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ANZA TECHNOLOGY, INC.

UNITED STATES DISTRICT COURT

SOUTHERN DISTRICT OF CALIFORNIA

Anza Technology, Inc., Plaintiff, v. Hawking Technologies, Inc., Defendant.	Case No. 3:16-cv-01264-BEN-AGS **FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT** **DEMAND FOR JURY TRIAL**

Plaintiff Anza Technology, Inc. ("Anza" or "Plaintiff"), by and through its undersigned counsel, complains and alleges against Defendant Hawking Technologies, Inc. ("Hawking" or "Defendant") as follows:

NATURE OF THE ACTION

1. This is a civil action for infringement of a patent arising under the laws of the United States relating to patents, 35 U.S.C. § 101, *et seq.*, including, without limitation, 35 U.S.C. §§ 271, 281. Plaintiff Anza seeks a preliminary and permanent injunction and monetary damages for patent infringement.

JURISDICTION AND VENUE

2. This court has subject matter jurisdiction over this case for patent infringement under 28 U.S.C. §§ 1331 and 1338(a) and pursuant to the patent laws of the United States of America, 35 U.S.C. § 101, *et seq.*

3. Venue properly lies within the Southern District of California pursuant to the provisions of 28 U.S.C. §§ 1391(b), (c), and (d) and 1400(b). On information and belief, Defendant conducts substantial business directly and/or through third parties or agents in this judicial district by selling and/or offering to sell the infringing products and/or by conducting other business in this judicial district. Furthermore, Plaintiff is informed and believes that Defendant engages in business in this district, and that Plaintiff has been harmed by Defendant's conduct, business transactions and sales in this district.

4. This Court has personal jurisdiction over Defendant because, on information and belief, Defendant is headquartered and maintains an office at 8 Faraday, Suite B, Irvine, California. Also, Plaintiff is informed and believes that Defendant transacts continuous and systematic retail business within the State of California and the Southern District of California. This Court has personal jurisdiction over the Defendant because Plaintiff is informed and believes that this Defendant's infringing activities, including, without limitation, the making, using, selling and/or offers for sale of infringing products occur in the State of California and the Southern District of California. In particular, Defendant sells its infringing product through local retail stores, such as Fry's Electronics and Micro Center, and online retailers such as Frys.com, Walmart.com, Staples.com, and Amazon.com, to customers in the Southern District. Finally, this Court has personal jurisdiction over Defendant because, on information and belief, Defendant has made, used, sold and/or offered for sale its infringing products and placed such infringing products in the stream of interstate commerce with the expectation that such infringing products would be made, used, sold and/or offered for sale within the

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State of California and the Southern District of California.

5. Upon information and belief, certain of the products manufactured by or for Defendant have been and/or are currently designed and/or offered for sale by Defendant through an in-house sales and marketing team operating in California.

PARTIES

6. Plaintiff Anza is a corporation organized and existing under the laws of the State of California with an office and principal place of business at 4121 Citrus Avenue, Suite 4, Rocklin, California 95677. Anza is a designer, manufacturer and seller of bonding tools; ESD tools and other products directed to the manufacture and assembly of electronics, in particular the bonding of electrostatic-sensitive devices.

7. Upon information and belief, Hawking is a corporation organized and existing under the laws of the State of California, with a principal place of business at 8 Faraday, Suite B, Irvine, California.

THE ACCUSED PRODUCTS

8. Defendant designs, manufactures, assembles and/or imports products that depend on high density integrated circuit ("IC") chips that are manufactured and mounted on printed circuit boards using a "flip chip" bonding process that require special electrostatic discharge ("ESD") handling in the Accused Products' assembly process. Defendants hereby allege that the Accused Products are assembled using the methods of the claims of the asserted patents as set forth in more detail below.

9. The Defendant's accused products for purposes of the asserted patents include but are not limited to its router, modem, transmitter, receiver, and transponder products and systems that utilize integrated circuit chips that were mounted on printed circuit boards using a "flip chip" bonding process and sold under the "Hawking" brand or as manufactured and sold under other brands (the "Accused Products"). These products include, but are not limited to the following

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products and/or product families: CF100W, HAW2R1, HAWNU1, HAWNU2, HD45R, HD45U, HD65U, HFS8T, HNC320G, HOW2R1, HOWABN1, HWABN1, HWC54D, HWC54DA, HWC54G, HWDN1, HWDN2, HWDN3, HWL2, HWP54G, HWR54G, HWU300, HWU36D, HWU54D, HWU54DM, HWU54G, HWU8DD, HWU9DD, HWUG1, HWUN1, HWUN2, HWUN3, HWUN4, PN828ES, UH104, UH204, UH214, WA210, WE110P, WU120, WU250.

THE ASSERTED PATENTS

10. On October 24, 2006, the United States Patent and Trademark Office ("USPTO") duly and legally issued United States Patent No. 7,124,927 B2 entitled "FLIP CHIP BONDING TOOL AND BALL PLACEMENT CAPILLARY" ("the '927 patent"). Steven F. Reiber is the patent's sole named inventor and Plaintiff is owner, by assignment, of the entire right, title and interest in and to the '927 patent and vested with the right to bring this suit for damages and other relief. A true and correct copy of the '927 patent is attached hereto as Exhibit "A."

11. On June 24, 2008, the USPTO duly and legally issued United States Patent No. 7,389,905 B2 entitled "FLIP CHIP BONDING TOOL TIP" ("the '905 patent"). Steven F. Reiber is the patent's sole named inventor and Plaintiff is owner, by assignment, of the entire right, title and interest in and to the '905 patent and vested with the right to bring this suit for damages and other relief. A true and correct copy of the '905 patent is attached hereto as Exhibit "B."

COUNT ONE

INFRINGEMENT OF THE '927 PATENT BY DEFENDANT

12. Plaintiff re-alleges and incorporates by reference each of the allegations set forth in paragraphs 1 through 11 above.

13. Plaintiff alleges that the Accused Products, alone or in combination with other products, directly or alternatively, under the doctrine of equivalents, infringe each of the limitations of independent claim 16 of the '927 patent in

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violation of 35 U.S.C. § 271(g) when Defendant imports into the United States or offers to sell, sells, or uses within the United States a product which is made by the processes described below.

14. Defendant designs, manufactures, assembles or imports products that depend on high density integrated circuit ("IC") chips that require the use of flip chip bonding techniques during manufacture and/or assembly. The ICs of the Accused Products that are bonded according to the claimed methods include one or more of the following brands: Atheros, Broadcom, Celeno, Conexant, CSR, Envara, Intersil, Lantiq, Marvell, MediaTek, Ralink, Realtek Texas Instruments, Quantenna and/or Wilocity. These ICs are highly sensitive to ESD events as evidenced by the charge load tolerance specifications promulgated by their manufacturers.

15. Generically speaking, flip chip microelectronic assembly is the direct electronic connection of facedown electronic components onto substrates, circuit boards, or carriers by means of conductive bumps on an IC's bond pads. ICs are handled in the course of manufacturing the Accused Products by tools and machines that pick them up and place them on surfaces where they are bonded so as to allow for the interconnection of circuits. The risk of an ESD event or discharge exists when an IC comes in contact with a tool or surface. The event or discharge may damage the IC rendering the Accused Product unusable.

16. The susceptibility of an IC to damage from ESD events is well known in the electronics industry, which has lead to the development of certain standards and techniques to reduce the risk of damage from electrostatic discharges. Standards and techniques have been developed by several standards setting organizations to include, ANSI, JEDEC, the IEC and/or the ESDA (cumulatively, "ESD Standards"). ANSI standards, for example, specify that manufacturing techniques, involving ESD-Sensitive devices require tools that utilize dissipative materials. Such materials have a resistance value between 1×10^4 and 1×10^{11}

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ohms surface or volume resistance. JEDEC, IEC and ESDA require similar resistance ranges. Each of the aforementioned industry standards thus requires the use of manufacturing tools having approximately the same resistance values in connection with handling ICs that are particularly sensitive to ESD events.

17. Failing to adhere to such standards could otherwise lead to ESD events during the bonding process that could damage the ICs and render them defective and/or unusable. Accordingly, Plaintiff is informed, believes and thereon alleges that the Defendant designs, specifies and directs that the Accused Products be made using methods that meet or exceeds such ESD Standards

18. Claim 16 teaches "providing a bonding machine capable of being equipped with a flip chip bonding tool and ball placement capillary having a tip comprised of a dissipative material, the dissipative material having a resistance low enough to prevent a discharge of a charge to the device being bonded and high enough to stop all current flow to the device being bonded" and "equipping the bonding machine with the flip chip bonding tool." The resistance values specified by the aforementioned ESD Standards, *e.g.*, ANSI's required 1 x 10^4 and 1 x 10^{11} ohms surface or volume resistance and similar ranges specified by the other standards organizations, are low enough to prevent a discharge of a charge to the device being bonded and high enough to stop all current flow to the device being bonded." Accordingly, Plaintiff alleges that, in manufacturing the Accused Products consistent with such standards, the ICs of the Accused Products are bonded using bonding tools meeting the resistance range specified in claim 16 in order to reduce the risk of damage to the Accused Products' ICs and surrounding circuitry.

19. Plaintiff is informed and believes and thereon alleges that the ICs used in Accused Products utilize a ball grid array(s) ("BGA") or variations thereof for mounting the IC's to a surface. A BGA mounting system provides for the surface mounting of an IC *via* an array of solder balls, applied using a ball placement

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capillary. The solder balls are "thermally and electrically conductive" as taught by claim 16 of the '927 patent. Otherwise, the ICs would not affix to the board and would not pass electricity.

20. The solder balls in a BGA mounting system are also substantially spherical in shape as taught by claim 16 of the '927 patent.

21. The IC is flipped so that the solder balls are face down with a tool that picks the IC up and places it at a predesigned location, pressing the substantially spherical-shaped bonding material such that it forms a conductive bump as taught by claim 16 of the '927 patent.

22. Based on the foregoing, Anza alleges that Defendant directly infringes claim 16 of the '927 patent under 35 U.S.C. § 271(g).

23. Defendant has, since at least the filing of the original complaint, had knowledge of infringement of the '927 patent.

COUNT TWO

INFRINGEMENT OF THE '905 PATENT BY DEFENDANT

24. Plaintiff re-alleges and incorporates by reference each of the allegations set forth in paragraphs 1 through 23 above.

25. The Accused Products, alone or in combination with other products, directly or alternatively under the doctrine of equivalents infringe each of the limitations of independent claims 53 and 55 of the '905 patent in violation of 35 U.S.C. § 271(g) when Defendant imports into the United States or offers to sell, sells, or uses within the United States a product which is made by the processes described above.

26. Plaintiff is informed and believes and thereon alleges that Defendant manufactures and assembles the Accused Products utilizing the methods described by claim 53 and 55 of the '905 patent.

27. Claim 53 of the '905 patent is substantially similar to claim 16 of the '927 patent discussed above except that claim 53 of the '905 patent does not

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1 require equipping the bonding machine tool with a "ball placement capillary."
2 Accordingly, Defendant's infringe claim 53 of the '905 patent for the same reasons
3 set forth in Count One, above.

4 28. The Accused Products are also assembled using the method described
5 in claim 55 of the '905 patent. As alleged above, the ICs used in the Accused
6 Products are bonded to a surface using an electrically dissipative flip chip bonding
7 tool tip.

8 29. As set forth in more detail above, Plaintiff alleges that in the process
9 of manufacturing the Accused Products, Defendants use tools for mounting ICs to
10 circuit boards that meet industry standards for electric current resistance. The
11 resistance ranges specified in the most common ESD standards identified above,
12 such as, *e.g.*, the ANSI standard, are within the 1×10^{2} to 1×10^{12} range taught by
13 claim 55 of the '905 patent.

14 30. Flip chip bonding requires the step of making contact with a device
15 being bonded during bonding, which results in establishing an electrostatic
16 potential between the tool and the device ("triboelectric charging") such that the
17 tool acts as a dissipative device to dissipate current away from the IC so as to avoid
18 charge build up but resistive enough to allow for a smooth current flow as taught
19 by claim 55.

20 31. The flip chip bonding process also requires chip grounding leads/pins
21 to be connected to the device ground. By way of example, the Atheros chips
22 utilized in the Accused Products comprise several grounding points for connecting
23 with the circuit board. The assembly of the Accused Products therefore satisfies
24 this disclosure of claim 55.

25 32. The developed charge during the bonding process and other
26 destructive energy present in the system needs to be dissipated smoothly to avoid
27 damaging the device's electrical characteristics. Hence, flip chip bonding tools
28 require static dissipative materials to effectively dissipate such energy as taught by

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claim 55 of the ’905 patent.

33. Based on the foregoing, Anza alleges that Defendant directly infringes claims 53 and 55 of the ’905 patent under 35 U.S.C. § 271(g).

34. Defendant has knowledge of infringement of the ’905 patent since at least the filing of the original complaint.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff prays for relief and judgment as follows:

1. That Defendant has infringed the Patents-in-Suit;

2. Compensation for all damages caused by Defendant’s infringement of the Patents-in-Suit to be determined at trial;

3. A finding that this case is exceptional and an award of reasonable attorneys fees pursuant to 35 U.S.C. § 285;

4. Granting Plaintiff pre-and post-judgment interest on its damages, together with all costs and expenses; and,

5. Awarding such other relief as this Court may deem just and proper.

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Dated: November 23, 2016 By: */s/ Gabriel G. Hedrick*
Gabriel G. Hedrick
Attorneys for Plaintiff
Anza Technology, Inc.

DEMAND FOR JURY TRIAL

Plaintiff hereby demands a trial by jury on all claims.

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Dated: November 23, 2016 By: */s/ Gabriel G. Hedrick*
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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the foregoing document has been served on this date to all current and/or opposing counsel of record, if any to date, who are deemed to have consented to electronic service via the Court's CM/ECF system. Any other counsel of record will be served by electronic mail, facsimile and/or overnight delivery.

I declare under penalty of perjury of the laws of the United States that the foregoing is true and correct. Executed this 23rd day of November, 2016 at San Diego, California.

/s/ Gabriel G. Hedrick
Gabriel G. Hedrick

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