IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS

ZEPPELIN CORPORATION,

Plaintiff,

Case No. 4:23-cv-454

v.

DEMAND FOR JURY TRIAL

VERIZON COMMUNICATIONS, INC.; CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS,

Defendants.

ORIGINAL COMPLAINT FOR PATENT INFRINGEMENT

1. Zeppelin Corporation ("Zeppelin" or "Plaintiff"), by and through its counsel, hereby brings this action for patent infringement against Verizon Communications, Inc. ("Verizon Communications") and Cellco Partnership d/b/a Verizon Wireless ("Verizon Wireless," and collectively, "Verizon" or "Defendant"), alleging infringement of the following validly issued patent (the "Patent-in-Suit"): U.S. Patent No. 10,313,630 titled "Mobile phone with fluorescent substances" (the '630 Patent), attached hereto as Exhibit A.

NATURE OF THE ACTION

2. This is an action for patent infringement arising under the United States Patent Act 35 U.S.C. §§ 1 et seq., including 35 U.S.C. §271.

PARTIES

3. Plaintiff Zeppelin Corporation is a corporation registered in Samoa and Taiwan with its principal place of business at 2F., No. 1, Sec. 4, Xinyi Rd., Da'an Dist., Taipei City 106684, Taiwan.

- 4. On information and belief, Verizon Communications is a Delaware corporation with a principal place of business at 1095 Avenue of the Americas, New York, New York 10036. VZC has appointed The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801, as its agent for service of process.
- 5. On information and belief, Verizon Wireless is a general partnership organized and existing under the laws of the state of Delaware, with a principal place of business at One Verizon Way Basking Ridge, New Jersey 07920. Defendant Verizon Wireless may be served with process through its registered agent at The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801. On information and belief, Verizon Wireless is a wholly-owned subsidiary of Verizon Communications.

JURISDICTION AND VENUE

- 6. This lawsuit is a civil action for patent infringement arising under the patent laws of the United States, 35 U.S.C. §101 et seq. The Court has subject-matter jurisdiction pursuant to 28 U.S.C. §\$1331, 1332, 1338(a), and 1367.
- 7. The Court has personal jurisdiction over Defendant for the following reasons: (1) Defendant is present within or has minimum contacts within the State of Texas and the Eastern District of Texas; (2) Defendant has purposefully availed itself of the privileges of conducting business in the State of Texas and in this district; (3) Defendant has sought protection and benefit from the laws of the State of Texas; (4) Defendant regularly conducts business within the State of Texas and within this district, and Plaintiff's cause of action arises directly from Defendant's business contacts and other activities in the State of Texas and in this district; and (5) Defendant has purposely availed itself of the privileges and benefits of the laws of the State of Texas.
 - 8. Defendant, directly and/or through intermediaries, ships, distributes, uses, offers

for sale, sells, and/or advertises products and services in the United States, the State of Texas, and the Eastern District of Texas including but not limited to the products which contain the infringing elements as detailed below. Upon information and belief, Defendant has committed patent infringement in the State of Texas and in this district; Defendant solicits and has solicited customers in the State of Texas and in this district; and Defendant has paying customers who are residents of the State of Texas and this district and who each use and have used the Defendant's products and services in the State of Texas and in this district.

9. Venue is proper in the Eastern District of Texas over Verizon pursuant to 28 U.S.C. §§ 1400(b). Defendant maintains multiple regular and established places of business in this district, has transacted business in this district, and has directly and/or indirectly committed acts of patent infringement in this district. For instance, upon information and belief, Verizon maintains a regular and established place of business at 741 N Central Expressway, Plano, Texas 75075.

PATENT-IN-SUIT

- 10. Plaintiff incorporates the above paragraphs herein by reference.
- 11. On June 4, 2019, U.S. Patent No. 10,313,630 titled "Mobile phone with fluorescent substances" was duly and legally issued by the United States Patent and Trademark Office. The '630 Patent is presumed valid and enforceable.
- 12. Plaintiff is the assignee of all right, title and interest in the '630 patent, including all rights to enforce and prosecute actions for infringement and to collect damages for all relevant times against infringers of the '630 Patent.
- 13. The '630 Patent relates generally to improvements in display technology for mobile devices. See Ex. A at 1:64-2:12. The claimed inventions disclosed in the Patent-in-Suit were not

well-understood, routine, or conventional. At the time the '630 Patent was filed, conventional LCD displays for mobile devices had many drawbacks. See Ex. A at 1:45-46. For instance, LCD displays required a back light module which increases the thickness of the panel and is not transparent. See Ex. A at 1:46-48. Additionally, liquid crystal materials and color filters were necessary components of the displays. See Ex. A at 1:48-49. The devices also would require large arrays of thin film transistors, resulting in complicated manufacturing processes and suboptimal display resolution. See Ex. A at 1:50-52.

- 14. Mobile devices at this time also faced problems with their antennae. *See* Ex. A at 1:52-54. Conventionally, antennae were embedded within the device and thus shielded by IC or components. *See* Ex. A at 1:52-54. Furthermore, signal reception was hindered by the increasing presence of a multitude of other mobile devices in near proximity and also by the EM shielding effect. *See* Ex. A at 1:54-55.
- 15. Finally, while mice provide users with the ability to precisely manipulate their devices, mice are inconvenient in the context of mobile devices. *See* Ex. A at 1:55-56. Mice along with the issues detailed *supra* represented significant roadblocks to making mobile devices smaller and more portable. *Id. See* Ex. A at 1:59-60.
- 16. The Patent-in-Suit addressed these technical challenges by, for example, teaching a device with hybrid memory and advanced display with a thinner transparent panel on which a transparent antenna may be formed to minimize the shielding effect. *See* Ex. A at 1:64-67. The invention also provides a computing device with a video display comprising a substrate having electrodes. *See* Ex. A at 2:1-3. A mask layer covers a portion of the electrodes, with stacked gates over the mask layer. *See* Ex. A at 2:3-4. Emitters are formed on a portion of the electrodes to emit

electrons, wherein the emitters are formed with carbon nanotube emitters to improve video images and local brightening for the display. *See* Ex. A at 2:4-9. The invention further teaches a panel disposed above the stacked gates; a fluorescent film attached to a surface of said panel and the fluorescent film being hit by electrons emitted from the emitter to emit color for display. *See* Ex. A at 2:9-12.

- 17. The invention disclosed in the Patent-in-Suit were not well-understood, routine, or conventional. Additionally, the novel invention described in the Patent-in-Suit addressed unsolved problems in the art, such as image quality on mobile device displays and issues with cellular reception. *See generally* Ex. A, Summary.
- 18. The claims of the '630 Patent do not merely recite the performance of a familiar business practice with a requirement to perform it on the Internet. Moreover, the invention taught in the 'Patent-in Suit', cannot be performed with pen and paper or in the human mind. And one of ordinary skill in the art at the time of the patent would have understood that the inventions could not be performed with pen and paper. Using a pen and paper would ignore the stated purpose of the invention and the problem it was specifically designed to address. Doing so would be a practical impossibility running counter to the inventors' detailed description of the invention and language of the claims. Additionally, because the Patent-in-Suit addresses problems rooted in mobile device displays, the solution it teaches is not merely drawn to longstanding human activities.
- 19. By way of example, the Patent-in-Suit describes a front transparent substrate and a rear transparent substrate having fluorescent substances in-between that are excited by applying a bias to the substrates. The fluorescent substances cause the electrons and holes to emit visible light thereby removing backlight of the mobile device. A mobile device display constructed

in such a manner is an improvement over the displays described in prior art and constitutes an unconventional technological solution to a technological problem. Another example of an unconventional solution to a technological problem is the disposition of the antenna at the side of the rear transparent substrate, rather than being embedded within the mobile device, which allows the antenna to be more efficient by reducing interference from other integrated chip packages present inside the mobile device. Accordingly, the claims of the Patent-in-Suit include inventive concepts and recite combinations of elements sufficient to ensure that the claims practice eligible subject matter.

ACCUSED PRODUCTS

20. Defendant makes, uses, offers for sale and sells in the U.S. products, systems, and/or services that infringe the Patent-in-Suit, including, but not limited to the Galaxy S22 series, Galaxy S21 Series, Galaxy Z Fold4, Galaxy A23, Galaxy Z Fold3 5G, Galaxy Z Flip4, Galaxy Z Flip3 5G, iPhone X, iPhone 12, iPhone 13, and iPhone 14 Pro (the "Accused Products" or "Accused Instrumentality"). For instance, iPhone 14 Pro is equipped with A16 Bionic Chip with 6-core processor, OLED (Organic Light-Emitting Diode) display, Wi-Fi 6 (802.11ax), and 5G cellular connectivity.

COUNT I (Infringement of U.S. Patent No. 10,313,630)

- 21. Plaintiff incorporates the above paragraphs herein by reference.
- 22. The '630 Patent is valid, enforceable, and was duly and legally issued by the United States Patent and Trademark Office ("USPTO") on June 4, 2019. The '630 Patent is presumed valid and enforceable. *See* 35 U.S.C. § 282.
 - 23. Plaintiff is the owner by assignment of the '630 Patent and possesses all rights of

recovery under the '630 Patent, including the exclusive right enforce the '630 Patent and pursue lawsuits against infringers.

- 24. Upon information and belief, to the extent any marking was required by 35 U.S.C. § 287 with regard to the '630 Patent, Plaintiff has complied with such requirements.
- 25. Without a license or permission from Plaintiff, Defendant has infringed and continues to directly and indirectly infringe on one or more claims of the '630 Patent by importing, making, using, offering for sale, and/or selling products and devices that embody the patented inventions, including, without limitation, one or more of the patented '630 systems and methods, in violation of 35 U.S.C. § 271.

Direct Infringement – 35 U.S.C. §271(a)

- 26. Plaintiff incorporates the above paragraphs herein by reference, the same as if set forth herein.
- 27. Without a license or permission from Plaintiff, Defendant has infringed and continues to directly infringe on one or more claims of the '630 Patent by importing, making, using, offering for sale, or selling products and devices that embody the patented inventions, including, without limitation, one or more of the patented '630 systems and methods, in violation of 35 U.S.C. § 271.
- 28. Defendant has been and now is directly infringing by, among other things, practicing all of the steps of the '630 Patent, for example, internal testing, quality assurance, research and development, and troubleshooting. *See, e.g., Waymark Corp. v. Porta Sys. Corp.*, 245 F.3d 1364, 1366 (Fed. Cir. 2001) (noting that "testing is a use of the invention that may infringe under \$271(a)").
 - 29. By way of example, Defendant has infringed and continues to infringe at least one

or more claims of the '630 Patent, including at least Claim 1. Attached hereto as Exhibit B is an exemplary claim chart detailing representative infringement of Claim 1 and Claim 10 of the '630 Patent.

<u>Induced Infringement – 35 U.S.C. §271(b)</u>

- 30. Plaintiff incorporates the above paragraphs herein by reference, the same as if set forth herein.
- 31. Defendant has been and now is indirectly infringing by way of inducing infringement by others and/or contributing to the infringement by others of the '630 Patent in the State of Texas, in this judicial District, and elsewhere in the United States, by, among other things, making, using, offering for sale, and/or selling, without license or authority, products incorporating the accused technology. End users include, for example, Defendant's customers and other third parties interacting with the accused technology.
- 32. Defendant had knowledge at the time of filing of this suit. See EON Corp. IP Holdings, LLC v. Sensus USA, Inc., No. C-12-1011 EMC, 2012 WL 4514138, at *1 (N.D. Cal. 2012) (citing In re Bill of Lading Transmission and Processing System Patent Litigation, 681 F.3d 1323, 1345 (Fed.Cir.2012)) (noting that the Federal Circuit has determined that post-filing knowledge is sufficient to meet the knowledge requirement for indirect infringement).
- 33. Defendant knew the actions of making, using, selling, offering for sale, and/or importing the Accused Products infringes the '630 Patent and yet Defendant induced and continues to induce others-including partners, customers, and third parties-to directly infringe at least one claim of the '630 Patent under 35 U.S.C. § 271(b). Defendant took active steps to induce infringement, such as advertising an infringing use, which supports a finding of an intention. See Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd., 545 U.S. 913, 932 (2005) ("[I]t may be presumed

from distribution of an article in commerce that the distributor intended the article to be used to infringe another's patent, and so may justly be held liable for that infringement").

- 34. For example, Defendant induces its users to use the infringing Accused Product on their mobile devices, actively prompting infringement by advertising products. See, e.g., Ex. C ¹ and Ex. D² (advertising infringing Apple smartphones and infringing features); Ex. E³ and Ex. F⁴ (advertising infringing Samsung smartphones and infringing features). These resources both advertise the infringing technology and provide detailed directions on how it functions.
- 35. The allegations herein support a finding that Defendant induced infringement of the '630 Patent. *See Power Integrations v. Fairchild Semiconductor*, 843 F.3d 1315, 1335 (Fed. Cir. 2016) ("[W]e have affirmed induced infringement verdicts based on circumstantial evidence of inducement [e.g., advertisements, user manuals] directed to a class of direct infringers [e.g., customers, end users] without requiring hard proof that any individual third-party direct infringer was actually persuaded to infringe by that material.").

Contributory Infringement – 35 U.S.C. § 271(c)

- 36. Plaintiff incorporates the above paragraphs herein by reference, the same as if set forth herein.
- 37. Defendant had knowledge at the time of filing of this suit. See EON Corp. IP Holdings, LLC v. Sensus USA, Inc., No. C-12-1011 EMC, 2012 WL 4514138, at *1 (N.D. Cal. 2012) (citing In re Bill of Lading Transmission and Processing System Patent Litigation, 681 F.3d 1323, 1345 (Fed. Cir. 2012)) (noting that the Federal Circuit has determined that post-filing knowledge is sufficient to meet

¹ Available at https://www.verizon.com/smartphones/apple/.

² Available at https://www.verizon.com/smartphones/apple/.

³ Available at https://www.verizon.com/smartphones/samsung/.

⁴ Available at https://www.verizon.com/smartphones/samsung/.

the knowledge requirement for indirect infringement).

38. On information and belief, Defendant contributes to its users' infringement of at least Claim 1 of the '630 Patent by actions of making, using, selling, offering for sale, and/or importing the Accused Products that have no substantial non-infringing uses. *See, e.g., Lucent Techs., Inc. v. Gateway, Inc.,* 580 F.3d 1301, 1321 (Fed. Cir. 2009) (holding that the "substantial non-infringing uses" element of a contributory infringement claim applies to an infringing feature or component, and that an "infringing feature" of a product does not escape liability simply because the product as a whole has other non-infringing uses).

Plaintiff Suffered Damages

39. Defendant's acts of infringement of the Patents-in-Suit have caused damage to Plaintiff, and Plaintiff is entitled to recover from Defendant the damages sustained as a result of Defendant's wrongful acts in an amount subject to proof at trial pursuant to 35 U.S.C. § 271. The precise amount of damages will be determined through discovery in this litigation and proven at trial.

REQUEST FOR RELIEF

- 40. Plaintiff incorporates each of the allegations in the paragraphs above and respectfully asks the Court to:
 - (a) enter a judgment that Defendant has directly infringed, contributorily infringed, and/or induced infringement of one or more claims of each of the '630 Patent;
 - (b) enter a judgment awarding Plaintiff all damages adequate to compensate it for Defendant's infringement of, direct or contributory, or inducement to infringe, the including all pre-judgment and post-judgment interest at the maximum rate permitted by law;

(c) issue a preliminary injunction and thereafter a permanent injunction enjoining and

restraining Defendant, its directors, officers, agents, servants, employees, and those acting

in privity or in concert with them, and their subsidiaries, divisions, successors, and

assigns, from further acts of infringement, contributory infringement, or inducement of

infringement of the '630 Patent;

(d) enter a judgment requiring Defendant to pay the costs of this action, including all

disbursements, and attorneys' fees as provided by 35 U.S.C. § 285, together with

prejudgment interest; and

(e) award Plaintiff all other relief that the Court may deem just and proper.

Dated: May 18, 2023

Respectfully submitted,

By:/s/ Kirk J. Anderson

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