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

ZEPPELIN CORPORATION,

Plaintiff,

v.

ONEPLUS TECHNOLOGY (SHENZEN) CO., LTD.; BBK ELECTRONICS CORPORATION; OPPO ELECTRONICS CORP.; VIVO COMMUNICATION TECHNOLOGY CO. LTD.; REALME MOBILE TELECOMMUNICATIONS (SHENZHEN) CO., LTD.,

Defendants.

Case No. 4:23-cv-00377

DEMAND FOR JURY TRIAL

ORIGINAL COMPLAINT FOR PATENT INFRINGEMENT

1. Zeppelin Corporation ("Zeppelin" or "Plaintiff"), by and through its counsel, hereby brings this action for patent infringement against OnePlus Technology (Shenzhen) Co., Ltd., BBK Electronics Corporation, Oppo Electronics Corp., Vivo Communication Technology Co. Ltd., and Realme Mobile Telecommunications (Shenzhen) Co., Ltd. (collectively, "BBK" 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 15 F., No. 28, Dongxing Rd., Songshan Dist., Taipei City, 105, Taiwan.
- 4. On information and belief, Defendant OnePlus Technology (Shenzhen) Co., Ltd. is a corporation organized under the laws of China, having a principal place of business at 18F Tairan Building, Block C, Tairan 8th Road, Chegongmiao, Futian District, Shenzhen, Guangdong 518040, China.
- 5. Upon information and belief, Defendant BBK Electronics Corporation is a corporation organized and existing under the laws of the People's Republic of China with a principal place of business at No. 126, BBK Plaza, Wusha, Dongguan, 523850, China.
- 6. Upon information and belief, Defendant Oppo Electronics Corp. is a corporation organized and existing under the laws of the People's Republic of China with a principal place of business at No. 126, BBK Plaza, Wusha, Dongguan, 523850, China.
- 7. Upon information and belief, Defendant Vivo Communication Technology Co. Ltd. is a corporation organized under the laws of China, having a principal place of business at No. 255, BBK Road, Wusha, Chang'an Town Dongguan 523860, China.
- 8. Upon information and belief, Defendant Realme Mobile Telecommunications (Shenzhen) Co., Ltd. is a corporation organized and existing under the laws of the People's Republic of China with a principal place of business at Room 201, Building A, No. 1 Qianwan First Road, Qianhai, Shenzhen-Hongkong Cooperation Zone, Shenzhen.

JURISDICTION AND VENUE

9. 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.

- This Court has personal jurisdiction over BBK pursuant to due process and/or the Texas Long Arm Statute because, *inter alia*, (i) BBK has done and continues to do business in Texas; (ii) BBK has committed and continues to commit acts of patent infringement in the State of Texas, including making, using, offering to sell, and/or selling accused products in Texas, and/or importing accused products into Texas, including by Internet sales and/or sales via retail stores, inducing others to commit acts of patent infringement in Texas, and/or committing at least a portion of any other infringements alleged herein in Texas. In addition, or in the alternative, this Court has personal jurisdiction over BBK pursuant to Fed. R. Civ. P. 4(k)(2).
- 11. Venue is proper as to OnePlus Technology (Shenzhen) Co., Ltd., BBK Electronics Corporation, Oppo Electronics Corp., Vivo Communication Technology Co. Ltd., and Realme Mobile Telecommunications (Shenzhen) Co., Ltd., which are organized under the laws of a foreign jurisdiction. 28 U.S.C. § 1391(c)(3) provides that "a defendant not resident in the United States may be sued in any judicial district, and the joinder of such a defendant shall be disregarded in determining where the action may be brought with respect to other defendants." *See also In re HTC Corp.*, 889 F.3d 1349 (Fed. Cir. 2018).

PATENT-IN-SUIT

- 12. Plaintiff incorporates the above paragraphs herein by reference.
- 13. 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.
- 14. 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.

- 15. 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.
- 16. 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.
- 17. 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.
- 18. 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.

- 19. 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.
- 20. 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.
 - 21. 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

BBK collectively 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 OnePlus 10 Pro, OnePlus 10T 5G, OnePlus Nord 2T 5G, OnePlus 9 series, OnePlus 8 series, OnePlus 7 series, OnePlus 11R 5G, OnePlus 11 5G, Oppo Find X5 Pro, Oppo Reno8 T 5G, Oppo Reno8 T, Oppo Reno8 Pro 5G, Oppo Reno8 5G, Oppo Reno7 Z 5G, Oppo Reno7, Oppo Reno7 Pro 5G, realme GT Neo 3 80W, realme GT 2 Pro 5G, realme GT Neo 3T, realme GT, realme GT Neo 2, realme GT Master Edition, X60, X60 Pro, X70 pro, X80, X90, X90 Pro and X80 Pro 5G (the "Accused Products" or "Accused Instrumentality"). For instance, the OnePlus 11 5G is equipped with Qualcomm Snapdragon 8 Gen 2 Mobile Platform, AMOLED (Active-Matrix Organic Light-Emitting Diode) display, Wi-Fi (802.11 a/b/g/n/ac/ax/be), and 5G cellular connectivity.

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

- 23. Plaintiff incorporates the above paragraphs herein by reference.
- 24. 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.
- 25. 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.
- 26. 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.
- 27. 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)

- 28. Plaintiff incorporates the above paragraphs herein by reference, the same as if set forth herein.
- 29. 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.
 - 30. 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)").

31. 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 Exhibits B, C, D and E are exemplary claim charts detailing representative infringement of Claims 1 and 10 of the '630 Patent.

Induced Infringement – 35 U.S.C. § 271(b)

- 32. Plaintiff incorporates the above paragraphs herein by reference, the same as if set forth herein.
- 33. 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.
- 34. Defendant had knowledge at the time of the filing of this suit. See In re Bill of Lading Transmission and Processing System Patent Litigation, 681 F.3d 1323, 1345 (Fed. Cir. 2012) (holding that it was reasonable to infer that the defendant induced its customers despite only having post-filing knowledge of the Patent-in-Suit).
- 35. 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").

- 36. For example, Defendant induces its users to use the infringing OnePlus 11 5G on their mobile devices, actively prompting infringement by advertising infringing features and providing instructions on how to use them. See, e.g., Ex. F¹ (advertising OnePlus smartphones); Ex. G² and (advertising the OnePlus 11 5G and infringing features); Ex. H³ (demonstrating infringing features). These resources both advertise the infringing technology and provide detailed directions on how it functions.
- 37. 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)

38. Plaintiff incorporates the above paragraphs herein by reference, the same as if set

¹ Available at https://www.oneplus.com/us/store/phone.

² Available at https://www.oneplus.com/us/11/specs.

³ Available at https://service.oneplus.com/content/dam/support/usermanuals/common/OnePlus_I1_5G_User_Manual_EN.pdf.

forth herein.

- 39. Defendant had knowledge at the time of the filing of this suit. See In re Bill of Lading Transmission and Processing System Patent Litigation, 681 F.3d 1323, 1345 (Fed. Cir. 2012) (holding that it was reasonable to infer that the defendant induced its customers despite only having post-filing knowledge of the Patent-in-Suit).
- 40. 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

41. Defendant's acts of infringement of the Patent-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

- 42. 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: April 28, 2023

Respectfully submitted,

By:/s/ Kirk I. Anderson

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