UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
LUFKIN DIVISION

Anascape, Ltd.,

Plaintiff,

v.

Apple Inc.,

Defendant.

No. _____
JURY TRIAL DEMANDED

COMPLAINT

Anascape, Ltd. ("Anascape") files this Complaint against Apple Inc. ("Apple") for patent infringement, on personal knowledge with respect to its own actions and on information and belief—*i.e.*, with a likelihood of evidentiary support or further evidentiary support after a reasonable opportunity for further investigation or discovery—with respect to Apple's actions and the accused products, and respectfully states as follows:

PARTIES

1. Plaintiff Anascape, Ltd. is a limited partnership existing under the laws of the State of Texas with its principal place of business in Tyler, Smith County, Texas.

2. Defendant Apple Inc. is a California corporation with its principal place of business in Cupertino, California.

JURISDICTION AND VENUE

3. This Court has jurisdiction because this is a patent-infringement case arising under the patent laws of the United States Code, Title 35. This Court has exclusive subject-matter jurisdiction over this case under 28 U.S.C. § 1338(a).

4. This Court has personal jurisdiction over Apple. Apple has conducted and does conduct business within the State of Texas. Apple, directly or through subsidiaries or intermediaries (including distributors, retailers, and others), ships, distributes, offers for sale, uses, makes, distributes, sells, advertises, and/or markets accused products in the State of Texas and the Eastern District of Texas. Apple has purposefully and voluntarily placed one or more of its infringing products, as described below, into the stream of commerce with the expectation that they will be purchased by consumers in the Eastern District of Texas. These infringing products have been and continue to be purchased by consumers in the Eastern District of Texas. Apple has committed acts of infringement within the State of Texas and, more particularly, within the Eastern District of Texas.

5. Venue is proper in the Eastern District of Texas under 28 U.S.C. §§ 1391(b)-(c) and 1400(b). Apple has committed acts of infringement in and has a regular and established place of business in the Eastern District of Texas, including by selling accused products at Apple Stores at Stonebriar Mall, 2601 Preston Road, Frisco, TX 75034, *see* Ex. 1, and The Shops at Willow Bend, 6121 West Park Boulevard, Plano, TX 75093, *see* Ex. 2. Apple also has authorized and affiliated "Apple Premier Partners," "Apple Authorized Resellers," and "Apple Shops," which are established at various locations throughout the Eastern District of Texas and sell accused products. Accused products are sold and used throughout this district and this division. The aforementioned Apple Stores are physical places in the Eastern District of Texas (each consisting of a building or a part of a building set apart, from which business is conducted); of Apple and owned or leased by Apple and over which Apple exercises numerous attributes of possession and control; which have been established and ratified by Apple and which are regular, steady, uniform, orderly,

settled, fixed, and permanent places of business of Apple. Furthermore, on information and belief, some or all of the aforementioned Apple Premier Partners, Apple Authorized Resellers, and Apple Shops are physical places in the Eastern District of Texas (each consisting of a building or a part of a building set apart, from which business is conducted); of Apple and owned or leased by Apple and/or over which Apple exercises attributes of possession and control, including that Apple maintains strict requirements for its Apple Premier Partners, Apple Authorized Resellers, and Apple Shops, such as maintaining brick-and-mortar facilities in high consumer-traffic locations, ensuring excellent visibility for signage, and actively promoting Apple products; which places have been established and ratified by Apple through binding agreements and are regular, steady, uniform, orderly, settled, fixed, and permanent places of business of Apple for purposes of § 1400(b). Moreover, both the aforementioned Apple Stores and each of the aforementioned Apple Premier Partners, Apple Authorized Resellers, and Apple Shops are represented by Apple as its places of business in the district and are listed and advertised by Apple on its website.

RELATED CASE

6. This action is related to a prior case in this Court, *Anascape, Ltd. v. Microsoft Corp.*, No. 9:06-cv-00158, Chief Judge Ron Clark presiding. *See also Anascape, Ltd. v. Nintendo of America, Inc.*, No. 9:08-cv-00139-RC (severed from the foregoing).

7. In the prior litigation, the Court construed terms from U.S. Patent Nos. 5,999,084; 6,102,802; 6,135,886; 6,343,991; 6,222,525; and 6,906,700. The four patents asserted in this action (discussed in more detail below) are each related to one or more of the above-listed patents:

a. The ’991 patent asserted here was itself asserted in the *Microsoft* litigation and descends from the ’802 patent;

b. The ’932 patent asserted here descends from the ’700 and ’525 patents;

c. The ’527 patent asserted here descends from a patent (U.S. Patent No. 6,347,997) which descends from the ’802 patent; and

d. The ’078 patent asserted here descends from the ’802 patent.

BACKGROUND

Anascape

8. Brad Armstrong is a lifelong innovator and inventor, and is the listed inventor on 34 issued patents, including the four at issue here. He formed Anascape in 1999, with two of his colleagues (it was subsequently converted to a Texas limited partnership in 2005). Anascape has licensed its technology to major technology companies including Sony. Both Mr. Armstrong and Anascape are based in Tyler, Texas, where Mr. Armstrong has lived since 2004.

The Patents-In-Suit

9. United States Patent No. 6,343,991 (the ’991 patent), titled “Game Control with Analog Pressure Sensor,” was duly and legally issued by the United States Patent and Trademark Office (“PTO”) on February 5, 2002, after a full and fair examination. A copy of the ’991 patent is attached hereto as Exhibit 3. The ’991 patent relates to, among other things, a game controller incorporating a pressure-sensitive variable-conductance sensor. Anascape is the assignee of all rights, title, and interest in and to the ’991 patent and

possesses all rights of recovery under the ’991 patent. The ’991 patent expires soon, in October 2017.

10. United States Patent No. 6,504,527 (the ’527 patent), titled “Analog Controls Housed with Electronic Displays for Computer Monitors,” was duly and legally issued by the PTO on January 7, 2003, after a full and fair examination. A copy of the ’527 patent is attached hereto as Exhibit 4. The ’527 patent relates to, among other things, a monitor incorporating a finger depressible surface and depressible proportional sensor that can change display of information on an image display. Anascape is the assignee of all rights, title, and interest in and to the ’527 patent and possesses all rights of recovery under the ’527 patent. The ’527 patent expires soon, in October 2017.

11. United States Patent No. 6,470,078 (the ’078 patent), titled “Analog Controls Housed with Electronic Displays for Telephones,” was duly and legally issued by the PTO on October 22, 2002, after a full and fair examination. A copy of the ’078 patent is attached hereto as Exhibit 5. The ’078 patent relates to, among other things, a telephone incorporating a finger depressible surface and pressure-sensitive analog sensor that can change display of information on the telephone’s image display. Anascape is the assignee of all rights, title, and interest in and to the ’078 patent and possesses all rights of recovery under the ’078 patent. The ’078 patent expires soon, in October 2017.

12. United States Patent No. 8,674,932 (the ’932 patent), titled “Image Controller,” was duly and legally issued by the PTO on March 18, 2014, after a full and fair examination. A copy of the ’932 patent is attached hereto as Exhibit 6. The ’932 patent relates to, among other things, an image controller incorporating sensors for controlling an object within imagery on a display. Anascape is the assignee of all rights, title, and interest

in and to the '932 patent and possesses all rights of recovery under the '932 patent. The '932 patent expires in February 2023. *See* Ex. 6 at 1 (extending term of patent by 2414 days under 35 U.S.C. § 154(b)).

13. The '991 patent, '527 patent, '078 patent, and '932 patent may be referred to collectively herein as the "Patents-in-Suit."

Apple

14. Apple is a large publicly-held electronics company whose stock trades on the Nasdaq stock exchange under the ticker AAPL. Apple describes itself and its activities as follows:

> Apple Inc. and its wholly-owned subsidiaries (collectively "Apple" or the "Company") designs, manufactures and markets mobile communication and media devices and personal computers, and sells a variety of related software, services, accessories, networking solutions and third-party digital content and applications. The Company's products and services include iPhone®, iPad®, Mac®, Apple Watch®, Apple TV®, a portfolio of consumer and professional software applications, iOS, macOS®, watchOS® and tvOS™ operating systems, iCloud®, Apple Pay® and a variety of accessory, service and support offerings. The Company sells and delivers digital content and applications through the iTunes Store®, App Store®, Mac App Store, TV App Store, iBooks Store® and Apple Music® (collectively "Digital Content and Services"). The Company sells its products worldwide through its retail stores, online stores and direct sales force, as well as through third-party cellular network carriers, wholesalers, retailers and value-added resellers. In addition, the Company sells a variety of third-party Apple-compatible products, including application software and various accessories through its retail and online stores. The Company sells to consumers, small and mid-sized businesses and education, enterprise and government customers

Ex. 7 at 5.

The Apple MFi Program

15. Apple also runs developer programs for businesses creating apps for internal use (the Apple Developer Enterprise Program) and developers creating accessories for Apple devices (the MFi Program), *see* Ex. 8 at 4, whereby Apple encourages, facilitates, and induces the making, use, and sale of electronics products and programs by third parties, which Apple may also then sell directly. "MFi" stands for "made for iPhone/iPod/iPad," and now may also include products made for Apple TV.

MFi Controllers – Infringement of the '991 Patent

16. Apple sells and licenses game controllers that infringe at least claim 23 of the '991 patent, and also induces infringement of the same. That claim recites:

> 23. A game control comprising:
> a housing to be grasped and held simultaneously by two hands of a human user during use, said housing including a right-hand area and a left-hand area, said right-hand area being an area for grasping by the user's right hand, said left-hand area being an area for grasping by the user's left hand;
> a plurality of depressible electricity manipulating devices each at least in-part exposed on said housing, at least some of said plurality of electricity manipulating devices positioned on said housing to be within reach of the user's right-hand thumb;
> at least one of said electricity manipulating devices is a pressure-sensitive variable-conductance sensor operable by a depressible individual button located within said right-hand area and reachable by the user's right-hand thumb, said variable-conductance sensor including means for creating an analog electrical signal representing varying applied physical pressure;
> at least one of said electricity manipulating devices including means for creating an On/Off signal; each of said electricity manipulating devices electrically connected to
> electronics means for at least reading the signals of said electricity manipulating devices.

17. As an example of this infringement, Apple sells a game controller called the SteelSeries Nimbus ("Nimbus") in its brick-and-mortar stores and online (in the Eastern District and elsewhere). Apple's marketing materials for the Nimbus include the following description:

> [The] SteelSeries Nimbus wireless controller . . . lets you play hundreds of your favorite controller-supported games on your new Apple TV, iPhone, iPad, or iPod touch. This full-sized controller's ergonomic design is perfect for gaming. It gives you 40-plus hours of game play with just a quick charge using the Lightning connector, along with LED notifications, an easy-to-navigate menu button, and pressure-sensitive buttons for the most precise gaming controls.

Exhibit 9 at 1.

18. The Nimbus meets all of the claim limitations of at least claim 23 either literally or under the doctrine of equivalents.

19. The Nimbus includes a housing to be grasped and held simultaneously by two hands of a human user during use, including a right-hand area and a left-hand area for grasping by the user's right and left hands, respectively:

Figure 1: Image of Nimbus game controller with labeling added, see Ex. 10

20. The Nimbus includes a plurality of buttons and controls (i.e., depressible electricity manipulating devices each at least in-part exposed on said housing), some of which are positioned on the housing to be within reach of the user's right-hand thumb:

Figure 2: Image of Nimbus game controller with added labeling, see Ex. 10

21. At least one of the Nimbus' electricity manipulating devices is a pressure-sensitive variable-conductance sensor operable by a depressible individual button located within said right-hand area and reachable by the user's right-hand thumb:

Figure 3: Image of Nimbus game control with added labeling, see Ex. 10

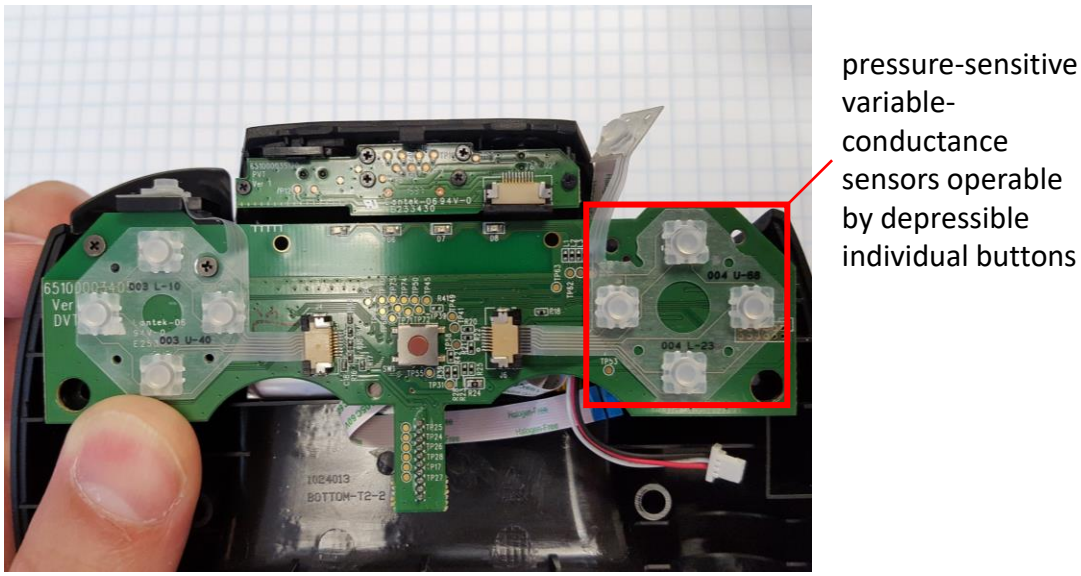

Figure 4: View of partially-disassembled Nimbus showing sensors operable by the above-referenced buttons, see Ex. 11

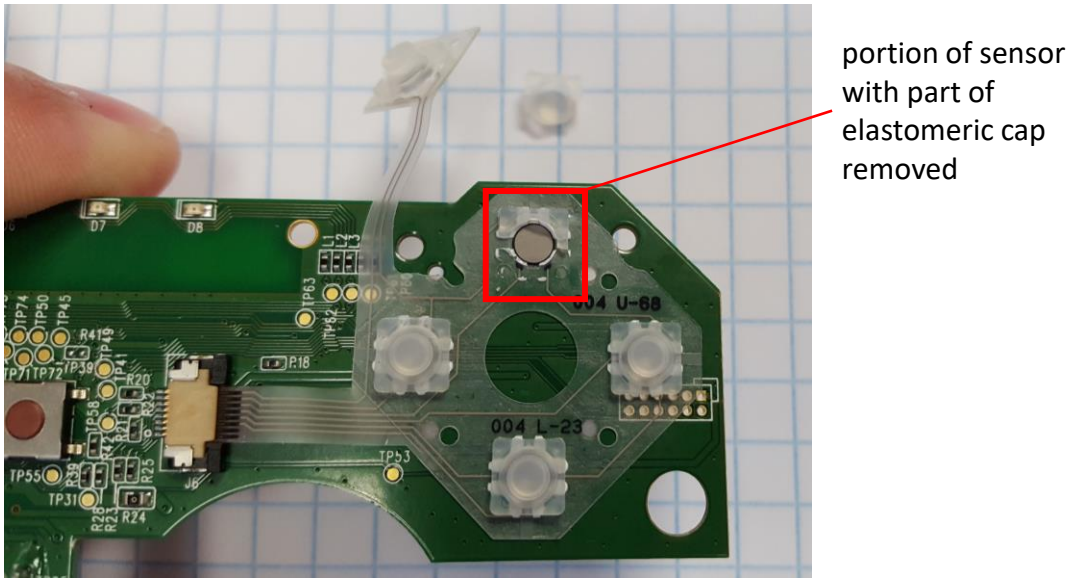

Figure 5: Detail of Nimbus sensors, with elastomeric cap partially removed, see Ex. 12

22. As required by Apple's MFi game controller specifications, these sensors include means for creating an analog electrical signal representing varying applied physical pressure. *See* Ex. 13 at 1 ("Apple has created specifications for distinct kinds of MFi game controllers. . . . [M]any common characteristics must be implemented strictly according to the specification. The extended control layout contains the following controls: Four analog face buttons arranged in a diamond on the right side of the controller (labeled A, B, X, and Y). . . .").

23. Anascape alternatively alleges that a jury may properly find that button sensors on the Nimbus and other MFi controllers are only insubstantially different from pressure-sensitive variable-conductance sensors that include means for creating an analog electrical signal representing varying applied physical pressure, including in that the button sensors perform substantially the same function, in substantially the same way, to yield substantially the same result as the claimed sensors.

24. At least one of the Nimbus' buttons/controls includes means for creating an On/Off signal, for example the Menu button and the Hold switch. The Nimbus' Quick Start Guide states: "Turn on your Nimbus by sliding the Hold switch on the top of the Nimbus to the unlocked position. . . . To turn off the power, slide the Hold switch to the 'lock' position [] on the top of the Nimbus. . . . To power on the Nimbus after an auto power off has occurred, simply press the MENU button." Ex. 14.

25. Each of the Nimbus' buttons/controls is electrically connected to electronics means for at least reading the signals of the buttons/controls, namely an application specific integrated circuit, or ASIC (or alternatively other electronics means for at least reading such signals). The ASIC and some of the electronic connections from the buttons/controls are shown below:

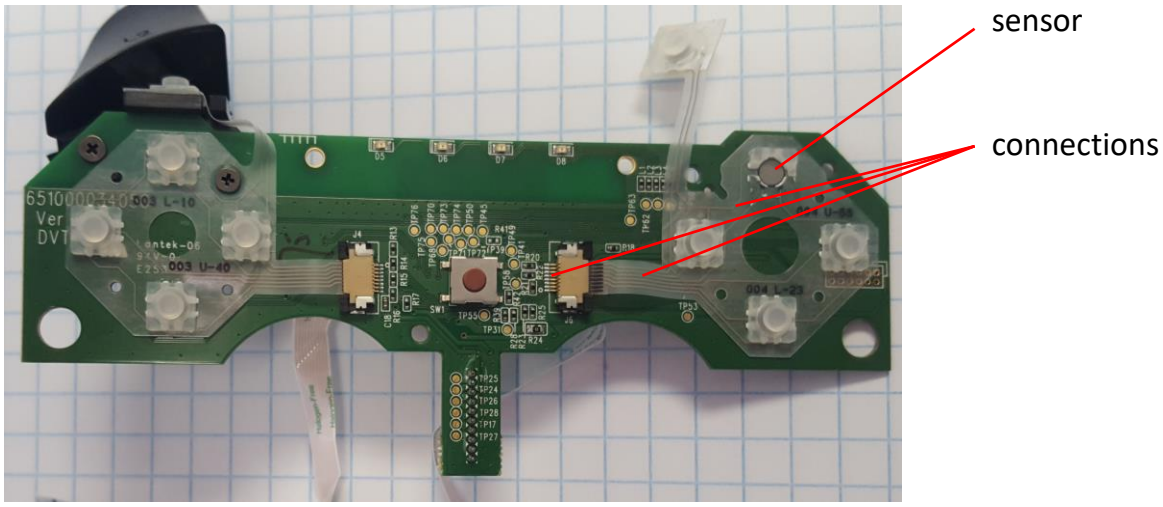

Figure 6: Top view of Nimbus circuit board with examples of sensor/connections, see Ex. 15.

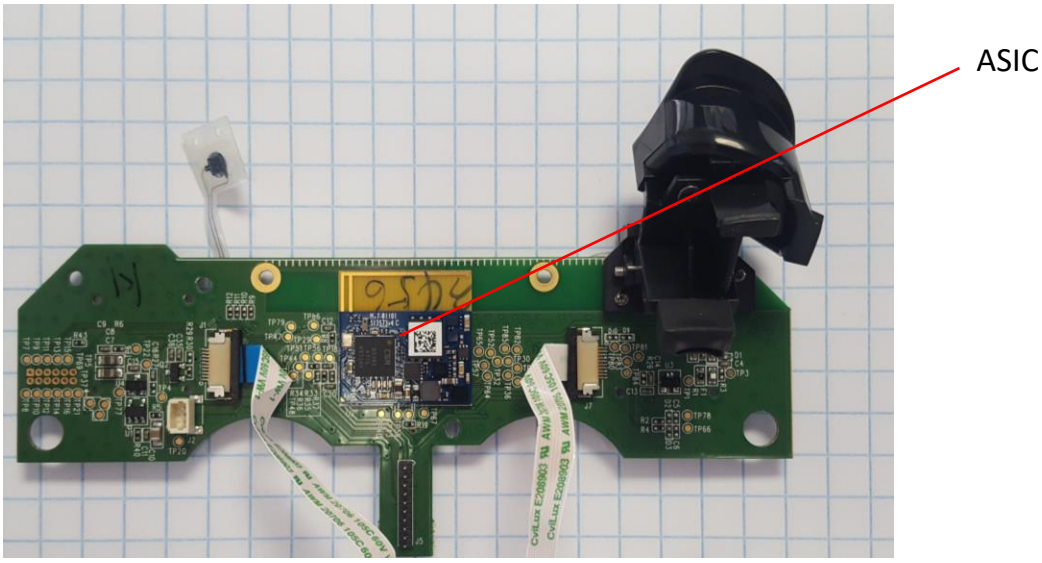

Figure 7: Bottom view of same Nimbus circuit board, with ASIC shown, see Ex. 16.

26. According to SteelSeries, Apple was directly involved and collaborated with SteelSeries in the design of the Nimbus. *See* Ex. 17 at 1–2.

27. Apple directly infringes the '991 patent by selling the Nimbus and other MFi controllers in its stores and online. On information and belief, Apple also induces the manufacture, sale, and importing of infringing game controllers other than the Nimbus through Apple's MFi program (as described above), by requiring features that infringe the '991 patent. *See, e.g.*, Ex. 18 at 2–3. On information and belief, other such infringing controllers under the MFi program may include, for example, HORIPAD's ULTIMATE, SteelSeries' Stratus and Stratus XL, Mad Catz' C.T.R.L.i and Micro C.T.R.L.i., Moga's Ace Power, and Logitech's PowerShell. *See* Ex. 19 at 1; Ex. 20; Ex. 21 at 1.

28. Furthermore, on information and belief, Apple's required specifications for MFi game controllers induce infringement of the '991 patent. For example, Apple's publicly-available statements regarding its required specifications include the following:

> Apple has created specifications for distinct kinds of MFi game controllers. Although specific controllers vary, many common characteristics must be implemented strictly according to the specification.
>
> The *extended control layout* [i.e., for game controllers] contains the following controls:
>
> - Four analog face buttons arranged in a diamond on the right side of the controller (labeled A, B, X, and Y)
> - An analog directional pad on the left side of the controller
> - Two analog thumbsticks on the left and right sides of the controller
> - Two analog shoulder buttons (labeled L1 and R1)
> - Two analog triggers (labeled L2 and R2)
> - A button to pause and resume gameplay

Ex. 13 at 1. Anascape will require discovery to determine the identity of all MFi controllers Apple sells and/or regarding which Apple induces infringement of the '991 patent.

MacBook – Infringement of the '527 Patent

29. Apple makes, imports, and sells computers that infringe at least claim 12 of the '527 patent. That claim recites:

> 12. A computer monitor, comprising:
> a housing;
> electronic circuitry located in said housing;
> a general image display mounted within said housing, said general image display operatively connected to said circuitry;
> at least one finger depressible surface in part exposed on said housing, said at least one finger depressible surface operatively connected to
> at least one depressible proportional sensor, said proportional sensor for inputting a signal to said circuitry, said signal having a varying value representing varying depression of said at least one finger depressible surface;
> said circuitry structured to receive said signal and to cause said general image display to change display of information at a rate related to said value.

30. As an example of this infringement, Apple makes and sells a series of laptop computers referred to as the MacBook or MacBook Pro.

31. Newer models of the MacBook and MacBook Pro include pressure-sensing technology in the trackpad, which Apple refers to as "Force Touch." On information and belief, all Apple MacBook and MacBook Pro models introduced in 2015 or thereafter include this pressure-sensing technology in the trackpad (including model identifiers MacBook8,1; MacBook9,1; MacBook10,1; MacBookPro12,1; MacBookPro11,4; MacBookPro11,5; MacBookPro13,1; MacBookPro13,2; MacBookPro13,3; MacBookPro14,1; MacBookPro14,2; MacBookPro14,3). *See* Ex. 22; Ex. 23. All such Apple laptop computers with pressure-sensing trackpads are referred to hereinafter as the "MacBook."

32. The MacBook meets all of the claim limitations of at least claim 12, either literally or under the doctrine of equivalents.

33. Apple's marketing materials for the MacBook include the following:

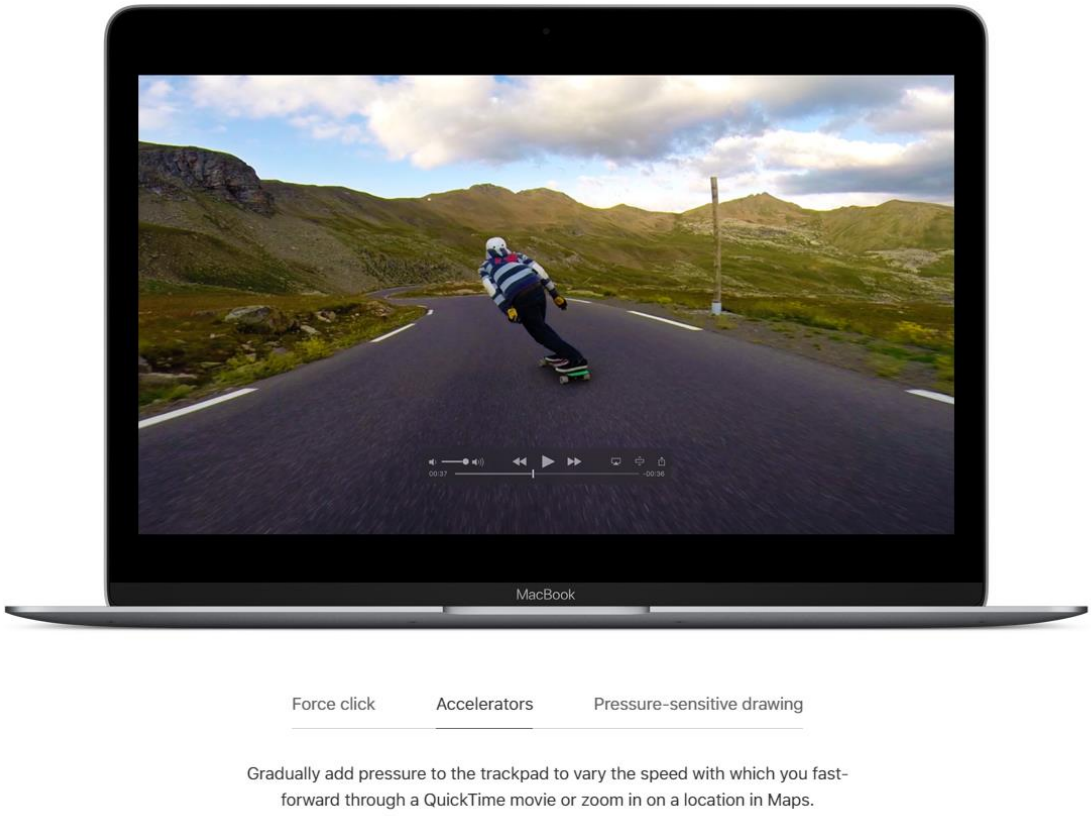

Figure 8: Apple MacBook marketing materials, Ex. 24.

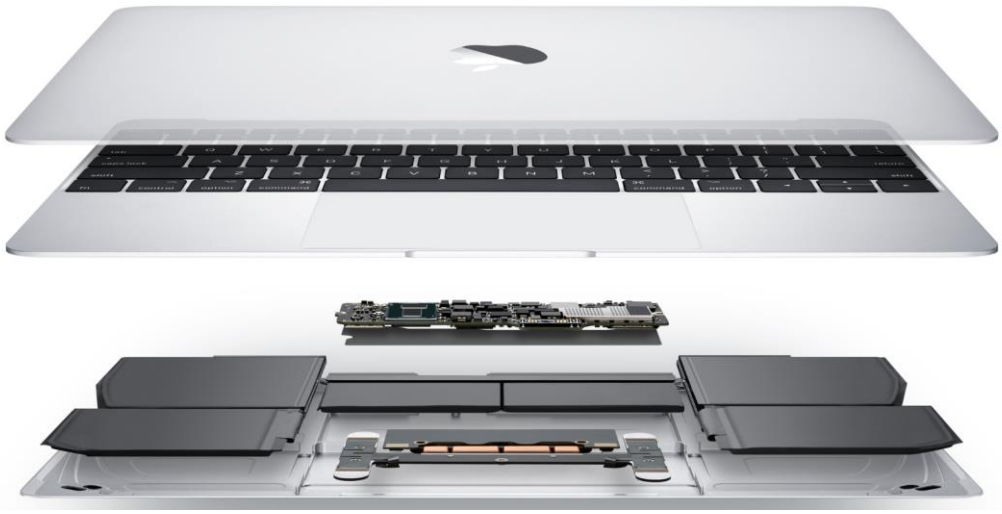

Figure 9: Apple MacBook marketing materials, Ex. 25.

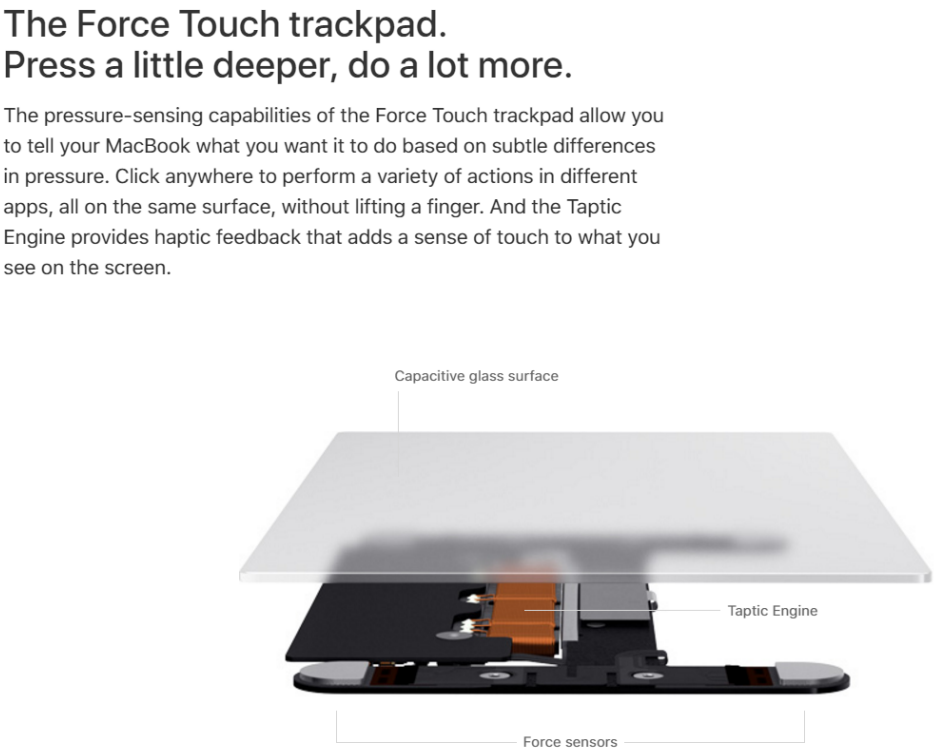

Figure 10: Apple MacBook marketing materials identifying trackpad surface and force sensors, Ex. 26.

34. Apple's materials also include the following descriptions of the pressure-sensitive trackpad functionality:

> Force click
>
> Click and continue to press on the trackpad to enable new capabilities, like looking up the definition of a word, previewing a file in the Finder, or creating a new Calendar event when you Force click a date in the text of an email.
>
> Accelerators
>
> Gradually add pressure to the trackpad to vary the speed with which you fast-forward through a QuickTime movie or zoom in on a location in Maps.

> Pressure-sensitive drawing
>
> Press lightly for a thin stroke or harder for a thick one when marking up a Mail attachment or creating a signature for forms in Preview.

See Exs. 24, 27–29 (collectively showing content of Apple's website).

35. The MacBook incorporates a housing, electronic circuitry located in said housing, and a general image display mounted within the housing and operatively connected to the circuitry.

Figure 11: MacBook with indicated housing and image display, see Ex. 24.

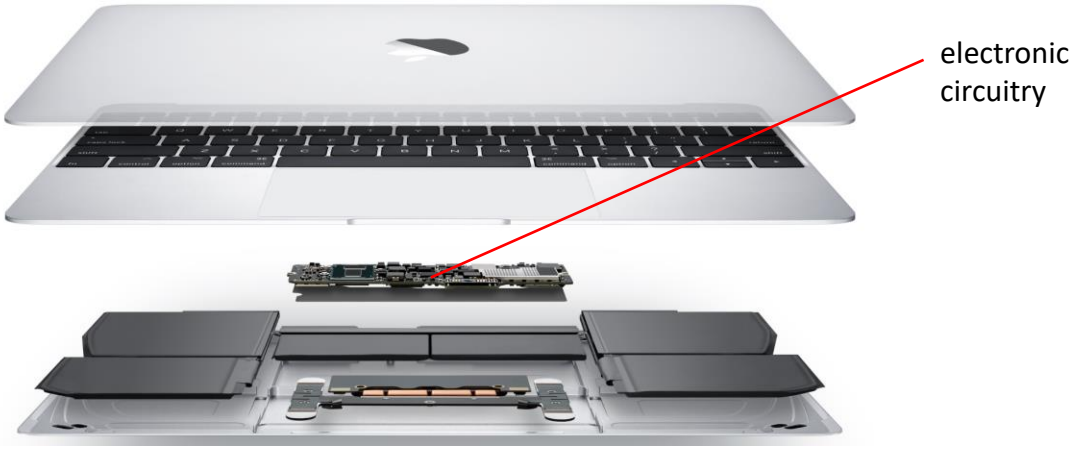

Figure 12: Apple MacBook marketing materials showing partial teardown of a MacBook, with example of electronic circuitry indicated, see Ex. 25.

Figure 13: Teardown view of a MacBook, with labeling added, see Ex. 30.

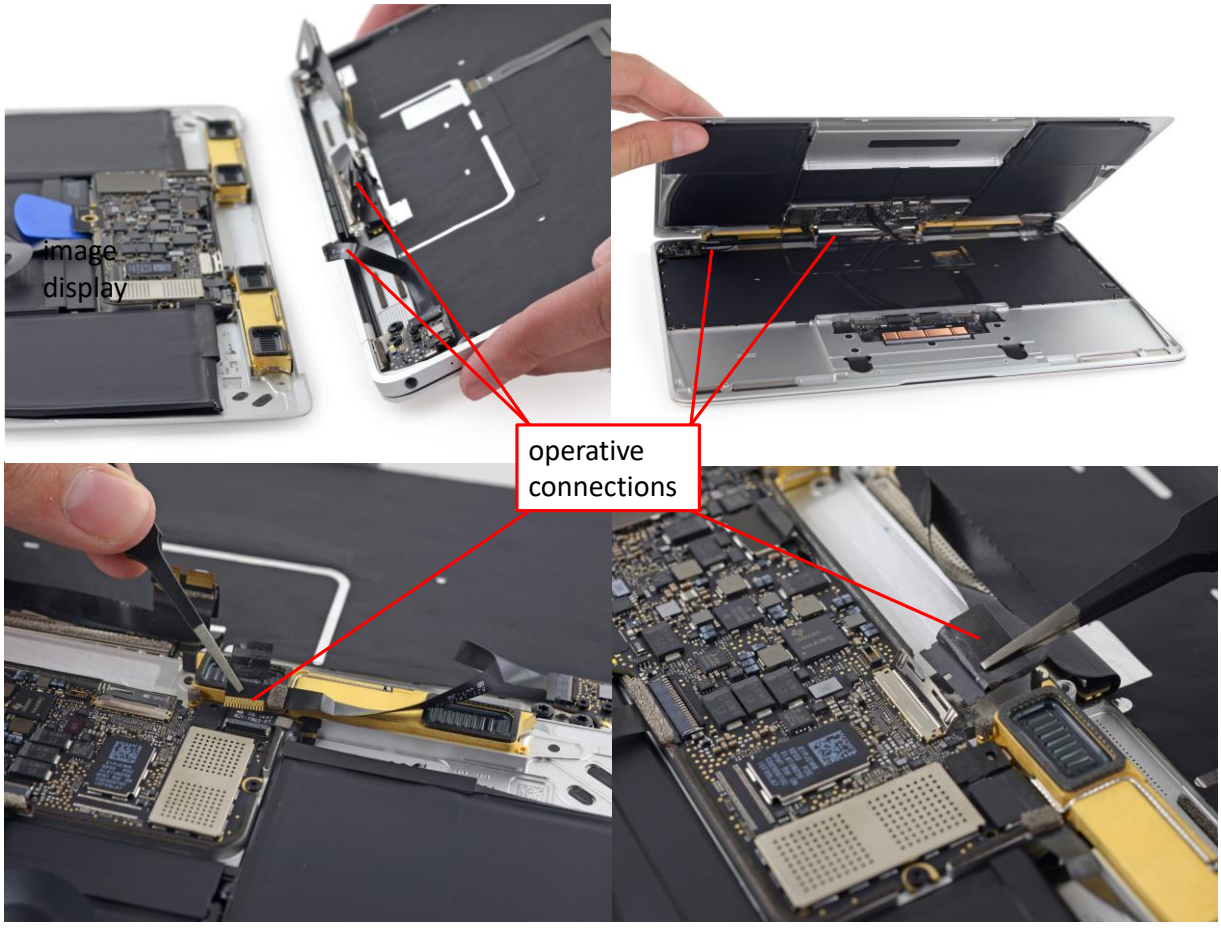

Figure 14: Four teardown views of a MacBook, with labeling added to show operative connection of image display and electronic circuitry, see Exs. 31–34.

36. The MacBook has at least one finger depressible surface that is exposed on said housing (the trackpad), and thus is in part exposed on said housing. Further, a jury may determine, as a factual matter, that the finger depressible surface is in part exposed on the housing. The trackpad (or alternatively, the combination of the trackpad and the sensor and/or supporting mechanism discussed below) is depressible. *See* Ex. 35 at 1–2. The trackpad is operatively connected to at least one depressible proportional sensor, four sensors near the corners of the trackpad in or on the mechanism supporting the trackpad.

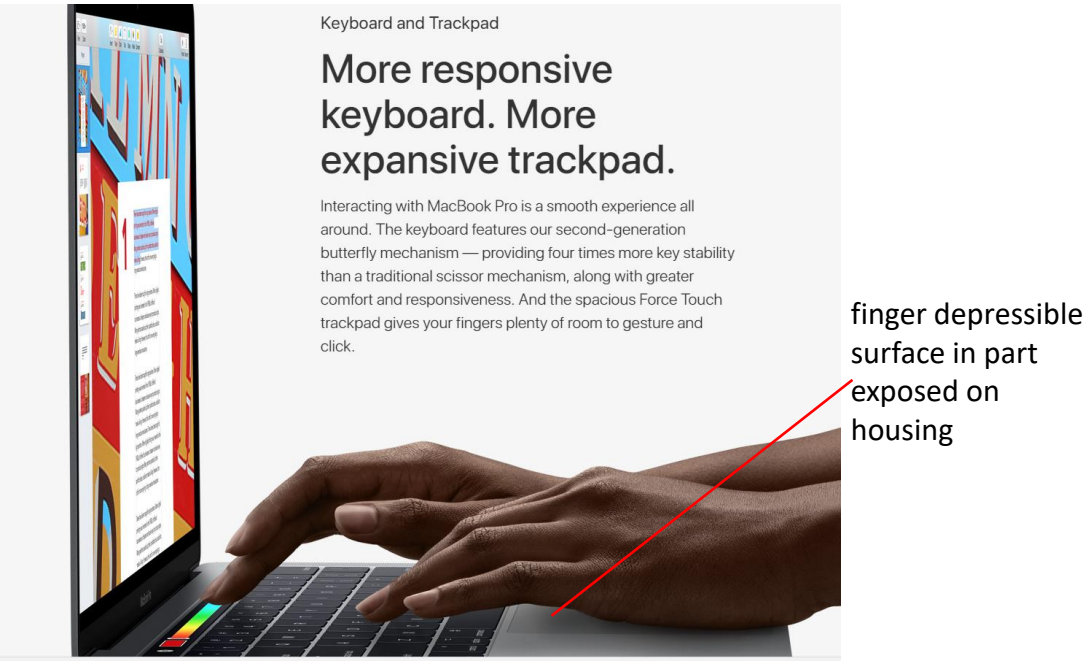

Figure 15: Apple MacBook marketing materials with labeling added, see Ex. 36.

Figure 16: Apple MacBook marketing materials with labeling added, see Ex. 37.

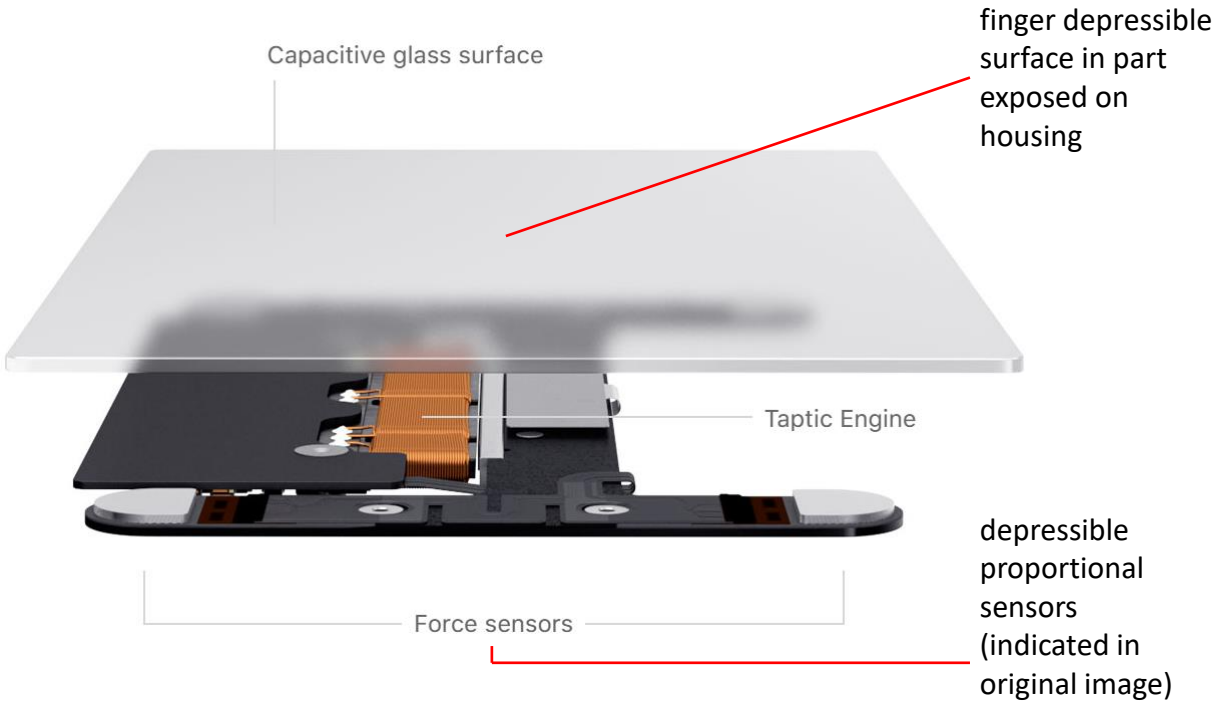

Figure 17: Apple MacBook marketing materials showing partial teardown of trackpad, with labeling added, see Ex. 26.

37. These depressible proportional sensors input to the circuitry a signal having a varying value representing varying depression of the finger depressible surface. *E.g.*, Ex. 27 ("pressure sensing capabilities of the [MacBook] Force Touch trackpad allow you to tell your MacBook what you want it to do based on subtle differences in pressure").

38. Anascape alternatively alleges that a jury may properly find such identified surface and sensors are only insubstantially different from those in the asserted claims, including in that the identified surface and sensors perform substantially the same function, in substantially the same way, to yield substantially the same result as the claimed surface and sensors.

39. The MacBook's circuitry is structured to receive the signal and is capable of causing the general image display to change display of information at a rate related to the

value representing varying depression, for example by "vary[ing] the speed with which [the display shows the user] fast-forward[ing] through a QuickTime movie or zoom[ing] in on a location in Maps"; "enabl[ing] new capabilities" when a user clicks and continues to press on the trackpad or "creating a new Calendar event when [a user] Force [pressure] click[s] a date in the text of an email"; or allowing the user to "[p]ress lightly for a thin stroke or harder for a thick one when marking up a Mail attachment or creating a signature for forms in Preview." *See* Exs. 24, 27–29 (collectively showing content of Apple's website).

iPhone – Infringement of the '078 Patent and '932 Patent

40. Apple makes and sells telephones that infringe at least claim 1 of the '078 patent and at least claim 1 of the '932 patent.

iPhone – '078 Patent

41. Claim 1 of the '078 patent recites:

> 1. An improved telephone, wherein the improvements comprise:
> a housing sized to be hand-held;
> electronic circuitry located in said housing;
> a general image display located in said housing, said general image display operatively connected to said circuitry;
> at least one finger depressible surface in part exposed on said housing, said at least one finger depressible surface operatively connected to
> at least one pressure-sensitive analog sensor, said analog sensor for inputting a signal to said circuitry, said signal having variable value depending on variable pressure applied to said at least one finger depressible surface;
> said circuitry structured to receive said signal and to cause said general image display to provide variable visual feedback data, said variable visual feedback data at least in part representing the variable pressure applied to said at least one finger depressible surface, whereby said variable visual feedback data may be controlled at

varying rates according to variable pressure applied to said at least one finger depressible surface.

42. As an example of this infringement, Apple makes and sells a series of telephones referred to as the iPhone, several newer models of which include pressure-sensing technology in or supporting the touchscreen, which Apple refers to as "3D Touch." On information and belief, at least Apple iPhone models 6s (A1633, A1688, A1700); 6s Plus (A1634, A1687, A1699); 7 (A1660, A1778); and 7 Plus (A1661, A1784) include this pressure-sensing technology in or supporting the touchscreen. *See* Ex. 38. All Apple telephones with such pressure-sensing technology are referred to hereinafter as the "iPhone."

43. Apple's marketing materials for the iPhone include the following:

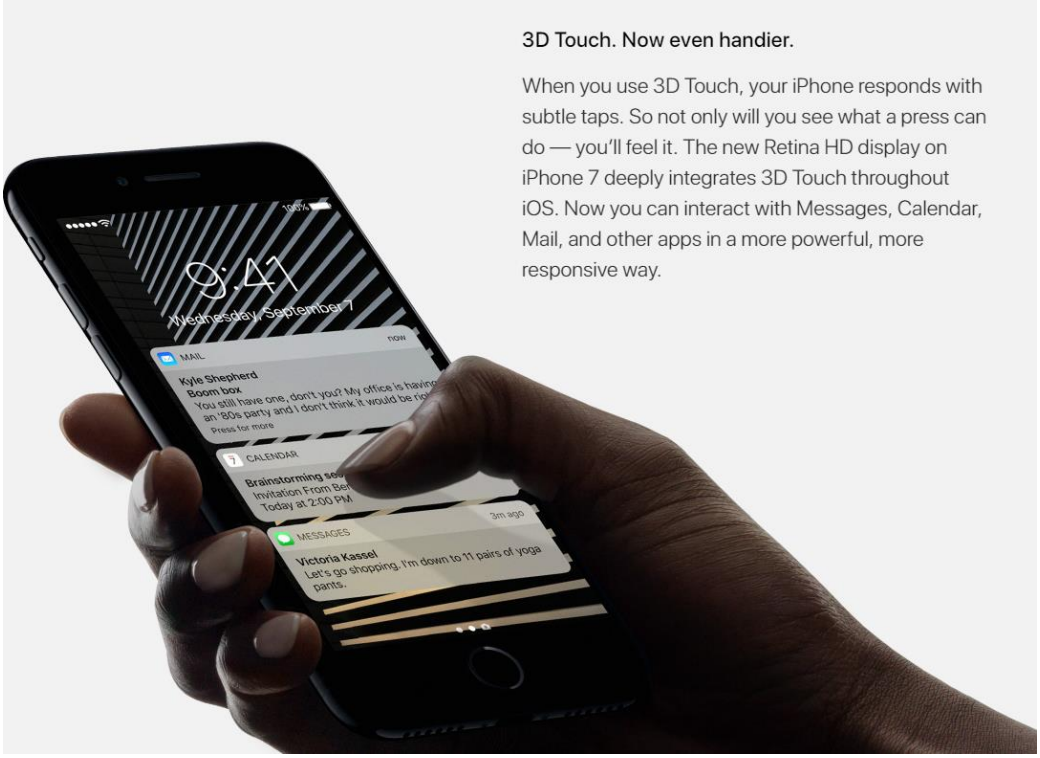

Figure 18: Marketing materials for Apple iPhone, Ex. 39.

Figure 19: Marketing materials for Apple iPhone, Ex. 40.

44. The iPhone meets all of the claim limitations of at least claim 1 of the '078 patent, either literally or by the doctrine of equivalents.

45. The iPhone is a telephone, with a housing sized to be hand-held and electronic circuitry and a general image display in that housing, with the display operatively connected to that circuitry.

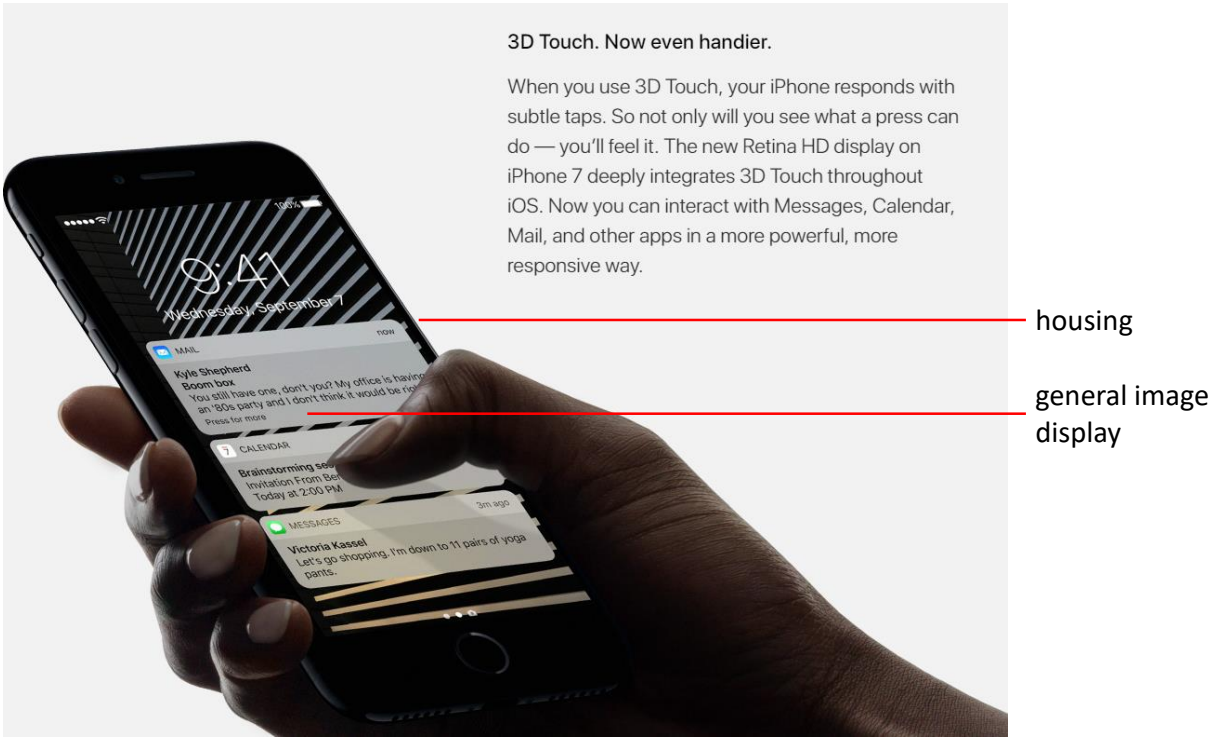

Figure 20: Marketing materials for Apple iPhone with labeling added, see Ex. 39.

Figure 21: Marketing materials for Apple iPhone and 3D Touch, still-frame image from video, with labeling added, see Ex. 41

46. The iPhone has at least one finger depressible surface in part exposed on the housing. For example, the iPhone has a touchscreen surface that is exposed on the front surface of the housing, and which surface is depressible by a finger. *See* Exs. 42, 43 at 4; *see also* figures *infra*.

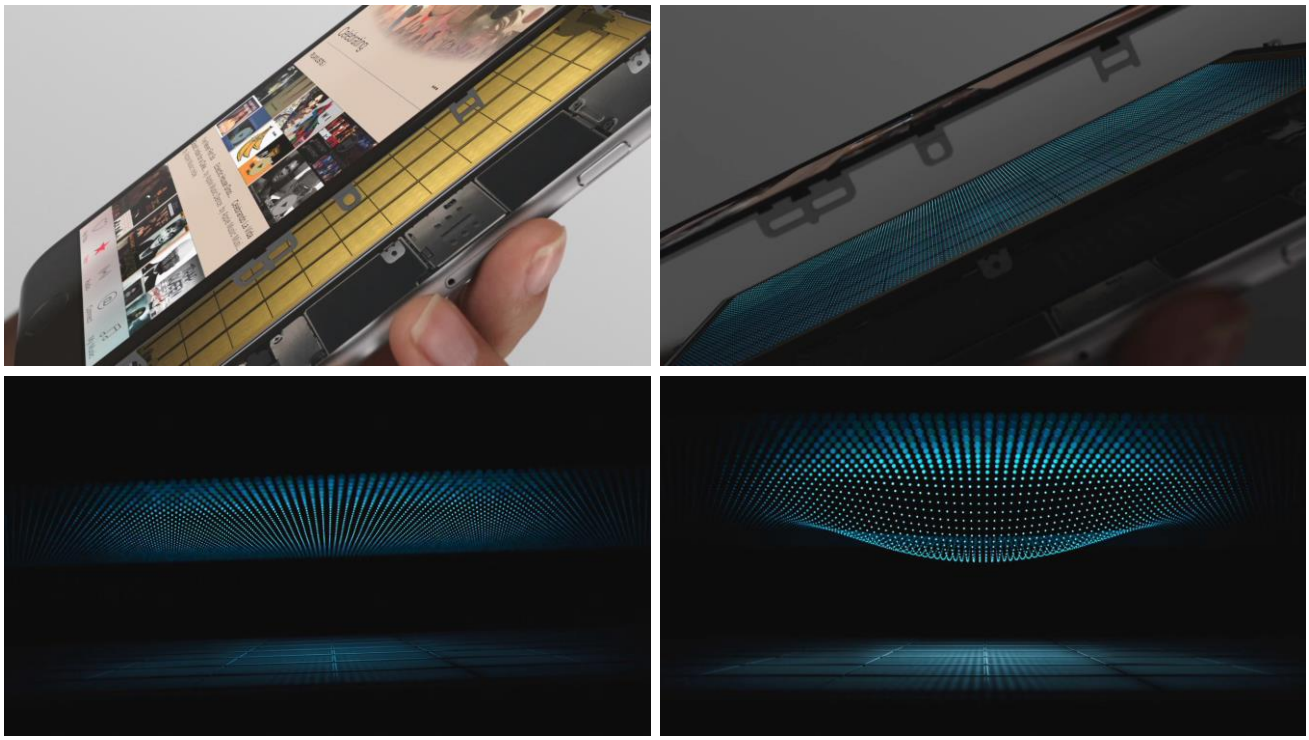

Figure 22: Marketing materials for Apple iPhone and 3d Touch, four still-frame images from video showing illustration of finger-depressible touchscreen surface, see Exs. 44–47.

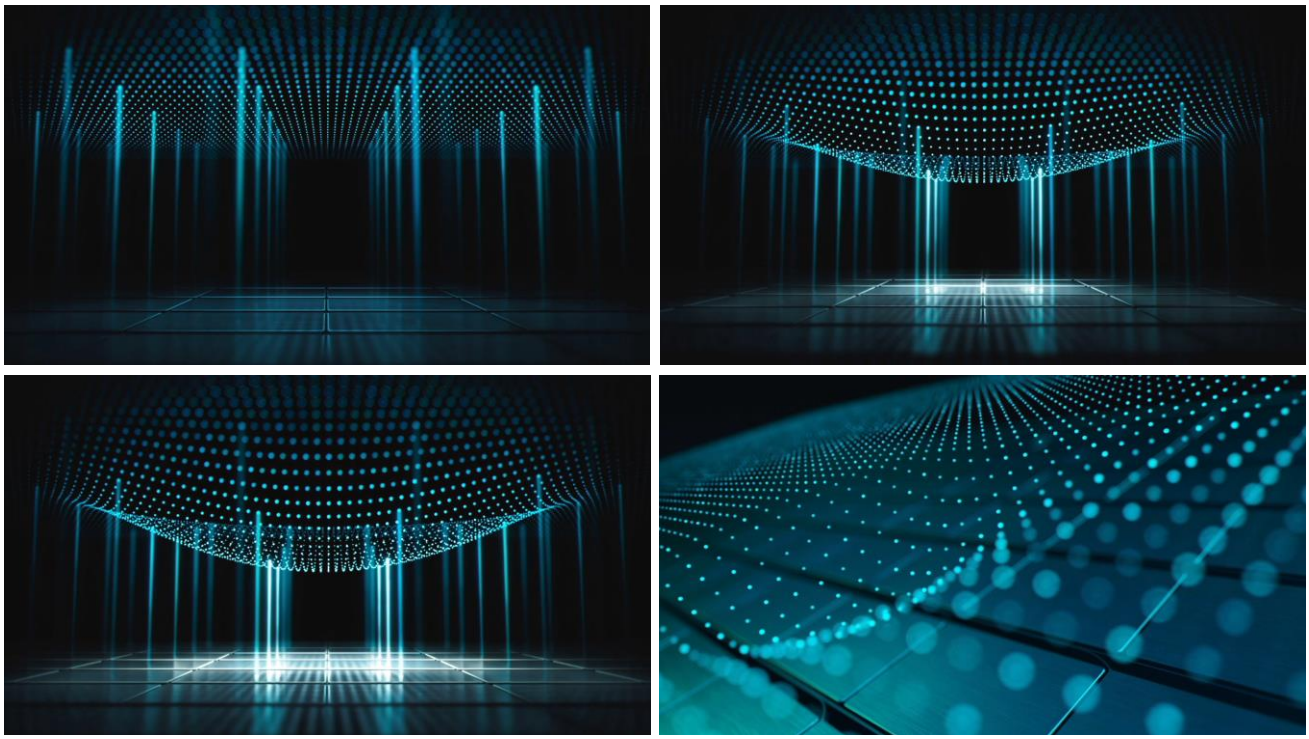

Figure 23: Marketing materials for iPhone and 3d Touch, four still-frame images from video showing illustration of finger moving across touchscreen surface (bottom right image), sensor measurement of finger depression of touchscreen surface (other 3 images), see Exs. 48–51.

47. In a further example of a finger depressible surface, a recent generation of the iPhone (the 7 and 7Plus) also has a "home" button that has an exposed surface on the front side of the housing, which similarly is designed to be depressible by a finger.

48. Anascape alternatively alleges that a jury may properly find such touchscreen and/or home button are only insubstantially different from the claimed surface, including in that the identified touchscreen and/or home button perform substantially the same function, in substantially the same way, to yield substantially the same result as the claimed surface.

49. The at least one finger depressible surface(s) is/are operatively connected to at least one pressure-sensitive analog sensor, for inputting a signal to the circuitry. For example, the touchscreen surface (and for some models, the home button also) are operatively connected to a layer or arrangement of sensors that are pressure-sensitive analog sensors sensing the depression of those surfaces, which sensor(s) then input signal(s) to the iPhone's circuitry.

Figure 24: Marketing materials for Apple iPhone and 3d Touch, still-frame image from video, with labeling added, see Ex. 41.

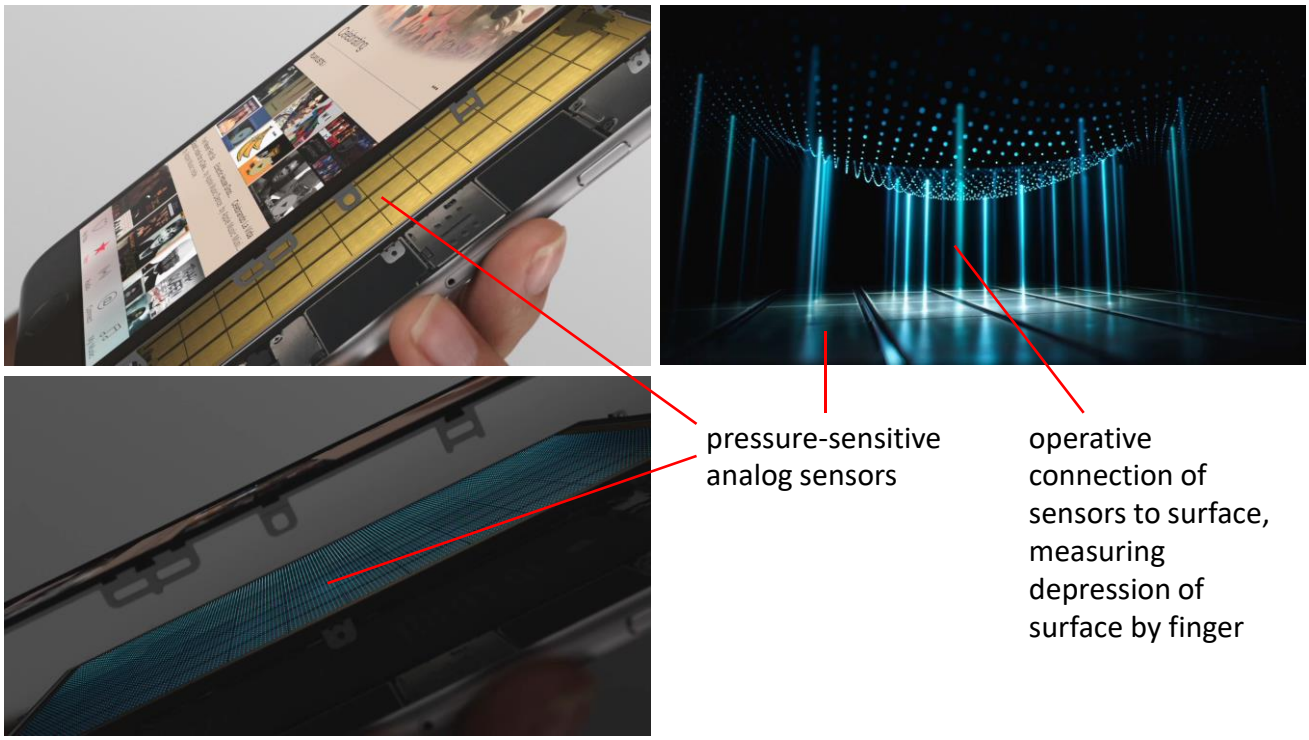

Figure 25: Marketing materials for Apple iPhone and 3d Touch, three still-frame images from video showing illustration of pressure-sensitive analog sensors and operative connection to touchscreen surface, with labeling added, see Exs. 44, 45, 52.

50. Anascape alternatively alleges that a jury may properly find such sensors are only insubstantially different from the claimed sensors, including in that the identified iPhone's sensors perform substantially the same function, in substantially the same way, to yield substantially the same result as the claimed sensors.

51. The signal(s) has/have a variable value depending on variable pressure applied to the at least one finger depressible surface. For example, the iPhone touchscreen pressure-sensitive analog sensors provide a variable value depending on the finger pressure for use by the circuitry. *See* Exs. 53–55.

52. The iPhone circuitry is structured to receive the signal and is capable of causing the general image display to provide variable visual feedback data, at least in part representing the variable pressure applied to said at least one finger depressible surface, whereby the variable visual feedback data may be controlled at varying rates according to variable pressure applied to said at least one finger depressible surface. Apple's marketing materials for the iPhone state that this "technology senses how deeply users press the display [touchscreen], letting them do more than ever with your apps and games," for example enabling "[c]reative apps [to] take advantage of the pressure-sensing display of iPhone[s] in many ways. For example, they can vary line thickness or give a brush a changing style" and letting "users preview all kinds of content and even act on it — without having to actually open it[—u]sers can then press a little deeper to Pop into content in your app." Ex. 56. And "[t]he latest iPhone [] displays can distinguish between different levels of pressure, revealing more options depending on how deeply you press. So you can do more with just a touch." Ex. 57.

iPhone SE – '932 Patent

53. Claim 1 of the '932 patent recites:

> 1. An image controller comprising:
> a first element operable on three mutually perpendicular axes, said first element structured to activate
> at least one capacitance sensing sensor, the capacitance sensing sensor controlling an object within imagery on a display;
> a second element movable in at least two directions, said second element structured to activate
> sensors controlling the object within the imagery on the display independently of the first element;
> an emitter of electromagnetic radiation capable of providing wireless communication between the controller and
> an image generation device;
> a plurality of independent finger depressible buttons, each button associated with
> a button sensor;
> a plurality of the sensors are connected to
> a circuit board, at least some of the sensors are mounted to
> a first side of the circuit board, and at least some of the sensors are mounted to
> a reverse side of the circuit board, the first side and the reverse side of the circuit board are opposite sides of the circuit board; and
> a motor capable of generating active tactile feedback detectable by a user holding the controller.

54. As a further example of this infringement, Apple makes and sells a series of telephones referred to as the iPhone SE (A1723, A1662, A1724), hereinafter "iPhone SE." *See* Ex. 38.

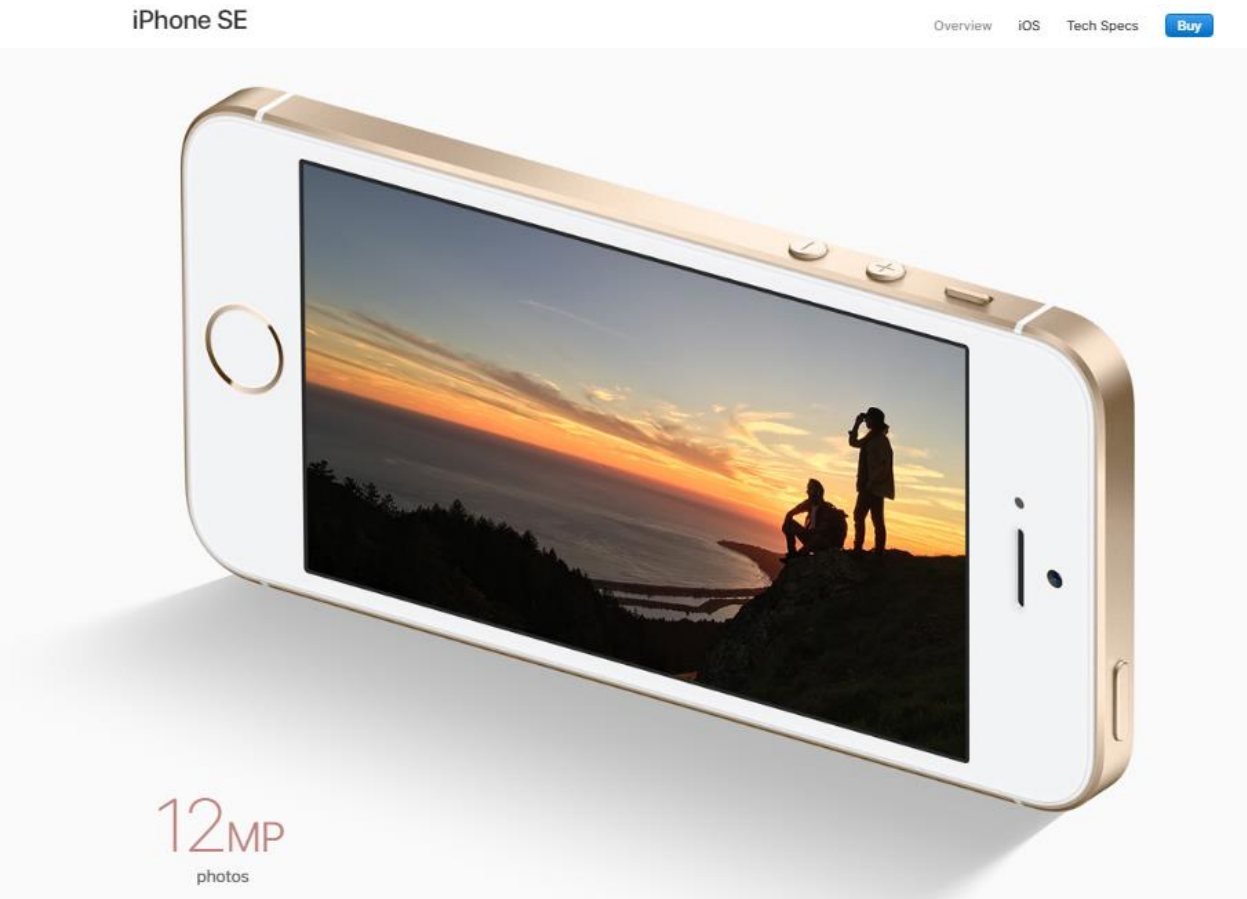

Figure 26: Marketing materials for iPhone SE, Ex. 58.

55. The iPhone SE meets all of the claim limitations of at least claim 1 of the '932 patent, either literally or under the doctrine of equivalents.

56. The iPhone SE comprises a first element operable on three mutually perpendicular axes, namely certain microelectromechanical elements of the accelerometer. That first element is structured to activate at least one capacitance sensing sensor, namely a sensor component of the accelerometer, that capacitance sensing sensor capable of controlling an object within imagery on a display. Exs. 59 at 2–5; 60.

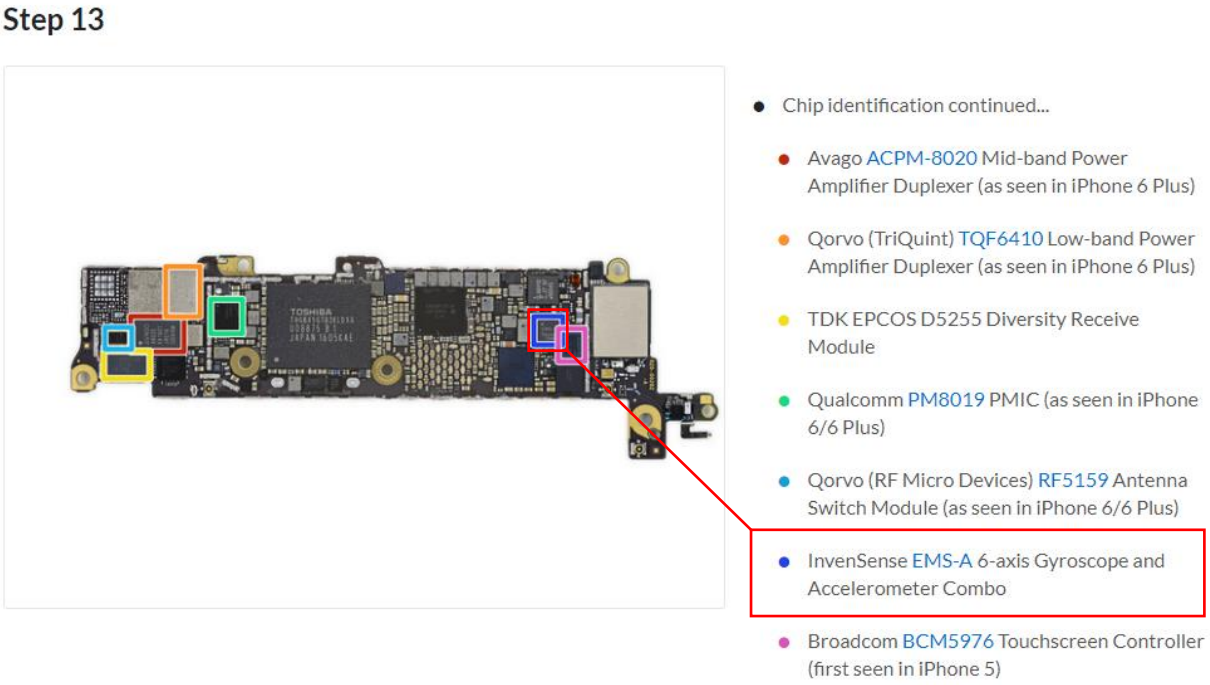

Figure 27: Teardown view of iPhone SE showing bottom side of logic board, with certain chips identified including chip housing gyroscope and accelerometer, with red labeling added, Exs. 61–62.

57. The iPhone SE further comprises a second element movable in at least two directions, namely certain microelectromechanical elements of the gyroscope, with this second element structured to activate sensors capable of controlling an object within the imagery on the display independently of the first element. Ex. 59 at 6–17; Ex. 63; *see also supra* Figure 27.

58. The iPhone SE is a single input member movable on six degrees of freedom relative to the microelectromechanical elements in the phone.

59. The iPhone SE further has an emitter of electromagnetic radiation capable of providing wireless communication between the iPhone SE and an image generation device, for example wi-fi and bluetooth radio transceivers which are capable of wireless communication between the iPhone SE and various types of devices that can generate

images, including, for example, Apple TV. *See* Ex. 64 at 2 (noting wireless video output, including "AirPlay Mirroring, photos, audio, and video out to Apple TV (2nd generation or later)").

60. The iPhone SE further has a plurality of independent finger depressible buttons, namely volume up and down buttons, a ring/silent button, and an on/off – sleep/wake button, each of which buttons is associated with a button sensor. *See id.* at 3.

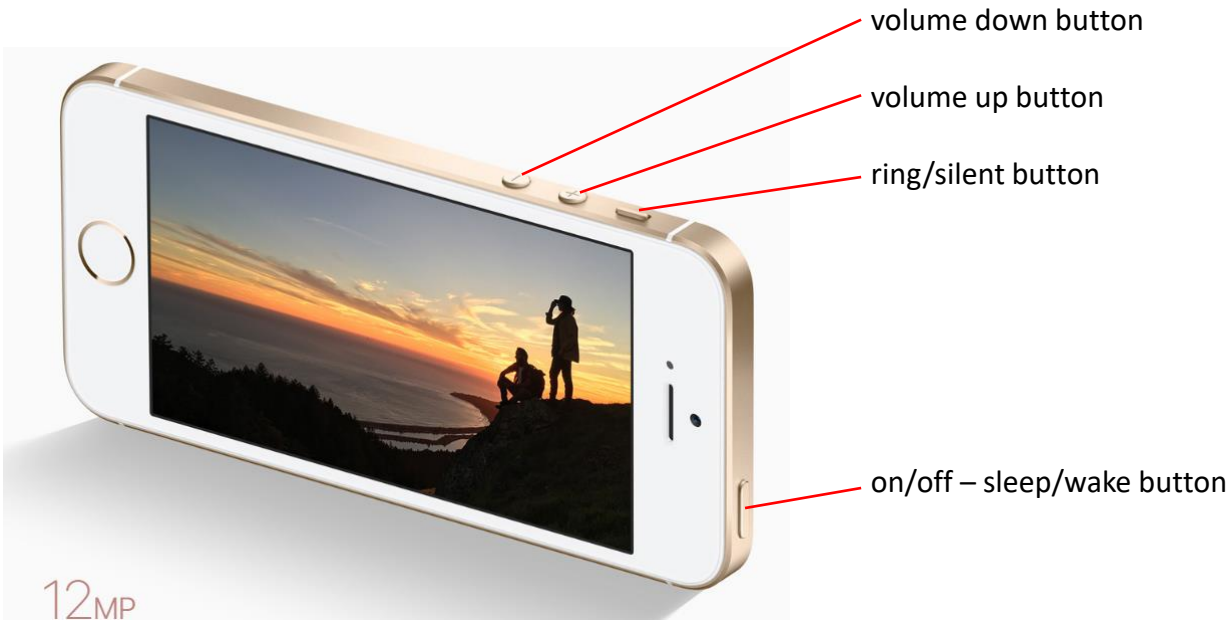

Figure 28: Marketing materials for iPhone SE, with labeling added, see Ex. 58.

61. Further, in at least some versions of the iPhone SE (including Apple iPhone SE Series 1 and Apple iPhone SE (1st Generation)), a plurality of the iPhone SE's sensors are connected to a circuit board, at least some of the sensors are mounted to a first side of the circuit board, and at least some of the sensors are mounted to a reverse side of the

circuit board, where the first side and the reverse side of the circuit board are opposite sides of the circuit board:

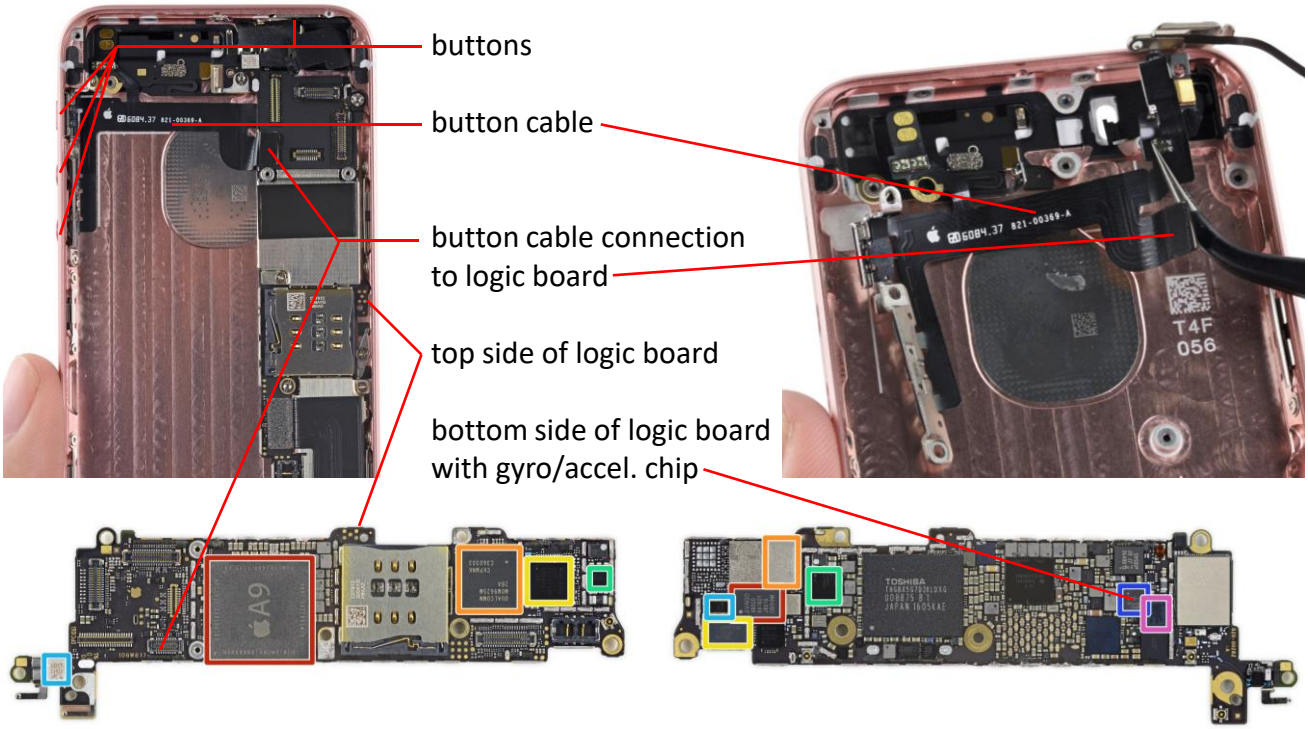

Figure 29: Four teardown views of iPhone SE showing mounting of sensors to opposite sides of circuit board, with labeling added, see Exs. 65–68.

62. Further, the iPhone SE also comprises a motor capable of generating active tactile feedback detectable by a user holding the controller, namely a vibratory motor. Ex. 69 at 6.

Apple Watch – Infringement of the '527 Patent and '932 Patent

63. Apple makes and sells wearable electronic devices that infringe claim 12 of the '527 patent and claim 1 of the '932 patent.

Apple Watch – '527 Patent

64. Claim 12 of the '527 patent recites:

> 12. A computer monitor, comprising:
> a housing;
> electronic circuitry located in said housing;
> a general image display mounted within said housing, said general image display operatively connected to said circuitry;
> at least one finger depressible surface in part exposed on said housing, said at least one finger depressible surface operatively connected to
> at least one depressible proportional sensor, said proportional sensor for inputting a signal to said circuitry, said signal having a varying value representing varying depression of said at least one finger depressible surface;
> said circuitry structured to receive said signal and to cause said general image display to change display of information at a rate related to said value.

65. As an example of this infringement, Apple makes and sells a series of wearable electronic devices referred to as the Apple Watch, including at least the models Apple refers to as Apple Watch (1st generation), Apple Watch Series 1, and Apple Watch Series 2 (such models/generations hereinafter "Watch"). *See* Ex. 70.

66. The Watch meets all of the claim limitations of at least claim 12, either literally or under the doctrine of equivalents.

67. The Watch comprises a housing, electronic circuitry located in the housing, and a general image display mounted within the housing and operatively connected to said circuitry.

Figure 30: Marketing materials for Apple Watch, with labeling added, see Ex. 71.

68. The Watch has at least one finger depressible surface in part exposed on said housing, namely the touchscreen/image display, which is operatively connected to at least one depressible proportional sensor. In particular, the touchscreen of the Watch is a finger depressible surface mounted within the housing by a sensor ring, which sensor ring, on information and belief, comprises a flexible middle layer that is compressible. The touchscreen is depressible by a user's finger.

Figure 31: Photo from teardown analysis of Apple Watch, Ex. 72.

Figure 32: Photo of Apple Watch screen removal, Ex. 73.

Figure 33: Photo showing Apple Watch force sensor ring placement, Ex. 74.

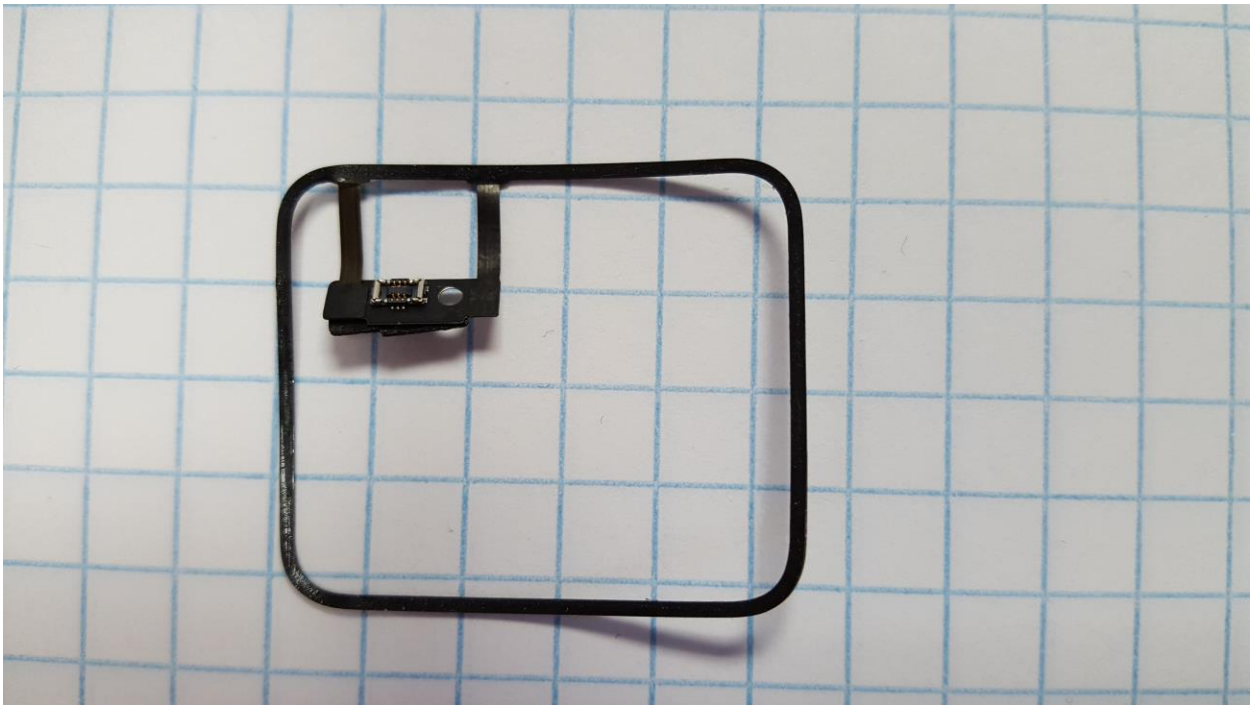

Figure 34: Photo showing Apple Watch force sensor ring, Ex. 75.

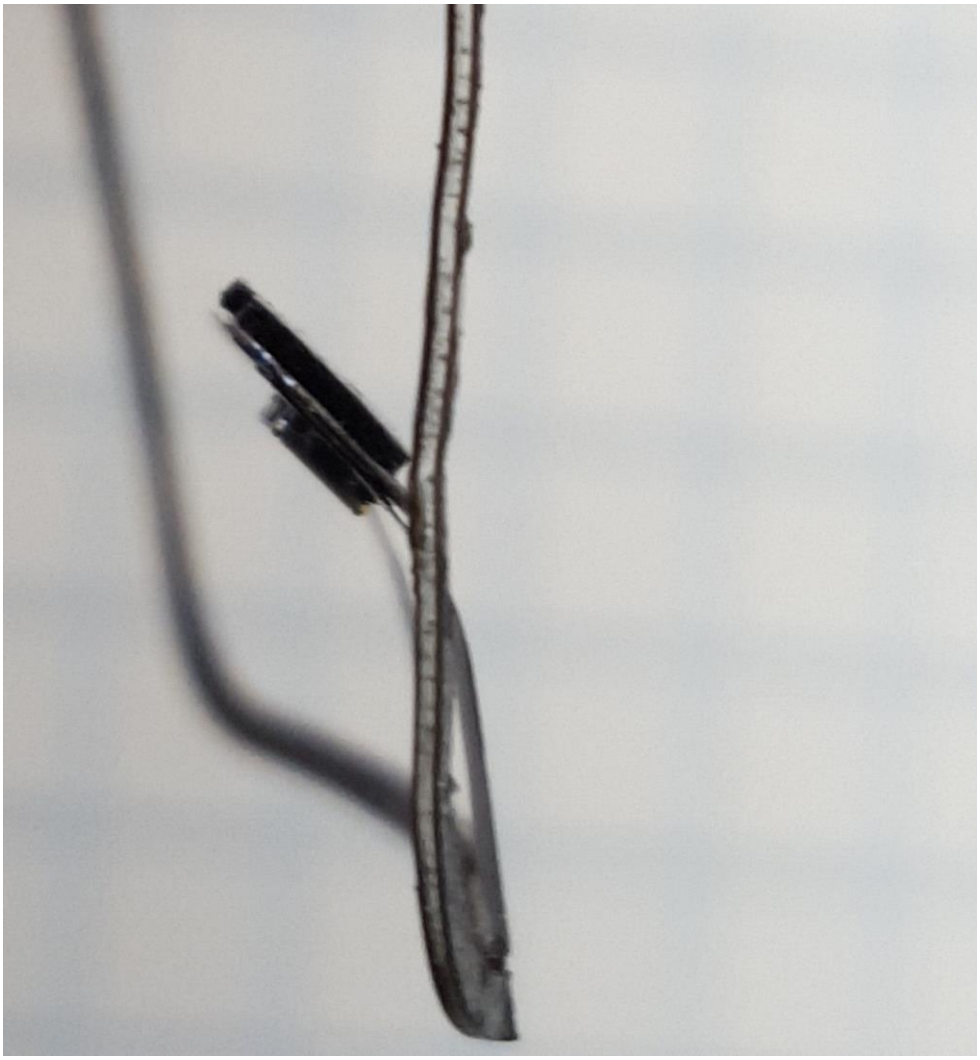

Figure 35: Detail photo showing side view of Apple Watch force sensor ring with clear, flexible intermediate layer, Ex. 76.

69. Anascape alternatively alleges that a jury may properly find the Watch's touchscreen and/or combination of touch screen and sensor ring are only insubstantially different from the claimed surface, including in that the identified touchscreen and/or combination of touch screen and sensor ring perform substantially the same function, in substantially the same way, to yield substantially the same result as the claimed surface.

70. The Watch, by use of the sensor ring, comprises a depressible proportional sensor, which registers the proportional depression of the touchscreen by the user's finger.

On information and belief, the sensor ring is a sensor where the plates, layers, or components of the sensor are separated by the flexible middle layer alleged above.

71. The sensor ring is for inputting a signal to the Watch circuitry, with the signal having a varying value representing varying depression of the touchscreen. Ex. 77 ("Pressing firmly on the Apple Watch display causes the current screen's menu (if any) to appear.").

72. The Watch circuitry is structured to receive this signal and is capable of causing said general image display to change display of information at a rate related to said value. *Id.*

Apple Watch – '932 Patent

73. Claim 1 of the '932 patent recites:

> 1. An image controller comprising:
> a first element operable on three mutually perpendicular axes, said first element structured to activate
> at least one capacitance sensing sensor, the capacitance sensing sensor controlling an object within imagery on a display;
> a second element movable in at least two directions, said second element structured to activate
> sensors controlling the object within the imagery on the display independently of the first element;
> an emitter of electromagnetic radiation capable of providing wireless communication between the controller and
> an image generation device;
> a plurality of independent finger depressible buttons, each button associated with
> a button sensor;
> a plurality of the sensors are connected to
> a circuit board, at least some of the sensors are mounted to
> a first side of the circuit board, and at least some of the sensors are mounted to

a reverse side of the circuit board, the first side and the reverse side of the circuit board are opposite sides of the circuit board; and
a motor capable of generating active tactile feedback detectable by a user holding the controller.

74. Some versions of the Watch meet all of the claim limitations of at least claim 1, either literally or under the doctrine of equivalents.

75. The Watch comprises a first element operable on three mutually perpendicular axes, namely certain microelectromechanical elements of the accelerometer and/or gyroscope. That first element is structured to activate at least one capacitance sensing sensor, namely a sensor component of the accelerometer and/or gyroscope, that capacitance sensing sensor capable of controlling an object within imagery on a display. Ex. 78 (raising wrist wakes the Watch/ image display); Ex. 79 (Watch used as a motion-based gaming controller); Ex. 80 at 12.

76. The Watch further comprises a second element movable in at least two directions, namely the crown, with this second element structured to activate sensors capable of controlling an object within the imagery on the display independently of the first element. Exs. 81 (turn crown to scroll, zoom, or adjust); 80 at 2-11; 82.

77. The Watch is a single input member movable on six degrees of freedom relative to the microelectromechanical elements of the Watch.

78. The Watch further has an emitter of electromagnetic radiation capable of providing wireless communication between the Watch and an image generation device, for example wi-fi and Bluetooth radio transceivers which are capable of wireless communication between the Watch and various types of devices that can generate images, including, for example, the iPhone, Apple TV, or a computer. Exs. 83, 84.

79. The Watch further has a plurality of independent finger depressible buttons, namely a button on the case and a clickable crown that operates, inter alia, as a button independently of turning the crown, each of which buttons is associated with a button sensor.

80. Further, in at least some versions of the Watch (including Apple Watch Series 1 and Apple Watch (1st Generation)), a plurality of the Watch's sensors are connected to a circuit board, at least some of the sensors are mounted to a first side of the circuit board, and at least some of the sensors are mounted to a reverse side of the circuit board, where the first side and the reverse side of the circuit board are opposite sides of the circuit board:

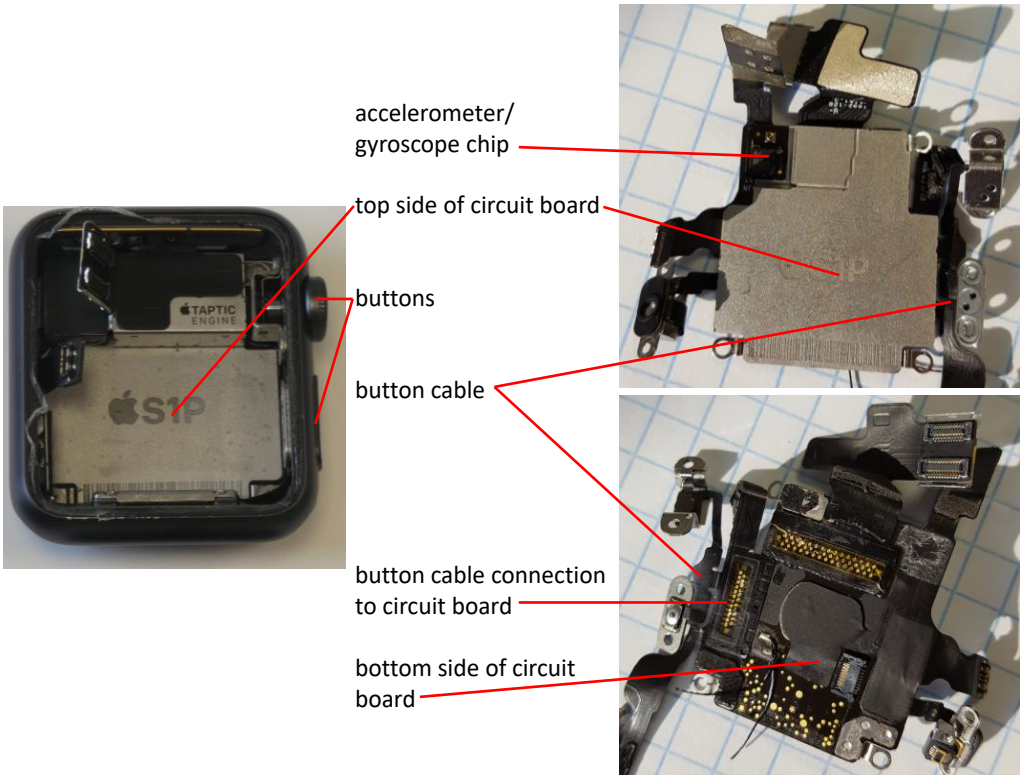

Figure 36: Three teardown views of Apple Watch Series 1 showing mounting of sensors to opposite sides of circuit board, with labeling added, see Exs. 85–87.

81. Further, the Watch also comprises a motor capable of generating active tactile feedback detectable by a user holding the controller, namely a linear-actuator-based vibratory motor that Apple refers to as the Taptic Engine. *See* Ex. 88.

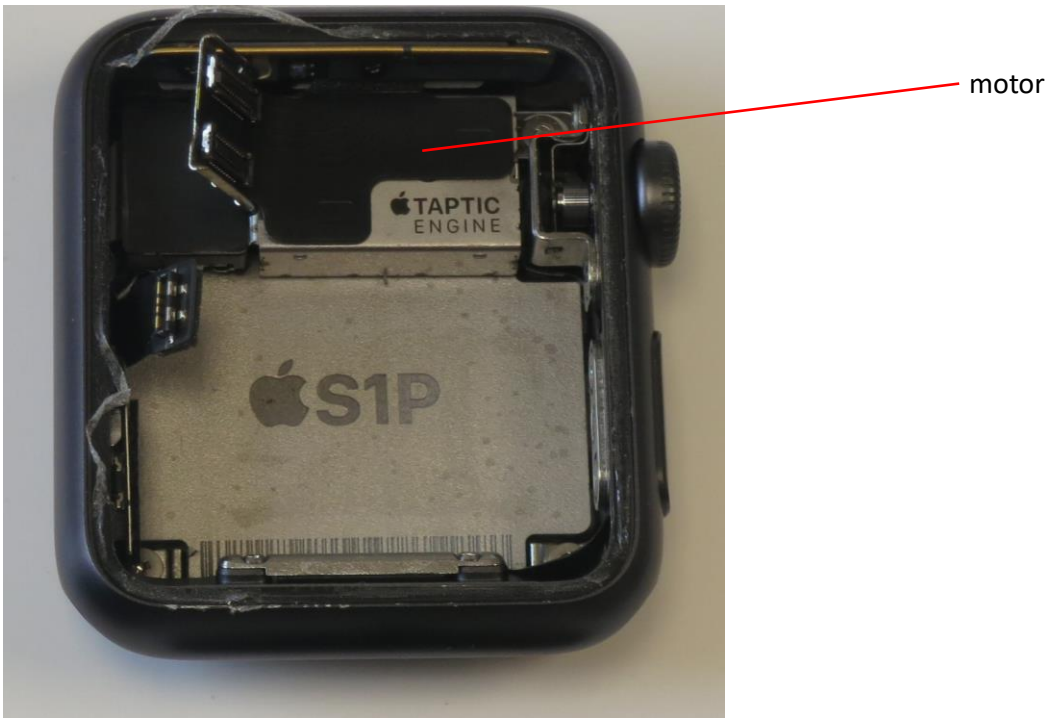

Figure 37: Teardown view of Apple Watch Series 1 showing motor, with labeling added, see Ex. 85.

COUNT I
(PATENT INFRINGEMENT, '991 PATENT)

82. Anascape incorporates the foregoing paragraphs by reference as if fully set forth herein.

83. Apple has infringed the '991 patent under 35 U.S.C. § 271 by, at least, selling the Nimbus and other MFi controllers (as identified above) in the U.S. and in the Eastern District of Texas. Apple is liable for direct infringement and/or indirect infringement by way of inducement or contributory infringement of this patent pursuant to 35 U.S.C. § 271.

84. Apple's acts of infringement have caused damage to Anascape. Anascape is entitled to recover from Apple the damages sustained by Anascape as a result of Apple's wrongful acts in an amount subject to proof at trial.

85. Prior to the filing of this lawsuit, Anascape provided Apple with actual notice of infringement. Apple has known of the patent and infringement since at least July 2015. *See* Ex. 89.

86. Upon information and belief, Apple's infringement of the '991 patent is willful and deliberate entitling Anascape to enhanced damages and to attorneys' fees incurred in prosecuting this action.

COUNT II
(PATENT INFRINGEMENT, '527 PATENT)

87. Anascape incorporates the foregoing paragraphs by reference as if fully set forth herein.

88. Apple has infringed the '527 patent under 35 U.S.C. § 271, at least by its sales of the MacBook and Watch (both as identified above) in the U.S. and in the Eastern District of Texas. Apple is liable for direct infringement of this patent pursuant to 35 U.S.C. § 271.

89. Apple's acts of infringement have caused damage to Anascape. Anascape is entitled to recover from Apple the damages sustained by Anascape as a result of Apple's wrongful acts in an amount subject to proof at trial.

90. Prior to the filing of this lawsuit, Anascape provided Apple with actual notice of infringement. Apple has known of the patent and infringement since at least March 2015. *See* Ex. 90.

91. Upon information and belief, Apple's infringement of the '527 patent is willful and deliberate entitling Anascape to enhanced damages and to attorneys' fees incurred in prosecuting this action.

COUNT III
(PATENT INFRINGEMENT, '078 PATENT)

92. Anascape incorporates the foregoing paragraphs by reference as if fully set forth herein.

93. Apple has infringed the '078 patent under 35 U.S.C. § 271 by, at least, selling the iPhone (as identified above) in the U.S. and in the Eastern District of Texas. Apple is liable for direct infringement of this patent pursuant to 35 U.S.C. § 271.

94. Apple's acts of infringement have caused damage to Anascape. Anascape is entitled to recover from Apple the damages sustained by Anascape as a result of Apple's wrongful acts in an amount subject to proof at trial.

95. Prior to the filing of this lawsuit, Anascape provided Apple with actual notice of infringement. Apple has known of the patent and infringement since at least March 2015. *See* Ex. 90.

96. Upon information and belief, Apple's infringement of the '078 patent is willful and deliberate entitling Anascape to enhanced damages and to attorneys' fees incurred in prosecuting this action.

COUNT IV
(PATENT INFRINGEMENT, '932 PATENT)

97. Anascape incorporates the foregoing paragraphs by reference as if fully set forth herein.

98. Apple has infringed and/or continues to infringe the '932 patent under 35 U.S.C. § 271 by, at least, selling the Watch (as identified above) and the iPhone SE (as identified above) in the U.S and in the Eastern District of Texas. Apple is liable for direct infringement of this patent pursuant to 35 U.S.C. § 271.

99. Apple's acts of infringement have caused damage to Anascape. Anascape is entitled to recover from Apple the damages sustained by Anascape as a result of Apple's wrongful acts in an amount subject to proof at trial.

100. Prior to the filing of this lawsuit, Anascape provided Apple with actual notice of infringement. Apple has known of the patent and infringement since at least March 2015. *See* Ex. 90.

101. Upon information and belief, Apple's infringement of the '932 patent is willful and deliberate entitling Anascape to enhanced damages and to attorneys' fees incurred in prosecuting this action.

JURY DEMAND

102. Anascape hereby demands a trial by jury on all issues so triable.

PRAYER FOR RELIEF

103. Anascape requests the following relief:

A. A judgment that Apple has infringed, directly or indirectly, literally or under the doctrine of equivalents, the Patents-in-Suit; and that such infringement is and has been willful;

B. A judgment and order requiring Apple to pay Anascape's damages under 35 U.S.C. § 284, including supplemental damages for any continuing post-verdict infringement of the '932 patent up until entry

of the final judgment, with an accounting, as needed, and treble damages for willful infringement as provided by 35 U.S.C. § 284;

C. A judgment and order requiring Apple to pay Anascape's pre-judgment and post-judgment interest on the damages awarded;

D. That the Court award a compulsory future royalty for the '932 patent in lieu of an injunction;

E. A judgment and order requiring Apple to pay Anascape the costs of this action (including all disbursements) and attorney's fees as provided for by 35 U.S.C. § 285; and

F. Such other and further relief as the Court deems just and equitable.

Dated: September 29, 2017

Respectfully submitted,

/s/ Anthony M. Garza

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