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1	Erik J. Halverson (SBN 333492)						
2	K&L GATES LLP 4 Embarcadero Center, Suite 1200						
3	San Francisco, CA 94111 Telephone: (415) 882-8200						
4	Fax: (415) 882-8220 erik.halverson@klgates.com						
5	Attorneys for Plaintiff LS Cable & System Ltd.						
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7							
8	UNITED STATES DISTRICT COURT						
9	NORTHERN DISTRICT OF CALIFORNIA						
10							
11	LS CABLE & SYSTEM LTD.,	Case No. 4:24-cv-09194					
12	Plaintiff,	COMPLAINT FOR PATENT INFRINGEMENT OF U.S. PATENT					
13	V.	NO. 8,013,568					
14	APPLE INC.,	DEMAND FOR JURY TRIAL					
15	Defendant.						
16							
17	Plaintiff LS Cable & System Ltd. ("Plainti	ff" or "LS Cable") by and through its undersigned					
18	counsel, file this Complaint for Patent Infringen	nent 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 Hogye-dong,						
28	Dongan-gu, Anyang-si Gyeonggi-do, Republic of Korea 431-080.						
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1	3. Defendant Apple is a corporation incorporated under the laws of California with its				
2	principal place of business at One Apple Park Way, Cupertino, California 95014. Apple may be				
3	served through its registered agent for service, 1505 Corporation, CT Corporation System at 330				
4	N. Brand Blvd., Glendale, California 91203.				
5	4. Apple manufactures, imports, offers for sale, and sells devices with wireless				
6	charging capabilities to resellers, distributors, and consumers throughout the United States,				
7	including in this District.				
8	JURISDICTION AND VENUE				
9	5. Subject matter jurisdiction is proper in this Court under 28 U.S.C. §§ 1331 and				
10	1338(a) because the claims arise under the patent laws of the United States, 35 U.S.C. § 1 et seq.				
11	6. This Court has personal jurisdiction over Apple insofar as Apple is incorporated in				
12	this District, and maintains a regular and established place of business at One Apple Park Way,				
13	Cupertino, California 95014, located in this District.				
14	7. As to Apple, venue is proper in this Judicial District under 28 U.S.C. § 1400(b)				
15	because Apple is incorporated in California, and has a regular and established place of business at				
16	One Apple Park Way, Cupertino, California 95014, located in this District.				
17	LS CABLE AND ITS INNOVATIONS				
18	8. LS Cable was established in 1962 and has been contributing to building power grids				
19	and communication networks first in the Republic of Korea, and more recently in countries all over				
20	the world.				
21	9. LS Cable develops, produces, and provides cables and related solutions used in daily				
22	life and throughout many industries.				
23	10. LS Cable set the stage for industrial and economic development by capitalizing on				
24	innovative technology to supply various special industrial cables and industrial materials.				
25	11. In the mid-2000s, LS Cable embarked on a wireless power transfer project that led				
26	to a number of pioneering developments and a large international patent portfolio. In this regard,				
27	LS Cable invested significant time and money to develop technology for efficient and safe transfer				
28	of power for an array of devices, such as smartphones.				
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1 12. In 2011, for example, LS Cable introduced a "Chaver" (charger+cover) capable of 2 wirelessly charging the iPhone 4. LS Cable's first and second generation Chavers proved to be 3 very popular with consumers. LS Cable was again ahead of this trend as, in early 2013, LS Cable launched the 4 13. 5 world's thinnest wireless charging module: 6 7 8 9 10 11 12 13 14 15 14. LS Cable owns numerous other relevant U.S., Korean, Chinese, and Japanese 16 patents related to wireless power, and the '568 Patent is one of the core patents in LS Cable's 17 wireless power portfolio. LS Cable's strong portfolio of patents, including the '568 Patent, protect 18 LS Cable's investment in its innovative wireless power transfer solutions. 19 THE PATENT-IN-SUIT 20 15. On September 6, 2011, the U.S. Patent and Trademark Office ("USPTO") issued 21 the '568 Patent, titled "Contact-Less Chargeable Battery and Charging Device, Battery Charging 22 Set, and Charging Control Method Thereof," and with a claimed priority date of July 29, 2005. A 23 true and correct copy of the '568 Patent is attached as Exhibit 1. 24 16. The '568 Patent is presumed valid under 35 U.S.C. § 282(a). 25 17. LS Cable is the owner and assignee of all substantial rights, title, and interest in the 26 '568 Patent. 27 28 COMPLAINT FOR PATENT - 3 -

INFRINGEMENT

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. 21. 13 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. 22 23 24 25 26 27 28

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THE ACCUSED PRODUCTS

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.

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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. 32. 12 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. COMPLAINT FOR PATENT - 6 -

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

47. As a direct and proximate result of Apple's indirect infringement by inducement of
the '568 Patent, LS Cable has been and continues to be damaged. Apple's infringing activities will
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.

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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.

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PRAYER FOR RELIEF

23 WHEREFORE, LS Cable prays for the following relief:

A. Apple be adjudged to have infringed the '568 Patent directly and by way of induced infringement, either literally or under the doctrine of equivalents;

B. That Apple, and each of their officers, directors, agents, servants, employees, attorneys,
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.							
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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I	Case 4:24-cv-09194-PHK	Document 1	Filed 12/18/24	Page 10 of 10		
1	Dated: December 18, 2024		Respectfully subr	Respectfully submitted,		
2			<u>/s/ Erik J. Halve</u> Erik J. Halverson	rson (SBN 333492)		
3			erik.halverson@ K&L GATES I	klgates.com		
4				Center, Suite 1200		
5			Telephone: (415 Fax: (415) 882-8) 882-8200 220		
6			erik.halverson@	C		
7			Devon C. Beane	<i>pro hac vice</i> forthcoming) (<i>pro hac vice</i> forthcoming)		
8 9			Kebekah Hill (<i>pi</i> K&L GATES I 70 W. Madison S			
10			Chicago, IL 606 Telephone: (312	02) 372-1121		
11			Fax: (312) 827-8 jason.engel@klg	ates.com		
12			devon.beane@kl rebekah.hill@kl	gates.com gates.com		
13			Attorneys for Pla	intiff LS Cable & System Ltd.		
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