

1 Brian A. Rosenthal, BN 3961380
(*pro hac vice* forthcoming)
2 BRosenthal@gibsondunn.com
GIBSON, DUNN & CRUTCHER LLP
3 200 Park Avenue
New York, NY 10166-0193
4 Telephone: 212.351.4000
Facsimile: 212.351.4035

5 Nathaniel R. Scharn, SBN 304836
6 NScharn@gibsondunn.com
GIBSON, DUNN & CRUTCHER LLP
7 3161 Michelson Drive, Suite 1200
Irvine, CA 92612-4412
8 Telephone: 949.451.3800
Facsimile: 949.451.4220

9
10 *Attorneys for Plaintiff Apple Inc.*

11
12 **UNITED STATES DISTRICT COURT**
13 **SOUTHERN DISTRICT OF CALIFORNIA**

14 Case No. **'26CV4492 RSH DEB**

15 APPLE INC.,

16 Plaintiff,

17 v.

18 BOOMCLOUD 360, INC.,

19 Defendant.

Designation of Nature of Action
Pursuant to CivLR 3.1: Patent

**APPLE INC.'S COMPLAINT
FOR DECLARATORY
JUDGMENT OF
NONINFRINGEMENT OF U.S.
PATENT NOS. 10,313,820,
10,721,564, 10,757,527**

JURY TRIAL DEMANDED

1 Plaintiff Apple Inc. (“Apple”), by and through its undersigned counsel, files
2 this Complaint for Declaratory Judgment of Noninfringement of U.S. Patent Nos.
3 10,313,820 (“’820 patent,” attached as **Exhibit 1**), 10,721,564 (“’564 patent,”
4 attached as **Exhibit 2**), and 10,757,527 (“’527 patent,” attached as **Exhibit 3**)
5 (together the “Patents-in-Suit”) against Defendant Boomcloud 360, Inc.
6 (“Boomcloud”), and in support of its Complaint alleges as follows.

7 NATURE OF THE ACTION

8 1. This is an action for a declaratory judgment of noninfringement of the
9 Patents-in-Suit against Boomcloud arising under the Declaratory Judgment Act, 28
10 U.S.C. §§ 2201-2202, and the patent laws of the United States, Title 35 of the
11 United States Code.

12 2. Since its founding fifty years ago, Apple has been a pioneer in the
13 design of consumer electronics products. Apple’s innovations have led to the
14 introduction of iconic products that have profoundly influenced modern life. Apple
15 has been awarded thousands of patents by the United States Patent and Trademark
16 Office (“USPTO”), which protect the technologies underlying Apple’s
17 groundbreaking inventions. Apple requests the relief sought by its complaint
18 because Boomcloud claims that certain Apple products and/or services infringe the
19 Patents-in-Suit.

20 3. On January 30, 2026, Boomcloud filed patent infringement complaints
21 against AT&T Services, Inc., AT&T Mobility, LLC, and AT&T Corp. (together,
22 “AT&T”), and T-Mobile USA, Inc. (“T-Mobile”), in which Boomcloud accused
23 AT&T and T-Mobile of infringing the Patents-in-Suit. Complaint, *Boomcloud 360,*
24 *Inc. v. AT&T Services, Inc.*, No. 2:26-cv-00082 (E.D. Tex. Jan. 30, 2026) (“AT&T
25 Complaint”); Complaint, *Boomcloud 360, Inc. v. T-Mobile USA, Inc.*, No. 2:26-cv-
26 00080 (E.D. Tex. Jan. 30, 2026) (“T-Mobile Complaint”) (collectively, the “Carrier
27 Cases”).
28

4. Boomcloud's March 19, 2026 Infringement Contentions served in each Carrier Case assert that AT&T and T-Mobile infringe claims 1-27 of the '820 patent, claims 1-21 of the '564 patent, and claims 1-30 of the '527 patent by using, making, selling, offering for sale, or importing into the United States Apple's iPhone 11, iPhone 11 Pro, iPhone 11 Pro Max, iPhone 12, iPhone 12 Pro, iPhone 12 Pro Max, iPhone 12 mini, iPhone 13, iPhone 13 Pro, iPhone 13 Pro Max, iPhone 13 mini, iPhone 14, iPhone 14 Plus, iPhone 14 Pro, iPhone 14 Pro Max, iPhone 15, iPhone 15 Plus, iPhone 15 Pro, iPhone 15 Pro Max, iPhone 16, iPhone 16 Plus, iPhone 16 Pro, iPhone 16 Pro Max, iPhone 16e, iPhone 17, iPhone 17 Pro, iPhone 17 Pro Max, iPhone Air, iPad Air (4th generation), iPad Air (5th generation), iPad Air 11-inch (M2), iPad Air 13-inch (M2), iPad Air 11-inch (M3), iPad Air 13-inch (M3), iPad Pro 11-inch (2nd generation), iPad Pro 11-inch (3rd generation), iPad Pro 11-inch (4th generation), iPad Pro 11-inch (M4), iPad Pro 11-inch (M5), iPad Pro 12.9-inch (4th generation), iPad Pro 12.9-inch (5th generation), iPad Pro 12.9-inch (6th generation), iPad Pro 13-inch (M4), and iPad Pro 13-inch (M5) alone or in combinations with audio accessories including AirPods 3, AirPods 4, AirPods 4 (ANC), AirPods Max (Lightning), AirPods Max (USB-C), AirPods Pro (1st gen), AirPods Pro 2 (Lightning case), AirPods Pro 2 (USB-C case), AirPods Pro 3, Beats Fit Pro, Beats Flex, Beats Powerbeats Fit, Beats Powerbeats Pro 2, Beats Solo 4, Beats Studio Buds+, Beats Studio Pro, and Beats Pill, as well as all versions and variations of those products (collectively, the "Accused Apple Devices"). See **Exhibit 4** at 3 (Boomcloud's March 19, 2026 Infringement Contentions served on AT&T); **Exhibit 5** at 3 (Boomcloud's March 19, 2026 Infringement Contentions served on T-Mobile).

5. Boomcloud's infringement contentions in the Carrier Cases include claim charts purporting to map the limitations of the asserted claims of the Patents-in-Suit to the Accused Apple Devices, as well as Apple's Spatialize Stereo and other audio features ("Accused Apple Functionalities"). See **Exhibit 4** at 10-107;

1 **Exhibit 5** at 10-107. The claim charts each assert Apple products “perform[]
 2 spatial audio processing” (**Exhibit 4** at 11, 52; **Exhibit 5** at 11, 52), or “support
 3 ‘Spatialize Stereo’” (**Exhibit 4** at 88; **Exhibit 5** at 88), consistent with
 4 Boomcloud’s definition of “Accused Products” in each Complaint.

5 6. Based on Boomcloud’s allegations in its March 19, 2026 Infringement
 6 Contentions in the Carrier Cases, Apple is one of the “other companies” that
 7 Boomcloud alleges “make, use, sell, import, and offer for sale the Accused
 8 Products in ways that *directly infringe* the” Patents-in-Suit. AT&T Complaint,
 9 ¶¶26, 38, 50; T-Mobile Complaint, ¶¶23, 35, 47 (emphasis added).

10 7. On June 17, 2026, Boomcloud filed patent infringement lawsuits
 11 against Walmart, Inc. (“Walmart”), Target Corporation (“Target”), and Best Buy
 12 Co., Inc. (“Best Buy”), in which Boomcloud **accused** Walmart, Target, and Best
 13 Buy of infringing the Patents-in-Suit. Complaint, *Boomcloud 360, Inc. v. Walmart*
 14 *Inc.*, No. 2:26-cv-00245 (E.D. Tex. June 17, 2026) (“Walmart Complaint”);
 15 *Boomcloud 360, Inc. v. Target Corporation*, No. 2:26-cv-00489 (E.D. Tex. June 17,
 16 2026) (“Target Complaint”); *Boomcloud 360, Inc. v. Best Buy Co., Inc.*, No. 2:26-
 17 cv-00488 (E.D. Tex. June 17, 2026) (“Best Buy Complaint”) (collectively, the
 18 “Customer Cases”).

19 8. Boomcloud’s complaints in the Customer Cases are substantively
 20 similar to its complaints filed in the Carrier Cases. For example, like the
 21 complaints in the Carrier Cases, Boomcloud alleges that Walmart, Target, and Best
 22 Buy “make, use, offer for sale, sell, and/or import electronic devices supporting
 23 spatial audio (‘Accused Products’) . . . that directly infringe, literally and/or under
 24 the doctrine of equivalents, claims” of each of the Patents-in-Suit. Walmart
 25 Complaint, ¶¶17, 29, 41; Target Complaint, ¶¶14, 26, 38; Best Buy Complaint,
 26 ¶¶17, 29, 41. Boomcloud further alleges that Walmart, Target, and Best Buy
 27 “actively encourage and instruct . . . other companies to make, use, sell, import, and
 28 offer for sale the Accused Products in ways that directly infringe the” Patents-in-

1 Suit and “do so knowing and intending that these companies . . . will commit these
2 infringing acts.” Walmart Complaint, ¶¶19, 31, 43; Target Complaint, ¶¶16, 28, 40;
3 Best Buy Complaint, ¶¶19, 31, 43.

4 9. While Boomcloud did not specifically identify any Apple products as
5 examples of “Accused Products” in the complaints in the Customer Cases, based on
6 the substantial similarities between the complaints in the Customer Cases and the
7 Carrier Cases, and upon information and belief, Boomcloud will allege the Accused
8 Apple Devices infringe the Patents-in-Suit in at least its forthcoming Infringement
9 Contentions in the Customer Cases.

10 10. Based on Boomcloud’s allegations that the Accused Apple Devices
11 meet each limitation of the asserted claims of the Patents-in-Suit in the Carrier
12 Cases, and Boomcloud’s more recent, substantially similar enforcement activities
13 against additional Apple customers in the Customer Cases, an actual and justiciable
14 controversy exists between Apple and Boomcloud.

15 11. Furthermore, Boomcloud maintains a public website advertising its
16 software platform. As shown in the images excerpted below, this website suggests
17 Boomcloud believes, and is representing to its visitors, that Boomcloud’s
18 technology is incorporated in Apple products, including Beats headphones and
19 AirPods products. See <https://www.boomcloud360.com>.



21 CNN

22 “...with Beats headphones, the sound was off-the-charts awesome.”



12. As explained below, Apple and the Accused Apple Devices do not infringe any of the Patents-in-Suit. Apple brings this declaratory judgment action to resolve any allegations of infringement by Apple and Apple products and/or services of the Patents-in-Suit.

THE PARTIES

13. 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.

14. Based on the statements Boomcloud made in the complaints in the Carrier Cases and the Customer Cases, and upon information and belief, Boomcloud purports to be a corporation organized and existing under the laws of Delaware and has a principal place of business at 687 South Coast Hwy. 101, Suite # 311, Encinitas, CA 92024.

JURISDICTION AND VENUE

15. This action arises under the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 et seq., and under the patent laws of the United States, Title 35 of the United States Code.

16. This Court has subject matter jurisdiction over this action under 28 U.S.C. §§ 1331, 1338, 2201, and 2202.

17. Pursuant to 28 U.S.C. § 2201, this Court can provide the declaratory relief sought in Apple's Complaint because an actual case or controversy exists between Apple and Boomcloud. An actual case or controversy exists at least because Apple does not infringe and has not infringed any claim of the Patents-in-Suit, and Boomcloud has accused Apple's products of infringing the Patents-in-Suit in at least its infringement contentions served in the Carrier Cases.

18. This Court has personal jurisdiction over Boomcloud. Upon information and belief, Boomcloud has a principal place of business at 687 South Coast Hwy. 101, Suite # 311, Encinitas, CA 92024. See **Exhibit 6** (California

1 Registered Agent Listing for Boomcloud 360, Inc.). Encinitas is in San Diego
2 County, CA, which is located in the Southern District of California.

3 19. In addition, Boomcloud has engaged in actions in California, and
4 particularly the Southern District of California, that have established sufficient
5 minimum contacts with the District. The exercise of personal jurisdiction based on
6 Boomcloud's contacts does not offend traditional notions of fairness and substantial
7 justice.

8 20. Boomcloud is the applicant and assignee for all three of the Patents-in-
9 Suit. *See Exhibits 1-3*. Each patent identifies Encinitas, CA as Boomcloud's
10 location. *Id.* The Patents-in-Suit each name Zachary Seldess of San Diego, CA as
11 an inventor. *Id.* The '564 patent also names James Tracey and Alan Kraemer of
12 San Diego, CA as inventors. **Exhibit 2**.

13 21. The Patents-in-Suit were filed and prosecuted by the law firm Fenwick
14 & West LLP, including by attorneys based in California. The recorded assignments
15 for each Patent-in-Suit identify Alan Xiang as the Correspondent for Boomcloud
16 with an address of 801 California Street, Mountain View, CA 94041. **Exhibits 7-9**.
17 The assignments each further identify Boomcloud's place of business as 687 South
18 Coast Hwy. 101, Suite # 311, Encinitas, CA 92024. *Id.*

19 22. To litigate its patents, Boomcloud has consistently used the law firm of
20 Russ August & Kabat, including several attorneys admitted in California and
21 located in Los Angeles, CA, including for the Carrier Cases and Customer Cases.

22 23. Boomcloud has directed enforcement of its patent rights at California
23 and this District. For example, Boomcloud alleges its "novel audio rendering
24 solutions . . . have been licensed and implemented by several large companies,
25 including . . . Qualcomm," a company headquartered in San Diego, CA (which is in
26 this District). AT&T Complaint, ¶3.

27 24. Boomcloud has also directed enforcement of its patent rights at
28 California through the Carrier Cases. In each of the Carrier Cases, Boomcloud

1 served infringement contentions with claim charts alleging Apple's products meet
2 each limitation of each asserted claim. Additionally, in each of the Carrier Cases,
3 Boomcloud alleges infringement by products manufactured by Google LLC, a
4 company headquartered in Mountain View, CA, and Motorola Mobility, a company
5 with offices in Sunnyvale, CA.

6 25. At least a substantial portion of the research and development for the
7 Accused Apple Functionalities occurred at Apple offices in California. Relevant
8 financial and licensing documentation and personnel are also located in Apple
9 offices in California.

10 26. Venue is proper in this District under 28 U.S.C. § 1391 because a
11 substantial part of the events giving rise to Apple's claim occurred in this District,
12 and because Boomcloud is subject to personal jurisdiction here.

13 27. An immediate, real, and justiciable controversy exists between Apple
14 and Boomcloud as to whether Apple is infringing or has infringed the Patents-in-
15 Suit.

16 **FACTUAL ALLEGATIONS AND BACKGROUND**

17 **Apple Independently Developed the Accused Apple Devices**

18 28. Apple was founded in 1976, and is world renowned for creating
19 innovative products that people love. Apple produces those products through its
20 significant investment in and dedication to research and development and product
21 design.

22 29. Apple created the Accused Apple Devices. For example, Apple
23 announced the first iPhone by 2007, and launched its first iPhone by June 2007.
24 See [https://www.apple.com/newsroom/2007/01/09Apple-Reinvents-the-Phone-](https://www.apple.com/newsroom/2007/01/09Apple-Reinvents-the-Phone-with-iPhone/)
25 [with-iPhone/](https://www.verizon.com/articles/Smartphones/milestones-in-history-of-apple-iphone/); [https://www.verizon.com/articles/Smartphones/milestones-in-history-](https://www.verizon.com/articles/Smartphones/milestones-in-history-of-apple-iphone/)
26 [of-apple-iphone/](https://www.verizon.com/articles/Smartphones/milestones-in-history-of-apple-iphone/). Apple announced the first iPad by 2010, and launched its first
27 iPad by April 2010. See [https://www.apple.com/newsroom/2010/01/27Apple-](https://www.apple.com/newsroom/2010/01/27Apple-Launches-iPad/)
28 [Launches-iPad/](https://www.ign.com/articles/all-ipad-release-dates-in-order); <https://www.ign.com/articles/all-ipad-release-dates-in-order>.

1 Apple announced the first AirPods by 2016, and launched the first AirPods by
2 December 2016. *See* [https://www.apple.com/newsroom/2016/09/apple-reinvents-](https://www.apple.com/newsroom/2016/09/apple-reinvents-the-wireless-headphones-with-airpods/)
3 [the-wireless-headphones-with-airpods/](https://www.apple.com/newsroom/2016/09/apple-reinvents-the-wireless-headphones-with-airpods/);
4 <https://www.apple.com/newsroom/2016/12/apple-airpods-are-now-available/>.

5 30. Apple engineers who work on the Accused Apple Functionalities are
6 primarily based in California.

7 31. Because documents about the Accused Apple Functionalities,
8 including technical documents and source code, are created and maintained by the
9 engineers working on those functionalities, such documents are primarily created
10 and maintained in California.

11 **Apple Does Not Infringe The Patents-In-Suit**

12 32. The Accused Apple Devices and Accused Apple Functionalities do not
13 directly or indirectly infringe any claim of the Patents-in-Suit, literally or under the
14 doctrine of equivalents.

15 33. No third party infringes any claim of the Patents-in-Suit by selling,
16 offering for sale, or using the Accused Apple Devices or Accused Apple
17 Functionalities. Apple has not caused, directed, requested, or facilitated any such
18 infringement, much less with specific intent to do so. The Accused Apple Devices
19 and Accused Apple Functionalities are not designed for use in any combination that
20 infringes any claim of the Patents-in-Suit. To the contrary, each has substantial
21 uses that do not infringe any claim of the Patents-in-Suit.

22 **FIRST CLAIM FOR RELIEF**

23 **(Declaration of Noninfringement of U.S. Patent No. 10,313,820)**

24 34. Apple restates and incorporates by reference the allegations in
25 paragraphs 1 through 33 of this Complaint as if fully set forth herein.

26 35. Boomcloud claims to own all rights, title, and interest in the '820
27 patent. The '820 patent is titled "Sub-Band Spatial Audio Enhancement." The
28 '820 patent issued on June 4, 2019, from U.S. Patent Application No. 15/646,821,

1 filed on July 11, 2017. The '820 patent names Zachary Seldess as the inventor and
2 Boomcloud 360, Inc. as the initial, sole assignee.

3 36. Boomcloud has alleged the Accused Apple Devices meet every
4 limitation of claims 1-27 of the '820 patent. Apple does not directly or indirectly
5 infringe any claim of the '820 patent, either literally or under the doctrine of
6 equivalents.

7 37. For example, claim 1 of the '820 patent recites:

8
9 A method for enhancing an audio signal having a left
10 input channel and a right input channel, comprising:

11 processing the left input channel and the right input
12 channel into a spatial component and a nonspatial
13 component, the spatial component including a difference
14 between the left input channel and the right input channel
15 and the nonspatial component including a sum of the left
16 input channel and the right input channel;

17 applying first subband gains to subbands of the spatial
18 component to generate an enhanced spatial component,
19 wherein applying the first subband gains to the subbands
20 of the spatial component includes applying a first set of
21 subband filters to the spatial component;

22 applying second subband gains to subbands of the
23 nonspatial component to generate an enhanced nonspatial
24 component, wherein applying the second subband gains to
25 the subbands of the nonspatial component includes
26 applying a second set of subband filters to the nonspatial
27 component; and

28 combining the enhanced spatial component and the
enhanced nonspatial component into a left output channel
and a right output channel.

1 38. Apple does not infringe claims 1-27 of the '820 patent because, by
2 way of example and without limitation, the Accused Apple Devices, when used, do
3 not perform the limitations requiring:

- 4 • “processing the left input channel and the right input channel into a
5 spatial component and a nonspatial component” (claim 1) | “a spatial
6 frequency band divider configured to process the left input channel
7 and the right input channel into a spatial component and a nonspatial
8 component” (claim 14) | “process a left input channel and a right input
9 channel of an audio signal into a spatial component and a nonspatial
10 component” (claim 27)
- 11 • “apply[ing] second subband gains to subbands of the nonspatial
12 component to generate an enhanced nonspatial component” (claims 1,
13 27) | “a second set of subband filters configured to apply second
14 subband gains to subbands of the nonspatial component to generate an
15 enhanced nonspatial component” (claim 14)

16 The Accused Apple Devices do not process left and right input channels into a
17 spatial component and nonspatial component, or generate an enhanced nonspatial
18 component by applying subband gains.

19 39. No third party infringes any claim of the '820 patent by using the
20 Accused Apple Devices. Apple has not caused, directed, requested, or facilitated
21 any such infringement, much less with specific intent to do so. Apple received no
22 notice of any alleged infringement of the '820 patent by the Accused Apple Devices
23 before Boomcloud served its infringement contentions in the Carrier Cases. For at
24 least the reasons explained above, the Accused Apple Devices and the use of the
25 Accused Apple Devices do not directly infringe the '820 patent. The Accused
26 Apple Devices are not designed for use in any combination that infringes any claim
27 of the '820 patent. To the contrary, each has substantial uses that do not infringe
28

1 any claim of the '820 patent and are not accused by Boomcloud of infringing the
2 '820 patent.

3 40. Thus, there exists an actual controversy between Apple and
4 Boomcloud with respect to Apple's alleged infringement of the '820 patent.
5 Accordingly, declaratory judgment is appropriate and necessary to determine the
6 parties' respective rights regarding the '820 patent.

7 41. Apple seeks a judicial declaration that Apple does not directly or
8 indirectly infringe any claim of the '820 patent.

9 **SECOND CLAIM FOR RELIEF**

10 **(Declaration of Noninfringement of U.S. Patent No. 10,721,564)**

11 42. Apple restates and incorporates by reference the allegations in
12 paragraphs 1 through 33 of this Complaint as if fully set forth herein.

13 43. Boomcloud claims to own all rights, title, and interest in the '564
14 patent. The '564 patent is titled "Subband Spatial and Crosstalk Cancellation for
15 Audio Reproduction [sic]." The '564 patent issued on July 21, 2020, from U.S.
16 Patent Application No. 16/192,522, filed on November 15, 2018. The '564 patent
17 names Zachary Seldess, James Tracey, and Alan Kraemer as the inventors and
18 Boomcloud 360, Inc. as the initial, sole assignee.

19 44. Boomcloud has alleged the Accused Apple Devices meet every
20 limitation of claims 1-21 of the '564 patent. Apple does not directly or indirectly
21 infringe any claim of the '564 patent, either literally or under the doctrine of
22 equivalents.

23 45. For example, claim 1 of the '564 patent recites:

24
25 A method for crosstalk cancellation for an audio signal output by a
26 first speaker and a second speaker, comprising:

27 determining a speaker parameter for the first speaker and the second
28 speaker, the speaker parameter comprising a listening angle between
the first and second speakers;

1 generating a compensation signal for a plurality of frequency bands of
2 the audio signal, the compensation signal removing estimated spectral
3 defects in each frequency band from crosstalk cancellation applied to
4 the audio signal, wherein the crosstalk cancellation and the
compensation signal are determined based on the speaker parameter;

5 precompensating the audio signal for the crosstalk cancellation by
6 adding the compensation signal to the audio signal to generate a
7 precompensated signal; and

8 performing the crosstalk cancellation on the precompensated signal
9 based on the speaker parameter to generate a crosstalk cancelled audio
10 signal.

11 46. Apple does not infringe claims 1-21 of the '564 patent because, by
12 way of example and without limitation, the Accused Apple Devices, when used, do
13 not perform the limitations requiring:

- 14 • “determining a speaker parameter for the first speaker and the second
15 speaker, the speaker parameter comprising a listening angle between
16 the first and second speakers” (claim 1) | “determining one or more
17 speaker parameters for the first speaker and the second speaker, the
18 one or more speaker parameters comprising a listening angle between
19 the first and second speakers” (claim 6) | “determine one or more
20 speaker parameters for a first speaker and a second speaker, the one or
21 more speaker parameters comprising a listening angle between the first
22 and second speakers” (claim 14)
- 23 • “generating a compensation signal . . . the compensation signal
24 removing estimated spectral defects . . . from crosstalk cancellation”
25 wherein “the compensation signal [is] determined based on the speaker
26 parameter” (claim 1) | “remov[ing] spectral defects of the crosstalk
27 processing . . . based on applying a filter to the audio signal, the filter
28 including a configuration determined based on the one or more speaker
parameters” (claims 6 and 14)

- “performing the crosstalk cancellation on the precompensated signal based on the speaker parameter” (claim 1)

The Accused Apple Devices do not determine a listening angle between first and second speakers, or generate signals or apply filters to remove spectral defects from crosstalk cancellation/processing based on the listening angle.

47. No third party infringes any claim of the '564 patent by using the Accused Apple Devices. Apple has not caused, directed, requested, or facilitated any such infringement, much less with specific intent to do so. Apple received no notice of any alleged infringement of the '564 patent by the Accused Apple Devices before Boomcloud served its infringement contentions in the Carrier Cases. For at least the reasons explained above, the Accused Apple Devices and the use of the Accused Apple Devices do not directly infringe the '564 patent. The Accused Apple Devices are not designed for use in any combination that infringes any claim of the '564 patent. To the contrary, each has substantial uses that do not infringe any claim of the '564 patent and are not accused by Boomcloud of infringing the '564 patent.

48. Thus, there exists an actual controversy between Apple and Boomcloud with respect to Apple's alleged infringement of the '564 patent. Accordingly, declaratory judgment is appropriate and necessary to determine the parties' respective rights regarding the '564 patent.

49. Apple seeks a judicial declaration that Apple does not directly or indirectly infringe any claim of the '564 patent.

THIRD CLAIM FOR RELIEF

(Declaration of Noninfringement of U.S. Patent No. 10,757,527)

50. Apple restates and incorporates by reference the allegations in paragraphs 1 through 33 of this Complaint as if fully set forth herein.

51. Boomcloud claims to own all rights, title, and interest in the '527 patent. The '527 patent is titled “Crosstalk Cancellation B-Chain.” The '527 patent

1 issued on August 25, 2020, from U.S. Patent Application No. 16/591,352, filed on
2 October 2, 2019. The '527 patent names Zachary Seldess as the inventor and
3 Boomcloud 360, Inc. as the initial, sole assignee.

4 52. Boomcloud has alleged the Accused Apple Devices meet every
5 limitation of claims 1-30 of the '527 patent. Apple does not directly or indirectly
6 infringe any claim of the '527 patent, either literally or under the doctrine of
7 equivalents.

8 53. For example, claim 1 of the '527 patent recites:

9
10 A system for enhancing an input audio signal for a left speaker and a
11 right speaker, comprising:

12 a processing circuitry configured to:

13 determine asymmetries between the left speaker and the right speaker
14 in frequency response, time alignment, and signal level for a listening
15 position; and

16 generate a left output channel for the left speaker and a right output
17 channel for the right speaker by at least one of:

18 applying an N-band equalization to the input audio signal to adjust for
19 the asymmetry in the frequency response;

20 applying a delay to the input audio signal to adjust for the asymmetry
21 in the time alignment; or

22 applying a gain to the input audio signal to adjust for the asymmetry in
23 the signal level.

24 54. Apple does not infringe claims 1-30 of the '527 patent because, by
25 way of example and without limitation, the Accused Apple Devices, when used, do
26 not perform the limitations requiring:
27
28

- 1 • “determine asymmetries between the left speaker and the right speaker
- 2 in frequency response, time alignment, and signal level for a listening
- 3 position” (claims 1, 21)
- 4 • “determine asymmetries between a left speaker and a right speaker in
- 5 frequency response, time alignment, and signal level for a listening
- 6 position” (claim 11)
- 7 • “applying [an N-band equalization / a delay / a gain] to the input audio
- 8 signal to adjust for the asymmetry in the [frequency response / time
- 9 alignment / signal level]” (claims 1, 11, 21)

10 The Accused Apple Devices do not determine asymmetries between the speakers
11 for a listening position or apply corrections based on asymmetries for the listening
12 position.

13 55. No third party infringes any claim of the '527 patent by using the
14 Accused Apple Devices. Apple has not caused, directed, requested, or facilitated
15 any such infringement, much less with specific intent to do so. Apple received no
16 notice of any alleged infringement of the '527 patent by the Accused Apple Devices
17 before Boomcloud served its infringement contentions in the Carrier Cases. For at
18 least the reasons explained above, the Accused Apple Devices and the use of the
19 Accused Apple Devices do not directly infringe the '527 patent. The Accused
20 Apple Devices are not designed for use in any combination that infringes any claim
21 of the '527 patent. To the contrary, each has substantial uses that do not infringe
22 any claim of the '527 patent and are not accused by Boomcloud of infringing the
23 '527 patent.

24 56. Thus, there exists an actual controversy between Apple and
25 Boomcloud with respect to Apple's alleged infringement of the '527 patent.
26 Accordingly, declaratory judgment is appropriate and necessary to determine the
27 parties' respective rights regarding the '527 patent.
28

1 57. Apple seeks a judicial declaration that Apple does not directly or
2 indirectly infringe any claim of the '527 patent.

3 **PRAYER FOR RELIEF**

4 Wherefore, Apple requests the following relief:

5 A. A declaration in favor of Apple and against Boomcloud on Apple's
6 claims;

7 B. A declaration that Apple does not infringe, directly or indirectly, the
8 Patents-in-Suit, either literally or under the doctrine of equivalents;

9 C. A declaration that Apple does not induce infringement of the Patents-
10 in-Suit;

11 D. A declaration that Apple does not contribute to infringement of the
12 Patents-in-Suit;

13 E. An order declaring that Apple is the prevailing party and that this is an
14 exceptional case under 35 U.S.C. § 285;

15 F. An award to Apple for its costs and attorneys' fees in connection with
16 this action; and

17 G. Such further and additional relief as the Court deems just, equitable,
18 and proper.

19 **JURY TRIAL DEMAND**

20 Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, Apple
21 respectfully demands a trial by jury on all issues triable by jury.
22
23
24
25
26
27
28

1 Dated: August 5, 2026

GIBSON, DUNN & CRUTCHER LLP

2
3 By: /s/ Nathaniel Scharn
4 Nathaniel Scharn

5 Brian A. Rosenthal, BN 3961380
6 (*pro hac vice forthcoming*)
7 Allen Kathir, BN 5339445 (*pro hac*
8 *vice forthcoming*)
9 GIBSON, DUNN & CRUTCHER
10 LLP
11 200 Park Avenue
12 New York, NY 10166-0193
13 Telephone: 212.351.4000
14 Facsimile: 212.351.4035
15 BRosenthal@gibsondunn.com
16 AKathir@gibsondunn.com

17 Jaysen S. Chung, SBN 280708
18 GIBSON, DUNN & CRUTCHER
19 LLP
20 One Embarcadero Center, Suite
21 2600
22 San Francisco, CA 94111-3715
23 Telephone: 415.393.8200
24 Facsimile: 415.393.8306
25 JSChung@gibsondunn.com

26 Nathaniel R. Scharn, SBN 304836
27 GIBSON, DUNN & CRUTCHER
28 LLP
3161 Michelson Drive, Suite 1200
Irvine, CA 92612-4412
Telephone: 949.451.3800
Facsimile: 949.451.4220
NScharn@gibsondunn.com

Attorneys for Plaintiff Apple Inc.