

1 David A. Nelson (*pro hac vice* forthcoming)
 2 (Ill. Bar No. 6209623)
 davenelson@quinnemanuel.com
 3 QUINN EMANUEL URQUHART & SULLIVAN, LLP
 4 500 West Madison St., Suite 2450
 Chicago, Illinois 60661
 5 Telephone: (312) 705-7400
 6 Facsimile: (312) 705-7401

7 Karen P. Hewitt (SBN 145309)
 kphewitt@jonesday.com
 8 Randall E. Kay (SBN 149369)
 9 rekay@jonesday.com
 10 JONES DAY
 4655 Executive Drive, Suite 1500
 11 San Diego, California 92121
 12 Telephone: (858) 314-1200
 Facsimile: (844) 345-3178
 13

14 Evan R. Chesler (*pro hac vice* forthcoming)
 (N.Y. Bar No. 1475722)
 15 echesler@cravath.com
 16 CRAVATH, SWAINE & MOORE LLP
 Worldwide Plaza, 825 Eighth Avenue
 17 New York, NY 10019
 18 Telephone: (212) 474-1000
 Facsimile: (212) 474-3700
 19

20 *Attorneys for Plaintiff*
 21 QUALCOMM INCORPORATED

22 UNITED STATES DISTRICT COURT
 SOUTHERN DISTRICT OF CALIFORNIA

23 QUALCOMM INCORPORATED,

24 Plaintiff,

25 v.

26 APPLE INCORPORATED,

27 Defendant.
 28

Case No. '17CV2403 BAS NLS

**COMPLAINT FOR PATENT
 INFRINGEMENT**

[DEMAND FOR A JURY TRIAL]

1 Plaintiff Qualcomm Incorporated (“Qualcomm”), by its undersigned
2 attorneys, alleges, with knowledge with respect to its own acts and on information
3 and belief as to other matters, as follows:

4 NATURE OF THE ACTION

5 1. Qualcomm brings this action to compel Apple to cease infringing
6 Qualcomm’s patents and to compensate Qualcomm for Apple’s extensive
7 infringement of Qualcomm’s patented technologies.

8 2. Qualcomm is one of the world’s leading technology companies and a
9 pioneer in the mobile phone industry. Its inventions form the very core of modern
10 mobile communication and enable modern consumer experiences on mobile devices
11 and cellular networks.

12 3. Since its founding in 1985, Qualcomm has been designing, developing,
13 and improving mobile communication devices, systems, networks, and products.
14 Among other innovations, it has invented many technologies that enable cellular
15 communications around the world. For instance, Qualcomm developed fundamental
16 technologies at the heart of 2G, 3G, and 4G cellular communications, is one of a
17 handful of companies leading the development of the next-generation 5G standard,
18 and has developed numerous innovative features used in virtually every modern
19 cellular device.

20 4. Qualcomm also invests in technologies developed by other companies
21 and has acquired companies (and their patented technologies) as part of its emphasis
22 on supporting innovation. Qualcomm’s patent portfolio currently includes more
23 than 130,000 issued patents and patent applications worldwide. Hundreds of mobile
24 device suppliers around the world have taken patent licenses from Qualcomm.

25 5. Apple is the world’s most profitable seller of mobile devices. Its
26 iPhones and other products enjoy enormous commercial success. But without the
27 innovative technology covered by Qualcomm’s patent portfolio, Apple’s products
28 would lose much of their consumer appeal. Apple was a relatively late entrant in the

1 mobile device industry, and its mobile devices rely heavily on the inventions of
2 Qualcomm and other companies that Qualcomm has invested in. While Apple is
3 trying to take credit for “creat[ing] the modern smartphone as a product category,” it
4 was the pioneering inventions by Qualcomm that created the smartphone. *Nearly a*
5 *decade before Apple released the iPhone*, Qualcomm unveiled its own full-feature,
6 top-of-the-line smartphone, the “pdQ 1900.” According to CNN’s 1999 holiday
7 buying guide, Qualcomm’s pdQ 1900 “lets you make calls, keep records, send
8 email, browse the web and run over a thousand different applications, all while on
9 the go. Although a cell phone, it is one of the first truly portable, mobile and
10 multipurpose Internet devices.”¹ And there were many follow-on devices with
11 similar capabilities, long before the iPhone. Without question, Qualcomm, not
12 Apple, created the smartphone product category and Apple cannot rewrite history
13 through slick marketing. While Qualcomm no longer markets phones directly to
14 consumers, it continues to lead the development of cutting-edge technologies that
15 underpin a wide range of important wireless-device features. Other companies, like
16 Apple, now manufacture and market phones that feature Qualcomm’s innovations
17 and the innovations of other technology pioneers that Qualcomm invested in.

18 6. Qualcomm’s innovations have influenced all smartphones, and
19 Apple—like other major mobile device makers—utilizes Qualcomm’s technologies.
20 Qualcomm’s patented features enable and enhance popular features that drive
21 consumer demand, for example, instinctive instant messaging responses, multi-
22 purpose power buttons, cameras that automatically focus on a desired location,
23 intuitive user interfaces for switching between applications, and interacting with
24 displayed content using gestures, among many others.

25 7. In contrast to Qualcomm’s lengthy history as a pioneer innovator of
26 mobile technology, including the smartphone and technologies consumers demand
27

28 ¹ <http://edition.cnn.com/1999/TECH/ptech/12/03/qualcomm.pdq/>.

1 in all smartphones, Apple is primarily an assembler of technologies it acquires or
2 takes. Apple has admitted to its history of knowingly copying technology and being
3 late in implementing technologies innovated by others. Indeed, Apple’s founder
4 boasted that Apple “steals” the great ideas of others—specifically, that “we have
5 always been shameless about stealing great ideas.”² Apple employees likewise
6 admit that Apple—a relatively late entrant in the mobile space—did not invent many
7 of the iPhone’s features. Instead, Apple incorporated, marketed, and
8 commercialized the work of others: “I don’t know how many things we can come up
9 with that you could legitimately claim we did first. . . . We had the first
10 commercially successful version of many features but that’s different than launching
11 something to market first.”³

12 8. Qualcomm has invested millions of dollars in this technology and now
13 owns much of the technology that Apple has been using without permission for
14 years. Qualcomm, and the companies Qualcomm invested in, invented many core
15 technologies that make the iPhone (and other smartphones and mobile devices)
16 desirable to consumers in their daily lives.

17 9. But rather than pay Qualcomm for the technology Apple uses, Apple
18 has taken extraordinary measures to avoid paying Qualcomm for the fair value of
19 Qualcomm’s patents. Apple is the quintessential example of a company engaging in
20 patent hold-out, and has repeatedly pursued a patent hold-out strategy using its
21 enormous financial resources to harm innovators of technologies it uses. More
22

23 ² Interview with Steve Jobs, available at
24 <https://www.youtube.com/watch?v=CW0DUg63lqU> (“Picasso had a saying, ‘good
25 artists copy, great artists steal.’ And we have always been shameless about stealing
26 great ideas.”).

27 ³ April 2010 email from Apple’s iPhone Product Marketing Manager, Steve
28 Sinclair, reported in: Rick Merritt, *Schiller ‘shocked at ‘copycat’ Samsung phone*,
Embedded (Aug. 3, 2012), <http://www.embedded.com/print/4391702> (April 21,
2017 snapshot of page, accessed via Google’s cache).

1 recently, on January 20, 2017, Apple sued Qualcomm in this district, asserting an
2 array of excuses to avoid paying fair-market, industry-standard rates for the use of
3 certain of Qualcomm's pioneering patents that are critical to all smartphones like the
4 iPhone. *See* Case No. 3:17-cv-00108-GPC-MDD. Apple also encouraged the
5 companies that manufacture the iPhone to breach their contracts with Qualcomm by
6 refusing to pay for the Qualcomm technology in iPhones, something that those
7 manufacturers had done for many years, without complaint, before Apple's direction
8 to stop. Further, Apple misled governmental agencies around the world into
9 investigating Qualcomm in an effort to indirectly exert leverage over Qualcomm.

10 10. Many of Qualcomm's patents are essential to certain cellular or other
11 standards ("Standard Essential Patents"), such that the use of an underlying
12 technological standard would require use of the patent. Qualcomm owns a wide
13 range of non-standard-essential patents for inventions in various technologies
14 related to mobile devices. A significant number of those patents are encompassed
15 by Qualcomm's patent licenses with Apple's manufacturers of iPhones, and Apple
16 is aware that Qualcomm cannot pursue Apple for infringement of those licensed
17 patents. But many other patents covering cutting edge technologies used in iPhones
18 -- are not included in licenses to Apple's iPhone manufacturers that Apple has
19 infringed upon.

20 11. In this suit, Qualcomm asserts a set of five non-standard-essential
21 patents infringed by Apple's mobile electronic devices. The patents asserted in this
22 suit represent only a small fraction of the Qualcomm non-standard-essential patents
23 that Apple uses without a license. Several of these innovations were developed long
24 before Apple sold its first iPhone which Apple freely borrowed from to make their
25 products.

26 12. Qualcomm repeatedly offered to license its patents to Apple. But
27 Apple has repeatedly refused offers to license Qualcomm's patents on reasonable
28

1 terms. Qualcomm therefore seeks to enforce its rights in the patents identified
2 below and to address and remedy Apple’s flagrant infringement of those patents.

3 PARTIES

4 13. Qualcomm is a Delaware corporation with its principal place of
5 business at 5775 Morehouse Drive, San Diego, California. Since 1989, when
6 Qualcomm publicly introduced Code Division Multiple Access (“CDMA”) as a
7 commercially successful digital cellular communications standard, Qualcomm has
8 been recognized as an industry leader and innovator in the field of mobile devices
9 and cellular communications. Qualcomm owns more than 130,000 patents and
10 patent applications around the world relating to cellular technologies and many
11 other valuable technologies used by mobile devices. Qualcomm is a leader in the
12 development and commercialization of wireless technologies and the owner of the
13 world’s most significant portfolio of cellular technology patents. Qualcomm derives
14 a substantial portion of its revenues and profits from licensing its intellectual
15 property. Qualcomm is also a world leader in the sale of chips, chipsets, and
16 associated software for mobile phones and other wireless devices.

17 14. Apple is a corporation organized and existing under the laws of the
18 State of California, with its principal place of business at 1 Infinite Loop, Cupertino,
19 California. Apple designs, manufactures, and sells throughout the world a wide
20 range of products, including mobile devices that incorporate Qualcomm’s multi-
21 touch-gesture, autofocus, multitasking-interface, quick-charging, and machine-
22 learning patents.

23 JURISDICTION AND VENUE

24 15. This action arises under the patent laws of the United States of
25 America, 35 U.S.C. § 1 *et seq.* This Court has jurisdiction over the subject matter of
26 this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

27 16. This Court has personal jurisdiction over Apple because it is organized
28 and exists under the laws of California.

1 global sphere of influence, Apple has more money and more influence than many
2 countries. Relying heavily on Qualcomm technology and technology Qualcomm
3 has acquired, Apple has become the dominant player in mobile device sales.
4 Apple's dominance has grown every year since the iPhone's launch in 2007. In
5 recent years, Apple has captured upwards of *90 percent of all profits* in the
6 smartphone industry.

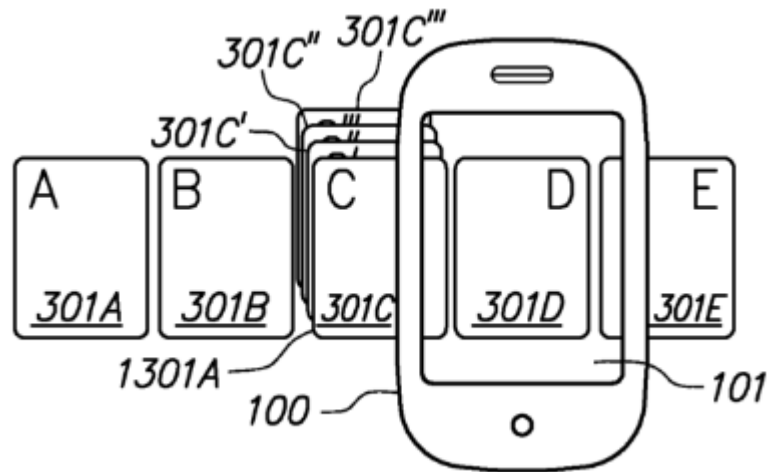
7 **Palm Patents**

8 25. Qualcomm licenses its extensive portfolio of patents to others within
9 the telecommunications and mobile device industry. Qualcomm also seeks out
10 valuable additions to its patent portfolio. In January 2014, Qualcomm invested in a
11 large portfolio of patents formerly held by Palm, an early smartphone and mobile
12 operating system pioneer.

13 26. Palm launched its iconic PalmPilot in 1996. The PalmPilot, a Personal
14 Digital Assistant ("PDA") that could be used with a stylus and shorthand alphabet,
15 was a widespread success.

16 27. As the capabilities of mobile devices advanced throughout the late
17 1990s and 2000s, Palm developed mobile operating systems incorporating advanced
18 functionality. For example, during the 2000s, mobile devices had become capable
19 of running multiple applications simultaneously. Users of popular desktop
20 computer operating systems, like Microsoft Windows or Mac OS, were accustomed
21 to multitasking between multiple applications with ease. Multitasking on mobile
22 devices, however, was more difficult at the time largely because the devices had
23 small screens, which made navigating between different applications cumbersome.
24 Palm had a solution to this multitasking problem. Palm developed user interface
25 technology that allowed applications running simultaneously to be represented to a
26 user as individual "cards" that could then be seamlessly navigated between by a
27 user. More specifically, in the schema developed by Palm, mobile device users can
28 view, interact with, manipulate, initiate, and dismiss multiple applications displayed

1 as cards. *See* U.S. Patent No. 8,683,362 (“the ’362 patent”). The figure below
 2 illustrates one such embodiment of Palm’s innovative multitasking user interface
 3 where each running application is represented by a card labeled A through E:
 4



14 28. Palm debuted its innovative user interface technology in January 2009
 15 as part of its WebOS operating system. The mobile device industry has thus long
 16 known about Palm’s patented multitasking user interface as well as its technical
 17 superiority to other options, such as those on existing iOS devices. In a January
 18 2010 article discussing the yet-to-be-released iPad, Gizmodo noted that “Palm’s
 19 Web OS solves th[e] [multitasking-interface issue] elegantly,” and that Apple would
 20 need some other user interface to solve the problem on its devices.⁴ But rather than
 21 develop its own multitasking and switching technology, because Apple was a late
 22 entrant into the mobile device field and needed to improve its user interface, Apple
 23 copied Palm’s patented “card” schema starting with iOS 7 in 2013. And some in the
 24 industry knew it. A 2013 article in The Verge recognized that “Apple’s new
 25 multitasking menu” was an interface that “has its origins elsewhere” and that “[f]or
 26 anyone that’s used a Palm Pre . . . the ancestry of modern multitasking is
 27

28 ⁴ <http://gizmodo.com/5452501/the-apple-tablet-interface-must-be-like-this>.

1 clear. Palm’s highly innovative webOS introduced card-based multitasking to the
2 world over four years ago, with horizontally scrolling preview panes that could be
3 closed with a simple swipe away.”⁵ When Apple recently unveiled its iPhone X on
4 September 12, 2017, an article in TechCrunch described the new multitasking
5 interface as a “déjà vu” of the webOS running on the Palm Pre and that “in the
6 iPhone X you’re looking at a little ghost of the Pre.”⁶ This is precisely the
7 technology Apple adopted, and continues to adopt, without permission or license.

8 29. Palm also was responsible for developing other valuable technology to
9 improve the functionality of mobile devices and the user’s experience. For example,
10 around 2007, Palm developed an innovative feature to allow a user to automatically
11 focus (“autofocus”) a digital camera by touching a location on a touchscreen display
12 coupled to the camera, embodied in U.S. Patent No. 8,497,928 (“the ’928 patent”).
13 Palm’s invention in the ’928 patent allows a mobile device user to use a touchscreen
14 to select a new focal point on a displayed image using one type of input (such as a
15 tap or a press), causing the device’s camera to refocus to that point and adjust the
16 flash intensity accordingly. The user can then capture the displayed image though
17 another type of input on the touchscreen, such as a different tap or press on the
18 screen. Palm’s innovations in using a touchscreen to control autofocus and flash
19 functions have made taking high-quality photos on mobile devices far easier. And
20 again, Apple has adopted this technology without permission or license.

21 30. Palm also developed a multi-use power button function on a mobile
22 device that offers control of both the computing and telephony functions of a device,
23 embodied in U.S. Patent No. 9,203,940 (“the ’940 patent”). Palm’s development in
24 the ’940 patent allows a mobile device user to use a single power button to control
25

26 ⁵ <http://www.theverge.com/2013/6/11/4418188/apple-ios-7-design-influences>.

27 ⁶ [https://techcrunch.com/2017/09/13/the-iphone-x-reveals-why-tim-cook-was-so-](https://techcrunch.com/2017/09/13/the-iphone-x-reveals-why-tim-cook-was-so-mad-about-palm/?ncid=rss)
28 [mad-about-palm/?ncid=rss](https://techcrunch.com/2017/09/13/the-iphone-x-reveals-why-tim-cook-was-so-mad-about-palm/?ncid=rss)

1 multiple functions of a mobile device such as silencing a ring and also turn on the
2 backlight of the display. Palm’s innovation has simplified the operation of mobile
3 devices by minimizing physical buttons, freeing up more space for the touch screen,
4 and allowing the mobile device to become smaller. Apple used this technology as
5 early as their iPhone 4 without permission or license.

6 31. Moreover, in 2005, Palm invented the ability to respond to an incoming
7 phone call with a text message instead of, *e.g.*, answering the call, declining the call,
8 or sending the call directly to voicemail. That technology is protected by patent
9 U.S. Patent No. 7,844,037 (“the ’037 patent”). And, like other Palm inventions,
10 Apple uses the ’037 patent without permission. For example, when an incoming
11 call is received by an iPhone, the iPhone displays to a user the option to accept or
12 decline the incoming call. The display also presents a messaging option, whereby a
13 user can choose to text the caller, and a user either selects a stock message (*e.g.*,
14 “Can I call you later?”) or can customize a message to be sent to the caller.

15 32. All of these Palm inventions—owned by Qualcomm—have vastly
16 improved the functionality of mobile devices and the user experience, and all of
17 them are widely found in Apple products without license or permission.

18 **TouchTable Patents**

19 33. In June 2013, Qualcomm invested in a portfolio of patents formerly
20 held by TouchTable Inc., a business unit of the multidisciplinary innovation firm
21 Applied Minds. Applied Minds was founded in 2000 by technology visionaries Dr.
22 Daniel Hillis and Bran Ferren. Hillis, a pioneer in parallel supercomputing, and
23 Ferren, an Academy Award-winning visual-effects expert, met while working at
24 Walt Disney’s acclaimed “Imagineering” division. The two eventually left Disney
25 in 2000 to form Applied Minds, which was self-described as “the little Big Idea
26 company.”

27 34. One of Hillis’ and Ferren’s numerous inventions is the “TouchTable.”
28 The TouchTable, resembling a table with a touch-sensitive display in place of the

1 table's surface, was designed to be manipulated by a user's touch rather than a
2 mouse, keyboard, or other input device. For example, the TouchTable can be used
3 to display maps—similar to a large paper map spread out on a table, but one that
4 allows for methods of user interactions that would be impossible for a static map.

5 35. Because the TouchTable was designed to allow multiple users to work
6 collaboratively and without the need for an extrinsic input device, Hillis and Ferren
7 developed touch gestures that users could use to interact directly with the display.
8 The gestures needed to be complex enough to allow users to manipulate the display
9 in ways that provide sufficient control while still being intuitive enough to minimize
10 the learning curve.

11 36. Hillis and Ferren developed a device that understood a set of gestures
12 to fulfill this need. In the map example, the touch gestures developed by Hillis and
13 Ferren allow a user to pan around a map simply by dragging a finger across the
14 display, or to zoom into or out of the map by dragging fingers apart or together,
15 respectively. This multi-touch technology is protected by U.S. Patent No. 8,665,239
16 (“the ’239 patent”) and is used by Apple without permission or license.

17 **The Accused Devices**

18 37. As set forth below, a variety of Apple's devices—including certain of
19 Apple's iPhones and iPads—practice one or more of the Patents-in-Suit.

20 **The Patents-in-Suit**

21 38. The following patents are infringed by Apple (“Patents-in-Suit”): U.S.
22 Patent No. 8,683,362 (“the ’362 patent”), U.S. Patent No. 8,497,928 (“the ’928
23 patent”), U.S. Patent No. 8,665,239 (“the ’239 patent”), U.S. Patent 9,203,940 (the
24 ’940 patent), and U.S. Patent No. 7,844,037 (“the ’037 patent”).

25 39. As described below, Apple has been and is still infringing, contributing
26 to infringement, and/or inducing others to infringe the Patents-in-Suit by making,
27 using, offering for sale, selling, or importing devices that practice the Patents-in-

28

1 Suit. Apple’s acts of infringement have occurred within this District and elsewhere
2 throughout the United States.

3 **U.S. Patent No. 8,683,362**

4 40. The ’362 patent was duly and legally issued on March 25, 2014 to
5 Qualcomm, which is the owner of the ’362 patent and has the full and exclusive
6 right to bring actions and recover damages for Apple’s infringement of the ’362
7 patent. The ’362 patent is valid and enforceable. A copy of the ’362 patent is
8 attached hereto as Exhibit A.

9 41. The ’362 patent relates to a multitasking user interface to display
10 different, concurrently running applications as “cards” and allow a user to take
11 various actions on the “cards,” such as moving right or left to maneuver between
12 applications. ’362 patent at Abstract; 9:65-10:13. In addition, applications can be
13 dismissed (*i.e.*, “closed”) by moving or dragging a corresponding card in an
14 upwards direction via a touchscreen display. *Id.* at 12:11-20.

15 **U.S. Patent No. 8,497,928**

16 42. The ’928 patent was duly and legally issued on July 31, 2007, and
17 Qualcomm is the current owner of the ’928 patent and has the full and exclusive
18 right to bring action and recover damages for Apple’s infringement of the ’928
19 patent. The ’928 patent is valid and enforceable. A copy of the ’928 patent is
20 attached hereto as Exhibit B.

21 43. The ’928 patent relates to focusing a digital camera using a touchscreen
22 display. For example, a user may select an area on a touchscreen display where a
23 focal point is desired, and the coordinates of that area may then be used to adjust the
24 focal point. ’928 patent at 9:8-21. Also, depending on the light condition associated
25 with the new focal point, the flash intensity may be adjusted. *Id.* at 10:19-22.

26 **U.S. Patent No. 8,665,239**

27 44. The ’239 patent was duly and legally issued on March 4, 2014, and
28 Qualcomm is the current owner of the ’239 patent and has the full and exclusive

1 right to bring action and recover damages for Apple's infringement of the '239
2 patent. The '239 patent is valid and enforceable. A copy of the '239 patent is
3 attached hereto as Exhibit C.

4 45. The '239 patent relates to a computing device with a touch-sensitive
5 display that recognizes certain permitted gestures performed by the user on the
6 displayed subject matter. '239 patent at 2:13-28; 3:10-26. In response to a
7 recognized gesture performed on the display, the device will perform a pre-
8 determined operation on the displayed imagery such that the user can manipulate
9 that imagery. *Id.* at 3:10-38. The degree of the operation performed in response to
10 the gesture can depend on the magnitude of the gesture. *Id.* Pre-set gestures
11 involving multiple touches, or touches of varying force, speed, length, or intensity,
12 are disclosed as well. *Id.* at 3:10-14; 6:60-65. The recognition of a gesture by the
13 device, or a modification caused by a gesture, or both, depend on the magnitude of
14 at least one of the user's touches. *Id.* at 6:60-65.

15 **U.S. Patent No. 9,203,940**

16 46. The '940 patent was duly and legally issued on December 1, 2015 to
17 Qualcomm, which is the owner of the '940 patent and has the full and exclusive
18 right to bring action and recover damages for Apple's infringement of the '940
19 patent. The '940 patent is valid and enforceable. A copy of the '940 patent is
20 attached hereto as Exhibit D.

21 47. The '940 patent relates to the features of the power button on a mobile
22 device. The claims disclose the ability to use a power button to control both the
23 computing and telephony functions of the device, such that the single power button
24 can silence a ring and also turn on the backlight of the display. '940 patent at 1:59-
25 62.

26 **U.S. Patent No. 7,844,037**

27 48. The '037 patent was duly and legally issued on November 30, 2010 to
28 Qualcomm, which is the owner of the '037 patent and has the full and exclusive

1 right to bring action and recover damages for Apple’s infringement of the ’037
2 patent. The ’037 patent is valid and enforceable. A copy of the ’037 patent is
3 attached hereto as Exhibit E.

4 49. The ’037 patent generally relates to enabling a mobile device user to
5 respond to an incoming call with a message instead of merely answering or
6 declining the call. ’037 patent at 1:7-9.

7 COUNT 1 (PATENT INFRINGEMENT – U.S. PATENT NO. 8,683,362)

8 50. Qualcomm repeats and re-alleges the allegations of paragraphs 1
9 through 49 above as if fully set forth herein.

10 51. Qualcomm is the lawful owner of the ’362 patent, and has the full and
11 exclusive right to bring actions and recover damages for Apple’s infringement of
12 said patent.

13 52. In violation of 35 U.S.C. § 271, Apple has been and is still infringing,
14 contributing to infringement, and/or inducing others to infringe the ’362 patent by
15 making, using, offering for sale, selling, or importing mobile devices that practice
16 the patent, such as Apple devices running iOS 7 and above, including but not limited
17 to iPhone 4, iPhone 4S, iPhone 5, iPhone 5S, iPhone 5C, iPhone 6, iPhone 6 Plus,
18 iPhone 6S, iPhone 6S Plus, iPhone SE, iPhone 7, iPhone 7 Plus, iPad Pro, iPad Air
19 and later, iPad (3rd gen) and later, iPad 2, and iPad mini.

20 53. The accused devices have a touch-sensitive display screen with a
21 physical button coupled to a processor. The accused devices can also run at least
22 two applications concurrently and can transition from displaying one application in
23 a “full screen” mode to a multiple application “card” mode (also referred to as a
24 “windowed” mode) and vice versa. In particular, “card” mode is one view where
25 the current application and other running applications are displayed as cards. The
26 user may move or drag cards corresponding to the currently running applications in
27 a first direction, such as left or right, to view and/or select the cards. To dismiss a
28

1 currently running application, the user may move or drag the corresponding card in
2 a different (second) direction, such as upwards.

3 54. The accused devices infringe at least claims 1, 2, 3, 5, 8, 9, and 11 of
4 the '362 patent. Regarding claim 1, Apple's iOS devices are computer systems on
5 handheld mobile computing devices comprised of a Home button and a touch-
6 sensitive display screen, both of which are coupled to an application processor in
7 order to process button press events or touch gesture events, respectively. The
8 accused devices may operate in two display modes: (1) the normal application
9 interface; and (2) the "app switching" interface.⁷ A user may switch between the
10 two display modes by double-tapping the Home button.⁸ The iOS devices support
11 "multitasking" and can run at least two applications concurrently.⁹ The normal
12 application interface displays a single application in full screen mode. App
13 switching mode may be initiated by double-clicking the Home button, which will
14 display a card having contents of one application and portions of cards
15 corresponding to the other concurrently running applications.¹⁰ While in app
16 switching mode, users may scroll through the cards corresponding to the
17 concurrently running applications in a first direction, *i.e.*, left or right.¹¹ Further,
18 users may dismiss one of the applications by moving or dragging its corresponding
19 card in a second direction (different from the first direction), *i.e.*, upwards.¹² Thus,
20 the accused devices infringe claim 1 of the '362 patent.

21
22
23
24 ⁷ <https://support.apple.com/en-us/HT202070>.

25 ⁸ *Id.*

26 ⁹ <https://www.apple.com/iphone-6s/specs/>.

27 ¹⁰ <https://support.apple.com/en-us/HT202070>.

28 ¹¹ *Id.*

¹² <https://support.apple.com/en-gb/HT201330>.

1 55. Regarding claim 2 of the '362 patent, in app switching mode, the user
2 may scroll through the cards in a horizontal direction (*i.e.*, swiping left or right) and
3 may dismiss an application by swiping its corresponding card in a vertical direction
4 (*i.e.*, swiping up). Thus, the accused devices infringe claim 2 of the '362 patent.

5 56. Regarding claim 3 of the '362 patent, the user may dismiss applications
6 while in app switching mode by moving or dragging the application's corresponding
7 card upwards. Thus, the accused devices infringe claim 3 of the '362 patent.

8 57. Regarding claim 5 of the '362 patent, while in app switching mode,
9 static representations of concurrently running applications are displayed on their
10 respective cards. Thus, the accused devices infringe claim 5 of the '362 patent.

11 58. Regarding claim 8 of the '362 patent, the app switching mode is
12 implemented on the accused devices, which include mobile computing devices.
13 Thus, the accused devices infringe claim 8 of the '362 patent.

14 59. Regarding claim 9 of the '362 patent, the mobile computing devices in
15 which app switching mode is implemented are handheld devices. Thus, the accused
16 devices infringe claim 9 of the '362 patent.

17 60. Regarding claim 11 of the '362 patent, while in app switching mode, in
18 response to dismissal of a card by moving or dragging the card in the second
19 direction, the adjacent cards are shifted to fill the void left by the dismissed card.¹³
20 Thus, the accused devices infringe claim 11 of the '362 patent.

21 61. On information and belief, Apple is currently and, unless enjoined, will
22 continue to actively induce and encourage infringement of the '362 patent. Apple
23 has known of the '362 patent at least since the time this complaint was filed and
24 served on Apple. On information and belief, Apple nevertheless actively
25 encourages others to infringe the '362 patent. On information and belief, Apple
26 knowingly induces infringement by others, including resellers, retailers, and end
27

28 ¹³ <https://support.apple.com/en-gb/HT201330>.

1 users of the accused devices. For example, Apple's customers and the end users of
2 the Accused Devices test and/or operate the Accused Devices in the United States in
3 accordance with Apple's instructions contained in, for example, its user manuals,
4 thereby also performing the claimed methods and directly infringing the asserted
5 claims of the Asserted Patents requiring such operation. These facts give rise to a
6 reasonable inference that Apple knowingly induces others, including resellers,
7 retailers, and end users, to directly infringe the '362 patent, and that Apple possesses
8 a specific intent to cause such infringement.

9 62. Apple also contributes to infringement of the '362 patent by selling for
10 importation into the United States, importing into the United States, and/or selling
11 within the United States after importation the accused devices and the non-staple
12 constituent parts of those devices, which are not suitable for substantial non-
13 infringing use and which embody a material part of the invention described in the
14 '362 patent. These mobile electronic devices are known by Apple to be especially
15 made or especially adapted for use in the infringement of the '362 patent. Apple
16 also contributes to the infringement of the '362 patent by selling for importation into
17 the United States, importing into the United States, and/or selling within the United
18 States after importation components, such as the chipsets or software containing the
19 infringing functionality, of the accused devices, which are not suitable for
20 substantial non-infringing use and which embody a material part of the invention
21 described in the '362 patent. These mobile devices are known by Apple to be
22 especially made or especially adapted for use in the infringement of the '362 patent.
23 Specifically, on information and belief, Apple sells the accused devices to resellers,
24 retailers, and end users with knowledge that the devices are used for infringement.
25 End users of those mobile electronic devices directly infringe the '362 patent.

26 63. Apple's acts of infringement have occurred within this district and
27 elsewhere throughout the United States.

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1 64. Qualcomm has been damaged and will suffer additional damages and
2 irreparable harm unless Apple is enjoined from further infringement. Qualcomm
3 will prove its irreparable harm and damages at trial.

4 COUNT 2 (PATENT INFRINGEMENT – U.S. PATENT NO. 8,497,928)

5 65. Qualcomm repeats and re-alleges the allegations of paragraphs 1
6 through 49 above as if fully set forth herein.

7 66. Qualcomm is the lawful owner of the '928 patent and has the full and
8 exclusive right to bring actions and recover damages for Apple's infringement of
9 said patent.

10 67. In violation of 35 U.S.C. § 271, Apple has been and is still infringing,
11 contributing to infringement, and/or inducing others to infringe the '928 patent by
12 making, using, offering for sale, selling, or importing devices that practice the
13 patent, such as Apple devices that support "tap/touch to focus," including but not
14 limited to the iPhone 3G S, iPhone 4, iPhone 4S, iPhone 5, iPhone 5C, iPhone 5S,
15 iPhone 6, iPhone 6 Plus, iPhone 6S, iPhone 6S Plus, iPhone SE, iPhone 7, iPhone 7
16 Plus, iPad Pro, iPad Air and later, iPad (3rd gen) and later, and iPad mini and later.

17 68. The accused devices infringe at least claims 1, 2, 3, 4, 6, 8, 11, and 13
18 of the '928 patent. Regarding claim 1, the iPhone 7, and on information and belief,
19 the other accused devices, contain an A10 processor, an image signal processor, and
20 a "Six-element lens" (in the rear-facing camera) with "Autofocus with Focus Pixels"
21 and "Optical image stabilization." The iPhone's autofocus feature incorporates an
22 actuator which, on information and belief, adjusts at least one lens position in the
23 camera module to focus on images seen or captured through the camera. The
24 iPhone's image stabilization feature also includes "a sensor [which] helps the lens
25 counteract even the tiniest movement."¹⁴ When the iOS camera application is
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28 ¹⁴ See <https://www.apple.com/newsroom/2017/01/behind-apples-new-campaign-one-night-on-iphone-7/>

1 launched in its preview mode, it displays a real-time image of the scene observed
2 through the camera with a default first focal point, typically in the center of the
3 image. The application indicates and highlights the first focal point with a yellow
4 square overlaid on the real-time displayed image. The user can tap on a location on
5 the displayed real-time image captured by the camera to autofocus on that point in
6 the image, or the user can press and hold on any point in the image to autofocus on
7 that point and engage the “AE/AF Lock” mode, which selects and maintains a new
8 focal point in the image. Apple’s website markets this feature as “Tap to focus with
9 Focus Pixels.”¹⁵ The new focal point is depicted on an iPhone by a smaller yellow
10 square overlaid on the real-time displayed camera image at the location of the
11 second focal point.

12 69. The iPhone components that are used to implement the camera’s
13 “Autofocus with Focus Pixels” feature include the image sensor, which contains the
14 “Focus Pixels,” and the A10 chip with its built-in image signal processor. Apple’s
15 website states that the image signal processor permits “faster focus.” The iPhone
16 takes the user’s touch input and then controls the focus of the camera to achieve
17 focus at the desired location in the image. In the native camera application in iOS
18 10 on an iPhone, a focal point selection by the user causes the focal setting of the
19 lens component to adjust from the first, default focal point to the second, user-
20 selected focal point. As part of this adjustment process, on information and belief,
21 appropriate control signals are sent to the actuator in the camera module, and that
22 actuator in turn moves at least one element in the camera’s six-element lens.

23 70. Apple’s website states that the iPhone 7 contains a “Quad-LED True
24 Tone flash.” The user interface in the native camera application in iOS 10 has an
25 “auto” mode for the flash and uses software modules to determine whether, and
26 how, the flash is operated given a set of lighting conditions and user inputs. The
27

28 ¹⁵ *See id.*

1 Apple website states that the iPhone camera functionality includes a “Backside
2 illumination sensor” and “Exposure control,” for example. The iPhone adjusts flash
3 intensity in the manner described by the ’928 patent. For example, on information
4 and belief, when the camera application is in preview mode and a user presses-and-
5 holds on a dark location on the displayed image, the flash will activate when taking
6 a picture in “auto” flash mode. Conversely, when the user presses-and-holds a
7 bright location in the exact same displayed image, the flash will not activate when
8 taking a picture in “auto” flash mode. This behavior demonstrates that the iPhone
9 selects a flash value based on the user-selected focal point. Moreover, when
10 capturing an image in “auto” flash mode, the flash is activated with the flash level
11 value that was selected based on the user’s input. Images are captured in response
12 to various user inputs, including pressing a capture icon on the touchscreen display.
13 Thus, the accused devices infringe claim 1 of the ’928 patent.

14 71. With respect to claim 2 of the ’928 patent, on information and belief,
15 the iPhone’s display determines and sends to the “focal point selection module” the
16 coordinates of the second focal point selected by the user. Thus, the accused
17 devices infringe claim 2 of the ’928 patent.

18 72. With respect to claim 3 of the ’928 patent, the iPhone’s display
19 provides a “pointer component,” via a square overlaid on the displayed image on the
20 touchscreen display, that displays the location to the focal point selected by the user.
21 Thus, the accused devices infringe claim 3 of the ’928 patent.

22 73. With respect to claim 4 of the ’928 patent, the “focus control signals”
23 specify a focal length for the iPhone’s “lens component.” Thus, the accused devices
24 infringe claim 4 of the ’928 patent.

25 74. With respect to claim 6 of the ’928 patent, a “white balance control
26 module” modifies the white balance of the image based on the newly-selected focal
27 point. Thus, the accused devices infringe claim 6 of the ’928 patent.
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1 75. With respect to claims 7 and 10 of the '928 patent, one or more
2 processors in the accused mobile devices perform the claimed "method for
3 operating." The accused devices also contain "a non-transitory computer readable
4 storage medium storing instructions, the instructions when executed by one or more
5 processors cause the processors to perform" the claimed method. The method
6 includes the native camera application in the iPhone 7, for example, displaying an
7 image provided by the iPhones' "lens component," and that application presenting
8 the image with a default, "first focal point." The iPhone 7 permits the user to select
9 a different focal point by providing one type of input on the displayed image on the
10 touchscreen display. The iPhone 7 refocuses the device's camera lens to the newly-
11 selected focal point while the touchscreen display shows the image captured by the
12 camera. The newly-selected focal point is used by the iPhone 7 to select a "flash
13 level value" which corresponds to the flash intensity for the camera's flash
14 component. The iPhone 7 allows the user to provide a second type of input on the
15 touchscreen display to capture the displayed image (using the chosen "flash level
16 value"). Thus, the accused devices infringe claims 7 and 10 of the '928 patent.

17 76. With respect to claims 8 and 11 of the '928 patent, refocusing the
18 accused devices' lens component on the newly-selected focal point includes the
19 generation of coordinates for the new focal point. Thus, the accused devices
20 infringe claims 8 and 11 of the '928 patent.

21 77. With respect to claim 13 of the '928 patent, the method employed by
22 the accused devices, via one or more of their processors, includes adjusting the
23 image's white balance setting based on the newly-selected focal point. Thus, the
24 accused devices infringe claim 13 of the '928 patent.

25 78. On information and belief, Apple is currently, and unless enjoined, will
26 continue to, actively induce and encourage infringement of the '928 patent. Apple
27 has known of the '928 patent at least since the time this complaint was filed and
28 served on Apple. On information and belief, Apple nevertheless actively

1 encourages others to infringe the '928 patent. On information and belief, Apple
2 knowingly induces infringement by others, including resellers, retailers, and end
3 users of the accused devices. For example, Apple's customers and the end users of
4 the Accused Devices test and/or operate the Accused Devices in the United States in
5 accordance with Apple's instructions contained in, for example, its user manuals,
6 thereby also performing the claimed methods and directly infringing the asserted
7 claims of the Asserted Patents requiring such operation. These facts give rise to a
8 reasonable inference that Apple knowingly induces others, including resellers,
9 retailers, and end users, to directly infringe the '928 patent, and that Apple possesses
10 a specific intent to cause such infringement.

11 79. Apple also contributes to infringement of the '928 patent by selling for
12 importation into the United States, importing into the United States, and/or selling
13 within the United States after importation the accused devices and the non-staple
14 constituent parts of those devices, which are not suitable for substantial non-
15 infringing use and which embody a material part of the invention described in the
16 '928 patent. These mobile electronic devices are known by Apple to be especially
17 made or especially adapted for use in the infringement of the '928 patent. Apple
18 also contributes to the infringement of the '928 patent by selling for importation into
19 the United States, importing into the United States, and/or selling within the United
20 States after importation components, such as the chipsets or software containing the
21 infringing functionality, of the accused devices, which are not suitable for
22 substantial non-infringing use and which embody a material part of the invention
23 described in the '928 patent. These mobile devices are known by Apple to be
24 especially made or especially adapted for use in the infringement of the '928 patent.
25 Specifically, on information and belief, Apple sells the accused devices to resellers,
26 retailers, and end users with knowledge that the devices are used for infringement.
27 End users of those mobile electronic devices directly infringe the '928 patent.

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1 80. Apple’s acts of infringement have occurred within this district and
2 elsewhere throughout the United States.

3 81. Qualcomm has been damaged and will suffer additional damages and
4 irreparable harm unless Apple is enjoined from further infringement. Qualcomm
5 will prove its irreparable harm and damages at trial.

6 COUNT 3 (PATENT INFRINGEMENT – U.S. PATENT NO. 8,665,239)

7 82. Qualcomm repeats and re-alleges the allegations of paragraphs 1
8 through 49 above as if fully set forth herein.

9 83. Qualcomm is the lawful owner of the ’239 patent, and has the full and
10 exclusive right to bring actions and recover damages for Apple’s infringement of
11 said patent.

12 84. In violation of 35 U.S.C. § 271, Apple has been and is still infringing,
13 contributing to infringement, and/or inducing others to infringe the ’239 patent by
14 making, using, offering for sale, selling, or importing devices that practice the
15 patent, including but not limited to Apple devices that support “3D Touch,”
16 including but not limited to the iPhone 6S, iPhone 6S Plus, iPhone 7, and iPhone 7
17 Plus.

18 85. The accused devices allow the user to perform certain pre-defined
19 gestures on a touch-sensitive display, using one or more touches on the display, that
20 perform pre-defined operations modifying the displayed subject matter. The
21 accused devices determine the magnitude (for example, length or force) of a user’s
22 touch inputs. The operations performed by the gestures depend, in part, on the
23 determined magnitude of those inputs.

24 86. The accused devices infringe at least claims 1, 2, 3, and 4 of the ’239
25 patent. Apple’s iPhone devices starting from iPhone 6 and on incorporate the
26 infringing functionality. Regarding claim 1, iPhone 7, for example, is comprised of
27 a touch-sensitive display surface and the Apple A10 processor with embedded M10
28 motion coprocessor coupled to a Samsung K3RG1G10CM 2-GB LPDDR4 memory

1 and Toshiba THGBX6T0T8LLFXE 128 GB NAND memory IC.¹⁶ The underlying
2 operating system, iOS, includes a UIKit framework stored in digital data storage and
3 contains a record of gesture recognizer classes executable by touching the display,
4 such as pinch to zoom, pan or drag, swipe, and rotate.¹⁷ A gesture recognizer may
5 be attached to a view and will interpret the touch gesture events to that view.¹⁸
6 When a pattern match is detected, the gesture recognizer notifies a view controller to
7 modify the subject matter presented in the view based on the operation associated
8 with that gesture.¹⁹ Software instructions in the accused devices, including the
9 UITouch framework in iOS, may track the magnitude of an input (for example,
10 length or force) and use that information to determine whether a particular gesture
11 has occurred, and the manner in which subject matter presented on the display
12 should be modified.²⁰ Thus, the accused devices infringe claim 1 of the '239 patent.

13 87. Regarding claim 2 of the '239 patent, the method of claim 1 is
14 performed based on properties of the user's touch detected, which include the
15 current length, area, intensity, and force as well as length, area, intensity, and force
16 history. Thus, the accused devices infringe claim 2 of the '239 patent.

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19 ¹⁶ <https://www.apple.com/iphone-7/specs/>; <http://www.techinsights.com/about-techinsights/overview/blog/apple-iphone-7-teardown/>.

20 ¹⁷ [https://developer.apple.com/library/content/documentation/EventHandling/](https://developer.apple.com/library/content/documentation/EventHandling/Conceptual/EventHandlingiPhoneOS/index.html)
21 [Conceptual/EventHandlingiPhoneOS/index.html](https://developer.apple.com/library/content/documentation/EventHandling/Conceptual/EventHandlingiPhoneOS/index.html).

22 ¹⁸ [https://developer.apple.com/library/content/documentation/EventHandling/](https://developer.apple.com/library/content/documentation/EventHandling/Conceptual/EventHandlingiPhoneOS/index.html#//apple_ref/doc/uid/TP40009541-CH3-SW1)
23 [Conceptual/EventHandlingiPhoneOS/index.html#//apple_ref/doc/uid/TP40009541-](https://developer.apple.com/library/content/documentation/EventHandling/Conceptual/EventHandlingiPhoneOS/index.html#//apple_ref/doc/uid/TP40009541-CH3-SW1)
24 [CH3-SW1](https://developer.apple.com/library/content/documentation/EventHandling/Conceptual/EventHandlingiPhoneOS/index.html#//apple_ref/doc/uid/TP40009541-CH3-SW1).

24 ¹⁹ *Id.*

25 ²⁰ [https://developer.apple.com/library/content/documentation/EventHandling/](https://developer.apple.com/library/content/documentation/EventHandling/Conceptual/EventHandlingiPhoneOS/HandlingTouchesinYourView.html#//apple_ref/doc/uid/TP40009541-CH16-SW1)
26 [Conceptual/EventHandlingiPhoneOS/HandlingTouchesinYourView.html#//apple_re](https://developer.apple.com/library/content/documentation/EventHandling/Conceptual/EventHandlingiPhoneOS/HandlingTouchesinYourView.html#//apple_ref/doc/uid/TP40009541-CH16-SW1)
27 [f/doc/uid/TP40009541-CH16-SW1;](https://developer.apple.com/library/content/documentation/EventHandling/Conceptual/EventHandlingiPhoneOS/Respondingto3DTouchEvents.html#//apple_ref/doc/uid/TP40009541-CH19-SW1)
28 [https://developer.apple.com/library/content/documentation/EventHandling/](https://developer.apple.com/library/content/documentation/EventHandling/Conceptual/EventHandlingiPhoneOS/Respondingto3DTouchEvents.html#//apple_ref/doc/uid/TP40009541-CH19-SW1)
[Conceptual/EventHandlingiPhoneOS/Respondingto3DTouchEvents.html#//apple_re](https://developer.apple.com/library/content/documentation/EventHandling/Conceptual/EventHandlingiPhoneOS/Respondingto3DTouchEvents.html#//apple_ref/doc/uid/TP40009541-CH19-SW1)
[f/doc/uid/TP40009541-CH19-SW1](https://developer.apple.com/library/content/documentation/EventHandling/Conceptual/EventHandlingiPhoneOS/Respondingto3DTouchEvents.html#//apple_ref/doc/uid/TP40009541-CH19-SW1).

1 88. Regarding claim 3 of the '239 patent, the accused devices contain
2 executable machine-readable instructions to execute claim 1 of the '239 patent,
3 where a gesture recognizer will interpret and execute gestures performed by the user
4 based on the operation associated with the user gesture. Thus, the accused devices
5 infringe claim 3 of the '239 patent.

6 89. Regarding claim 4, the method in claim 3 is performed based on
7 properties of the user's touch detected, which include the current length, area,
8 intensity, and force as well as length, area, intensity, and force history. Thus, the
9 accused devices infringe claim 4 of the '239 patent.

10 90. On information and belief, Apple is currently, and unless enjoined, will
11 continue to, actively induce and encourage infringement of the '239 patent. Apple
12 has known of the '239 patent at least since the time this complaint was filed and
13 served on Apple. On information and belief, Apple nevertheless actively
14 encourages others to infringe the '239 patent. On information and belief, Apple
15 knowingly induces infringement by others, including resellers, retailers, and end
16 users of the accused devices. For example, Apple's customers and the end users of
17 the Accused Devices test and/or operate the Accused Devices in the United States in
18 accordance with Apple's instructions contained in, for example, its user manuals,
19 thereby also performing the claimed methods and directly infringing the asserted
20 claims of the Asserted Patents requiring such operation. These facts give rise to a
21 reasonable inference that Apple knowingly induces others, including resellers,
22 retailers, and end users, to directly infringe the '239 patent, and that Apple possesses
23 a specific intent to cause such infringement.

24 91. Apple also contributes to infringement of the '239 patent by selling for
25 importation into the United States, importing into the United States, and/or selling
26 within the United States after importation the accused devices and the non-staple
27 constituent parts of those devices, which are not suitable for substantial non-
28 infringing use and which embody a material part of the invention described in the

1 '239 patent. These mobile electronic devices are known by Apple to be especially
2 made or especially adapted for use in the infringement of the '239 patent. Apple
3 also contributes to the infringement of the '239 patent by selling for importation into
4 the United States, importing into the United States, and/or selling within the United
5 States after importation components, such as the chipsets or software containing the
6 infringing functionality, of the accused devices, which are not suitable for
7 substantial non-infringing use and which embody a material part of the invention
8 described in the '239 patent. These mobile devices are known by Apple to be
9 especially made or especially adapted for use in the infringement of the '239 patent.
10 Specifically, on information and belief, Apple sells the accused devices to resellers,
11 retailers, and end users with knowledge that the devices are used for infringement.
12 End users of those mobile electronic devices directly infringe the '239 patent.

13 92. Apple's acts of infringement have occurred within this district and
14 elsewhere throughout the United States.

15 93. Qualcomm has been damaged and will suffer additional damages and
16 irreparable harm unless Apple is enjoined from further infringement. Qualcomm
17 will prove its irreparable harm and damages at trial.

18 COUNT 4 (PATENT INFRINGEMENT – U.S. PATENT NO. 9,203,940)

19 94. Qualcomm repeats and re-alleges the allegations of paragraphs 1
20 through 49 above as if fully set forth herein.

21 95. Qualcomm is the lawful owner of the '940 patent, and has the full and
22 exclusive right to bring actions and recover damages for Apple's infringement of
23 said patent.

24 96. In violation of 35 U.S.C. § 271, Apple has been and is still infringing,
25 contributing to infringement, and/or inducing others to infringe the '940 patent by
26 making, using, offering for sale, selling, or importing mobile devices that practice
27 the patent, including but not limited to the iPhone 4, iPhone 5, iPhone 6, iPhone 6S,
28

1 iPhone 6S Plus, iPhone SE, iPhone 7, iPhone 7 Plus, iPhone 8, iPad mini 4, and the
2 12.9” 2015 iPad Pro.

3 97. The accused devices include a power button function capable of
4 controlling both the computing and telephony functions of the device, whereby a
5 single power button can silence a ring and also turn on the backlight of the display.

6 98. The accused devices infringe at least claims 1, 2, 3, 4, 7, 10, 11, 12, 13,
7 14, 15, 18, 21, and 22 of the '940 patent.

8 99. Regarding claim 1, Apple's iOS devices are mobile computing devices
9 comprising of a display, a power button, and a processor. The accused devices
10 present a notification on the display when a telephone call is being received. For
11 example, when an iPhone receives an incoming call the notification will appear
12 indicating the name or number of the person calling. A user may then silence a ring
13 associated with the telephone call by pressing the power button without turning off
14 the mobile computing device. When a telephone call is not being received, the
15 power button activates a backlight of the display. Thus, the accused devices infringe
16 claim 1 of the '940 patent.

17 100. Regarding claims 2 and 3, the accused devices have a display located
18 on the first face of the computing device while the power button is located on a
19 second, different, face of the computing device. The first face is a front surface of
20 the device. Thus, the accused devices infringe claims 2 and 3 of the '940 patent.

21 101. Regarding claim 4, the user of the device is able to press the power
22 button to power off the device when not receiving a telephone call. The instructions
23 of the accused devices also enables the power button, when pressed, to power off the
24 device when not receiving a telephone call. Thus, the accused devices infringe claim
25 4 of the '940 patent.

26 102. Regarding claim 7, the user of the device is able to answer a telephone
27 call by selecting an icon presented on the display. Thus, the accused devices infringe
28 claim 7 of the '940 patent.

1 103. Regarding claims 10 and 11, the accused devices include a ringer
2 switch that when in a first state causes the device to ring when a telephone call is
3 being received and when in a second state, to vibrate the device when the call is
4 being received. When the ringer switch is in the first state, the user pressing the
5 power button causes the device to stop vibrating. Thus, the accused devices infringe
6 claims 10 and 11 of the '940 patent.

7 104. Regarding claim 12, Apple's iOS devices are mobile computing
8 devices comprised of a radio, a display, a power button, a processor, and memory
9 storing instructions that allow the computing device to present a notification on the
10 display when a telephone call is being received. For example, when an iPhone
11 receives an incoming call the notification will appear indicating the name or number
12 of the person calling. A user may then silence a ring associated with the telephone
13 call by pressing the power button without turning off the mobile computing device.
14 When a telephone call is not being received, the power button activates a backlight
15 of the display. Thus, the accused devices infringe claim 12 of the '940 patent.

16 105. Regarding claims 13 and 14, the accused devices have a display located
17 on the first face of the computing device while the power button is located on a
18 second, different, face of the computing device. The first face is a front surface of
19 the device. Thus, the accused devices infringe claims 13 and 14 of the '940 patent.

20 106. Regarding claim 15, the instructions of the mobile computing device
21 enables the power button, when pressed, to power off the device when not receiving
22 a telephone call. The instructions of the accused devices also enables the power
23 button, when pressed, to power off the mobile device when not receiving a
24 telephone call. Thus, the accused devices infringe claim 15 of the '940 patent.

25 107. Regarding claim 18, the instructions of the mobile computing device
26 enable the user to answer a telephone call by selecting an icon presented on the
27 display. Thus, the accused devices infringe claim 18 of the '940 patent.

28

1 108. Regarding claims 21 and 22, the instructions of the accused devices
2 include a ringer switch that when in a first state causes the device to ring when a
3 telephone call is being received and when in a second state, to vibrate the device
4 when the call is being received. When the ringer switch is in the first state, the user
5 pressing the power button causes the device to stop vibrating. Thus, the accused
6 devices infringe claims 21 and 22 of the '940 patent.

7 109. On information and belief, Apple is currently, and unless enjoined, will
8 continue to, actively induce and encourage infringement of the '940 patent. Apple
9 has known of the '940 patent at least since the time this complaint was filed and
10 served on Apple. On information and belief, Apple nevertheless actively
11 encourages others to infringe the '940 patent. On information and belief, Apple
12 knowingly induces infringement by others, including resellers, retailers, and end
13 users of the accused devices. For example, Apple's customers and the end users of
14 the Accused Devices test and/or operate the Accused Devices in the United States in
15 accordance with Apple's instructions contained in, for example, its user manuals,
16 thereby also performing the claimed methods and directly infringing the asserted
17 claims of the Asserted Patents requiring such operation. These facts give rise to a
18 reasonable inference that Apple knowingly induces others, including resellers,
19 retailers, and end users, to directly infringe the '940 patent, and that Apple possesses
20 a specific intent to cause such infringement.

21 110. Apple also contributes to infringement of the '940 patent by selling for
22 importation into the United States, importing into the United States, and/or selling
23 within the United States after importation the accused devices and the non-staple
24 constituent parts of those devices, which are not suitable for substantial non-
25 infringing use and which embody a material part of the invention described in the
26 '940 patent. These mobile electronic devices are known by Apple to be especially
27 made or especially adapted for use in the infringement of the '940 patent. Apple
28 also contributes to the infringement of the '940 patent by selling for importation into

1 the United States, importing into the United States, and/or selling within the United
2 States after importation components, such as the chipsets or software containing the
3 infringing functionality, of the accused devices, which are not suitable for
4 substantial non-infringing use and which embody a material part of the invention
5 described in the '940 patent. These mobile devices are known by Apple to be
6 especially made or especially adapted for use in the infringement of the '940 patent.
7 Specifically, on information and belief, Apple sells the accused devices to resellers,
8 retailers, and end users with knowledge that the devices are used for infringement.
9 End users of those mobile electronic devices directly infringe the '940 patent.

10 111. Apple's acts of infringement have occurred within this district and
11 elsewhere throughout the United States.

12 112. Qualcomm has been damaged and will suffer additional damages and
13 irreparable harm unless Apple is enjoined from further infringement. Qualcomm
14 will prove its irreparable harm and damages at trial.

15 COUNT 5 (PATENT INFRINGEMENT – U.S. PATENT NO. 7,844,037)

16 113. Qualcomm repeats and re-alleges the allegations of paragraphs 1
17 through 49 above as if fully set forth herein.

18 114. Qualcomm is the lawful owner of the '037 patent, and has the full and
19 exclusive right to bring actions and recover damages for Apple's infringement of
20 said patent.

21 115. In violation of 35 U.S.C. § 271, Apple has been and is still infringing,
22 contributing to infringement, and/or inducing others to infringe the '037 patent by
23 making, using, offering for sale, selling, or importing devices that practice the
24 patent, such as all versions of the iPhone and potentially all versions of the iPads.
25 The accused devices are capable of enabling a mobile device user to respond to an
26 incoming call with a message instead of merely answering or declining the call. The
27 accused devices infringe at least claims 1, 7, 8, and 9 of the '037 patent.

1 116. Regarding claim 1, the accused devices allow users to respond to a
2 phone call with a text message. For example, when a call is received, the iPhone
3 displays the option to accept or decline the incoming call as well as displaying a
4 messaging option, whereby a user can choose to text the caller. The user can then
5 select to send a stock message or a customized message to the caller. The message is
6 sent to a user of the second computing device as recited from claim 1. Thus, the
7 accused devices infringe claim 1 of the '037 patent.

8 117. Regarding claim 7 of the '037 patent, the accused device will verify
9 that the second computing device is enabled for receiving the message. In the case
10 of the iPhone, an iMessage is used when the incoming call is from an iPhone that
11 has its iMessage feature enabled.²¹ To this effect, iPhone verifies whether the second
12 computing device is able to receive the iMessage and, only after such a
13 determination has been done, sends the iMessage to the calling second computing
14 device. Thus, the accused devices infringe claim 7 of the '037 patent.

15 118. Regarding claim 8 of the '037 patent, on information and belief, the
16 accused devices verification of the second device includes “identifying a phone
17 number of the other computing device used for the incoming call,” and “determining
18 that the phone number is associated with a message-enabled device” that can handle
19 an instant message response. The iPhone identifies the second computing device’s
20 phone number and determines whether the second computing device can receive an
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23
24 ²¹ iMessage is a messaging architecture that enables Apple devices such as iPhone,
25 iPad and iPod to communicate with each other. These are NOT SMS/MMS and
26 iMessages are sent only to other devices built by Apple. “iMessages are texts,
27 photos, or videos that you send to iOS devices and Macs over Wi-Fi or cellular-data
28 networks. These messages appear in blue text bubbles.”

<https://support.apple.com/en-us/HT207006>. “SMS/MMS messages are texts and
photos that you send to other cell phones or iOS devices. These messages appear in
green text bubbles on your device.” *Id.*

1 iMessage (instant message). Thus, the accused devices infringe claim 8 of the '037
2 patent.

3 119. Regarding claim 9 of the '037 patent, on information and belief, the
4 accused devices determining that the second computing device is capable of
5 receiving a message includes “accessing a contact record of a caller of the incoming
6 call,” and “using the contact record to verify that the phone number is capable of
7 being used to receive the message” as recited from claim 9. For example, the iPhone
8 does this by checking Apple’s cloud servers to determine whether the second
9 computing device’s contact record exists and whether there is an indication that the
10 second computing device has enabled iMessaging. Thus, the accused devices
11 infringe claim 9 of the '037 patent.

12 120. On information and belief, Apple is currently, and unless enjoined, will
13 continue to, actively induce and encourage infringement of the '037 patent. Apple
14 has known of the '037 patent at least since the time this complaint was filed and
15 served on Apple. On information and belief, Apple nevertheless actively
16 encourages others to infringe the '037 patent. On information and belief, Apple
17 knowingly induces infringement by others, including resellers, retailers, and end
18 users of the accused devices. For example, Apple’s customers and the end users of
19 the Accused Devices test and/or operate the Accused Devices in the United States in
20 accordance with Apple’s instructions contained in, for example, its user manuals,
21 thereby also performing the claimed methods and directly infringing the asserted
22 claims of the Asserted Patents requiring such operation. These facts give rise to a
23 reasonable inference that Apple knowingly induces others, including resellers,
24 retailers, and end users, to directly infringe the '037 patent, and that Apple possesses
25 a specific intent to cause such infringement.

26 121. Apple also contributes to infringement of the '037 patent by selling for
27 importation into the United States, importing into the United States, and/or selling
28 within the United States after importation the accused devices and the non-staple

1 constituent parts of those devices, which are not suitable for substantial non-
2 infringing use and which embody a material part of the invention described in the
3 '037 patent. These mobile electronic devices are known by Apple to be especially
4 made or especially adapted for use in the infringement of the '037 patent. Apple
5 also contributes to the infringement of the '037 patent by selling for importation into
6 the United States, importing into the United States, and/or selling within the United
7 States after importation components, such as the chipsets or software containing the
8 infringing functionality, of the accused devices, which are not suitable for
9 substantial non-infringing use and which embody a material part of the invention
10 described in the '037 patent. These mobile devices are known by Apple to be
11 especially made or especially adapted for use in the infringement of the '037 patent.
12 Specifically, on information and belief, Apple sells the accused devices to resellers,
13 retailers, and end users with knowledge that the devices are used for infringement.
14 End users of those mobile electronic devices directly infringe the '037 patent.

15 122. Apple's acts of infringement have occurred within this district and
16 elsewhere throughout the United States.

17 123. Qualcomm has been damaged and will suffer additional damages and
18 irreparable harm unless Apple is enjoined from further infringement. Qualcomm
19 will prove its irreparable harm and damages at trial.

20 PRAYER FOR RELIEF

21 WHEREFORE, Qualcomm respectfully requests that the Court enter
22 judgment as follows:

- 23 (a) Declaring that Apple has infringed the Patents-in-Suit;
24 (b) Awarding damages in an amount to be proven at trial, but in no event
25 less than a reasonable royalty for its infringement including pre-judgment and post-
26 judgment interest at the maximum rate permitted by law;

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1 (c) Ordering a permanent injunction enjoining Apple, its officers, agents,
2 servants, employees, attorneys, and all other persons in active concert or
3 participation with Apple from infringing the Patents-in-Suit;

4 (d) Ordering an award of reasonable attorneys' fees to Qualcomm as
5 provided by 35 U.S.C. § 285;

6 (e) Awarding expenses, costs, and disbursements in this action, including
7 prejudgment interest; and

8 (f) Awarding such other and further relief as the Court deems just and
9 proper.

10 Dated: November 29, 2017

s/ Randall E. Kay

Randall E. Kay

12 JONES DAY

13 Karen P. Hewitt (SBN 145309)

kphewitt@jonesday.com

14 Randall E. Kay (SBN 149369)

rekay@jonesday.com

15 4655 Executive Drive, Suite 1500

16 San Diego, California 92121

17 Telephone: (858) 314-1200

18 Facsimile: (844) 345-3178

19 QUINN EMANUEL URQUHART &

SULLIVAN, LLP

20 David A. Nelson (*pro hac vice* forthcoming)

21 (Ill. Bar No. 6209623)

davenelson@quinnemanuel.com

22 500 West Madison St., Suite 2450

23 Chicago, Illinois 60661

24 Telephone: (312) 705-7400

25 Facsimile: (312) 705-7401

26 Alexander Rudis (*pro hac vice* forthcoming)

(N.Y. Bar No. 4232591)

27 alexanderrudis@quinnemanuel.com

28 Patrick D. Curran (SBN 241630)

patrickcurran@quinnemanuel.com

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51 Madison Avenue, 22nd Floor
New York, NY 10010
Telephone: (212) 849-7000
Facsimile: (212) 849-7100

Sean S. Pak (SBN 219032)
seanpak@quinnemanuel.com
Andrew Holmes (SBN 260475)
drewholmes@quinnemanuel.com
50 California Street, 22nd Floor
San Francisco, CA 94111
Telephone: (415) 875-6600
Facsimile: (415) 875-6700

S. Alex Lasher (*pro hac vice* forthcoming)
(D.C. Bar No. 486212)
alexlasher@quinnemanuel.com
777 6th Street NW, 11th Floor
Washington, DC 20001
Telephone: (202) 538-8000
Facsimile: (202) 538-8100

CRAVATH, SWAINE & MOORE LLP
Evan R. Chesler (*pro hac vice* forthcoming)
(N.Y. Bar No. 1475722)
echesler@cravath.com
Keith R. Hummel (*pro hac vice* forthcoming)
(N.Y. Bar No. 2430668)
khummel@cravath.com
Richard J. Stark (*pro hac vice* forthcoming)
(N.Y. Bar No. 2472603)
rstark@cravath.com
Gary A. Bornstein (*pro hac vice* forthcoming)
(N.Y. Bar No. 2916815)
gbornstein@cravath.com
J. Wesley Earnhardt (*pro hac vice* forthcoming)
(N.Y. Bar No. 4331609)
wearnhardt@cravath.com
Yonatan Even (*pro hac vice* forthcoming)
(N.Y. Bar No. 4339651)
yeven@cravath.com

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Vanessa A. Lavelly (*pro hac vice* forthcoming)
(N.Y. Bar No. 4867412)
vlavelly@cravath.com
Worldwide Plaza, 825 Eighth Avenue
New York, NY 10019
Telephone: (212) 474-1000
Facsimile: (212) 474-3700

Attorneys for Plaintiff
QUALCOMM INCORPORATED

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DEMAND FOR JURY TRIAL

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, Qualcomm demands a jury trial on all issues triable by jury.

Dated: November 29, 2017 s/ Randall E. Kay
Randall E. Kay

JONES DAY
Karen P. Hewitt (SBN 145309)
kphewitt@jonesday.com
Randall E. Kay (SBN 149369)
rekay@jonesday.com
4655 Executive Drive, Suite 1500
San Diego, California 92121
Telephone: (858) 314-1200
Facsimile: (844) 345-3178

QUINN EMANUEL URQUHART & SULLIVAN,
LLP
David A. Nelson (*pro hac vice* forthcoming)
(Ill. Bar No. 6209623)
davenelson@quinnemanuel.com
500 West Madison St., Suite 2450
Chicago, Illinois 60661
Telephone: (312) 705-7400
Facsimile: (312) 705-7401

CRAVATH, SWAINE & MOORE LLP
Evan R. Chesler (*pro hac vice* forthcoming)
(N.Y. Bar No. 1475722)
echesler@cravath.com
Worldwide Plaza, 825 Eighth Avenue
New York, NY 10019
Telephone: (212) 474-1000
Facsimile: (212) 474-3700

Attorneys for Plaintiff
QUALCOMM INCORPORATED