

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

IMMERSION CORPORATION,

*Plaintiff,*

v.

SAMSUNG ELECTRONICS AMERICA, INC.;  
SAMSUNG ELECTRONICS CO., LTD.

*Defendants.*

Case No. 2:17-CV-00572-JRG  
LEAD CASE

Case No. 2:18:cv-00055-JRG

**JURY TRIAL DEMANDED**

**AMENDED COMPLAINT FOR PATENT INFRINGEMENT**

Immersion Corporation (“Immersion”) brings this action against Samsung Electronics America, Inc. (“SEA”) and Samsung Electronics Co., Ltd. (“SEC”) (collectively, “Samsung”), and alleges as follows:

**NATURE OF THE ACTION**

1. This action is based on Samsung’s infringement of several patents developed and owned by Immersion, sometimes referred to as “basic haptics” patents, covering Samsung’s use of haptic feedback technology (“haptic feedback”) in mobile devices. For many years, Samsung had licensed software from Immersion to implement haptic feedback in its flagship phones. At the beginning of January 2013, Samsung expanded its license to allow it to use Immersion’s patented technology even in products that do not use Immersion software. Although Samsung decided not to renew its software and patent license with Immersion at the end of 2015, Samsung continued to include the haptic feedback technology covered by the patents in its new products (the old products that Samsung commenced commercially producing, distributing, and selling

before January 1, 2016 remained licensed). Despite its continuing use of Immersion's patented technology, Samsung has declined to enter into a new license agreement with Immersion.

2. The patents at issue (collectively, the "Asserted Patents") are U.S. Patent Nos. 6,429,846 ("the '846 patent"), 7,969,288 ("the '288 patent"), 7,982,720 ("the '720 patent"), 8,031,181 ("the '181 patent"), 9,323,332 ("the '332 patent"), and 8,619,051 ("the '051 patent"). All except the '332 and '051 patents were specifically identified in the previous patent license at Samsung's request. The '051 patent issued on December 31, 2013, almost a year after Samsung expanded its license. As for the '332 patent, it issued on April 26, 2016, after Samsung's license had expired.

### **PARTIES**

3. Immersion is a Delaware corporation with its principal place of business located at 50 Rio Robles, San Jose, California 95134. Immersion owns the Asserted Patents.

4. Founded in 1993, Immersion develops products for the mobile electronics industry, including creating software for implementing advanced haptic effects on cellular phones, smartphones, smart wearable devices (such as smart watches), and other handheld computers. Immersion also owns and licenses a broad portfolio of pioneering patents related to the use of haptics technology. Immersion's software is used in products that are sold and used worldwide, including cell phones, tablets, medical simulation devices, automobiles, and other consumer devices. Immersion's patented technology is used even more widely, pursuant to patent licenses entered into by Immersion.

5. Defendant Samsung Electronics America, Inc. is a New York corporation with its principal place of business located at 85 Challenger Road, Ridgefield Park, NJ 07660. Samsung Electronics America, Inc. can be served through its registered agent CT Corporation System,

1999 Bryan Street, Suite 900, Dallas, TX 75201-3136.

6. Defendant Samsung Electronics Co., Ltd. is a Korean corporation with its principal place of business located at 129 Samsung-Ro, Maetan-3-dong, Yeongtong-gu, Seoul 443-772, Republic of Korea.

### **JURISDICTION AND VENUE**

7. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. § 1 *et seq.*, including but not limited to 35 U.S.C. § 271.

8. This Court has subject-matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

9. This Court has general and specific personal jurisdiction over Samsung. Samsung has sufficient contacts with this judicial district, including but not limited to a regular and established place of business for SEA located within the district at 1301 E. Lookout Drive, Richardson, TX 75080 (“the Richardson facility”). Samsung also maintains multiple service centers within the district. Samsung has admitted in numerous other cases that it is subject to jurisdiction in this district.

10. Venue in this judicial district is proper pursuant to 28 U.S.C. §§ 1391(b)&(c) and 28 U.S.C. § 1400(b). SEC is a foreign corporation, and SEA has a regular and established place of business located at the Richardson Facility. The Richardson Facility is located in the Eastern District of Texas and employs individuals residing in the Eastern District of Texas. On information and belief, Samsung develops and markets phones and tablets out of the Richardson Facility. A substantial part of the infringement alleged in this Complaint has occurred and is occurring in this district, including the marketing, selling, and offering for sale of infringing products.

### **HAPTIC FEEDBACK TECHNOLOGY**

11. Haptic feedback provides touch or tactile sensations to users of electronic applications, and may include tactile sensations produced by an actuator, such as a motor, a linear resonant actuator, or a piezoelectric actuator in an electronic device. Haptic feedback is integrated into many mobile electronic devices, including cell phones and tablets. The infringing Samsung devices include haptic feedback technology.

12. A common application of haptic feedback is to provide confirmation that a user has pressed a virtual key or selected an icon in a graphical user interface, such as the touch screen of a smart phone or handheld computer. When the key or icon is touched, the user feels a vibration or pulse.

13. Haptic feedback is especially useful in electronic devices containing touchscreens, which tend to have primarily virtual buttons to control the device and very few physical buttons. Vibrations restore a mechanical feel to electronic devices, immediately reassuring a user that he or she has successfully engaged a virtual button and improving the interface for consumers.

14. Samsung has used basic haptics features in its phones for many years. For several years, Samsung licensed Immersion's TouchSense software to implement haptics feedback in some of its phones, including several versions of its Galaxy S phones. The companies worked closely together for several years to implement haptic functionality using Immersion's software in Samsung phones. In addition, Samsung licensed the right to use Immersion's patented technology in devices that did not use Immersion's software. In or around December 2015, Samsung decided it no longer wished to use Immersion's software and declined to renew the software and patent license covering Immersion's software and patented haptic technology. However, Samsung continues to use Immersion's patented haptic technology. Immersion is

bringing this suit based on Samsung's unauthorized use of its patented technology.

**CLAIMS FOR RELIEF**

15. Immersion incorporates by reference and repeats each and every preceding paragraph with the same force and effect as if set forth in full here.

16. On information and belief, Samsung has infringed and continues to infringe; has induced and continues to induce others to infringe; and/or has committed and continues to commit acts of contributory infringement of one or more of the claims of each of the Asserted Patents. Samsung's infringing activities include the development, manufacture, use, importation, sale, and/or offer for sale of infringing touch screen mobile phones that Samsung had not commenced commercially producing, distributing, and selling before January 1, 2016 (collectively, "the Accused Phones"), and contributing to and inducing others to do the same. On information and belief, these products include, but are not limited to, the Galaxy J3 Eclipse, Galaxy J3 Emerge, Galaxy J3, Galaxy J7 Perx, Galaxy J7 Sky Pro, Galaxy J7 V, Galaxy J7, Galaxy S7, Galaxy S7 Edge, Galaxy S8, Galaxy S8+, Galaxy S8 Active, Galaxy Note 8, Galaxy J7 Prime 2, Galaxy S7 Active, Galaxy S9, and Galaxy S9+. Samsung is in the best position to know what other similar devices it developed, manufactured, used, imported, sold, and/or offered for sale (and that Samsung had not commenced commercially producing, distributing, and selling before January 1, 2016, as such products remained licensed), and, on information and belief, Immersion accuses all such other devices of infringement in this action whether or not specifically listed above.

**COUNT I: INFRINGEMENT OF THE '846 PATENT**

17. Immersion incorporates by reference and repeats each and every preceding paragraph with the same force and effect as if set forth in full here.

18. Immersion owns, by assignment, all rights, title, and interests in and to United States Patent No. 6,429,846, entitled “Haptic Feedback for Touchpads and Other Touch Controls,” which was duly and legally issued on August 6, 2002. The ’846 patent includes three Certificates of Correction that correct clerical errors in the patent.

19. Each of Samsung’s Accused Phones infringes at least one claim of the ’846 patent, literally or under the doctrine of equivalents.

20. By way of example and not limitation, Samsung’s Galaxy S8 meets or embodies every element of at least claim 1 of the ’846 patent, as set forth below:

- a. A haptic feedback touch control for inputting signals to a portable computer and for outputting forces to a user of the touch control, the touch control comprising:

The Galaxy S8 includes a haptic feedback touch control wherein a user can input a signal to the computer by touching an area of the device’s touch screen display. The Galaxy S8 also outputs forces to the user, such as in the form of vibrations when a user types on the keyboard or touches the home, recent, or back keys.

- i. A touch input device integrated in a housing of said portable computer, said touch input device including an approximately planar touch surface operative to input a position signal to a processor of said computer based on a location on said touch surface which said user contacts, said position signal representing a location in two dimensions;

The Galaxy S8 is a portable device that houses a touch screen that is approximately planar. The touch screen is configured to sense the location of a user’s contact. This allows the user to select displayed icons or applications or to place a cursor at a specific location within text. The touch screen outputs coordinates of the contacted location on the touch screen to the Galaxy S8’s application processor. Thus, the touch screen is operative to input a position signal,

based on the location on the touch surface that the user contacts, to a processor of the computer, where the signal indicates a location (the location of the user contact) in two dimensions.

- ii. wherein said computer positions a cursor in a graphical environment displayed on a display device based at least in part on said position signal; and

The Galaxy S8 positions a variety of cursors in the graphical environment displayed on the touch screen based at least in part on the position signal. For example, a cursor may be used to mark the location where text will be input. A user may change the location of this mark by tapping a different position on the screen, or by pressing, holding, and dragging the cursor to a new location.

- iii. at least one actuator coupled to said touch input device, said actuator outputting a force on said touch input device to provide a haptic sensation to said user contacting said touch surface, wherein said actuator outputs said force based on force information output by said processor, said actuator outputting a force directly on said touch input device.

The Galaxy S8 has an actuator, which is coupled to the touch screen. The actuator outputs a force on the touch screen to provide a haptic sensation to a user when, for example, the user types on the keyboard or touches the home, recent, or back keys. The Galaxy S8 contains an applications processor that outputs a signal indicating the force to be output by the actuator, which in turn outputs a force directly on the touch input device.

21. Additionally or in the alternative, Samsung has induced or contributed to infringement with respect to the '846 patent and the Accused Phones.

22. Samsung has been aware of the '846 patent since at least March 7, 2013, when the patent was identified by number in an Immersion-Samsung license agreement (at Samsung's request). This was long before the Accused Phones were conceived or introduced. Samsung conceived, designed, and built the Accused Phones with full and detailed knowledge of the '846

patent. Despite this knowledge and history, Samsung provides directions, instruction manuals, guides, and/or other materials that instruct and encourage the purchaser of an Accused Phone to use the device in a manner that infringes one or more claims of the '846 patent, either literally or under the doctrine of equivalents. The accused haptic functionality of the Accused Phones is a material part of the patented invention and especially made or especially adapted for use in the infringement, and not a staple article or commodity of commerce suitable for substantial noninfringing use.

23. Despite having knowledge of the '846 patent, having been involved in extensive negotiations regarding the patent, having licensed the patent in the past, and knowing that its license to the '846 patent had expired, Samsung has continued to make, use, offer to sell, sell, and import the Accused Phones. Samsung's infringement has been, and continues to be, willful and deliberate and has caused substantial damage to Immersion.

24. Immersion is entitled to damages, attorneys' fees, costs, and other remedies available under the law based on Samsung's infringement.

## **COUNT II: INFRINGEMENT OF THE '288 PATENT**

25. Immersion incorporates by reference and repeats each and every preceding paragraph with the same force and effect as if set forth in full here.

26. Immersion owns, by assignment, all rights, title, and interests in and to United States Patent No. 7,969,288, entitled "Force Feedback System Including Multi-Tasking Graphical Host Environment and Interface Device," which was duly and legally issued on April 15, 1998. The '288 patent was the subject of a request for reexamination filed July 30, 2012. The third party requestor filed an extremely detailed, 195-page request for *ex parte* reexamination. The USPTO conducted the reexamination, and upheld the validity of the patent.



Specifically, the USPTO determined claim 18 to be patentable with a minor amendment, and claims 1-17 were not reexamined.

27. Each of Samsung's Accused Phones infringes at least one claim of the '288 patent, literally or under the doctrine of equivalents.

28. By way of example and not limitation, Samsung's Galaxy S8 meets or embodies every element of at least claim 18 of the '288 patent, as set forth below:

a. A software method in a multi-tasking environment comprising:

The Galaxy S8 provides the user with a multi-tasking environment. Its operating system, Android, is a Linux-based operating system. Linux is a multi-tasking environment that permits multiple applications to run concurrently.

i. storing a plurality of data sets in memory, each data set comprising a representation of one or more force effects, wherein each one of the plurality of data sets is associated with one software application;

The Galaxy S8 stores a plurality of data sets in memory, where each data set includes information indicative of one or more force effects. Each software application that performs haptic feedback will include one or more data sets of haptic feedback constants or haptic method parameters that represent one or more force effects that the particular application may call. An application's haptic feedback constants and haptic method parameters are a data set that is associated with that particular application. Thus, each one of the plurality of data sets is associated with one haptic-enabled software application. Examples of haptic methods include `performHapticFeedback(int feedbackConstant, int flags)` and `performHapticFeedback(int feedbackConstant)`, which are implemented in the View class, and `vibrate(long[] pattern, int repeat)` and `vibrate (long milliseconds)`, which are implemented in the Vibrator class.

ii. calling an application programming interface;

The Galaxy S8 generates haptic effects by calls to the application programming interfaces provided by the Vibrator and View classes, as examples.

- iii. determining which one of a plurality of concurrently running application programs is active in the multi-tasking environment; and

The Galaxy S8 includes application programs and can run multiple applications concurrently. A user may select an application program, at which point the Galaxy S8's Android operating system makes the newly selected application program active. The Android operating system determines which one of a plurality of application programs is active.

- iv. generating a signal representing the data set associated with the active application program.

The Galaxy S8 is configured to generate a signal representing the data set associated with the active application program in order to output a haptic effect. For example, signals representing a given haptic feedback method parameter or constant in an active application are generated after the application's call to the Vibrator class is passed to the actuator driver, so information representing or relating to a force effect can be transmitted to the actuator.

29. Additionally or in the alternative, Samsung has induced or contributed to infringement with respect to the '288 patent and the Accused Phones.

30. Samsung has been aware of the '288 patent since at least March 7, 2013, when the patent was identified by number in an Immersion-Samsung license agreement (at Samsung's request). This was long before the Accused Phones were conceived or introduced. Samsung conceived, designed, and built the Accused Phones with full and detailed knowledge of the '288 patent. Despite this knowledge and history, Samsung provides directions, instruction manuals, guides, and/or other materials that instruct and encourage the purchaser of an Accused Phone to

use the device in a manner that infringes one or more claims of the '288 patent, either literally or under the doctrine of equivalents. The accused haptic functionality of the Accused Phones is a material part of the patented invention and especially made or especially adapted for use in the infringement, and not a staple article or commodity of commerce suitable for substantial noninfringing use.

31. Despite having knowledge of the '288 patent, having been involved in extensive negotiations regarding the patent, having licensed the patent in the past, and knowing that its license to the '288 patent had expired, Samsung has continued to make, use, offer to sell, sell, and import the Accused Phones. Samsung's infringement has been, and continues to be, willful and deliberate and has caused substantial damage to Immersion.

32. Immersion is entitled to damages, attorneys' fees, costs, and other remedies available under the law based on Samsung's infringement.

### **COUNT III: INFRINGEMENT OF THE '720 PATENT**

33. Immersion incorporates by reference and repeats each and every preceding paragraph with the same force and effect as if set forth in full here.

34. Immersion owns, by assignment, all rights, title, and interests in and to United States Patent No. 7,982,720, entitled "Haptic Feedback for Touchpads and Other Touch Controls," which was duly and legally issued on July 19, 2011. The '720 patent was the subject of a request for reexamination filed September 12, 2012. The third party requestor filed an extremely detailed, 200-page request for *ex parte* reexamination. The USPTO conducted the reexamination, and upheld the validity of the patent. On February 18, 2014, pursuant to 35 U.S.C. § 307, an *ex parte* reexamination certificate was issued. The USPTO determined claims 10-11 and 30 to be patentable with minor amendments. Claims 12-13, 15-17, 19, 22-23, 29, and

33 were also determined to be patentable. Claims 1-4 were cancelled. Claims 5-9, 14, 18, 20-21, 24-28, 31-32 were not reexamined. The '720 patent includes two Certificates of Correction that correct clerical errors in the patent as well.

35. At least Samsung's accused Galaxy J7 Sky Pro, Galaxy J7, Galaxy S7, Galaxy S7 Edge, Galaxy S7 Active, Galaxy S8, Galaxy S8+, Galaxy S8 Active, Galaxy Note 8, Galaxy S9, and Galaxy S9+ infringe at least one claim of the '720 patent, literally or under the doctrine of equivalents.

36. By way of example and not limitation, Samsung's Galaxy S8 meets or embodies every element of at least claim 10 of the '720 patent, as set forth below:

a. A haptic feedback device, comprising:

The Galaxy S8 includes an actuator for providing haptic feedback and is therefore a haptic feedback device.

i. a touch screen operative to output a first signal comprising coordinates of a contacted location on the touch screen, wherein the touch screen includes a first region associated with a cursor positioning, and at least one other non-overlapping control region not related to cursor positioning;

The Galaxy S8 includes a touch screen that allows a user to provide input by touching an area of the touch screen, which is configured to sense the location of a user's contact. This allows the user to select displayed icons or applications or to place a cursor at a specific location within text. The touch screen outputs coordinates of the contacted location on the touch screen to the Galaxy S8's application processor. The Galaxy S8 has a first region associated with a cursor positioning (*e.g.*, a graphical text box in which a user can type at the location of the cursor, or move the cursor to a different location and then type in that new location). The Galaxy

S8 also has a non-overlapping second region associated with control functionality (*e.g.*, keys to return home, view recently used applications, or go back).

- ii. a computer configured to receive at least the first signal; and

The Galaxy S8 has an applications processor system with integrated or associated processors, memory, and I/O that is configured to receive the signal output by the touch screen.

- iii. at least one actuator coupled to the touch screen and configured to impart a force to the touch screen to thereby provide a haptic effect in response to said contact, said force being based on a second signal output by the computer.

The Galaxy S8 has an actuator, which is coupled to the touch screen. The actuator outputs a force on the touch screen to provide a haptic sensation to a user when, for example, the user types on the keyboard or touches the home, recent, or back keys. The applications processor outputs a signal indicating the force to be output by the actuator.

37. Additionally or in the alternative, Samsung has induced or contributed to infringement with respect to the '720 patent and the Accused Phones.

38. Samsung has been aware of the '720 patent since at least March 7, 2013, when the patent was identified by number in an Immersion-Samsung license agreement (at Samsung's request). This was long before the Accused Phones were conceived or introduced. Samsung conceived, designed, and built the Accused Phones with full and detailed knowledge of the '720 patent. Despite this knowledge and history, Samsung provides directions, instruction manuals, guides, and/or other materials that instruct and encourage the purchaser of an Accused Phone to use the device in a manner that infringes one or more claims of the '720 patent, either literally or under the doctrine of equivalents. The accused haptic functionality of the Accused Phones is a material part of the patented invention and especially made or especially adapted for use in the infringement, and not a staple article or commodity of commerce suitable for substantial

noninfringing use.

39. Despite having knowledge of the '720 patent, having been involved in extensive negotiations regarding the patent, having licensed the patent in the past, and knowing that its license to the '720 patent had expired, Samsung has continued to make, use, offer to sell, sell, and import the Accused Phones. Samsung's infringement has been, and continues to be, willful and deliberate and has caused substantial damage to Immersion.

40. Immersion is entitled to damages, attorneys' fees, costs, and other remedies available under the law based on Samsung's infringement.

#### **COUNT IV: INFRINGEMENT OF THE '181 PATENT**

41. Immersion incorporates by reference and repeats each and every preceding paragraph with the same force and effect as if set forth in full here.

42. Immersion owns, by assignment, all rights, title, and interests in and to United States Patent No. 8,031,181, entitled "Haptic Feedback for Touchpads and Other Touch Controls," which was duly and legally issued on October 4, 2011. The '181 patent includes a Certificate of Correction that corrects clerical errors in the patent.

43. At least Samsung's accused Galaxy J7 Sky Pro, Galaxy J7, Galaxy S7, Galaxy S7 Edge, Galaxy S7 Active, Galaxy S8, Galaxy S8+, Galaxy S8 Active, Galaxy Note 8, Galaxy S9, and Galaxy S9+ infringe at least one claim of the '181 patent, literally or under the doctrine of equivalents.

44. By way of example and not limitation, Samsung's Galaxy S8 meets or embodies every element of at least claim 1 of the '181 patent, as set forth below:

- a. A haptic feedback device, comprising:

The Galaxy S8 includes an actuator for providing haptic feedback and is therefore a haptic feedback device.

- i. a touch screen operative to display a graphical image and to output a position signal associated with cursor positioning, wherein the touch screen comprises a first region associated with the cursor positioning and a second region configured to provide a second signal different from the first signal and associated with a control functionality different from cursor positioning, and wherein the first and second regions are associated with different haptic effects; and

The Galaxy S8 has a touch screen that displays graphical images and allows a user to provide input by touching an area of the touch screen, which is configured to sense the location of a user's contact. This allows the user to select displayed icons or applications or to place a cursor at a specific location within text. The touch screen outputs coordinates of the contacted location on the touch screen to the Galaxy S8's application processor. It has a first region that is associated with cursor positioning (*e.g.*, a graphical text box in which a user can type at the location of the cursor, or move the cursor to a different location and then type in that new location). It has a second, non-overlapping region associated with control functionality (*e.g.*, keys to return home, view recently used applications, or go back). The first and second regions are associated with different haptic effects.

- ii. at least a first actuator configured to impart a first force to the touch screen to thereby provide a haptic effect in response to the cursor positioning or the control functionality different from cursor positioning, the first force based on information output by a computer device.

The Galaxy S8 has an actuator, which is coupled to the touch screen. The actuator outputs a force on the touch screen to provide a haptic sensation to a user when, for example, the user types on the keyboard or touches the home, recent, or back keys. The applications processor outputs a signal indicating the force to be output by the actuator.

45. Additionally or in the alternative, Samsung has induced or contributed to infringement with respect to the '181 patent and the Accused Phones.

46. Samsung has been aware of the '181 patent since at least March 7, 2013, when the patent was identified by number in an Immersion-Samsung license agreement (at Samsung's request). This was long before the Accused Phones were conceived or introduced. Samsung conceived, designed, and built the Accused Phones with full and detailed knowledge of the '181 patent. Despite this knowledge and history, Samsung provides directions, instruction manuals, guides, and/or other materials that instruct and encourage the purchaser of an Accused Phone to use the device in a manner that infringes one or more claims of the '181 patent, either literally or under the doctrine of equivalents. The accused haptic functionality of the Accused Phones is a material part of the patented invention and especially made or especially adapted for use in the infringement, and not a staple article or commodity of commerce suitable for substantial noninfringing use.

47. Despite having knowledge of the '181 patent, having been involved in extensive negotiations regarding the patent, having licensed the patent in the past, and knowing that its license to the '181 patent had expired, Samsung has continued to make, use, offer to sell, sell, and import the Accused Phones. Samsung's infringement has been, and continues to be, willful and deliberate and has caused substantial damage to Immersion.

48. Immersion is entitled to damages, attorneys' fees, costs, and other remedies available under the law based on Samsung's infringement.

**COUNT V: INFRINGEMENT OF THE '332 PATENT**

49. Immersion incorporates by reference and repeats each and every preceding paragraph with the same force and effect as if set forth in full here.



50. Immersion owns, by assignment, all rights, title, and interests in and to United States Patent No. 9,323,332 entitled “Force Feedback System Including Multi-Tasking Graphical Host Environment,” which was duly and legally issued on April 26, 2016.

51. Each of Samsung’s Accused Phones infringes at least one claim of the ’332 patent, literally or under the doctrine of equivalents.

52. By way of example and not limitation, Samsung’s Galaxy S8 meets or embodies every element of at least claim 11 of the ’332 patent, as set forth below:

a. A haptic computer system comprising:

The Galaxy S8 includes an actuator for providing haptic feedback and is therefore a haptic computer system.

i. a computer memory configured to store a plurality of application programs that command force sensations;

The Galaxy S8 stores in memory a plurality of application programs that command force sensations.

ii. a processor configured to run more than one of the plurality of application programs concurrently;

The Galaxy S8’s applications processor is configured to run more than one application program concurrently.

iii. an operating system configured to provide a multi-tasking environment for the plurality of application programs, wherein one of the plurality of concurrently running applications is an active application program; and;

The Galaxy S8 uses an Android operating system, which provides a multi-tasking environment for application programs. A user may select an application program, at which point the Galaxy S8’s Android operating system makes the newly selected application program active.

iv. an actuator configured to output one or more force sensations

commanded by the active application program.

The Galaxy S8 has an actuator, which outputs one or more force sensations when commanded to do so by the active application program. Applications may command force sensations through calls to the application programming interfaces provided by the Vibrator and View classes, as examples. Examples include performHapticFeedback(int feedbackConstant, int flags) and performHapticFeedback(int feedbackConstant), which are implemented in the View class, and vibrate(long[] pattern, int repeat) and vibrate (long milliseconds), which are implemented in the Vibrator class.

53. Additionally or in the alternative, Samsung has induced or contributed to infringement with respect to the '332 patent and the Accused Phones.

54. On information and belief, Samsung has been aware of the '332 patent since it issued, or shortly thereafter. On information and belief, Samsung conceived, designed, and built the Accused Phones with full and detailed knowledge of the '332 patent. Despite this knowledge and history, Samsung provides directions, instruction manuals, guides, and/or other materials that instruct and encourage the purchaser of an Accused Phone to use the device in a manner that infringes one or more claims of the '332 patent, either literally or under the doctrine of equivalents. The accused haptic functionality of the Accused Phones is a material part of the patented invention and especially made or especially adapted for use in the infringement, and not a staple article or commodity of commerce suitable for substantial noninfringing use.

55. On information and belief, despite having knowledge of the '332 patent and also knowing that it did not have a license to the '332 patent, Samsung has continued to make, use, offer to sell, sell, and import the Accused Phones. Samsung's infringement has been, and continues to be, willful and deliberate and has caused substantial damage to Immersion.

56. Immersion is entitled to damages, attorneys' fees, costs, and other remedies available under the law based on Samsung's infringement.

**COUNT VI: INFRINGEMENT OF THE '051 PATENT**

57. Immersion incorporates by reference and repeats each and every preceding paragraph with the same force and effect as if set forth in full here.

58. Immersion owns, by assignment, all rights, title, and interests in and to United States Patent No. 8,619,051, entitled "Haptic Feedback System with Stored Effects," which was duly and legally issued on December 31, 2013.

59. Each of Samsung's Accused Phones infringes at least one claim of the '051 patent, literally or under the doctrine of equivalents.

60. By way of example and not limitation, Samsung's Galaxy S8 meets or embodies every element of at least claim 1 of the '051 patent, as set forth below:

a. A haptic feedback system comprising:

To the extent the preamble is limiting, the Galaxy S8 includes a haptic feedback system.

i. A processor; a memory coupled to the processor, wherein the memory stores a plurality of pre-defined haptic effects; an actuator drive circuit coupled to the processor; and an actuator coupled to the actuator drive circuit;

The Galaxy S8 has an application processor and a memory coupled to the processor that stores a plurality of pre-defined haptic effects. The Galaxy S8 has many pre-defined haptic effects (e.g., "long press," "keyboard tap," and "virtual key" haptic effects). The Galaxy S8 also has an actuator drive circuit coupled to the application processor, and an actuator coupled to the actuator drive circuit.

ii. wherein the processor is adapted to output a first stored haptic effect of the pre-defined haptic effects in response to a haptic effect request;

The Galaxy S8 contains an application processor that is adapted to output a first stored, pre-defined haptic effect in response to a haptic effect request. For example, the Galaxy S8's applications processor is adapted to output the stored, pre-defined "virtual key" haptic effect when requested by an application.

- iii. wherein the haptic effect request is a control signal generated in response to a first application that identifies the first stored haptic effect to be played;

The haptic effect request is a control signal generated by the Galaxy S8 in response to a first application that identifies the first stored haptic effect to be played. For example, an application may identify the "virtual key" haptic effect to be played by using the VIRTUAL\_KEY constant defined in the HapticFeedbackConstants class.

- iv. wherein the output causes the first stored haptic effect to be played;

The output generated by the Galaxy S8's application processor causes the first stored haptic effect to be played. For example, the "virtual key" haptic effect will be played when outputted.

- v. wherein the entire haptic output in response to the haptic effect request consists of the first stored haptic effect;

The Galaxy S8's entire haptic output in response to the haptic effect request consists of the first stored haptic effect. For example, the haptic output in response to a request for the "virtual key" haptic effect is the "virtual key" haptic effect.

- vi. wherein an application program interface (API) receives the haptic effect request from the first application and retrieves the requested first stored haptic effect, wherein the first application is registered with the API and a second application is also registered with the API and has access to the first stored haptic effect.

The Galaxy S8 uses an Android operating system, which includes an API. The API receives the haptic effect request from the first application and retrieves the requested first stored haptic effect, wherein the first application is registered with the API and a second application is also registered with the API and has access to the first stored haptic effect. For example, an application may request haptic feedback from the API by calling the `performHapticFeedback()` method of the `View` class. The API retrieves the requested stored haptic effect corresponding to the `feedbackConstant` parameter of the method. The `View` objects of the application enable this haptic feedback by setting the `android:hapticFeedbackEnabled` attribute to “true” or by calling the `setHapticFeedbackEnabled` method. In addition, an application may obtain access to the Galaxy S8’s vibrator if it has obtained the `VIBRATE` permission. In this example, all applications with the `VIBRATE` permission may access the stored haptic effects corresponding to various constants defined in the `HapticFeedbackConstants` class.

61. Samsung has made, used, offered to sell, sold, or imported the Accused Phones in the United States and continues to do so. Samsung’s infringement has caused substantial damage to Immersion.

62. Additionally or in the alternative, Samsung has induced or contributed to infringement with respect to the ’051 patent and the Accused Phones.

63. On information and belief, Samsung has been aware of the ’051 patent since it issued, or shortly thereafter. Samsung has been aware of the ’051 patent since at least March 8, 2018. On information and belief, Samsung conceived, designed, and built the Accused Phones with full and detailed knowledge of the ’051 patent. Despite this knowledge and history, Samsung provides directions, instruction manuals, guides, and/or other materials that instruct and encourage the purchaser of an Accused Phone to use the device in a manner that infringes one or

more claims of the '051 patent, either literally or under the doctrine of equivalents. The accused haptic functionality of the Accused Phones is a material part of the patented invention and especially made or especially adapted for use in the infringement, and not a staple article or commodity of commerce suitable for substantial noninfringing use.

64. On information and belief, despite having knowledge of the '051 patent and also knowing that its license to the '051 patent had expired, Samsung has continued to make, use, offer to sell, sell, and import the Accused Phones. Samsung's infringement has been, and continues to be, willful and deliberate and has caused substantial damage to Immersion.

65. Immersion is entitled to damages, attorneys' fees, costs, and other remedies available under the law based on Samsung's infringement.

#### **PRAYER FOR RELIEF**

WHEREFORE, Immersion prays for the following relief:

- A. That the Court enter judgment declaring that Samsung directly and indirectly infringes the '846 patent, the '288 patent, the '720 patent, the '181 patent, the '332 patent, and the '051 patent, literally or under the doctrine of equivalents, in violation of 35 U.S.C. § 271;
- B. That the Court enter judgment declaring Samsung's infringement of the '846 patent, the '288 patent, the '720 patent, the '181 patent, the '332 patent, and the '051 patent willful and deliberate;
- C. That the Court award Immersion damages adequate to compensate Immersion for Samsung's infringement of the '846 patent, the '288 patent, the '720 patent, the '181 patent, the '332 patent, and the '051 patent;

D. That the Court temporarily, preliminarily, and permanently enjoin Samsung, its successors, assigns, subsidiaries and transferees, and its officers, directors, agents, employees, as follows:

- i. from selling or offering for sale any product falling within the scope of the claims of the '846 patent, the '288 patent, the '720 patent, the '181 patent, the '332 patent, and the '051 patent, that Samsung had not commenced commercially producing, distributing, and selling before January 1, 2016 (including but not limited to the Galaxy J3 Eclipse, Galaxy J3 Emerge, Galaxy J3, Galaxy J7 Perx, Galaxy J7 Sky Pro, Galaxy J7 V, Galaxy J7, Galaxy S7, Galaxy S7 Edge, Galaxy S8, Galaxy S8+, Galaxy S8 Active, Galaxy Note 8, Galaxy J7 Prime 2, Galaxy S7 Active, Galaxy S9, and Galaxy S9+);
- ii. from importing into the United States any product falling within the scope of the claims of the '846 patent, the '288 patent, the '720 patent, the '181 patent, the '332 patent, and the '051 patent and that Samsung had not commenced commercially producing, distributing, and selling before January 1, 2016;
- iii. from manufacturing any product falling within the scope of the claims of the '846 patent, the '288 patent, the '720 patent, the '181 patent, the '332 patent, and the '051 patent and that Samsung had not commenced commercially producing, distributing, and selling before January 1, 2016;
- iv. from using any product or method falling within the scope of any of the claims of the '846 patent, the '288 patent, the '720 patent, the '181 patent, the '332 patent, and the '051 patent and that Samsung had not commenced commercially producing, distributing, and selling before January 1, 2016;

- v. from actively inducing others to infringe any of the claims of the '846 patent, the '288 patent, the '720 patent, the '181 patent, the '332 patent, and the '051 patent with respect to any product Samsung had not commenced commercially producing, distributing, and selling before January 1, 2016;
  - vi. from engaging in any acts constituting contributory infringement of any of the claims of the '846 patent, the '288 patent, the '720 patent, the '181 patent, the '332 patent, and the '051 patent with respect to any product that Samsung had not commenced commercially producing, distributing, and selling before January 1, 2016; and
  - vii. from all other acts of infringement of any of the claims of the '846 patent, the '288 patent, the '720 patent, the '181 patent, the '332 patent, and the '051 patent with respect to any product that Samsung had not commenced commercially producing, distributing, and selling before January 1, 2016;
- E. That the Court enter judgment declaring this to be an exceptional case;
  - F. That the Court award treble damages to Immersion for the unlawful practices described in this Complaint;
  - G. That the Court enter judgment against Samsung for the maximum damages and awards determined by the Court to be just and proper; and
  - H. That the Court award Immersion its costs of suit, including reasonable attorneys' fees.

### **JURY DEMAND**

Pursuant to Rule 38(a) of the Federal Rules of Civil Procedure and E.D. Tex. L.R. CV-38, Immersion demands a trial by jury of any and all issues triable to a jury.



Dated: July 24, 2018

Respectfully submitted,

/s/ Bryan Wilson by permission Andrea Fair

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**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that a true and correct copy of the foregoing document has been served on July 24, 2018, to all counsel of record who are deemed to have consented to electronic service via the Court's CM/ECF system per Local Rule CV-5(a)(3).

/s/ Andrea Fair