UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS MARSHALL DIVISION

OPTRONIC SCIENCES LLC,

Plaintiff,

Case No. 2:23-cv-00549

v.

JURY TRIAL DEMANDED

BOE TECHNOLOGY GROUP CO., LTD.,

Defendant.

COMPLAINT FOR PATENT INFRINGEMENT AGAINST BOE TECHNOLOGY GROUP CO., LTD.

This is an action for patent infringement arising under the Patent Laws of the United States of America, 35 U.S.C. § 1 *et seq.*, in which Plaintiff Optronic Sciences LLC ("Plaintiff") makes the following allegations against BOE Technology Group Co., Ltd. ("BOE" or "Defendant"):

INTRODUCTION

1. This complaint arises from Defendant's unlawful infringement of the following United States patents owned by Plaintiff, each of which generally relate to wireless communication technology: United States Patents No. 7,168,842 (the "'842 Patent"), 7,226,801 (the "'801 Patent"), 7,586,121 (the "'121 Patent"), 7,884,914 (the "'914 Patent"), 9,263,509 (the "'509 Patent"), and 9,406,733 (the "'733 Patent") (collectively, the "Asserted Patents").

THE PARTIES

2. Plaintiff is a limited liability company organized and existing under the laws of the state of Texas.

3. Upon information and belief, BOE is a corporation organized and existing under the laws of China with a registered address at 10 Jiuxianqiao Road, Chaoyang District, Beijing, 100015, P. R. China, and an office address at 12 Xihuan Middle Road, Beijing Economic-Technological Development Area, 100176, P. R. China.

JURISDICTION AND VENUE

- 4. This action arises under the patent laws of the United States, Title 35 of the United States Code § 1, *et seq*, including 35 U.S.C. §§ 271, 281, 283, 284, and 285. This Court has original subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).
- 5. This Court has personal jurisdiction over Defendant in this action because Defendant has committed acts within this District giving rise to this action, and has established minimum contacts with this forum such that the exercise of jurisdiction over Defendant would not offend traditional notions of fair play and substantial justice. Defendant has established minimum contacts with the United States as a whole and with Texas such that subjecting Defendant to personal jurisdiction in this Court will not offend traditional notions of fair play and substantial justice. Defendant has purposely availed itself of the laws and protections of the United States and the State of Texas by knowingly supplying and/or contracting to supply display panels for incorporation into products to be sold, offered for sale, imported, and used in the United States, the State of Texas, and in this District. Defendant has targeted the United States by conducting regular business therein, and has placed and continues to place its products into the stream of commerce through an established distribution channel with the expectation and/or knowledge that they will be purchased by consumers in the United States, the State of Texas, and this District. On information and belief, BOE knows or should be aware that finished consumer products incorporating the Accused Products are sold by U.S. companies and distributors to consumers in

this District, including through websites targeting U.S. customers. Plaintiff's claims for patent infringement arise directly from and/or relate to this activity.

- 6. Defendant also represents itself as a global entity with a substantial presence in the United States, both directly and through of steam of commerce sales of Accused Products that are intended to, and in fact are, sold in the United States. *E.g.*, https://www.boe.com/en/about/index ("[Defendant's] subsidiaries span 20 countries and regions, including the United States, Germany, Britain, France, Switzerland, Japan, South Korea, Singapore, India, Russia, Brazil and the United Arab Emirates. Its service network covers major regions in Europe, the Americas, Asia, Africa and beyond."). In addition, "one out of four display products in the world comes from BOE" and its display products, including the Accused Products, are intended to be sold "abroad." *Id*.
- 7. Defendant has not moved to transfer cases filed in this District in the past, including but not limited to *Element Capital Commercial Company Pte. Ltd v. BOE Technology Group Co., et al.*, Case No. 2:22-cv-00118-JRG (E.D. Tex.), and *Vista Peak Ventures, LLC v. BOE Technology Group Co., Ltd.*, Case No. 2:18-cv-00431-JRG (E.D. Tex.).
- 8. Venue is proper in this District under 28 U.S.C. §§ 1391(a)-(d) and 1400(b). Defendant is a foreign corporation that does not reside in the United States and may be sued in any judicial district pursuant to 28 U.S.C. § 1391(c)(3).

COUNT I

INFRINGEMENT OF U.S. PATENT NO. 7,168,842

- 9. Plaintiff realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.
- 10. Plaintiff owns by assignment all rights, title, and interest in U.S. Patent No. 7,168,842, entitled "Light Emitting Diode Backlight Package." The '842 Patent was duly and

legally issued by the United States Patent and Trademark Office on January 30, 2007. A true and correct copy of the '842 Patent is attached as Exhibit 1.

- 11. On information and belief, Defendant makes, uses, offers for sale, sells, and/or imports certain products ("'842 Accused Products"), such as the BOE NV156FHM-T06 module supplied to Dell and included in the Dell Laptop (15-inch 3520), that directly infringe, literally and/or under the doctrine of equivalents, one or more claims of the '842 Patent. Defendant is liable for infringement of the '842 Patent pursuant to 35 U.S.C. § 271(a).
- 12. Defendant also knowingly and intentionally induces infringement of one or more claims of the '842 Patent in violation of 35 U.S.C. § 271(b). Through the filing and service of this Complaint, Defendant has had knowledge of the '842 Patent and the infringing nature of the '842 Accused Products. Despite this knowledge of the '842 Patent, Defendant continues to actively encourage and instruct its direct and indirect customers to directly infringe the '842 Patent. For example, on information and belief, Defendant specifically instructs Dell or manufacturers associated with Dell to make, use, sell, offer for sale, and import devices that meet all the limitations of one or more claim of the '842 Patent. Defendant does so knowing and intending that its customers will commit these infringing acts. Defendant also knew or was willfully blind that its actions would induce direct infringement by others and intended that its actions would induce direct infringement by others. Accordingly, a reasonable inference is that Defendant specifically intended for others, such as its customers, to directly infringe one or more claims of the '842 Patent because Defendant had knowledge of the '842 Patent and actively induced others (e.g., its direct and indirect customers) to directly infringe the '842 Patent.
- 13. Defendant also contributorily infringes pursuant to 35 U.S.C. § 271(c) by making, using, selling, offering to sell, commercially distributing, and/or importing the '842 Accused

Products, knowing that they constitute a material part of the invention, are especially made or adapted for use in infringing, and are not staple articles of commerce capable of substantial non-infringing use.

- 14. The '842 Accused Products satisfy all claim limitations of one or more claim of the '842 Patent. A claim chart comparing independent claim 3 of the '842 Patent to representative '842 Accused Products is attached as Exhibit 2.
- 15. By making, using, offering for sale, selling and/or importing into the United States the '842 Accused Products, Defendant has injured Plaintiff and is liable for infringement of the '842 Patent pursuant to 35 U.S.C. § 271.
- 16. As a result of Defendant's infringement of the '842 Patent, Plaintiff is entitled to monetary damages in an amount adequate to compensate for Defendant's infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendant, together with interest and costs as fixed by the Court.

COUNT II

INFRINGEMENT OF U.S. PATENT NO. 7,226,801

- 17. Plaintiff realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.
- 18. Plaintiff owns by assignment all rights, title, and interest in U.S. Patent No. 7,168,801, entitled "Sealant region pattern for liquid crystal display and method for fabricating the same." The '801 Patent was duly and legally issued by the United States Patent and Trademark Office on June 5, 2007. A true and correct copy of the '801 Patent is attached as Exhibit 3.
- 19. On information and belief, Defendant makes, uses, offers for sale, sells, and/or imports certain products ("'801 Accused Products"), such as the BOE E88441 panel supplied to

Hisense and included in the Hisense 75-Inch Class U8 Series 4K Mini-LED ULED Google TV, that directly infringe, literally and/or under the doctrine of equivalents, one or more claims of the '801 Patent. Defendant is liable for infringement of the '801 Patent pursuant to 35 U.S.C. § 271(a).

- 20. Defendant also knowingly and intentionally induces infringement of one or more claims of the '801 Patent in violation of 35 U.S.C. § 271(b). Through the filing and service of this Complaint, Defendant has had knowledge of the '801 Patent and the infringing nature of the '801 Accused Products. Despite this knowledge of the '801 Patent, Defendant continues to actively encourage and instruct its direct and indirect customers to directly infringe the '801 Patent. For example, on information and belief, Defendant specifically instructs Hisense or manufacturers associated with Hisense to make, use, sell, offer for sale, and import devices that meet all the limitations of one or more claim of the '801 Patent. Defendant does so knowing and intending that its customers will commit these infringing acts. Defendant also knew or was willfully blind that its actions would induce direct infringement by others and intended that its actions would induce direct infringement by others. Accordingly, a reasonable inference is that Defendant specifically intended for others, such as its customers, to directly infringe one or more claims of the '801 Patent because Defendant had knowledge of the '801 Patent and actively induced others (e.g., its direct and indirect customers) to directly infringe the '801 Patent.
- 21. Defendant also contributorily infringes pursuant to 35 U.S.C. § 271(c) by making, using, selling, offering to sell, commercially distributing, and/or importing the '801 Accused Products, knowing that they constitute a material part of the invention, are especially made or adapted for use in infringing, and are not staple articles of commerce capable of substantial non-infringing use.

- 22. The '801 Accused Products satisfy all claim limitations of one or more claim of the '801 Patent. A claim chart comparing independent claim 9 of the '801 Patent to representative '801 Accused Products is attached as Exhibit 4.
- 23. By making, using, offering for sale, selling and/or importing into the United States the '801 Accused Products, Defendant has injured Plaintiff and is liable for infringement of the '801 Patent pursuant to 35 U.S.C. § 271.
- 24. As a result of Defendant's infringement of the '801 Patent, Plaintiff is entitled to monetary damages in an amount adequate to compensate for Defendant's infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendant, together with interest and costs as fixed by the Court.

COUNT III

INFRINGEMENT OF U.S. PATENT NO. 7,586,121

- 25. Plaintiff realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.
- 26. Plaintiff owns by assignment all rights, title, and interest in U.S. Patent No. 7,586,121, entitled "Electroluminescence device having stacked capacitors." The '121 Patent was duly and legally issued by the United States Patent and Trademark Office on September 8, 2009. A true and correct copy of the '121 Patent is attached as Exhibit 5.
- 27. On information and belief, Defendant makes, uses, offers for sale, sells, and/or imports certain products ("'121 Accused Products"), such as the BOE OLED panel supplied to Apple and included in the iPhone 14, that directly infringe, literally and/or under the doctrine of equivalents, one or more claims of the '121 Patent. Defendant is liable for infringement of the '121 Patent pursuant to 35 U.S.C. § 271(a).

- 28. Defendant also knowingly and intentionally induces infringement of one or more claims of the '121 Patent in violation of 35 U.S.C. § 271(b). Through the filing and service of this Complaint, Defendant has had knowledge of the '121 Patent and the infringing nature of the '121 Accused Products. Despite this knowledge of the '121 Patent, Defendant continues to actively encourage and instruct its direct and indirect customers to directly infringe the '121 Patent. For example, on information and belief, Defendant specifically instructs Apple or manufacturers associated with Apple to make, use, sell, offer for sale, and import devices that meet all the limitations of one or more claim of the '121 Patent. Defendant does so knowing and intending that its customers will commit these infringing acts. Defendant also knew or was willfully blind that its actions would induce direct infringement by others and intended that its actions would induce direct infringement by others. Accordingly, a reasonable inference is that Defendant specifically intended for others, such as its customers, to directly infringe one or more claims of the '121 Patent because Defendant had knowledge of the '121 Patent and actively induced others (e.g., its direct and indirect customers) to directly infringe the '121 Patent.
- 29. Defendant also contributorily infringes pursuant to 35 U.S.C. § 271(c) by making, using, selling, offering to sell, commercially distributing, and/or importing the '121 Accused Products, knowing that they constitute a material part of the invention, are especially made or adapted for use in infringing, and are not staple articles of commerce capable of substantial non-infringing use.
- 30. The '121 Accused Products satisfy all claim limitations of one or more claim of the '121 Patent. A claim chart comparing independent claim 1 of the '121 Patent to representative '121 Accused Products is attached as Exhibit 6.

- 31. By making, using, offering for sale, selling and/or importing into the United States the '121 Accused Products, Defendant has injured Plaintiff and is liable for infringement of the '121 Patent pursuant to 35 U.S.C. § 271.
- 32. As a result of Defendant's infringement of the '121 Patent, Plaintiff is entitled to monetary damages in an amount adequate to compensate for Defendant's infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendant, together with interest and costs as fixed by the Court.

COUNT IV

INFRINGEMENT OF U.S. PATENT NO. 7,884,914

- 33. Plaintiff realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.
- 34. Plaintiff owns by assignment all rights, title, and interest in U.S. Patent No. 7,884,914, entitled "Structure for encapsulating a liquid crystal display device." The '914 Patent was duly and legally issued by the United States Patent and Trademark Office on February 8, 2011. A true and correct copy of the '914 Patent is attached as Exhibit 7.
- 35. On information and belief, Defendant makes, uses, offers for sale, sells, and/or imports certain products ("'914 Accused Products"), such as the BOE E88441 display panel supplied to Hisense and included in the Hisense 75-inch Class U8 Series 4K Mini-LED ULED Google TV, that directly infringe, literally and/or under the doctrine of equivalents, one or more claims of the '914 Patent. Defendant is liable for infringement of the '914 Patent pursuant to 35 U.S.C. § 271(a).
- 36. Defendant also knowingly and intentionally induces infringement of one or more claims of the '914 Patent in violation of 35 U.S.C. § 271(b). Through the filing and service of this

Complaint, Defendant has had knowledge of the '914 Patent and the infringing nature of the '914 Accused Products. Despite this knowledge of the '914 Patent, Defendant continues to actively encourage and instruct its direct and indirect customers to directly infringe the '914 Patent. For example, on information and belief, Defendant specifically instructs Hisense or manufacturers associated with Hisense to make, use, sell, offer for sale, and import devices that meet all the limitations of one or more claim of the '914 Patent. Defendant does so knowing and intending that its customers will commit these infringing acts. Defendant also knew or was willfully blind that its actions would induce direct infringement by others and intended that its actions would induce direct infringement by others. Accordingly, a reasonable inference is that Defendant specifically intended for others, such as its customers, to directly infringe one or more claims of the '914 Patent because Defendant had knowledge of the '914 Patent and actively induced others (e.g., its direct and indirect customers) to directly infringe the '914 Patent.

- 37. Defendant also contributorily infringes pursuant to 35 U.S.C. § 271(c) by making, using, selling, offering to sell, commercially distributing, and/or importing the '914 Accused Products, knowing that they constitute a material part of the invention, are especially made or adapted for use in infringing, and are not staple articles of commerce capable of substantial non-infringing use.
- 38. The '914 Accused Products satisfy all claim limitations of one or more claim of the '914 Patent. A claim chart comparing independent claim 1 of the '914 Patent to representative '914 Accused Products is attached as Exhibit 8.
- 39. By making, using, offering for sale, selling and/or importing into the United States the '914 Accused Products, Defendant has injured Plaintiff and is liable for infringement of the '914 Patent pursuant to 35 U.S.C. § 271.

40. As a result of Defendant's infringement of the '914 Patent, Plaintiff is entitled to monetary damages in an amount adequate to compensate for Defendant's infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendant, together with interest and costs as fixed by the Court.

COUNT V

INFRINGEMENT OF U.S. PATENT NO. 9,263,509

- 41. Plaintiff realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.
- 42. Plaintiff owns by assignment all rights, title, and interest in U.S. Patent No. 9,263,509, entitled "Pixel structure having light emitting device above auxiliary electrode." The '509 Patent was duly and legally issued by the United States Patent and Trademark Office on February 16, 2016. A true and correct copy of the '509 Patent is attached as Exhibit 9.
- 43. On information and belief, Defendant makes, uses, offers for sale, sells, and/or imports certain products ("'509 Accused Products"), such as the BOE OLED panel supplied to Apple and included in the iPhone 14, that directly infringe, literally and/or under the doctrine of equivalents, one or more claims of the '509 Patent. Defendant is liable for infringement of the '509 Patent pursuant to 35 U.S.C. § 271(a).
- 44. Defendant also knowingly and intentionally induces infringement of one or more claims of the '509 Patent in violation of 35 U.S.C. § 271(b). Through the filing and service of this Complaint, Defendant has had knowledge of the '509 Patent and the infringing nature of the '509 Accused Products. Despite this knowledge of the '509 Patent, Defendant continues to actively encourage and instruct its direct and indirect customers to directly infringe the '509 Patent. For example, on information and belief, Defendant specifically instructs Apple or manufacturers

associated with Apple to make, use, sell, offer for sale, and import devices that meet all the limitations of one or more claim of the '509 Patent. Defendant does so knowing and intending that its customers will commit these infringing acts. Defendant also knew or was willfully blind that its actions would induce direct infringement by others and intended that its actions would induce direct infringement by others. Accordingly, a reasonable inference is that Defendant specifically intended for others, such as its customers, to directly infringe one or more claims of the '509 Patent because Defendant had knowledge of the '509 Patent and actively induced others (*e.g.*, its direct and indirect customers) to directly infringe the '509 Patent.

- 45. Defendant also contributorily infringes pursuant to 35 U.S.C. § 271(c) by making, using, selling, offering to sell, commercially distributing, and/or importing the '509 Accused Products, knowing that they constitute a material part of the invention, are especially made or adapted for use in infringing, and are not staple articles of commerce capable of substantial non-infringing use.
- 46. The '509 Accused Products satisfy all claim limitations of one or more claim of the '509 Patent. A claim chart comparing independent claim 3 of the '509 Patent to representative '509 Accused Products is attached as Exhibit 10.
- 47. By making, using, offering for sale, selling and/or importing into the United States the '509 Accused Products, Defendant has injured Plaintiff and is liable for infringement of the '509 Patent pursuant to 35 U.S.C. § 271.
- 48. As a result of Defendant's infringement of the '509 Patent, Plaintiff is entitled to monetary damages in an amount adequate to compensate for Defendant's infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendant, together with interest and costs as fixed by the Court.

COUNT VI

INFRINGEMENT OF U.S. PATENT NO. 9,406,733

- 49. Plaintiff realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.
- 50. Plaintiff owns by assignment all rights, title, and interest in U.S. Patent No. 9,406,733, entitled "Pixel structure." The '733 Patent was duly and legally issued by the United States Patent and Trademark Office on August 2, 2016. A true and correct copy of the '733 Patent is attached as Exhibit 11.
- 51. On information and belief, Defendant makes, uses, offers for sale, sells, and/or imports certain products ("'733 Accused Products"), such as the BOE OLED panel supplied to Apple and included in the Apple iPhone 14, that directly infringe, literally and/or under the doctrine of equivalents, one or more claims of the '733 Patent. Defendant is liable for infringement of the '733 Patent pursuant to 35 U.S.C. § 271(a).
- 52. Defendant also knowingly and intentionally induces infringement of one or more claims of the '733 Patent in violation of 35 U.S.C. § 271(b). Through the filing and service of this Complaint, Defendant has had knowledge of the '733 Patent and the infringing nature of the '733 Accused Products. Despite this knowledge of the '733 Patent, Defendant continues to actively encourage and instruct its direct and indirect customers to directly infringe the '733 Patent. For example, on information and belief, Defendant specifically instructs Apple or manufacturers associated with Apple to make, use, sell, offer for sale, and import devices that meet all the limitations of one or more claim of the '733 Patent. Defendant does so knowing and intending that its customers and end users will commit these infringing acts. Defendant also knew or was willfully blind that its actions would induce direct infringement by others and intended that its actions would

induce direct infringement by others. Accordingly, a reasonable inference is that Defendant specifically intended for others, such as its customers and end users, to directly infringe one or more claims of the '733 Patent because Defendant had knowledge of the '733 Patent and actively induced others (e.g., its direct and indirect customers) to directly infringe the '733 Patent.

- 53. Defendant also contributorily infringes pursuant to 35 U.S.C. § 271(c) by making, using, selling, offering to sell, commercially distributing, and/or importing the '733 Accused Products, knowing that they constitute a material part of the invention, are especially made or adapted for use in infringing, and are not staple articles of commerce capable of substantial non-infringing use.
- 54. The '733 Accused Products satisfy all claim limitations of one or more claim of the '733 Patent. A claim chart comparing independent claim 1 of the '733 Patent to representative '733 Accused Products is attached as Exhibit 12.
- 55. By making, using, offering for sale, selling and/or importing into the United States the '733 Accused Products, Defendant has injured Plaintiff and is liable for infringement of the '733 Patent pursuant to 35 U.S.C. § 271.
- 56. As a result of Defendant's infringement of the '733 Patent, Plaintiff is entitled to monetary damages in an amount adequate to compensate for Defendant's infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendant, together with interest and costs as fixed by the Court.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully requests that this Court enter:

a. A judgment in favor of Plaintiff that Defendant has infringed, either literally and/or under the doctrine of equivalents, the '842, '801, '121, '914, '509, and '733 Patents and that they

are valid, enforceable, and patent-eligible;

b. A judgment and order requiring Defendant to pay Plaintiff its damages, costs,

expenses, and pre-judgment and post-judgment interest for Defendant's infringement of

the '842, '801, '121, '914, '509, and '733 Patents;

c. A judgment and order requiring Defendant to provide an accounting and to pay

supplemental damages to Plaintiff, including without limitation, pre-judgment and post-judgment

interest, and an award of an ongoing royalty for Defendant's post-judgment infringement in an

amount according to proof;

d. A judgment and order finding that this is an exceptional case within the meaning

of 35 U.S.C. § 285 and awarding to Plaintiff its reasonable attorneys' fees and costs against

Defendant, and enhanced damages pursuant to 35 U.S.C. § 284;

e. Any and all injunctive and/or equitable relief to which Plaintiff may be entitled

including without limitation ongoing royalties with respect to Defendant's infringement; and

f. Any and all other relief as the Court may deem appropriate and just under the

circumstances.

DEMAND FOR JURY TRIAL

Plaintiff, under Rule 38 of the Federal Rules of Civil Procedure, requests a trial by jury of

any issues so triable by right.

Dated: November 22, 2023

Respectfully submitted,

/s/ Benjamin T. Wang

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