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8 *Attorneys for Plaintiff LS Cable & System Ltd.*

9 UNITED STATES DISTRICT COURT
10 NORTHERN DISTRICT OF CALIFORNIA

11 LS CABLE & SYSTEM LTD.,
12 Plaintiff,
13 v.
14 APPLE INC.,
15 Defendant.

Case No. 4:24-cv-09194

**COMPLAINT FOR PATENT
INFRINGEMENT OF U.S. PATENT
NO. 8,013,568**

DEMAND FOR JURY TRIAL

16
17 Plaintiff LS Cable & System Ltd. (“Plaintiff” or “LS Cable”) by and through its undersigned
18 counsel, file this Complaint for Patent Infringement against Defendant Apple Inc. (“Apple”) and
19 allege on knowledge as to their actions, and upon knowledge and information and belief as to the
20 actions of others, as follows:

21 **NATURE OF THE ACTION**

22 1. This action arises under the patent laws of the United States, 35 U.S.C. §§ 1, et
23 seq., from Apple’s infringement of U.S. Patent No. 8,013,568 (the “’568 Patent” or “Asserted
24 Patent”).

25 **THE PARTIES**

26 2. Plaintiff LS Cable is a foreign corporation organized under the laws of the Republic
27 of Korea with its principal operating business located at the LS Tower, 1026-6 Hoguey-dong,
28 Dongan-gu, Anyang-si Gyeonggi-do, Republic of Korea 431-080.

1 18. On March 12, 2021, LS Cable requested supplemental examination of the '568
2 Patent by the USPTO.

3 19. On September 28, 2023, the USPTO issued a Reexamination Certificate for the '568
4 Patent, confirming that claims 1, 3, 4, 7–13, 15–19, 21, and 23 were patentable as amended over
5 the prior art. **Exhibit 2.** Claims 5, 6, 14, 20, 22, and 24, dependent on an amended claim, were
6 also determined to be patentable over the prior art. *Id.* Additionally, new claims 25–58 were added
7 and determined to be patentable. *Id.*

8 **APPLE'S INFRINGING ACTIVITY**

9 20. Apple entered the wireless charging market, including the market for wireless
10 charging in the United States at least as of 2017, with its release of the AirPower charging pad.
11 AirPower suffered from overheating issues, ultimately leading to Apple withdrawing the product
12 from the market.

13 21. However, rather than develop its own technology, Apple relies on LS Cable's
14 patented technology and has incorporated LS Cable's patented technology into its wireless charging
15 solutions. Apple thus unfairly competes with LS Cable in the marketplace by offering for sale and
16 selling these infringing products throughout the United States, including in California.

17 22. Apple has sold infringing products to customers throughout the United States and in
18 this District, including to LS Cable's own customers. Apple has sold or offered for sale infringing
19 products to certain distributors who comprise an important part of LS Cable's own supply chain.

20 23. As a result of these infringing activities, Apple has caused direct injury to LS Cable
21 throughout the United States.

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THE ACCUSED PRODUCTS

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2 24. Apple makes, uses (including by testing), sells, offers for sale within the United
3 States, and imports into the United States, a variety of devices utilizing wireless charging
4 capabilities.

5 25. One such capability includes wireless charging capabilities that comply with the
6 Wireless Power Consortium Qi Wireless Power Transfer System Power Class 0 Specification (“the
7 Qi Standard”).

8 26. In particular, Apple makes, uses (including by testing), sells, offers for sale within
9 the United States, and imports into the United States, multiple devices that utilize wireless charging
10 chips from, for example Broadcom Inc. (“Broadcom”), including the Broadcom 59355 chip and
11 variants thereof. For example, at least Apple’s iPhone 8, iPhone 8 Plus, iPhone X, iPhone XS,
12 iPhone XS Max, iPhone XR, iPhone 11, iPhone 11 Pro, iPhone 12, iPhone 12 Mini, iPhone 12 Pro,
13 iPhone 12 Pro Max, iPhone 13, iPhone 13 Mini, iPhone 13 Pro, iPhone 13 Pro Max, iPhone 14,
14 iPhone 14 Plus, iPhone 14 Pro, iPhone 14 Pro Max, iPhone 15, iPhone 15 Plus, iPhone 15 Pro,
15 iPhone 15 Pro Max, iPhone 16, iPhone 16Plus, iPhone 16 Pro, iPhone 16 Pro Max, the various
16 iPhone SE generations, and any similarly situated iPhone (collectively, “the iPhone Devices”)
17 utilize these chips and have been certified with the Wireless Power Consortium as compliant with
18 the Qi Standard.

19 27. Further, the Apple S1 System in Package utilized in at least the first-generation
20 Apple Watch utilizes the P9022 wireless charging chip, along with subsequent versions of the
21 Apple Watch utilizing updated Packages, including Apple S3, Apple S4, Apple S5, Apple S6,
22 Apple S7, Apple S8, Apple S9, and Apple S10, and other similarly structured Packages. And, all
23 versions of the Apple Watch, including the first-generation Apple Watch and the Apple Watch
24 Series 1 through Series 10 (collectively, “the Apple Watch Devices”), utilize similar wireless
25 charging.

1 28. Additionally, Apple’s product line of AirPods, including at least the Apple AirPods
2 first-generation, AirPods second-generation, AirPods third-generation, AirPods Pro 2, AirPods 3,
3 and AirPods 4 (the “Apple AirPods Devices”) and other similarly structured AirPods products,
4 include similar wireless charging capabilities, for example, by utilizing a wireless charging case.

5 29. Based on at least their inclusion of the above-certified wireless charging chips and
6 compliance with the Qi Standard, the iPhone Devices infringe at least claim 7 of the ’568 Patent.

7 30. Based on at least their inclusion of the above-certified wireless charging chips and
8 wireless charging capabilities, the Apple Watch Devices infringe at least claim 7 of the ’568 Patent.

9 31. Based on at least their inclusion of the above-certified wireless charging chips and
10 wireless charging capabilities, the Apple AirPods Devices infringe at least claim 7 of the ’568
11 Patent.

12 32. The iPhone Devices, the Apple Watch Devices, and the Apple AirPods Devices
13 (collectively, the “Accused Products”) independently infringe one or more claims of the ’568
14 Patent.

15 33. On or about March 2019, LS Cable sent Apple a letter notifying Apple that Apple’s
16 products with wireless charging capabilities infringed LS Cable’s intellectual property, citing
17 specific LS Cable patents (including the ’568 Patent) in the United States for Apple’s review and
18 investigation.

19 34. LS Cable continued to communicate directly with Apple about LS Cable’s concerns
20 surrounding the potential infringing activity, including Apple’s manufacture, use, marketing, and
21 sale of the Accused Products repeatedly since the initial March 2019 letter. LS Cable provided
22 Apple a claim chart outlining Apple’s infringement in early 2020. **Exhibit 3.**

23 35. Apple engaged with LS Cable by responding to LS Cable’s letters, yet did not
24 articulate any basis for its infringement or any explanation as to why it did not infringe the ’568
25 Patent.

26 36. Apple has continued to sell the Accused Products in this district and in this country
27 from 2019 through today, and continues to sell the Accused Products today.

28 37. Apple does not have a license to the ’568 Patent.

1 38. Apple has not sought a license to the '568 Patent.

2 39. LS Cable has, therefore, been forced to file this suit to seek this Court's protection
3 of its valuable intellectual property rights.

4 **COUNT I: APPLE'S INFRINGEMENT OF THE '568 PATENT**

5 40. LS Cable realleges and incorporates by reference each of its allegations in
6 paragraphs 1-39 of this Complaint.

7 41. As shown in the attached non-limiting claim chart (**Exhibit 4**), by making, using (at
8 least by testing), selling, offering for sale, or importing the Accused Products in this Judicial District
9 and throughout the United States without license or authorization, Apple is now and has been
10 directly infringing at least claim 7 of the '568 Patent, either literally or under the doctrine of
11 equivalents, as proscribed by 35 U.S.C. § 271, et seq.

12 42. Exhibit 4 is intended solely to satisfy the notice requirements of Federal Rule of
13 Civil Procedure 8(a)(2), and does not represent LS Cable's preliminary or final infringement
14 contentions or preliminary or final claim construction positions. LS Cable reserves the right to
15 modify its infringement theories reflected in Exhibit 4 as discovery progresses in this case,
16 including through contentions disclosures and claim construction in accordance with the Patent
17 Local Rules in this District.

18 43. As a direct and proximate result of Apple's direct infringement of the '568 Patent,
19 LS Cable has been and continues to be damaged. Apple's infringing activities will continue unless
20 enjoined by this Court or until the patent expires, whichever is sooner.

21 44. Since at least September 28, 2023, Apple has known that the Accused Products
22 directly infringe one or more claims of the '568 Patent.

23 45. Apple has additionally indirectly infringed and continues to indirectly infringe at
24 least claim 7 of the '568 Patent by actively inducing its customers and users of the Accused Products
25 or functionally equivalent products by, among other things, providing the Accused Products to
26 users along with instructions on how to use the Accused Products in a manner that Apple knew
27 would directly infringe each element of at least claim 7 of the '568 Patent.

28 46. Apple has engaged and will continue to engage in such inducement, having actual

1 knowledge of the '568 Patent since at least March 2019. Furthermore, Apple knew or should have
2 known that its actions would and will continue to induce direct infringement by the users of the
3 Accused Products or functionally equivalent products, and have intended and will continue to
4 intend that its actions would induce direct infringement by such users.

5 47. As a direct and proximate result of Apple's indirect infringement by inducement of
6 the '568 Patent, LS Cable has been and continues to be damaged. Apple's infringing activities will
7 continue unless enjoined by this Court or until the patent expires, whichever is sooner.

8 48. By engaging in the conduct described herein, Apple has injured LS Cable and is thus
9 liable for infringement of the '568 Patent, pursuant to 35 U.S.C. § 271.

10 49. Apple has committed these acts of infringement without license or authorization.

11 50. As previously described, Apple's infringement has been done with full, express, and
12 actual knowledge of the '568 Patent since at least September 28, 2023, and Apple's infringement
13 is therefore deliberate, willful, and wanton.

14 51. As a result of Apple's willful infringement of the '568 Patent, LS Cable has suffered
15 monetary damages and is entitled to a monetary judgment in an amount at least adequate to
16 compensate for Apple's infringement.

17 52. LS Cable will continue to suffer damages in the future unless this Court enjoins
18 Apple's infringing activities or the patent expires, whichever is sooner. As such, LS Cable is
19 entitled to compensation for any continuing and/or future infringement up until the date that Apple
20 is finally and permanently enjoined from further infringement or the patent expires, whichever is
21 sooner.

22 **PRAYER FOR RELIEF**

23 WHEREFORE, LS Cable prays for the following relief:

- 24 A. Apple be adjudged to have infringed the '568 Patent directly and by way of induced
25 infringement, either literally or under the doctrine of equivalents;
- 26 B. That Apple, and each of their officers, directors, agents, servants, employees, attorneys,
27 affiliates, divisions, branches, parents, and those persons in active concert or participation
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- 1 with any of them, be preliminarily and permanently restrained and enjoined from directly
2 or indirectly infringing the '568 Patent;
- 3 C. An award of damages pursuant to 35 U.S.C. § 284 sufficient to compensate LS Cable for
4 Apple's past infringement and any continuing or future infringement up until the date that
5 Apple is finally and permanently enjoined from further infringement or the patent expire,
6 whichever is sooner, including compensatory damages;
- 7 D. An assessment of pre-judgment and post-judgment interest and costs against Apple,
8 together with an award of such interest and costs, in accordance with 35 U.S.C. § 284;
- 9 E. That Apple be directed to pay enhanced damages under 35 U.S.C. § 284 and LS Cable's
10 attorneys' fees incurred in connection with this lawsuit pursuant to 35 U.S.C. § 285; and
- 11 F. Such other and further relief as this Court may deem just and proper.

12 **JURY DEMAND**

13 Pursuant to Federal Rule of Civil Procedure 38(b), LS Cable hereby demands a trial by jury
14 on all issues triable of right by a jury.

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Dated: December 18, 2024

Respectfully submitted,

/s/ Erik J. Halverson

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