

**UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION**

IMBERATEK LLC,

Plaintiff,

vs.

APPLE INC.

Defendant.

Civil Action No.: 1:24-cv-129-DII

JURY TRIAL DEMANDED



FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff ImberaTek LLC (“ImberaTek” or “Plaintiff”) files this First Amended Complaint against Apple Inc. (“Apple” or “Defendant”), and alleges as follows:

NATURE OF THE ACTION

1. ImberaTek owns a family of patents related to the manufacturing of semiconductor devices. ImberaTek’s patented inventions describe embedded electronics packaging technology and manufacturing solutions. These inventions improve semiconductor devices by allowing manufacturers to scale down the feature size of their semiconductor products.

2. Defendant has infringed and continues to infringe nine ImberaTek patents: U.S. Patent Nos. 7,609,527 (the “’527 Patent”), 7,732,909 (the “’909 Patent”), 7,989,944 (the “’944 Patent”), 8,222,723 (the “’723 Patent”), 8,238,113 (the “’113 Patent”), 8,368,201 (the “’201 Patent”), 9,107,324 (the “’324 Patent”), 11,071,207 (the “’207 Patent”), and 11,716,816 (the “’816 Patent”) (collectively “the ImberaTek Patents” or “the Asserted Patents”), copies of which are attached hereto as Exhibits 1-9, respectively.

3. ImberaTek owns the entire right, title, and interest in and to each of the Asserted Patents.

4. ImberaTek asserts that Defendant infringes each Asserted Patent by, without ImberaTek's authorization, making, using, offering to sell, and selling in, and/or importing into the United States, certain semiconductor technology, including Defendant's A Series and M Series chips ("the Accused Products").

THE PARTIES

5. Plaintiff ImberaTek is a Texas corporation with its principal place of business at 14205 North Mopac Expressway, 5th Floor, Austin, Texas 78728.

6. On information and belief, Apple is a corporation organized under the laws of the State of California with its principal place of business at One Apple Park Way, Cupertino, CA 95014. Apple owns at least nineteen subsidiaries.

7. Apple has admitted it conducts business in Texas, directly or through intermediaries, and offers its products and/or services, including those accused herein of infringement, to customers and potential customers located in the United States, including in this District. *See Answer, KT Imaging USA, LLC v. Apple, Inc.*, 6:21-cv-01002-ADA (W.D. Tex. Dec. 31, 2021), ECF No. 10 ¶ 3 ("Apple admits it issued a November 20, 2019, press release stating, 'Apple has broken ground on its new \$1 billion, 3-million-square-foot campus. The campus will initially house 5,000 employees, with the capacity to grow to 15,000, and is expected to open in 2022.' The press release also stated, 'Apple is steadily growing in Austin with approximately 7,000 employees in the city. . . ."). In 2023, Apple plans to begin a \$240 million extension of its Austin campuses to add an additional 419,441 square feet of office space. *See* <https://appleinsider.com/articles/23/01/11/apple-spending-240m-to-expand-its-austin-texas-campus>.

8. Since at least the third quarter of 2021, Apple has been far and away the largest supplier of smartphones in the United States; it is responsible for 57% of cell phone shipments in the United States.

JURISDICTION AND VENUE

9. This Court has exclusive subject matter jurisdiction over the patent infringement claims asserted in this case under 28 U.S.C. §§ 1331, 1338(a), 2201 and 2202. Certain claims in this Action arise under the patent laws of the United States. 35 U.S.C. § 1 *et seq.*

10. This Court has personal jurisdiction over Defendant Apple pursuant to due process and Texas's long-arm statute, Tex. Civ. Prac. & Rem. Code Ann. §§ 17.041-17.045, which extends jurisdiction as far as the federal constitutional requirements of due process will permit.

11. The Court has personal jurisdiction over Apple by virtue of at least the substantial business the Defendant conducts in this forum, directly and/or through intermediaries, including but not limited to: (1) having committed acts within the Western District of Texas giving rise to this action and having established minimum contacts with this forum such that the exercise of jurisdiction over the Defendant would not offend traditional notions of fair play and substantial justice; (2) having directed its activities to customers in the State of Texas and this District, solicited business in the State of Texas and this District, transacted business within the State of Texas and this District and attempted to derive financial benefit from residents of the State of Texas and this District, including benefits directly related to the instant patent infringement causes of action set forth herein; (3) having placed its products and services into the stream of commerce throughout the United States and having been actively engaged in transacting business in Texas and in this District; and (4) either individually, as members of a common business enterprise,

and/or in conjunction with third parties, having committed acts of infringement within Texas and in this District.

12. Apple conducts business in this District and maintains a regular and established place of business within this District. For example, and without limitation, Apple has maintained a regular and established place of business with offices and/or other facilities located at 12545 Riata Vista Circle, Austin, Texas 78727. Just this year, Apple has further committed to continuing its \$240 million expansion of this facility. *See* <https://appleinsider.com/articles/23/01/11/apple-spending-240m-to-expand-its-austin-texas-campus>.

13. Apple employs and seeks to employ engineers knowledgeable about the relevant accused products, including Apple SOCs, within this District. For example, Apple employs and seeks to employ Custom Circuits Design Verification Engineers in Austin, Texas, whose job description states that “Design Verification Engineers at Apple are responsible for verifying the functionality and performance of Apple’s premier SoCs that make their way into Apple products.” *See* <https://jobs.apple.com/en-us/details/200451465/custom-circuits-design-verification-engineer?team=HRDWR>.

14. Apple has continuous and systematic business contacts with the State of Texas. Apple, directly or through subsidiaries or intermediaries (including distributors, retailers, and other third parties), conducts business extensively throughout Texas, by shipping, distributing, offering for sale, selling, and advertising (including the provision of interactive web pages) its products in the State of Texas and in this District.

15. Apple has authorized sellers and sales representatives that offer and sell the Accused Products within Texas, including in this District, and to consumers throughout this District. Of the seventeen Apple Stores located in the State of Texas, five are located in this

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District. See <https://www.apple.com/retail/storelist/>. They are located at: 7400 San Pedro Avenue, San Antonio, Texas 78216; 15900 La Cantera Parkway, San Antonio, Texas 78256; 8401 Gateway Boulevard West, El Paso, Texas 79925; 2901 S. Capital of Texas Hwy, Austin, Texas 78746; and 3121 Palm Way, Austin, TX 78758.

16. Jurisdiction over Apple in this matter is also proper because Apple has voluntarily submitted itself to the jurisdiction of Texas courts by commencing litigations within the State of Texas, by registering with the Texas Secretary of State's Office to do business in the State of Texas, and by appointing a registered agent in Texas. Apple may be served with process through its registered agent, CT Corporation System, 1999 Bryan Street, Suite 900, Dallas, Texas 75201-3136.

17. Apple maintains an office in Austin, Texas, and is responsible for (1) importing and/or selling Apple-branded consumer products, including the Accused Products, in the United States; (2) research and development related to the Accused Products in the United States; and/or (3) activities related to the marketing, distribution, service, and repair for those Apple-branded consumer products in the United States. Apple regularly does or solicits business, engages in other persistent courses of conduct, and/or derives substantial revenue from products and/or services provided to individuals in the State of Texas.

18. Venue in this District is proper under 28 U.S.C. §§ 1391 and 1400(b) and (c) because Apple is subject to personal jurisdiction in this Judicial District and has committed acts of infringement in this Judicial District and maintains a regular and established place of business in this District, at least at Apple's facility and stores in Austin, Texas. Apple makes, uses, sells, and/or offers to sell infringing products within this Judicial District, has a continuing presence within this Judicial District, and has the requisite minimum contacts with the Judicial District such that this is

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a fair and reasonable venue. Apple has transacted and continues to transact business within this Judicial District.

19. Apple has admitted that venue is proper in the Western District of Texas in other patent infringement cases at least as recently as December 31, 2021. *See* Answer, *KT Imaging USA, LLC v. Apple, Inc.*, 6:21-cv-01002-ADA (W.D. Tex. Dec. 31, 2021), ECF No. 10 ¶ 3. Additionally, Apple has not contested that venue is proper in the Western District of Texas in at least one case involving the Accused Products. *See, e.g.*, Answer, *XR Communications LLC v. Apple*, No. 6:21-cv-00620-ADA (W.D. Tex. Oct. 6, 2021), ECF No. 19.

20. Apple maintains an office in this District located at 12545 Riata Vista Circle, Austin, Texas 78727, and employs more than 6,000 people in this District. Answer, *Arigna Tech. Ltd. v. Samsung Elecs. Co. et al*, No. 6:21-cv-00943 (W.D. Tex. Aug. 31, 2022), ECF No. 115. Apple employs engineers—including in this District—that work on research and development related to mobile phones, laptop computers, and tablet computers that practice ImberaTek's patents. *See* Apple's Engineering employees' LinkedIn profiles at <https://www.linkedin.com/company/apple/people/?facetGeoRegion=90000064&keywords=SoC>; <https://www.linkedin.com/company/apple/people/?facetGeoRegion=90000064&keywords=R%26D>.

21. Thus, Apple imports, sells, and distributes the Accused Products in the United States, including in this District.

FACTUAL BACKGROUND

22. This lawsuit involves significant, groundbreaking advancements in the manufacturing of semiconductor devices. These innovations were developed by Imbera Electronics Oy, a pioneering Finnish company that started to develop embedded electronics

packaging technology and manufacturing solutions decades ago. Over the years, these innovations have enabled significant advancements in the field.

23. The Asserted Patents are generally directed to novel and non-obvious techniques to integrate semiconductors in electronic modules such as printed circuit boards and package substrates. The inventions of the Asserted Patents provide technical, manufacturing, and economical advantages by, for example, designing an electronic module with solid bump contact zones to improve a conductive-pattern layer ('207 Patent at 3:8-5:51 and '527 Patent at 3:8-5:53), manufacturing an electric module with conductive pattern layers ('723 Patent at 2:56-5:10), embedding microcircuits in a base, such as a circuit board, during manufacturing ('909 Patent at 1:11-3:31, '201 Patent at 1:11-3:33, and '944 Patent at 1:11-3:31), and designing and manufacturing a circuit module with bumpless components ('324 Patent at 3:10-4:41).

24. ImberaTek's technology helped make it possible for many of today's circuit boards and electronic modules to be smaller, less expensive, more reliable, more durable, and higher performing.

THE IMBERATEK PATENTS

25. On October 27, 2009, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 7,609,527 (the "'527 Patent"), entitled "Electronic module," listing Risto Tuominen and Petteri Palm as the inventors, from a patent application filed on October 17, 2007. The '527 Patent is a continuation of U.S. Patent No. 7,299,546, filed on August 25, 2005.¹ A true and correct copy of the '527 Patent is attached hereto as Exhibit 1 and incorporated herein by reference.

¹ On August 12, 2005, the inventors assigned the parent application, U.S. Patent App. No. 10/546,820 and any continuations thereto, including the application underlying the '527 Patent, to Imbera Electronics Oy.

26. On June 8, 2010, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 7,732,909 (the “’909 Patent”), entitled “Method for embedding a component in a base,” listing Risto Tuominen as the inventor, from a patent application filed on May 4, 2007. The ’909 Patent is a continuation of U.S. Patent No. 7,294,529, filed on September 23, 2004, which is the National Stage application of PCT No. PCT/FI03/00065 filed on January 28, 2003, which claims the benefit of and to Finnish Patent Application No. 20020191 filed on January 31, 2002.² A true and correct copy of the ’909 Patent is attached hereto as Exhibit 2 and incorporated herein by reference.

27. On August 2, 2011, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 7,989,944 (the “’944 Patent”), entitled “Method for embedding a component in a base,” listing Risto Tuominen as the inventor, from a patent application filed on July 25, 2007. The ’944 Patent is a continuation of U.S. Patent No. 7,294,529, filed on September 23, 2004, which is the National Stage application of PCT No. PCT/FI03/00065 filed on January 28, 2003, which claims the benefit of and to Finnish Patent Application No. 20020191 filed on January 31, 2002.³ A true and correct copy of the ’944 Patent is attached hereto as Exhibit 3 and incorporated herein by reference.

² On July 23, 2004, the inventors assigned the parent application, U.S. Patent App. No. 10/502,336 and any continuations thereto, including the application underlying the ’909 Patent, to Imbera Electronics Oy. On January 25, 2012, Imbera Electronics Oy transferred interest to EPCOS AG. On November 14, 2014, EPCOS AG transferred interest to GE Embedded Electronics Oy. On January 13, 2020, GE Embedded Electronics Oy transferred interest to ImberaTek, LLC.

³ On July 23, 2004, the inventors assigned the parent application, U.S. Patent App. No. 10/502,336 and any continuations thereto, including the application underlying the ’944 Patent, to Imbera Electronics Oy. On January 25, 2012, Imbera Electronics Oy transferred interest to EPCOS AG. On November 14, 2014, EPCOS AG transferred interest to GE Embedded Electronics Oy. On January 13, 2020, GE Embedded Electronics Oy transferred interest to ImberaTek, LLC.

28. On July 17, 2012, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 8,222,723 (the “’723 Patent”), entitled “Electric module having a conductive pattern layer,” listing Risto Tuominen and Petteri Palm as the inventors, from a patent application filed on February 3, 2010. The ’723 Patent is a continuation-in-part of U.S. Patent Application No. 10/550,023 filed on September 23, 2005, which is the National Stage application of PCT No. PCT/FI2004/000195 filed on March 31, 2004, which claims the benefit of and to Finnish Patent Application No. 20030493 filed on April 1, 2003.⁴ A true and correct copy of the ’723 Patent is attached hereto as Exhibit 4 and incorporated herein by reference.

29. On August 7, 2012, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 8,238,113 (the “’113 Patent”), entitled “Electronic module with vertical connector between conductor patterns,” listing Antti Iihola and Petteri Palm as the inventors, from a patent application filed on July 23, 2010.⁵ A true and correct copy of the ’113 Patent is attached hereto as Exhibit 5 and incorporated herein by reference.

30. On February 5, 2013, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 8,368,201 (the “’201 Patent”), entitled “Method for embedding a component in a base,” listing Risto Tuominen as the inventor, from a patent application filed on July 18, 2011.

⁴ On September 23, 2005, the inventors assigned the parent application, U.S. Patent App. No. 10/550,023 and any continuations thereto, including the application underlying the ’723 Patent, to Imbera Electronics Oy. GE Healthcare Finland Oy acquired all shares of stock in Imbera Electronics Oy in September 2013, and changed the name of Imbera Electronics Oy to GE Embedded Electronics Oy on October 3, 2013. On January 13, 2020, GE Embedded Electronics Oy transferred interest to ImberaTek, LLC.

⁵ On August 12, 2010, the inventors assigned the application underlying the ’113 Patent, to Imbera Electronics Oy. GE Healthcare Finland Oy acquired all shares of stock in Imbera Electronics Oy in September 2013, and changed the name of Imbera Electronics Oy to GE Embedded Electronics Oy on October 3, 2013. On January 13, 2020, GE Embedded Electronics Oy transferred interest to ImberaTek, LLC.

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The '201 Patent is a continuation of the '944 Patent, which is a continuation of U.S. Patent No. 7,294,529, filed on September 23, 2004, which is the National Stage application of PCT No. PCT/FI03/00065 filed on January 28, 2003, which claims the benefit of and to Finnish Patent Application No. 20020191 filed on January 31, 2002.⁶ A true and correct copy of the '201 Patent is attached hereto as Exhibit 6 and incorporated herein by reference.

31. On August 11, 2015, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 9,107,324 (the "'324 Patent"), entitled "Circuit module and method of manufacturing the same," listing Petteri Palm, Risto Tuominen and Antti Iihola as the inventors, from a patent application filed on April 1, 2014. The '324 Patent is a continuation of U.S. Patent No. 8,699,233 filed on November 3, 2010, which is the National Stage application of PCT No. PCT/FI2009/050373 filed on May 11, 2009, which claims the benefit of and to Finnish Patent Application No. 120085443, filed on May 12, 2008.⁷ A true and correct copy of the '324 Patent is attached hereto as Exhibit 7 and incorporated herein by reference.

32. On July 20, 2021, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 11,071,207 (the "'207 Patent"), entitled "Electronic Module," listing Risto Tuominen and Petteri Palm as inventors, from a patent application filed on August 18, 2020. The '207 Patent is a continuation of U.S. Patent No. 10,765,006, filed on August 20, 2018.⁸ A true and correct copy of the '207 Patent is attached hereto as Exhibit 8 and incorporated herein by reference.

⁶ On July 9, 2004, the inventor assigned the application underlying the '201 Patent, to Imbera Electronics Oy.

⁷ On October 29, 2010, the inventors assigned U.S. Patent App. No. 12/990,785 and any continuations thereto, including the application underlying the '324 Patent, to Imbera Electronics Oy.

⁸ On August 25, 2014, the inventors assigned the parent application, U.S. Patent App. No. 14/467,079 and any continuations thereto, including the application underlying the '207 Patent, to

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33. On August 1, 2023, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 11,716,816 (the “’816 Patent”), entitled “Method for manufacturing an electronic module and electronic module,” listing Antti Iihola and Timo Jokela as inventors, from a patent application filed on June 30, 2021. The ’816 Patent is a continuation of U.S. Patent Application No. 16/788,701 filed on February 12, 2020, which is a continuation of U.S. Patent No. 10,798,823 filed on December 23, 2014, which is a continuation-in-part of U.S. Patent No. 7,696,005 filed on November 14, 2006, which is the National Stage application of PCT No. PCT/FI2004/000053 filed on September 15, 2004, which claims the benefit of and to Finnish Patent Application No. 20031341, filed on September 18, 2003.⁹ A true and correct copy of the ’816 Patent is attached hereto as Exhibit 9 and incorporated herein by reference.

34. The ’527, ’909, ’944, ’723, ’113, ’201, ’324, ’207, and ’816 Patents are collectively referred to as the “ImberaTek Patents” or the “Asserted Patents.”

35. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

GE Electronics Oy. On January 13, 2020, GE Embedded Electronics Oy transferred interest to ImberaTek, LLC.

⁹ On March 13, 2006, the inventors assigned the parent application, U.S. Patent App. No. 10/572,340 and any continuations thereto, including the application underlying the ’816 Patent, to Imbera Electronics Oy. On January 25, 2012, Imbera Electronics Oy transferred interest to EPCOS AG. On November 14, 2014, EPCOS AG transferred interest to GE Embedded Electronics Oy. On January 13, 2020, GE Embedded Electronics Oy transferred interest to ImberaTek, LLC.

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36. [REDACTED]

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37. [REDACTED]

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38. [REDACTED]

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41. [REDACTED]

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42. [REDACTED]

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43. GE Embedded Electronics Oy transferred ownership of the '527, '324, and '201 Patents to ImberaTek LLC on January 13, 2020. *See* Exhibit 23.

44. ImberaTek exclusively owns all rights, title, and interest in the ImberaTek Patents necessary to bring this action, including the right to recover past and future damages for any infringement of the Asserted Patents. The ImberaTek Patents are valid and enforceable.

45. Apple is not licensed to practice the ImberaTek Patents.

APPLE'S INFRINGEMENT

46. Apple has directly infringed, and continues to infringe, one or more claims of each of the ImberaTek Patents through making, using, offering to sell, selling within the United States, and/or importing into the United States semiconductor products that practice the claimed inventions including, without limitation, the Apple A12 System-on-Chip (SoC) (“A12”), the Apple A12X SoC (“A12X”), the Apple A12Z SoC (“A12Z”), the Apple A13 SoC (“A13”), the Apple A14 SoC (“A14”), the Apple A15 SoC (“A15”), the Apple A-16 SoC (“A16”), the Apple A17 Pro SoC (“A17 Pro”), the Apple M1 processor SoC (“M1”), the Apple M1 Pro processor SoC (“M1 Pro”), the Apple M1 Max processor SoC (“M1 Max”), the Apple M2 processor SoC (“M2”), the Apple M2 Max processor SoC (“M2 Max”), the Apple M2 Ultra processor SoC (“M2 Ultra”), the Apple M3 processor SoC (“M3”), the Apple M3 Pro processor SoC (“M3 Pro”), and the Apple M3 Max processor SoC (“M3 Max”).

47. Apple offers products, including, but not limited to, cellular devices, tablets, digital media players/video game consoles, laptops, computers, and displays that incorporate the aforementioned SoCs. For example, at least the iPhone (including but not limited to the SE (3rd generation), XS, XS Max, XR, 11, 11 Pro, 11 Pro Max, 12 Mini, 12, 12 Pro, 12 Pro Max, 13, 13 Mini, 13 Pro, 13 Pro Max, SE, 14, 14 Plus, 14 Pro Max, 15, 15 Plus, 15 Pro Max), the iPad (including but not limited to the 9th and 10th generations), the iPad Mini (including but not limited to the 5th and 6th generations), the iPad Air (including but not limited to the 3rd and 4th generations), the Apple TV 4K (2nd and 3rd generations), the MacBook Air, MacBook Pro, Mac Mini, iMac, Vision Pro, Apple Studio Display and the Apple Silicon Developer Transition Kit, include infringing semiconductor components, such as the SoCs identified above (collectively, the “Accused Products”).



48. Apple has made, used, sold, offered to sell, and/or imported each of the Accused Products in or into the United States, presently and/or in the past.

49. Apple has infringed and continues to infringe the Asserted Patents by making, using, offering to sell, importing, and selling (directly or through intermediaries) at least the Accused Products in this Judicial District and elsewhere in the United States.

50. As detailed below, each element of at least one claim of each of the Asserted Patents is literally present in the Accused Products. To the extent that any element is not literally present, each such element is present under the doctrine of equivalents because it performs substantially the same function in substantially the same way to achieve substantially the same result, and any differences between the accused product and claim element are insubstantial.

APPLE’S NOTICE OF THE IMBERATEK PATENTS AND ITS INFRINGEMENT

51. Apple’s infringement is willful, deliberate, and intentional, and Apple is acting in reckless disregard of ImberaTek’s patent rights. For example, on February 3, 2020, ImberaTek mailed a letter to Apple informing Apple of its infringement of several of the ImberaTek Patents through, as a non-limiting example, the APL0898 and APL1022 and any other product packaged in a similar manner to these model numbers. The ’909 and ’944 patents, among others, were listed as non-exclusive examples of patents infringed by Apple in the body of the letter. The ’527, ’909, ’944, ’113, ’201, ’324, and ’723 patents, among others, were listed as part of ImberaTek’s full patent portfolio relevant to Apple’s SoCs. Receipt of the letter was confirmed on February 6, 2020, and further confirmed by email from Apple’s in-house counsel on February 20, 2020.

52. On October 28, 2021, ImberaTek informed Apple by email that it continued to infringe ImberaTek patents (including but not limited to the ’527, ’909, ’944, ’113, ’723, ’201, and ’324 patents) by, inter alia, selling iPhones containing the A13 chip and iPhones containing

previous and subsequent chips (e.g., A12, etc.) with the same packaged structure as the A13 chip.

53. On November 4, 2021, ImberaTek clarified in an email to Apple that Apple's products using the M1 chip (including MacBook Air, MacBook Pro, Mac Mini, iMac, iPad Pro, etc.) utilize and cause Apple's customers and users to utilize, inter alia, the '527, '909, '944, '113, '723, '201, and '324 patents.

54. On May 13, 2022, ImberaTek informed Apple by email that Apple also utilizes and causes its customers and users to utilize the '207 patent through the iPhone, iPad, Apple TV and any other Apple product containing the A14 chip and any previous and subsequent chips with the same packaged structure as the A14 chip.

CLAIMS FOR PATENT INFRINGEMENT

55. The allegations provided below are exemplary and without prejudice to ImberaTek's infringement contentions provided pursuant to the Court's scheduling order and local rules. In providing these allegations, ImberaTek does not convey or imply any particular claim constructions or the precise scope of claims. ImberaTek's claim construction contentions regarding the meaning and scope of the claim terms will be provided under the Court's scheduling order and local rules.

56. The infringement allegations below are based on publicly available information and a reasonable investigation of the structure and operation of the Accused Products. ImberaTek reserves the right to modify its following descriptions, including, for example, on the basis of information that it obtains during discovery about the Accused Products and the Asserted Patents.

COUNT I: INFRINGEMENT OF U.S. PATENT No. 7,609,527

57. ImberaTek incorporates by reference and re-alleges all of the foregoing paragraphs of this Complaint and exhibits attached hereto as if fully set forth herein.

58. Apple has directly infringed one or more claims of the '527 Patent in this District and elsewhere in Texas, including at least claim 1 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale, and/or selling its SOCs, including at least Apple products having materially similar SOCs within smartphones, tablets, and laptop devices, including, without limitation, the M1 (MacBook Air (2020), Mac Mini (2020), MacBook Pro (13-inch, 2020), iMac (24-inch, 2021), iPad Pro (11-inch, 3rd generation), iPad Pro (12.9-inch, 5th generation), iPad Air (5th generation)); M1 Pro (MacBook Pro (14-inch and 16-inch, 2021)); M1 Max (MacBook Pro (14-inch and 16-inch, 2021), Mac Studio (2022)); M2 (MacBook Air (13-inch, 2022), MacBook Air (15-inch, 2023), Mac Mini (2023), MacBook Pro (13-inch, 2022), iPad Pro (11-inch, 6th generation), iPad Pro (12.9-inch, 6th generation), Vision Pro); M2 Pro (MacBook Pro (14-inch and 16-inch, 2023), Mac Mini (2023)); M2 Max (MacBook Pro (14-inch and 16-inch, 2023), Mac Studio (2023)); M2 Ultra (Mac Studio (2023), Mac Pro (2023)); M3 (MacBook Pro (14-inch, 2023), MacBook Air (13-inch, 2024), MacBook Air (15-inch, 2024), iMac (24-inch, 2023)); M3 Pro (MacBook Pro (14-inch and 16-inch, 2023)); M3 Max (MacBook Pro (14-inch and 16-inch, 2023)); A17 Pro (iPhone 15 Pro, iPhone 15 Pro Max); A16 (iPhone 15, iPhone 15 Plus, iPhone 14 Pro, iPhone 14 Pro Max); A15 (iPhone 14, iPhone 14 Plus, iPhone 13, iPhone 13 Mini, iPhone 13 Pro, iPhone 13 Pro Max, iPhone SE (3rd generation), iPad mini (6th generation), Apple TV 4K (3rd generation)); A14 (iPad (10th generation), iPad Air (4th generation), iPhone 12, iPhone 12 Mini, iPhone 12 Pro, iPhone 12 Pro Max); A13 (iPad (9th generation), Apple Studio Display, iPhone 11, iPhone 11 Pro, iPhone 11 Pro Max); A12 (iPhone XS, iPhone XS Max, iPhone XR, iPad Mini (5th generation), iPad Air (3rd generation), iPad (8th generation), Apple TV 4K (2nd generation)); A12X (iPad Pro 11-inch (1st generation), iPad Pro 12.9-inch (3rd generation)); A12Z (iPad Pro 11-inch (2nd generation), iPad Pro 12.9-inch (4th generation), Apple Silicon Developer

Transition Kit); and any other semiconductor device package comprising multiple semiconductor components that are arranged on top of each other with insulating materials between them, and that are connected to each other with conducting materials (collectively, “the ’527 Accused Products”). ImberaTek reserves the right to discover and pursue any additional infringing devices that incorporate infringing SOCs.

59. As alleged above and in Exhibit 10, the Apple M1 processor analyzed in Exhibit 10 meets each and every one of the claim limitations of at least claim 1 of the ’527 Patent. Upon information and belief, the remaining ’527 Accused Products meet each and every one of the claim limitations of at least claim 1 of the ’527 Patent in a similar way (*i.e.*, each of the remaining ’527 Accused Products contains semiconductor components that are arranged on top of each other with insulating materials between them, and that are connected to each other with conducting materials).

60. Apple has indirectly infringed at least claim 1 of the ’527 Patent by, among other things, contributing to the direct infringement of others, including customers of the ’527 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the ’527 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

61. For example, the ’527 Accused Products include an SOC. This is a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such component is a material part of the invention and, upon information and belief, is not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Apple is liable for infringement of the ’527 Patent pursuant to 35 U.S.C. § 271(c).



62. Apple has been aware of the '527 Patent since at least February 6, 2020. That correspondence set for ImberaTek's belief that Apple makes, uses, sells, offers to sell, or imports products that infringe certain of ImberaTek's patents, and specifically identified the '527 Patent as well as exemplary claims and exemplary accused products for that patent. By the time of trial, Apple will thus have known and intended (since receiving such notice) that its continued actions would actively induce and contribute to actual infringement of at least claim 1 of the '527 Patent.

63. Apple undertook and continued its infringing actions despite an objectively high likelihood that such activities infringed the '527 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least February 6, 2020, Apple has been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '527 Patent, and that the '527 Patent is valid. On information and belief, Apple could not reasonably or subjectively believe that its actions do not constitute infringement of the '527 Patent, nor could it reasonably or subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Apple has continued its infringing activities. As such, Apple willfully infringes the '527 Patent.

64. ImberaTek has been damaged by Apple's infringement of the '527 Patent.

COUNT II: INFRINGEMENT OF U.S. PATENT No. 7,732,909

65. ImberaTek incorporates by reference and re-alleges all of the foregoing paragraphs of this Complaint and exhibits attached hereto as if fully set forth herein.

66. Apple has directly infringed one or more claims of the '909 Patent in this District and elsewhere in Texas, including at least claim 12 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale, and/or selling its SOCs, including at least Apple products having materially similar SOCs within smartphones, tablets, and

laptop devices, including, without limitation, the M1 (MacBook Air (2020), Mac Mini (2020), MacBook Pro (13-inch, 2020), iMac (24-inch, 2021), iPad Pro (11-inch, 3rd generation), iPad Pro (12.9-inch, 5th generation), iPad Air (5th generation)); M1 Pro (MacBook Pro (14-inch and 16-inch, 2021)); M1 Max (MacBook Pro (14-inch and 16-inch, 2021), Mac Studio (2022)); M2 (MacBook Air (13-inch, 2022), MacBook Air (15-inch, 2023), Mac Mini (2023), MacBook Pro (13-inch, 2022), iPad Pro (11-inch, 6th generation), iPad Pro (12.9-inch, 6th generation), Vision Pro); M2 Pro (MacBook Pro (14-inch and 16-inch, 2023), Mac Mini (2023)); M2 Max (MacBook Pro (14-inch and 16-inch, 2023), Mac Studio (2023)); M2 Ultra (Mac Studio (2023), Mac Pro (2023)); M3 (MacBook Pro (14-inch, 2023), MacBook Air (13-inch, 2024), MacBook Air (15-inch, 2024), iMac (24-inch, 2023)); M3 Pro (MacBook Pro (14-inch and 16-inch, 2023)); M3 Max (MacBook Pro (14-inch and 16-inch, 2023)); A17 Pro (iPhone 15 Pro, iPhone 15 Pro Max); A16 (iPhone 15, iPhone 15 Plus, iPhone 14 Pro, iPhone 14 Pro Max); A15 (iPhone 14, iPhone 14 Plus, iPhone 13, iPhone 13 Mini, iPhone 13 Pro, iPhone 13 Pro Max, iPhone SE (3rd generation), iPad mini (6th generation), Apple TV 4K (3rd generation)); A14 (iPad (10th generation), iPad Air (4th generation), iPhone 12, iPhone 12 Mini, iPhone 12 Pro, iPhone 12 Pro Max); A13 (iPad (9th generation), Apple Studio Display, iPhone 11, iPhone 11 Pro, iPhone 11 Pro Max); A12 (iPhone XS, iPhone XS Max, iPhone XR, iPad Mini (5th generation), iPad Air (3rd generation), iPad (8th generation), Apple TV 4K (2nd generation)); A12X (iPad Pro 11-inch (1st generation), iPad Pro 12.9-inch (3rd generation)); A12Z (iPad Pro 11-inch (2nd generation), iPad Pro 12.9-inch (4th generation), Apple Silicon Developer Transition Kit); and any other semiconductor device package comprising multiple semiconductor components that are arranged on top of each other with insulating materials between them, and that are connected to each other with conducting materials (collectively, “the ’909 Accused Products”). ImberaTek reserves the right to discover

and pursue any additional infringing devices that incorporate infringing SOCs. For the avoidance of doubt, the '909 Accused Products are identified to describe Apple's infringement and in no way limit the discovery and infringement allegations against Apple concerning other devices that incorporate the same or reasonably similar SOCs.

67. As alleged above and in Exhibit 11, the Apple M1 processor analyzed in Exhibit 11 meets each and every one of the claim limitations of at least claim 12 of the '909 Patent. Upon information and belief, the remaining '909 Accused Products meet each and every one of the claim limitations of at least claim 12 of the '909 Patent in a similar way (*i.e.*, each of the remaining '909 Accused Products contains semiconductor components that are arranged on top of each other with insulating materials between them, and that are connected to each other with conducting materials).

68. Apple has indirectly infringed at least claim 12 of the '909 Patent by, among other things, contributing to the direct infringement of others, including customers of the '909 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '909 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

69. For example, the '909 Accused Products include an SOC. This is a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such component is a material part of the invention and, upon information and belief, is not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Apple is liable for infringement of the '909 Patent pursuant to 35 U.S.C. § 271(c).



70. Apple has been aware of the '909 Patent since at least February 6, 2020. That correspondence set for ImberaTek's belief that Apple makes, uses, sells, offers to sell, or imports products that infringe certain of ImberaTek's patents, and specifically identified the '909 Patent as well as exemplary claims and exemplary accused products for that patent. By the time of trial, Apple will thus have known and intended (since receiving such notice) that its continued actions would actively induce and contribute to actual infringement of at least claim 12 of the '909 Patent.

71. Apple undertook and continued its infringing actions despite an objectively high likelihood that such activities infringed the '909 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least February 6, 2020, Apple has been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '909 Patent, and that the '909 Patent is valid. On information and belief, Apple could not reasonably or subjectively believe that its actions do not constitute infringement of the '909 Patent, nor could it reasonably or subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Apple has continued its infringing activities. As such, Apple willfully infringes the '909 Patent.

72. ImberaTek has been damaged by Apple's infringement of the '909 Patent.

COUNT III: INFRINGEMENT OF U.S. PATENT No. 7,989,944

73. ImberaTek incorporates by reference and re-alleges all of the foregoing paragraphs of this Complaint and exhibits attached hereto as if fully set forth herein.

74. Apple has directly infringed one or more claims of the '944 Patent in this District and elsewhere in Texas, including at least claim 1 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale, and/or selling its SOCs, including at least Apple products having materially similar SOCs within smartphones, tablets, and laptop

devices, including, without limitation, the M1 (MacBook Air (2020), Mac Mini (2020), MacBook Pro (13-inch, 2020), iMac (24-inch, 2021), iPad Pro (11-inch, 3rd generation), iPad Pro (12.9-inch, 5th generation), iPad Air (5th generation)); M1 Pro (MacBook Pro (14-inch and 16-inch, 2021)); M1 Max (MacBook Pro (14-inch and 16-inch, 2021), Mac Studio (2022)); M2 (MacBook Air (13-inch, 2022), MacBook Air (15-inch, 2023), Mac Mini (2023), MacBook Pro (13-inch, 2022), iPad Pro (11-inch, 6th generation), iPad Pro (12.9-inch, 6th generation), Vision Pro); M2 Pro (MacBook Pro (14-inch and 16-inch, 2023), Mac Mini (2023)); M2 Max (MacBook Pro (14-inch and 16-inch, 2023), Mac Studio (2023)); M2 Ultra (Mac Studio (2023), Mac Pro (2023)); M3 (MacBook Pro (14-inch, 2023), MacBook Air (13-inch, 2024), MacBook Air (15-inch, 2024), iMac (24-inch, 2023)); M3 Pro (MacBook Pro (14-inch and 16-inch, 2023)); M3 Max (MacBook Pro (14-inch and 16-inch, 2023)); A17 Pro (iPhone 15 Pro, iPhone 15 Pro Max); A16 (iPhone 15, iPhone 15 Plus, iPhone 14 Pro, iPhone 14 Pro Max); A15 (iPhone 14, iPhone 14 Plus, iPhone 13, iPhone 13 Mini, iPhone 13 Pro, iPhone 13 Pro Max, iPhone SE (3rd generation), iPad mini (6th generation), Apple TV 4K (3rd generation)); A14 (iPad (10th generation), iPad Air (4th generation), iPhone 12, iPhone 12 Mini, iPhone 12 Pro, iPhone 12 Pro Max); A13 (iPad (9th generation), Apple Studio Display, iPhone 11, iPhone 11 Pro, iPhone 11 Pro Max); A12 (iPhone XS, iPhone XS Max, iPhone XR, iPad Mini (5th generation), iPad Air (3rd generation), iPad (8th generation), Apple TV 4K (2nd generation)); A12X (iPad Pro 11-inch (1st generation), iPad Pro 12.9-inch (3rd generation)); A12Z (iPad Pro 11-inch (2nd generation), iPad Pro 12.9-inch (4th generation), Apple Silicon Developer Transition Kit); and any other semiconductor device package comprising multiple semiconductor components that are arranged on top of each other with insulating materials between them, and that are connected to each other with conducting materials (collectively, “the ’944 Accused Products”). ImberaTek reserves the right to discover and pursue any additional infringing devices

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that incorporate infringing SOCs. For the avoidance of doubt, the '944 Accused Products are identified to describe Apple's infringement and in no way limit the discovery and infringement allegations against Apple concerning other devices that incorporate the same or reasonably similar SOCs.

75. As alleged above and in Exhibit 12, the Apple M1 processor analyzed in Exhibit 12 meets each and every one of the claim limitations of at least claim 1 of the '944 Patent. Upon information and belief, the remaining '944 Accused Products meet each and every one of the claim limitations of at least claim 1 of the '944 Patent in a similar way (*i.e.*, each of the remaining '944 Accused Products contains semiconductor components that are arranged on top of each other with insulating materials between them, and that are connected to each other with conducting materials).

76. Apple has indirectly infringed at least claim 1 of the '944 Patent by, among other things, contributing to the direct infringement of others, including customers of the '944 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '944 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

77. For example, the '944 Accused Products include an SOC. This is a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such component is a material part of the invention and, upon information and belief, is not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Apple is liable for infringement of the '944 Patent pursuant to 35 U.S.C. § 271(c).



78. Apple has been aware of the '944 Patent since at least February 6, 2020. That correspondence set for ImberaTek's belief that Apple makes, uses, sells, offers to sell, or imports products that infringe certain of ImberaTek's patents, and specifically identified the '944 Patent as well as exemplary claims and exemplary accused products for that patent. By the time of trial, Apple will thus have known and intended (since receiving such notice) that its continued actions would actively induce and contribute to actual infringement of at least claim 1 of the '944 Patent.

79. Apple undertook and continued its infringing actions despite an objectively high likelihood that such activities infringed the '944 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least February 6, 2020, Apple has been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '944 Patent, and that the '944 Patent is valid. On information and belief, Apple could not reasonably or subjectively believe that its actions do not constitute infringement of the '944 Patent, nor could it reasonably or subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Apple has continued its infringing activities. As such, Apple willfully infringes the '944 Patent.

80. ImberaTek has been damaged by Apple's infringement of the '944 Patent.

COUNT IV: INFRINGEMENT OF U.S. PATENT No. 8,222,723

81. ImberaTek incorporates by reference and re-alleges all of the foregoing paragraphs of this Complaint and exhibits attached hereto as if fully set forth herein.

82. Apple has directly infringed one or more claims of the '723 Patent in this District and elsewhere in Texas, including at least claim 1 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale, and/or selling its SOCs, including at least Apple products having materially similar SOCs within smartphones, tablets, and laptop



84. Apple has indirectly infringed at least claim 1 of the '723 Patent by, among other things, contributing to the direct infringement of others, including customers of the '723 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '723 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

85. For example, the '723 Accused Products include an SOC. This is a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such component is a material part of the invention and, upon information and belief, is not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Apple is liable for infringement of the '723 Patent pursuant to 35 U.S.C. § 271(c).

86. Apple has been aware of the '723 Patent since at least February 6, 2020. That correspondence set for ImberaTek's belief that Apple makes, uses, sells, offers to sell, or imports products that infringe certain of ImberaTek's patents, and specifically identified the '723 Patent as well as exemplary claims and exemplary accused products for that patent. By the time of trial, Apple will thus have known and intended (since receiving such notice) that its continued actions would actively induce and contribute to actual infringement of at least claim 1 of the '723 Patent.

87. Apple undertook and continued its infringing actions despite an objectively high likelihood that such activities infringed the '723 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least February 6, 2020, Apple has been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '723 Patent, and that the '723 Patent is valid. On information and belief, Apple could not

reasonably or subjectively believe that its actions do not constitute infringement of the '723 Patent, nor could it reasonably or subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Apple has continued its infringing activities. As such, Apple willfully infringes the '723 Patent.

88. ImberaTek has been damaged by Apple's infringement of the '723 Patent.

COUNT V: INFRINGEMENT OF U.S. PATENT No. 8,238,113

89. ImberaTek incorporates by reference and re-alleges all of the foregoing paragraphs of this Complaint and exhibits attached hereto as if fully set forth herein.

90. Apple has directly infringed one or more claims of the '113 Patent in this District and elsewhere in Texas, including at least claim 1 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale, and/or selling its SOCs, including at least Apple products having materially similar SOCs within smartphones, tablets, and laptop devices, including, without limitation, the M1 (MacBook Air (2020), Mac Mini (2020), MacBook Pro (13-inch, 2020), iMac (24-inch, 2021), iPad Pro (11-inch, 3rd generation), iPad Pro (12.9-inch, 5th generation), iPad Air (5th generation)); M1 Pro (MacBook Pro (14-inch and 16-inch, 2021)); M1 Max (MacBook Pro (14-inch and 16-inch, 2021), Mac Studio (2022)); M1 Ultra (Mac Studio (2022)); M2 (MacBook Air (13-inch, 2022), MacBook Air (15-inch, 2023), Mac Mini (2023), MacBook Pro (13-inch, 2022), iPad Pro (11-inch, 6th generation), iPad Pro (12.9-inch, 6th generation), Vision Pro); M2 Pro (MacBook Pro (14-inch and 16-inch, 2023), Mac Mini (2023)); M2 Max (MacBook Pro (14-inch and 16-inch, 2023), Mac Studio (2023)); M2 Ultra (Mac Studio (2023), Mac Pro (2023)); M3 (MacBook Pro (14-inch, 2023), MacBook Air (13-inch, 2024), MacBook Air (15-inch, 2024), iMac (24-inch, 2023)); M3 Pro (MacBook Pro (14-inch and 16-inch, 2023)); M3 Max (MacBook Pro (14-inch and 16-inch, 2023)); A15 (iPhone 14, iPhone 14

Plus, iPhone 13, iPhone 13 Mini, iPhone 13 Pro, iPhone 13 Pro Max, iPhone SE (3rd generation), iPad mini (6th generation), Apple TV 4K (3rd generation)); and any other semiconductor device package comprising multiple semiconductor components that are arranged on top of each other with insulating materials between them, and that are connected to each other with conducting materials (collectively, “the ’113 Accused Products”). ImberaTek reserves the right to discover and pursue any additional infringing devices that incorporate infringing SOCs.

91. As alleged above and in Exhibit 14, the Apple M1 processor analyzed in Exhibit 14 meets each and every one of the claim limitations of at least claim 1 of the ’113 Patent. Upon information and belief, the remaining ’113 Accused Products meet each and every one of the claim limitations of at least claim 1 of the ’113 Patent in a similar way (*i.e.*, each of the remaining ’113 Accused Products contains semiconductor components that are arranged on top of each other with insulating materials between them, and that are connected to each other with conducting materials).

92. Apple has indirectly infringed at least claim 1 of the ’113 Patent by, among other things, contributing to the direct infringement of others, including customers of the ’113 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the ’113 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

93. For example, the ’113 Accused Products include an SOC. This is a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such component is a material part of the invention and, upon information and belief, is not a staple article or commodity of commerce suitable for substantial non-infringing

use. Thus, Apple is liable for infringement of the '113 Patent pursuant to 35 U.S.C. § 271(c).

94. Apple has been aware of the '113 Patent since at least February 6, 2020. That correspondence set forth ImberaTek's belief that Apple makes, uses, sells, offers to sell, or imports products that infringe certain of ImberaTek's patents, and specifically identified the '113 Patent as well as exemplary claims and exemplary accused products for that patent. By the time of trial, Apple will thus have known and intended (since receiving such notice) that its continued actions would actively induce and contribute to actual infringement of at least claim 1 of the '113 Patent.

95. Apple undertook and continued its infringing actions despite an objectively high likelihood that such activities infringed the '113 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least February 6, 2020, Apple has been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '113 Patent, and that the '113 Patent is valid. On information and belief, Apple could not reasonably or subjectively believe that its actions do not constitute infringement of the '113 Patent, nor could it reasonably or subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Apple has continued its infringing activities. As such, Apple willfully infringes the '113 Patent.

96. ImberaTek has been damaged by Apple's infringement of the '113 Patent.

COUNT VI: INFRINGEMENT OF U.S. PATENT No. 8,368,201

1. ImberaTek incorporates by reference and re-alleges all of the foregoing paragraphs of this Complaint and exhibits attached hereto as if fully set forth herein.

2. Apple has directly infringed one or more claims of the '201 Patent in this District and elsewhere in Texas, including at least claim 1 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale, and/or selling its SOCs, including at

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least Apple products having materially similar SOCs within smartphones, tablets, and laptop devices, including, without limitation, the M1 (MacBook Air (2020), Mac Mini (2020), MacBook Pro (13-inch, 2020), iPad Pro (11-inch, 3rd generation), iPad Pro (12.9-inch, 5th generation), iPad Air (5th generation)); M1 Pro (MacBook Pro (14-inch and 16-inch, 2021)); M1 Max (MacBook Pro (14-inch and 16-inch, 2021), Mac Studio (2022)); M2 (MacBook Air (13-inch, 2022), MacBook Air (15-inch, 2023), Mac Mini (2023), MacBook Pro (13-inch, 2022), iPad Pro (11-inch, 6th generation), iPad Pro (12.9-inch, 6th generation), Vision Pro); M2 Pro (MacBook Pro (14-inch and 16-inch, 2023), Mac Mini (2023)); M2 Max (MacBook Pro (14-inch and 16-inch, 2023), Mac Studio (2023)); M2 Ultra (Mac Studio (2023), Mac Pro (2023)); A17 Pro (iPhone 15 Pro, iPhone 15 Pro Max); A16 (iPhone 15, iPhone 15 Plus, iPhone 14 Pro, iPhone 14 Pro Max); A15 (iPhone 14, iPhone 14 Plus, iPhone 13, iPhone 13 Mini, iPhone 13 Pro, iPhone 13 Pro Max, iPhone SE (3rd generation), iPad mini (6th generation), Apple TV 4K (3rd generation)); A14 (iPad (10th generation), iPad Air (4th generation), iPhone 12, iPhone 12 Mini, iPhone 12 Pro, iPhone 12 Pro Max); A13 (iPad (9th generation), Apple Studio Display, iPhone 11, iPhone 11 Pro, iPhone 11 Pro Max); A12 (iPhone XS, iPhone XS Max, iPhone XR, iPad Mini (5th generation), iPad Air (3rd generation), iPad (8th generation), Apple TV 4K (2nd generation)); A12X (iPad Pro 11-inch (1st generation), iPad Pro 12.9-inch (3rd generation)); A12Z (iPad Pro 11-inch (2nd generation), iPad Pro 12.9-inch (4th generation), Apple Silicon Developer Transition Kit); and any other semiconductor device package comprising multiple semiconductor components that are arranged on top of each other with insulating materials between them, and that are connected to each other with conducting materials (collectively, “the ’201 Accused Products”). ImberaTek reserves the right to discover and pursue any additional infringing devices that incorporate infringing SOCs.

3. As alleged above and in Exhibit 15, the Apple M1 processor analyzed in Exhibit



15 meets each and every one of the claim limitations of at least claim 1 of the '201 Patent. Upon information and belief, the remaining '201 Accused Products meet each and every one of the claim limitations of at least claim 1 of the '201 Patent in a similar way (*i.e.*, each of the remaining '201 Accused Products contains semiconductor components that are arranged on top of each other with insulating materials between them, and that are connected to each other with conducting materials).

4. Apple has indirectly infringed at least claim 1 of the '201 Patent by, among other things, contributing to the direct infringement of others, including customers of the '201 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '201 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

5. For example, the '201 Accused Products include an SOC. This is a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such component is a material part of the invention and, upon information and belief, is not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Apple is liable for infringement of the '201 Patent pursuant to 35 U.S.C. § 271(c).

6. Apple has been aware of the '201 Patent since at least February 6, 2020. That correspondence set forth ImberaTek's belief that Apple makes, uses, sells, offers to sell, or imports products that infringe certain of ImberaTek's patents, and specifically identified the '201 Patent as well as exemplary claims and exemplary accused products for that patent. By the time of trial, Apple will thus have known and intended (since receiving such notice) that its continued actions would actively induce and contribute to actual infringement of at least claim 1 of the '201 Patent.

7. Apple undertook and continued its infringing actions despite an objectively high likelihood that such activities infringed the '201 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least February 6, 2020, Apple has been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '201 Patent, and that the '201 Patent is valid. On information and belief, Apple could not reasonably or subjectively believe that its actions do not constitute infringement of the '201 Patent, nor could it reasonably or subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Apple has continued its infringing activities. As such, Apple willfully infringes the '201 Patent.

8. ImberaTek has been damaged by Apple's infringement of the '201 Patent.

COUNT VII: INFRINGEMENT OF U.S. PATENT No. 9,107,324

9. ImberaTek incorporates by reference and re-alleges all of the foregoing paragraphs of this Complaint and exhibits attached hereto as if fully set forth herein.

10. Apple has directly infringed one or more claims of the '324 Patent in this District and elsewhere in Texas, including at least claim 1 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale, and/or selling its SOCs, including at least Apple products having materially similar SOCs within smartphones, tablets, and laptop devices, including, without limitation, the M1 (MacBook Air (2020), Mac Mini (2020), MacBook Pro (13-inch, 2020), iMac (24-inch, 2021), iPad Pro (11-inch, 3rd generation), iPad Pro (12.9-inch, 5th generation), iPad Air (5th generation)); M1 Pro (MacBook Pro (14-inch and 16-inch, 2021)); M1 Max (MacBook Pro (14-inch and 16-inch, 2021), Mac Studio (2022)); A17 Pro (iPhone 15 Pro, iPhone 15 Pro Max); A16 (iPhone 15, iPhone 15 Plus, iPhone 14 Pro, iPhone 14 Pro Max); A15 (iPhone 14, iPhone 14 Plus, iPhone 13, iPhone 13 Mini, iPhone 13 Pro, iPhone 13 Pro Max,

iPhone SE (3rd generation), iPad mini (6th generation), Apple TV 4K (3rd generation)); A14 (iPad (10th generation), iPad Air (4th generation), iPhone 12, iPhone 12 Mini, iPhone 12 Pro, iPhone 12 Pro Max); A13 (iPad (9th generation), Apple Studio Display, iPhone 11, iPhone 11 Pro, iPhone 11 Pro Max); A12 (iPhone XS, iPhone XS Max, iPhone XR, iPad Mini (5th generation), iPad Air (3rd generation), iPad (8th generation), Apple TV 4K (2nd generation)); A12X (iPad Pro 11-inch (1st generation), iPad Pro 12.9-inch (3rd generation)); A12Z (iPad Pro 11-inch (2nd generation), iPad Pro 12.9-inch (4th generation), Apple Silicon Developer Transition Kit); and any other semiconductor device package comprising multiple semiconductor components that are arranged on top of each other with insulating materials between them, and that are connected to each other with conducting materials (collectively, “the ’324 Accused Products”). ImberaTek reserves the right to discover and pursue any additional infringing devices that incorporate infringing SOCs. For the avoidance of doubt, the ’324 Accused Products are identified to describe Apple’s infringement and in no way limit the discovery and infringement allegations against Apple concerning other devices that incorporate the same or reasonably similar SOCs.

11. As alleged above and in Exhibit 16, the Apple M1 processor analyzed in Exhibit 16 meets each and every one of the claim limitations of at least claim 1 of the ’324 Patent. Upon information and belief, the remaining ’324 Accused Products meet each and every one of the claim limitations of at least claim 1 of the ’324 Patent in a similar way (*i.e.*, each of the remaining ’324 Accused Products contains semiconductor components that are arranged on top of each other with insulating materials between them, and that are connected to each other with conducting materials).

12. Apple has indirectly infringed at least claim 1 of the ’324 Patent by, among other things, contributing to the direct infringement of others, including customers of the ’324 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of

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a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '324 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

13. For example, the '324 Accused Products include an SOC. This is a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such component is a material part of the invention and, upon information and belief, are not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Apple is liable for infringement of the '324 Patent pursuant to 35 U.S.C. § 271(c).

14. Apple has been aware of the '324 Patent since at least February 6, 2020. That correspondence set forth ImberaTek's belief that Apple makes, uses, sells, offers to sell, or imports products that infringe certain of ImberaTek's patents, and specifically identified the '324 Patent as well as exemplary claims and exemplary accused products for that patent. By the time of trial, Apple will thus have known and intended (since receiving such notice) that its continued actions would actively induce and contribute to actual infringement of at least claim 1 of the '324 Patent.

15. Apple undertook and continued its infringing actions despite an objectively high likelihood that such activities infringed the '324 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least February 6, 2020, Apple has been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '324 Patent, and that the '324 Patent is valid. On information and belief, Apple could not reasonably or subjectively believe that its actions do not constitute infringement of the '324 Patent, nor could it reasonably or subjectively believe that the patent is invalid. Despite that knowledge

and subjective belief, and the objectively high likelihood that its actions constitute infringement, Apple has continued its infringing activities. As such, Apple willfully infringes the '324 Patent.

16. ImberaTek has been damaged by Apple's infringement of the '324 Patent.

COUNT VIII: INFRINGEMENT OF U.S. PATENT No. 11,071,207

17. ImberaTek incorporates by reference and re-alleges all of the foregoing paragraphs of this Complaint and exhibits attached hereto as if fully set forth herein.

18. Apple has directly infringed one or more claims of the '207 Patent in this District and elsewhere in Texas, including at least claim 1 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale, and/or selling its SOCs, including at least Apple products having materially similar SOCs within smartphones, tablets, and laptop devices, including, without limitation, the A17 Pro (iPhone 15 Pro, iPhone 15 Pro Max); A16 (iPhone 15, iPhone 15 Plus, iPhone 14 Pro, iPhone 14 Pro Max); A15 (iPhone 14, iPhone 14 Plus, iPhone 13, iPhone 13 Mini, iPhone 13 Pro, iPhone 13 Pro Max, iPhone SE (3rd generation), iPad mini (6th generation), Apple TV 4K (3rd generation)); A14 (iPad (10th generation), iPad Air (4th generation), iPhone 12, iPhone 12 Mini, iPhone 12 Pro, iPhone 12 Pro Max); A13 (iPad (9th generation), Apple Studio Display, iPhone 11, iPhone 11 Pro, iPhone 11 Pro Max); A12 (iPhone XS, iPhone XS Max, iPhone XR, iPad Mini (5th generation), iPad Air (3rd generation), iPad (8th generation), Apple TV 4K (2nd generation)); A12X (iPad Pro 11-inch (1st generation), iPad Pro 12.9-inch (3rd generation)); A12Z (iPad Pro 11-inch (2nd generation), iPad Pro 12.9-inch (4th generation), Apple Silicon Developer Transition Kit); and any other semiconductor device package comprising multiple semiconductor components that are arranged on top of each other with insulating materials between them, and that are connected to each other with conducting materials (collectively, "the '207 Accused Products"). ImberaTek reserves the right to discover

and pursue any additional infringing devices that incorporate infringing SOCs. For the avoidance of doubt, the '207 Accused Products are identified to describe Apple's infringement and in no way limit the discovery and infringement allegations against Apple concerning other devices that incorporate the same or reasonably similar SOCs.

19. As alleged above and in Exhibit 17, the Apple A16 processor analyzed in Exhibit 17 meets each and every one of the claim limitations of at least one claim of the '207 Patent. Upon information and belief, the remaining '207 Accused Products meet each and every one of the claim limitations of at least claim 1 of the '207 Patent in a similar way (*i.e.*, each of the remaining '207 Accused Products contains semiconductor components that are arranged on top of each other with insulating materials between them, and that are connected to each other with conducting materials).

20. Apple has indirectly infringed at least claim 1 of the '207 Patent by, among other things, contributing to the direct infringement of others, including customers of the '207 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '207 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

21. For example, the '207 Accused Products include an SOC. This is a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such component is a material part of the invention and, upon information and belief, is not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Apple is liable for infringement of the '207 Patent pursuant to 35 U.S.C. § 271(c).

22. Apple has been aware of the '207 Patent since at least May 13, 2022. That correspondence set for ImberaTek's belief that Apple makes, uses, sells, offers to sell, or imports products that infringe certain of ImberaTek's patents, and specifically identified the '207 Patent as well as exemplary claims and exemplary accused products for that patent. By the time of trial, Apple will thus have known and intended (since receiving such notice) that its continued actions would actively induce and contribute to actual infringement of at least claim 1 of the '207 Patent.

23. Apple undertook and continued its infringing actions despite an objectively high likelihood that such activities infringed the '207 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least May 11, 2022, Apple has been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '207 Patent, and that the '207 Patent is valid. On information and belief, Apple could not reasonably or subjectively believe that its actions do not constitute infringement of the '207 Patent, nor could it reasonably or subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Apple has continued its infringing activities. As such, Apple willfully infringes the '207 Patent.

24. ImberaTek has been damaged by Apple's infringement of the '207 Patent.

COUNT IX: INFRINGEMENT OF U.S. PATENT No. 11,716,816

25. ImberaTek incorporates by reference and re-alleges all of the foregoing paragraphs of this Complaint and exhibits attached hereto as if fully set forth herein.

26. Apple has directly infringed one or more claims of the '816 Patent in this District and elsewhere in Texas, including at least claim 1 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale, and/or selling its SOCs, including at least Apple products having materially similar SOCs within smartphones, tablets, and laptop



devices, including, without limitation, the M1 MacBook Air (2020), Mac Mini (2020), MacBook Pro (13-inch, 2020), iMac (24-inch, 2021), iPad Pro (11-inch, 3rd generation), iPad Pro (12.9-inch, 5th generation), iPad Air (5th generation); M1 Pro MacBook Pro (14-inch and 16-inch, 2021); M1 Max (MacBook Pro (14-inch and 16-inch, 2021), Mac Studio (2022)); M1 Ultra (Mac Studio (2022)); M2 (MacBook Air (13-inch, 2022), MacBook Air (15-inch, 2023), Mac Mini (2023), MacBook Pro (13-inch, 2022), iPad Pro (11-inch, 6th generation), iPad Pro (12.9-inch, 6th generation), Vision Pro); M2 Pro (MacBook Pro (14-inch and 16-inch, 2023), Mac Mini (2023)); M2 Max (MacBook Pro (14-inch and 16-inch, 2023), Mac Studio (2023)); M2 Ultra (Mac Studio (2023), Mac Pro (2023)); A17 Pro (iPhone 15 Pro, iPhone 15 Pro Max); A16 (iPhone 15, iPhone 15 Plus, iPhone 14 Pro, iPhone 14 Pro Max); A15 (iPhone 14, iPhone 14 Plus, iPhone 13, iPhone 13 Mini, iPhone 13 Pro, iPhone 13 Pro Max, iPhone SE (3rd generation), iPad mini (6th generation), Apple TV 4K (3rd generation)); A14 (iPad (10th generation), iPad Air (4th generation), iPhone 12, iPhone 12 Mini, iPhone 12 Pro, iPhone 12 Pro Max); A13 (iPad (9th generation), Apple Studio Display, iPhone 11, iPhone 11 Pro, iPhone 11 Pro Max); A12 (iPhone XS, iPhone XS Max, iPhone XR, iPad Mini (5th generation), iPad Air (3rd generation), iPad (8th generation), Apple TV 4K (2nd generation)); A12X (iPad Pro 11-inch (1st generation), iPad Pro 12.9-inch (3rd generation)); A12Z (iPad Pro 11-inch (2nd generation), iPad Pro 12.9-inch (4th generation), Apple Silicon Developer Transition Kit); and any other semiconductor device package comprising multiple semiconductor components that are arranged on top of each other with insulating materials between them, and that are connected to each other with conducting materials (collectively, “the ’816 Accused Products”). ImberaTek reserves the right to discover and pursue any additional infringing devices that incorporate infringing SOCs. For the avoidance of doubt, the ’816 Accused Products are identified to describe Apple’s infringement and in no way limit the discovery and infringement

allegations against Apple concerning other devices that incorporate the same or reasonably similar SOCs.

27. As alleged above and in Exhibit 18, the Apple M1 processor analyzed in Exhibit 18 meets each and every one of the claim limitations of at least claim 1 of the '816 Patent. Upon information and belief, the remaining '816 Accused Products meet each and every one of the claim limitations of at least claim 1 of the '816 Patent in a similar way (*i.e.*, each of the remaining '816 Accused Products contains semiconductor components that are arranged on top of each other with insulating materials between them, and that are connected to each other with conducting materials).

28. Apple has indirectly infringed at least claim 1 of the '816 Patent by, among other things, contributing to the direct infringement of others, including customers of the '816 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '816 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

29. For example, the '816 Accused Products include an SOC. This is a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such component is a material part of the invention and, upon information and belief, is not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Apple is liable for infringement of the '816 Patent pursuant to 35 U.S.C. § 271(c).

30. Apple has been aware of the '816 Patent since at least the filing of this complaint. By the time of trial, Apple will thus have known and intended (since receiving such notice) that

its continued actions would actively induce and contribute to actual infringement of at least claim 1 of the '816 Patent.

31. Apple undertook and continued its infringing actions despite an objectively high likelihood that such activities infringed the '816 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least May 11, 2022, Apple has been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '816 Patent, and that the '816 Patent is valid. On information and belief, Apple could not reasonably or subjectively believe that its actions do not constitute infringement of the '816 Patent, nor could it reasonably or subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Apple has continued its infringing activities. As such, Apple willfully infringes the '816 Patent.

32. ImberaTek has been damaged by Apple's infringement of the '816 Patent.

DAMAGES

33. As a result of Apple's acts of infringement, ImberaTek has suffered and continues to suffer actual and consequential damages. However, ImberaTek does not yet know the full extent of the infringement and the amount of damages cannot be ascertained except through discovery and special accounting. To the fullest extent permitted by law, ImberaTek seeks recovery of damages of at least a reasonable royalty. ImberaTek further seeks any other damages to which ImberaTek is entitled under law or in equity, such as enhanced damages for Apple's willful infringement.

PRAYER FOR RELIEF

WHEREFORE, ImberaTek prays for relief as follows:

A. A judgment declaring that Apple has infringed and is infringing one or more claims of

the '527, '909, '944, '723, '113, '201, '324, '207, and '816 Patents.

- B. A judgment awarding ImberaTek compensatory damages as a result of Apple's infringement of one or more claims of the '527, '909, '944, '723, '113, '201, '324, '207, and '816 Patents, together with interest and costs, consistent with lost profits and in no event less than a reasonable royalty.
- C. A judgment awarding ImberaTek treble damages and pre-judgment interest under 35 U.S.C. § 284 as a result of Apple's willful and deliberate infringement of one or more claims of the '527, '909, '944, '723, '113, '201, '324, '207, and '816 Patents.
- D. A judgment declaring that this case is exceptional and awarding ImberaTek its expenses, costs, and attorneys' fees in accordance with 35 U.S.C. §§ 284, 285 and Rule 54(d) of the Federal Rules of Civil Procedure.
- E. A grant of preliminary and permanent injunctions enjoining Apple from further acts of infringement of one or more claims of the '527, '909, '944, '723, '113, '201, '324, '207, and '816 Patents; and
- F. Such other and further relief as the Court deems just and proper.

JURY TRIAL DEMANDED

ImberaTek hereby demands a trial by jury.

Dated: April 11, 2024

Respectfully Submitted,

By: /s/ Mark D. Siegmund

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CERTIFICATE OF SERVICE

The undersigned does hereby certify that a true and correct copy of the foregoing document was served on all counsel of record in accordance with the Federal Rules of Civil Procedure on this 11th day of April 2024.

/s/ Mark D. Siegmund _____
Mark D. Siegmund