

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

TECHNOPROBE S.P.A.,)	
)	
Plaintiff,)	
)	
v.)	C.A. No.
)	
FORMFACTOR, INC.,)	JURY TRIAL DEMANDED
)	
Defendant.)	

COMPLAINT FOR PATENT INFRINGEMENT

Technoprobe S.p.A. (“Technoprobe”), by and through its undersigned counsel, brings this complaint for a claim of patent infringement 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 infringement of U.S. Patent No. 11,921,133 (“the ’133 patent”) pursuant to 35 U.S.C. § 271.

2. Not only do FormFactor’s probe cards infringe the ’133 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 ’133 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 a Technoprobe engineer. 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. 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. 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.

4. 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.

5. FormFactor’s acts of making, using, promoting, offering for sale, selling, and importing the Accused Products infringe U.S. Patent No. 11,921,133 (“the ’133 patent”), owned by and assigned to Technoprobe. Exhibit A.

II. PARTIES

6. 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 ’133 patent.

7. 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.

8. 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

9. This Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331, 1338, and 1367(a) because this action involves claims relating to infringement of a registered U.S. patent in violation of 35 U.S.C. § 271.

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

11. 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.

12. 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

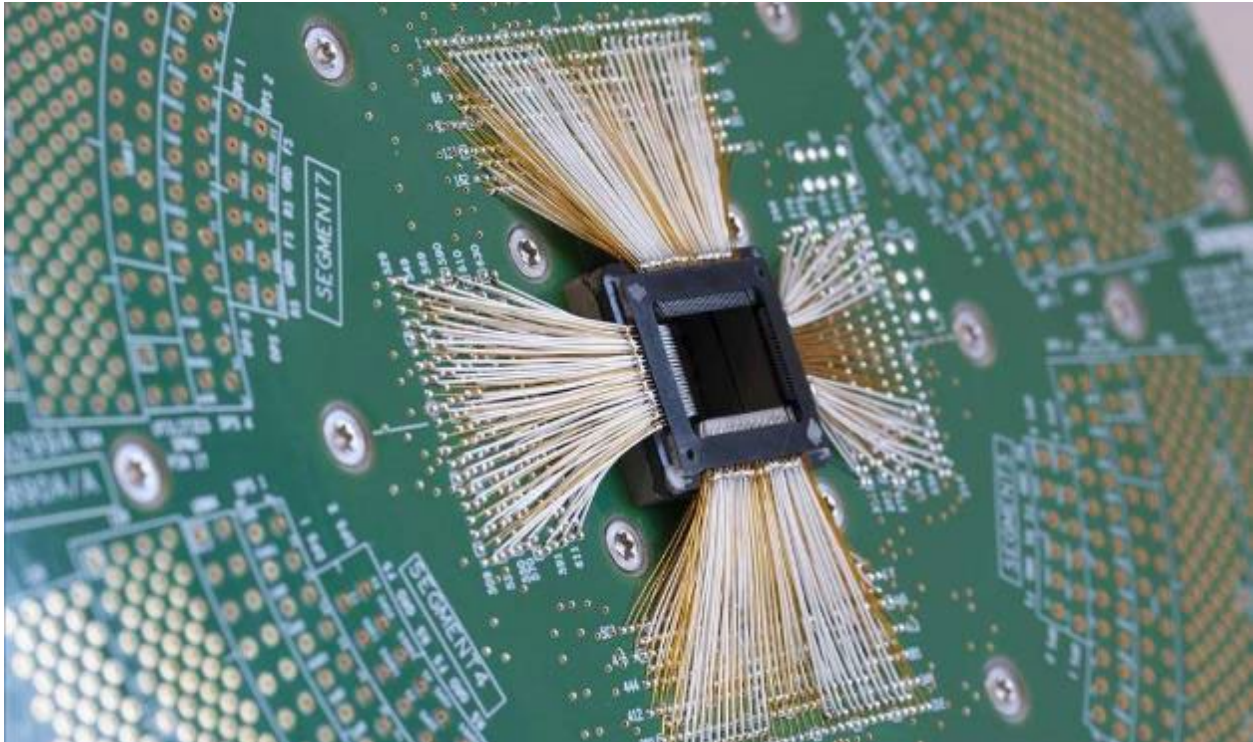
13. In its labs outside of Milan, Italy, Technoprobe designs probe cards for the very critical and important purpose of accurately testing or characterizing electronic semiconductor chips to confirm they operate properly. A probe card has an electromechanical interface that connects to an electronic 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 40 μ m (4 hundredths of a millimeter).

14. 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.

15. 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).

16. 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).

17. 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.

18. 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 May 22, 2024). Probe card consumers, including those who attended SWTest 2023, are aware that Technoprobe and FormFactor are the two leading producers of probe cards.

19. 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 '133 patent in part based on this innovative technology. Exhibit A.

20. Figure 2C of the '133 patent shows one embodiment of this technology:

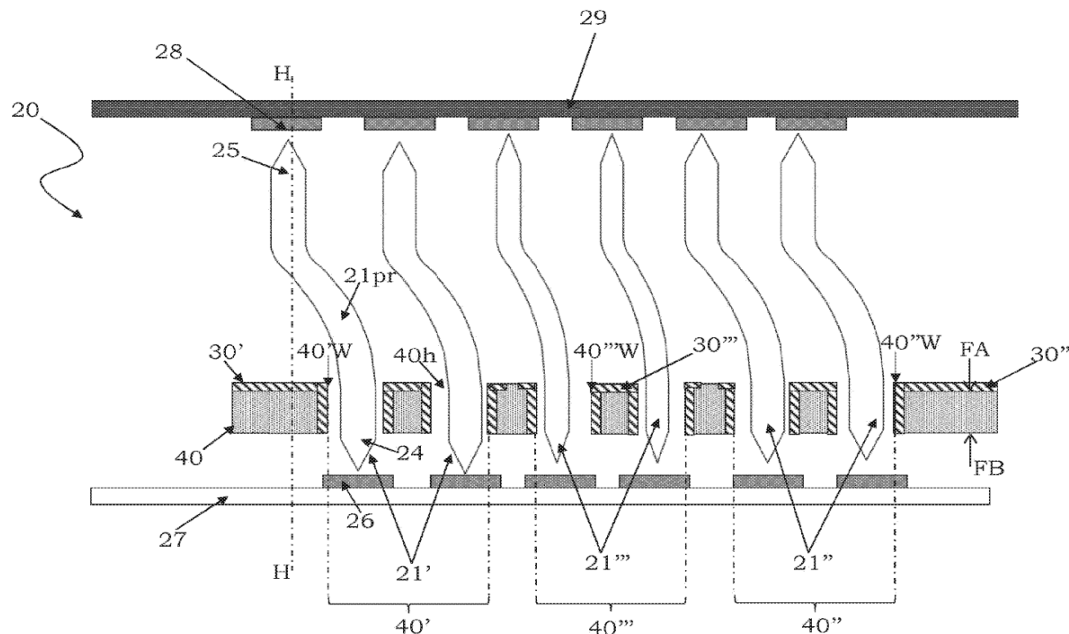
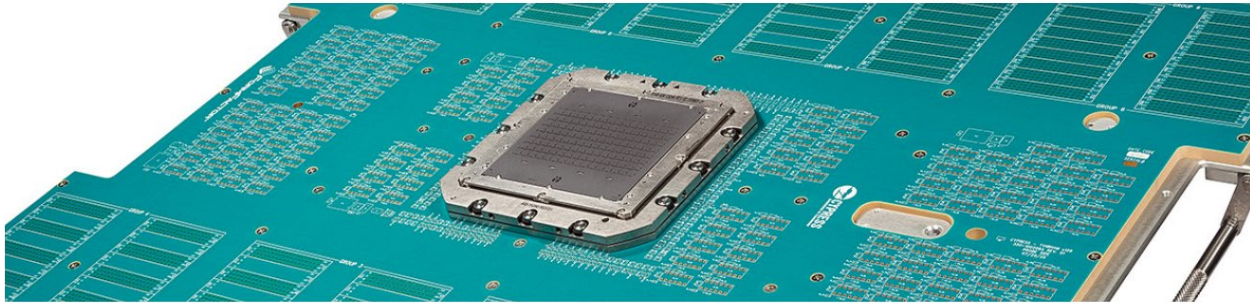


FIG. 2C

Exhibit A, Fig. 2C. As the '133 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 40h to each other. *See id.*, 9:11-26. Thus, current or voltage may be distributed over pins 21' via the conductive portion 30'. *See id.*, 6:15-9:26.

B. FormFactor's Products

21. FormFactor's products include, without limitation, FormFactor's "Apollo" and "Kepler," 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.

22. 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:

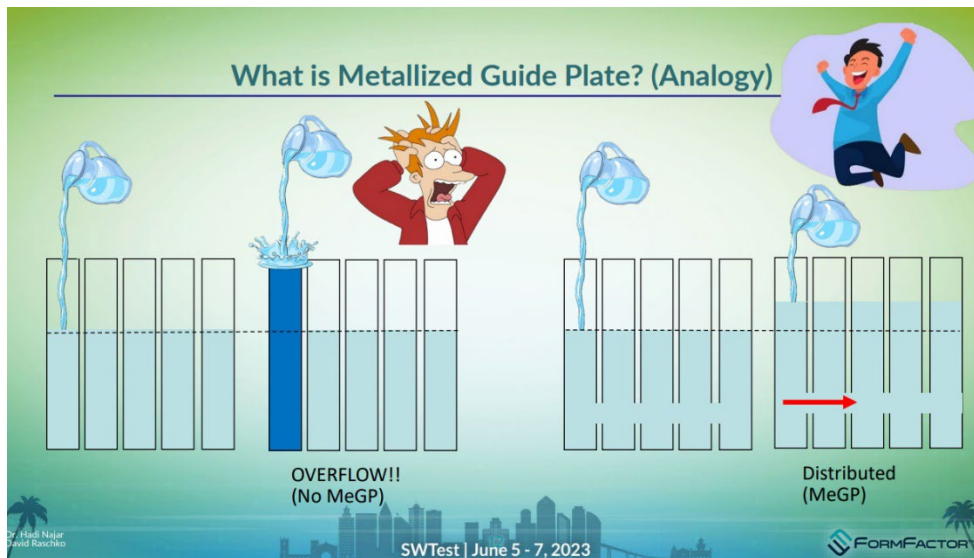


Exhibit E, 12 (FormFactor promotional presentation from SWTest 2023).

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

23. SWTest 2023 was a two-day conference held almost a year 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=ICRfi0ggnX8&t=35s> (last accessed May 22, 2024) (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.

24. 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”:

HiP PH Architecture

- Technoprobe Patented solution
- HiP architecture
 - additional features are inserted in the PH with the aim of distributing the current more evenly at PWR and GND level
- This results in an increased CCC of probes, when those are combined with HiP architecture

Standard Architecture

GND PWR

HiP Architecture

GND PWR

Features are added closer to the DUT, optimizing the current distribution

XR Foo / CH Lin / Raffaele Vallauri / Alberto Berizzi

SWTest | June 5 - 7, 2023

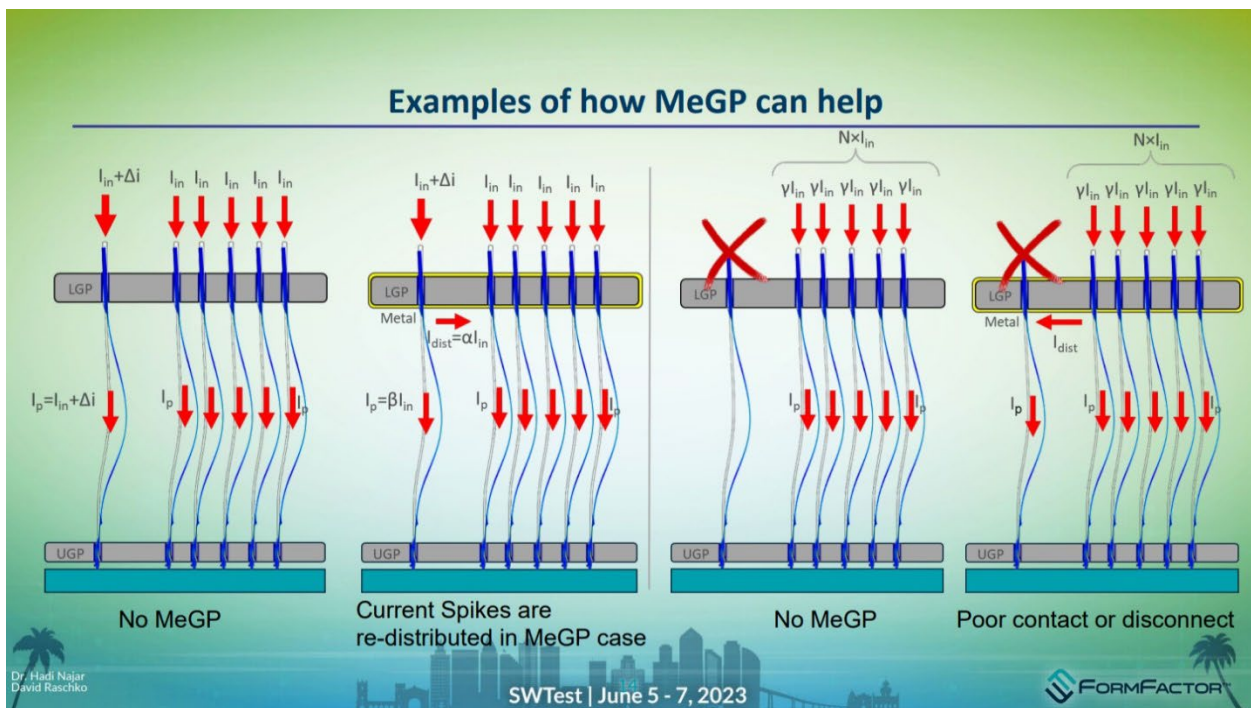
22

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

25. 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.”

26. 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 May 22, 2024).

27. 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 Najjar on behalf of FormFactor to conference attendees at SWTest 2023:



Id., 14.

28. 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” as follows:

MeGP Design Challenges

- **Challenge: Design of the MeGP is difficult due to the number of nets and probes involved.**
 - A design error could be fatal in the yield of the MeGP leading to shorts from VDD to GND
 - Design complexity could significantly
- **Solution: Automated Design and DFM rule implementation**
 - Eliminates mistakes from manual design
 - Decreases design cycle time to a few hours

Design Automation Improves Design Cycle Time and Reduces Errors

SWTest | June 5 - 7, 2023

Id.

29. 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

30. 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).

31. 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 a 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.*

32. FormFactor's website, posted SWTest 2023 presentation, and description of such presentation is publicly available to the relevant consuming public of probe cards. FormFactor's 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 February 8, 2024).

33. 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 May 22, 2024). 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.

34. 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 May 22, 2024). 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.*

E. U.S. Patent No. 11,921,133

35. On March 5, 2024, the U.S. Patent and Trademark Office (“USPTO”) duly and legally issued the ’133 patent, titled “Testing Head Having Improved Frequency Properties.” A true and correct copy of the ’133 patent is attached as Exhibit A.

36. Technoprobe owns the right, title, and interest in the ’133 patent necessary to bring this action, including the exclusive right to enforce the ’133 patent in the United States. Inventor Flavio Maggioni, who was employed by Technoprobe at the time he invented the invention of the ’133 patent, assigned his interest in the ’133 patent as an inventor to Technoprobe by virtue of an assignment of the grandparent application (No. 16/442,385) executed on July 30, 2019, and recorded on September 10, 2019, at the USPTO at reel 050325, frame 0421.

37. The ’133 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 ’133 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 including a body that extends between a first end portion and a second end portion, the plurality of contact elements being a buckling beam type; and

at least one guide including a plurality of guide holes configured to receive the contact elements,

wherein the at least one guide 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 first contact elements, of the plurality of contact elements, the first contact elements being 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, of the plurality of guide holes, to each other and is configured to contact second contact elements, of the plurality of contact elements, the second contact elements being configured to carry a second type of signal that is different from the first type of signal,

wherein the first conductive portion and the second conductive portion are formed on a first face of the at least one guide and are physically and electrically separated from each other by at least one non-conductive zone.

Id., 18:30-57.

38. Figure 2A of the '133 patent demonstrates one embodiment of the invention:

42. FormFactor, in violation of 35 U.S.C. § 271(a), has directly infringed and is directly infringing at least claim 1 of the '133 patent by selling, offering to sell, making, using, and/or importing the Accused Products in the United States, including in Delaware.

43. 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.

44. For example, FormFactor describes a “Probe Card Cross-Section” in the Accused Products as follows:

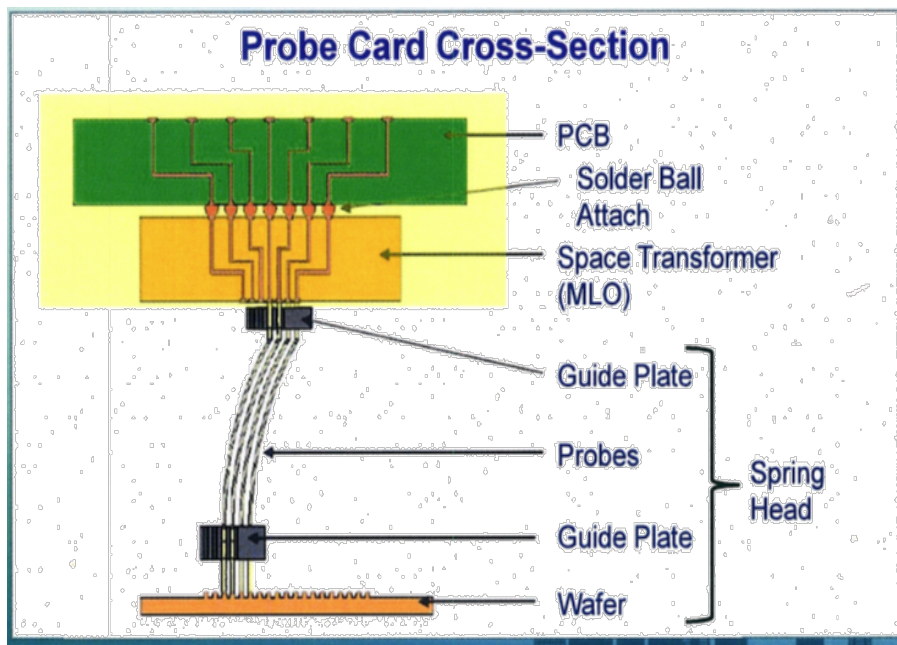


Exhibit F, 8. As shown in Exhibit F, the Accused Products include a “Spring Head” that has two “Guide Plate[s]” and “Probes” configured to verify the operation of a device under test integrated on a semiconductor wafer. *Id.*

45. The Accused Products include “a plurality of contact elements, each including a body that extends between a first end portion and a second end portion, the plurality of contact elements being a buckling beam type” as recited in claim 1.

46. For example, 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. Exhibit F further depicts that the plurality of contact elements are a buckling beam type. *Id.*

47. The Accused Products include “at least one guide including a plurality of guide holes configured to receive the contact elements,” as recited in claim 1.

48. For example, as shown in Exhibit F, the Accused Products include “Guide Plate[s],” each provided with a plurality of guide holes configured to receive the contact elements. *See* Exhibit F, 8; *see also* Exhibit E, 15.

49. “Guide Plate[s]” in 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 [which] is configured to contact first contact elements, of the plurality of contact elements, the first contact elements being configured to carry a first type of signal,” as recited in claim 1.

50. 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:

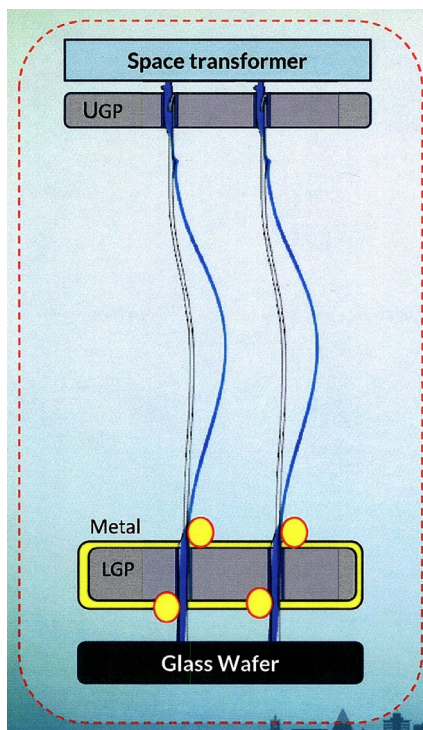
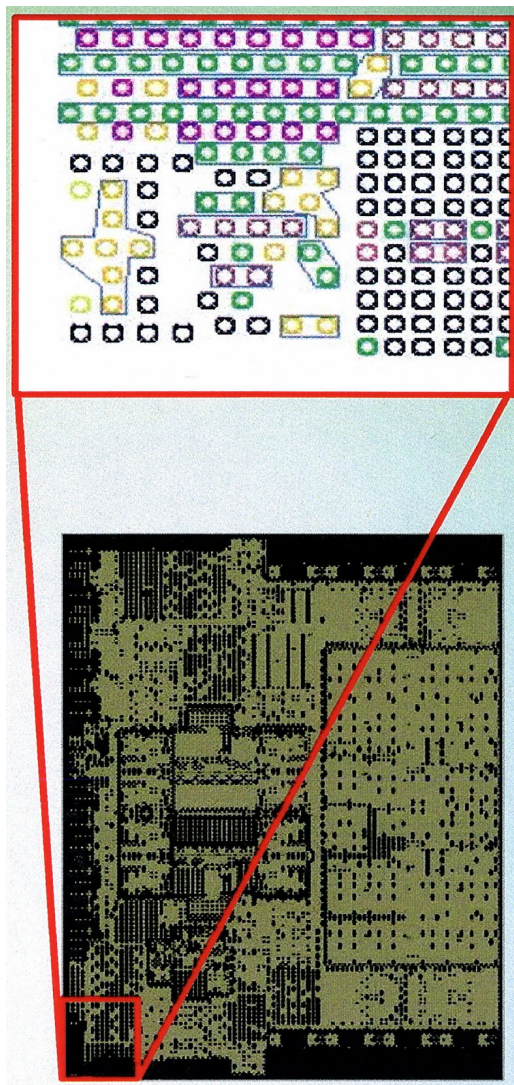


Exhibit E, 15. As shown in Exhibit E, the Accused Products include a “Metal” layer on a Lower Guide Plate (designated as “LGP”). *Id.*

51. 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).

52. The Accused Products also include “a second conductive portion that includes and electrically connects the holes of a second group of the guide holes, of the plurality of guide holes, to each other and [which] is configured to contact second contact elements, of the plurality of contact elements, the second contact elements being configured to carry a second type of signal that is different from the first type of signal,” as recited in claim 1.

53. 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:

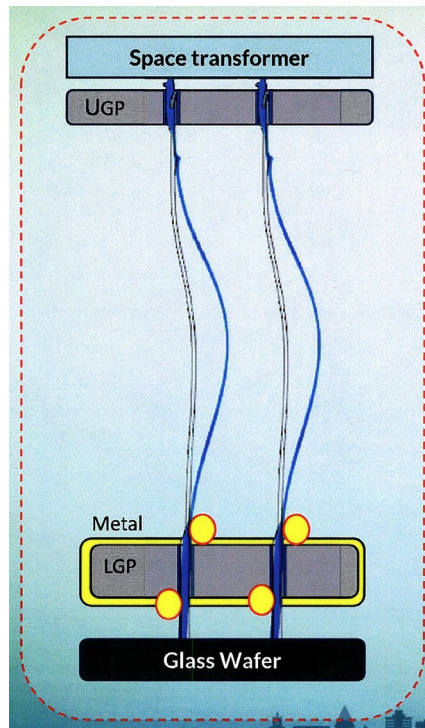
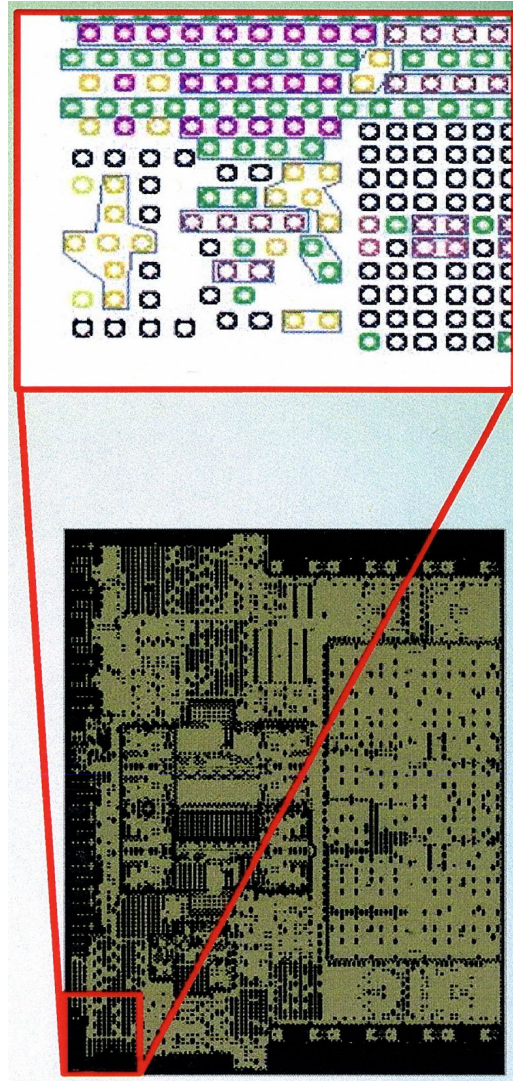


Exhibit E, 15. As shown in Exhibit E, the Accused Products include a “Metal” layer on a Lower Guide Plate (designated as “LGP”). *Id.*

54. As also shown in Exhibit E, the Accused Products include a second conductive portion that includes and electrically connects the holes of a second group of guide holes, of the

plurality of guide holes, to each other and which 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 second conductive portion that includes and electrically connects a first group of guide holes, of the plurality of guide holes, to each other and which is configured to contact corresponding first contact elements, of the plurality of contact elements, configured to carry a type of signal that is different from the 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).

55. In the aforementioned features of the Accused Products, “the first conductive portion and the second conductive portion are formed on a first face of the at least one guide and are physically and electrically separated from each other by at least one non-conductive zone,” as recited in claim 1.

56. For example, the figure on page 15 of Exhibit E illustrates conductive portions connecting the first group of guide holes (yellow) and second group of guide holes (green) on the same face of the guide plate:

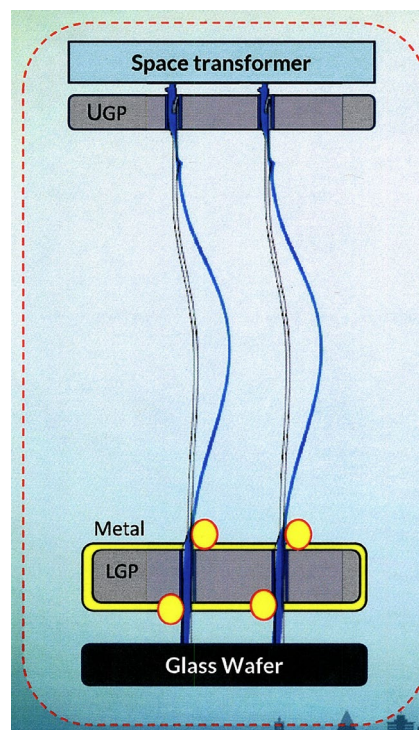
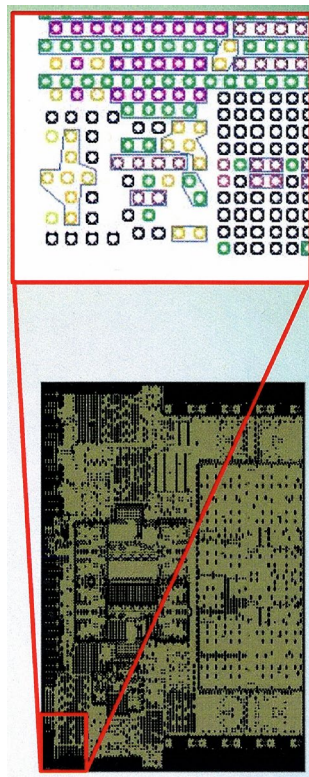


Exhibit E, 15.

57. As another example, the figure on page 21 of Exhibit E illustrates different conductive portions, including an illustration of first conductive portions (e.g., in yellow) physically separated from second conductive portions (e.g., in green) by non-conductive zones (e.g., in white):



58. The Accused Products, including without limitations, FormFactor’s “Apollo” and “Kepler” probe cards, as well as other products that operate in similar fashion, include each element of at least claim 1 of the ’133 patent.

59. FormFactor, in violation of 35 U.S.C. § 271(b), has also indirectly infringed and is indirectly infringing at least claim 1 of the ’133 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 ’133 patent, knows or should know that the acts of the third-party customers and/or distributors will result in

infringement of the '133 patent, and has specific and actual intent to cause the third-party customers and/or distributors to infringe the '133 patent.

60. 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 '133 patent.

61. 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 or may be patented by someone other than FormFactor.

62. FormFactor has willfully infringed the '133 patent, justifying the assessment of treble damages pursuant to 35 U.S.C. § 284.

63. As one example, Technoprobe sued FormFactor in US District Court for the District of Delaware in both 2018 and in 2023 for infringement of patents related to probe head technology. The 2018 litigation commenced July 17, 2018 and was captioned *Feinmetall GmbH and Technoprobe S.p.A v. FormFactor, Inc.*, Civil Action No. 1:18-cv-01057-RGA (District of Delaware). In the 2018 litigation, Technoprobe as exclusive licensee of US Patent No. 7,850,460 alleged FormFactor's infringement of US Patent No. 7,850,460. In 2020, Technoprobe and FormFactor settled the 2018 litigation. In 2023, Technoprobe sued FormFactor again for patent infringement. The 2023 litigation commenced August 4, 2023, and continues as of the date of this

Complaint and is captioned *Technoprobe S.p.A v. FormFactor, Inc.*, Civil Action No. 23-842-JCG (District of Delaware). In the Civil Action No. 23-842-JCG action, Technoprobe provided specific allegations outlining how and why the same Accused Products in this Complaint infringe the claims of Technoprobe's US Patent No. 11,035,885, which is the grandparent of the '133 patent.

64. As a result of the Civil Action No. 23-842-JCG action in which Technoprobe alleges infringement of US Patent No. 11,035,885, FormFactor is and has been aware of Technoprobe's patent portfolio on patents relating to probe heads that include metallized guide plates, including the patent family relating to U.S. Application No. 16/442,385, which matured into U.S. Patent No. 11,035,885. Technoprobe's U.S. Application No. 18/329,475 that issued as the '133 patent belongs to the same patent family as the '885 patent, is a grandchild of the '885 patent, and was published on October 19, 2023 as U.S. Publication No. 2023/0333142 A1. Claims 1-12, 14-17, 19-25, and 27-33 of U.S. Publication No. 2023/0333142 A1 include the same recitations as issued claims 1-30 of the '133 patent.

65. At the time of publication of U.S. Publication No. 2023/0333142 A1 on October 19, 2023, FormFactor was a named defendant in the Civil Action No. 23-842-JCG action for infringement of the related '885 patent. In the Civil Action No. 23-842-JCG action, Technoprobe provided detailed allegations of how FormFactor and its products—the same Accused Products in this case—infringe the '885 patent.

66. At the time of issuance of the '133 patent on March 5, 2024, the Civil Action No. 23-842-JCG action for patent infringement of the related '885 patent was still and continues to be pending. FormFactor either has been aware of the patent application family to which the '885 and '133 patents belong, including that the '133 patent is a grandchild of the '885 patent, or has purposefully avoided gaining additional awareness of that patent application family since at least as early as August 7, 2023, the date of service of the complaint in the Civil Action No. 23-842-

JCG action. FormFactor is, and has been, either aware of the '133 patent and FormFactor's infringement of the '133 patent or has remained willfully blind to the existence of the '133 patent and its infringement of the '133 patent.

67. As another example, FormFactor has known of Application No. PCT/EP2017/082180 to which the '133 patent claims priority, as well as the applicability of that application's subject matter to FormFactor's own products incorporating a probe head that includes a metallized guide plate, since at least as early as August 27, 2021. *See* Exhibit I (FormFactor U.S. Patent No. 11,460,485, titled "Direct Metalized Guide Plate"). Specifically, on August 27, 2021, FormFactor cited the priority Application No. PCT/EP2017/082180 to the United States Patent Office when prosecuting FormFactor's own U.S. Application No. 16/164,326 that ultimately became U.S. Patent No. 11,460,485. *Id.* at 2 (FormFactor U.S. Patent No. 11,460,485 citing WO2018108790, a publication of Application No. PCT/EP2017/082180 published June 21, 2018 to which the '133 patent claims priority).

68. As another 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 has proceeded with either direct knowledge of Technoprobe's US Application No. 18/329,475 that issued as the '133 patent or purposefully avoided learning of the existence of US Application No. 18/329,475 that issued as the '133 patent.

69. Given the totality of the circumstances, FormFactor is, and has been, either actually aware of or willfully blind to the fact that its Accused Products infringe the '133 patent, including

at least claim 1 of the '133 patent. Each of the circumstances alleged herein provides actual or constructive notice to FormFactor both of the '133 patent and of its coverage over the same Accused Products alleged to infringe related patents in the ongoing litigation between Technoprobe and FormFactor.

70. 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.

71. Each element of at least claim 1 of the '133 patent 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, each such element is present under the doctrine of equivalents.

72. FormFactor has been aware of the '133 patent's existence and its infringement of the '133 patent by the Accused Products at least as early as the date that the '133 patent issued and has no reasonable basis for believing that manufacturing, importing, offering for sale, selling, and/or using the Accused Products does not infringe the '133 patent. FormFactor also has no reasonable basis for believing that the '133 patent is invalid or otherwise unenforceable.

73. By reason of FormFactor's infringement of the '133 patent, Technoprobe has suffered, and will continue to suffer, substantial damages in an amount to be determined at trial.

74. 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.

DEMAND FOR JURY TRIAL

75. 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 Technoprobe relief including, but not limited to:

A. A judgement that FormFactor has infringed the '133 patent in violation of the patent laws of the United States, 35 U.S.C. § 271;

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

C. An award of enhanced damages;

D. An award of attorneys' fees and costs;

E. 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;

F. An order requiring FormFactor to identify and recall from customers and distributors and destroy all Accused Products; and

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

Respectfully submitted,

/s/ Andrew E. Russell

Andrew E. Russell (No. 5382)

SHAW KELLER LLP

I.M. Pei Building

1105 North Market Street, 12th Floor

Wilmington, DE 19801

(302) 298-0700

arussell@shawkeller.com

Attorneys for Plaintiff Technoprobe S.p.A.

OF COUNSEL:

Mark Sommers

Houtan K. Esfahani

John C. Paul

Jennifer Fried

Abhay A. Watwe

Kelly S. Horn

Alexander E. Harding

FINNEGAN, HENDERSON, FARABOW,

GARRETT & DUNNER, LLP

901 New York Avenue, NW

Washington, DC 20001-4413

(202) 408-4000

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