, including Technoprobe consumers. FormFactor made such statements with the intent to injure, and has injured, Technoprobe through the diversion of sales from Technoprobe to FormFactor, and caused and will continue to cause irreparable harm to the significant goodwill and reputation that Technoprobe enjoys and its industry-leading probe cards.

90. By its conduct in violation of the Lanham Act, FormFactor has unfairly competed with Technoprobe and continues to compete unfairly with Technoprobe. FormFactor has been, and will continue to be, unjustly enriched by its wrongful and unlawful acts.

91. FormFactor has willfully and deliberately violated § 43(a) of the Lanham Act, 15 U.S.C. § 1125(a), warranting an award of enhanced damages, disgorgement of profits, and attorneys' fees under 15 U.S.C. § 1117(a), as this is an exceptional case.

92. Technoprobe has no adequate remedy at law for FormFactor's continuing acts of materially false and misleading probe card claims.

93. By reason of FormFactor's materially false and misleading probe card claims, Technoprobe has suffered, and will continue to suffer, substantial harm and damages in an amount to be determined at trial.

94. FormFactor's conduct has continued to cause Technoprobe to suffer, and, unless enjoined by the Court, will cause Technoprobe to continue to suffer, damage to its operation, reputation, and goodwill, and will suffer loss of sales and profits that Technoprobe would have made but for FormFactor's acts. Technoprobe has been, and will continue to be, irreparably harmed and injured by FormFactor's wrongful and unlawful acts. Technoprobe is entitled to injunctive relief. The public interest in being free of confusion, mistake, or deception is best served by injunctive relief.

DEMAND FOR JURY TRIAL

95. Technoprobe respectfully requests a trial by jury on all claims so triable.

PRAYER FOR RELIEF

WHEREFORE, Technoprobe respectfully requests that this Court enter judgement in its favor on each and every claim set forth above and award it relief including, but not limited to:

A. A judgement that FormFactor has infringed the '885 patent in violation of the patent laws of the United States, 35 U.S.C. § 271;

B. A judgement that FormFactor's advertising and promotional probe card claims are materially false and misleading in violation of § 43(a) of the Lanham Act, 15 U.S.C. § 1125(a);

C. An award of damages, including, but not limited to, pre- and post-judgement interest and costs, disgorgement of FormFactor's profits, and remedial advertising;

D. An award of enhanced damages;

E. An award of attorneys' fees and costs;

F. An order permanently enjoining FormFactor and its officers, employees, agents, and servants from making, using, offering to sell, selling, and/or importing the Accused Products and from making materially false and misleading probe card claims;

G. An order requiring FormFactor to identify and recall from customers and distributors and destroy all Accused Products and correct all materially false and misleading probe card claims; and

I. An award of such other and further relief as the Court may deem just and proper.

Respectfully submitted,

/s/ Andrew E. Russell

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