

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

SNAPAID, LTD.,

Plaintiff,

v.

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

Defendants.

Civil Action No.

JURY TRIAL DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff SnapAid, Ltd. (“SnapAid” or “Plaintiff”), files this Original Complaint for patent infringement against Samsung Electronics Co., Ltd. (“SEC”) and Samsung Electronics America, Inc. (“SEA”) (collectively, “Samsung”) alleging as follows:

BACKGROUND AND NATURE OF THE SUIT

1. This is civil action for patent infringement under the patent laws of the United States, Title 35, United States Code, Section 271, *et seq.*, involving the following United States Patents (collectively, “Asserted Patents”),¹ and seeking damages and injunctive relief as provided in 35 U.S.C. §§ 281 and 283–285:

United States Patent No. 9,338,348 (Exhibit A, the “348 Patent”)
United States Patent No. 9,661,226 (Exhibit B, the “226 Patent”)
United States Patent No. 10,009,537 (Exhibit C, the “537 Patent”)
United States Patent No. 10,659,682 (Exhibit D, the “682 Patent”)

¹ To the extent a certificate of correction was issued for any of the Asserted Patents (*see* Exhibits B, C, D, F), the corrections are incorporated into the Asserted Patent and “shall have the same effect and operation in law . . . as if the same had been originally issued in such corrected form.” *See* 35 U.S.C. § 255.

United States Patent No. 10,944,901 (Exhibit E, the “901 Patent”)
United States Patent No. 11,252,325 (Exhibit F, the “325 Patent”)
United States Patent No. 11,671,702 (Exhibit G, the “702 Patent”)
United States Patent No. 12,250,452 (Exhibit H, the “452 Patent”)

2. The Asserted Patents are owned by SnapAid and SnapAid has all right, title, and interest in the Asserted Patents.

THE PARTIES

3. SnapAid is an Israeli company, with its principal place of business located at Rehov Moshe Lerer 40, Ness Ziona, Rehovot - Mehoz HaMerkaz - Israel 7404987.

4. Mr. Ishay Sivan founded SnapAid and developed revolutionary technology for improving picture quality. Mr. Sivan is the inventor of numerous patents, including the Asserted Patents.

5. Upon information and belief, Defendant SEC is a corporation organized and existing organized under the laws of South Korea. It has its principal place of business at 129 Samsung-Ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 443-742, South Korea.

6. Upon information and belief, Defendant SEC designs, manufactures, makes, uses, imports into the United States, sells, and/or offers for sale in the United States SEC smartphones and tablets. SEC’s smartphones and tablets are marketed, used, offered for sale, and/or sold throughout the United States, including within this District.

7. Upon information and belief, Defendant SEA is a wholly owned subsidiary of SEC and oversees domestic sales and distribution of Samsung’s consumer electronics products, including the products accused of infringement in this case. SEC exercises direction and control over the performance of SEA. Alternatively, Defendants form a joint business enterprise such that the performance by one Defendant is each attributable to the other Defendant. SEA may be served

via its registered agent, CT Corporation System, 1999 Bryan Street, Suite 900, Dallas, Texas 75201.

8. Upon information and belief, Defendant SEA is a corporation organized under the laws of the State of New York. Its principal place of business is at 85 Challenger Rd., Ridgefield Park, New Jersey 07660.

9. Defendant SEA is registered to do business in the State of Texas and has been since at least June 10, 1996. SEA maintains offices and/or other facilities at least at 6625 Excellence Way, Plano, Texas 75023.

10. Upon information and belief, Defendant SEA employs full-term personnel such as sales personnel and engineers in this District.

11. In addition, Samsung has authorized sellers and sales representatives that offer and sell products pertinent to this Complaint throughout the State of Texas, including in this District, and to consumers throughout this District.

12. Samsung offers its products and services, including the products accused of infringement in this Complaint, to customers and potential customers located in the Eastern District of Texas.

JURISDICTION AND VENUE

13. This is an action for infringement of United States patents arising under 35 U.S.C. §§ 271, 281, and 284-85, among others. This Court has subject matter jurisdiction of the action under 28 U.S.C. § 1331 and § 1338(a).

14. The Court has personal jurisdiction over each Defendant consistent with the requirements of the Due Process Clause of the United States Constitution and the Texas Long Arm Statute.

15. On information and belief, each Defendant has regularly and systematically transacted business in Texas, directly or through subsidiaries or intermediaries, and/or committed acts of patent infringement in Texas as alleged more particularly below.

16. On information and belief, Samsung has placed infringing products into the stream of commerce by shipping those products into Texas or knowing that the products would be shipped into Texas.

17. On information and belief, Samsung's business relating to mobile devices, including devices accused of infringement in this Action, are conducted at its Texas facilities.

18. Venue is proper in this District pursuant to 28 U.S.C. §§ 1400(b) and 1391(c).

19. With respect to Defendant SEC, a Korean company, venue is proper because suits against foreign entities are proper in any judicial district, including the Eastern District of Texas.

20. With respect to Defendant SEA, venue is proper in this District under 28 U.S.C. § 1400(b) because Defendant SEA has a regular and established place of business in this District and has committed acts of infringement in this District.

21. On information and belief, Defendant SEA has a regular and established place of business in Plano, Texas, and is responsible for importing and selling smartphones, tablets, and other mobile devices and equipment in the United States.

22. Samsung makes, uses, sells, offers for sale, and/or imports Samsung-branded smartphones, tablets, laptops, and other electronics in this District, including the products accused of infringement herein.

23. On information and belief, Defendant SEA has operated, and on information and belief continues to operate, a permanent office located at 6625 Excellence Way, Plano, TX 75023.

24. On information and belief, Defendant SEA also employs full-time personnel, such as engineers and managers in this District, including in Collin County.

25. On information and belief, Samsung’s business operations relating to cellular mobile devices are conducted at these SEA facilities located in this District.

26. Defendant SEA has also committed acts of infringement in this District by commercializing, marketing, selling, distributing, and servicing certain Samsung-branded devices, including but not limited to phones and tablets, which are devices SnapAid accuses of infringement in this action.

27. Samsung maintains a physical, regular and established place of business at 2601 Preston Road, Frisco, Texas 75034.²

Samsung Experience Store

HIGHLIGHTS LOCATIONS

Frisco, TX - Stonebriar Centre

2601 Preston Road
Frisco, TX 75034
1st level near Barnes & Noble

Phone:
[469-731-4821](tel:469-731-4821)
Open for in-store shopping.

In-store shopping hours:
Monday: 11am - 8pm
Tuesday: 11am - 8pm
Wednesday: 11am - 8pm
Thursday: 11am - 8pm
Friday: 10am - 9pm
Saturday: 10am - 9pm
Sunday: 12pm - 6pm

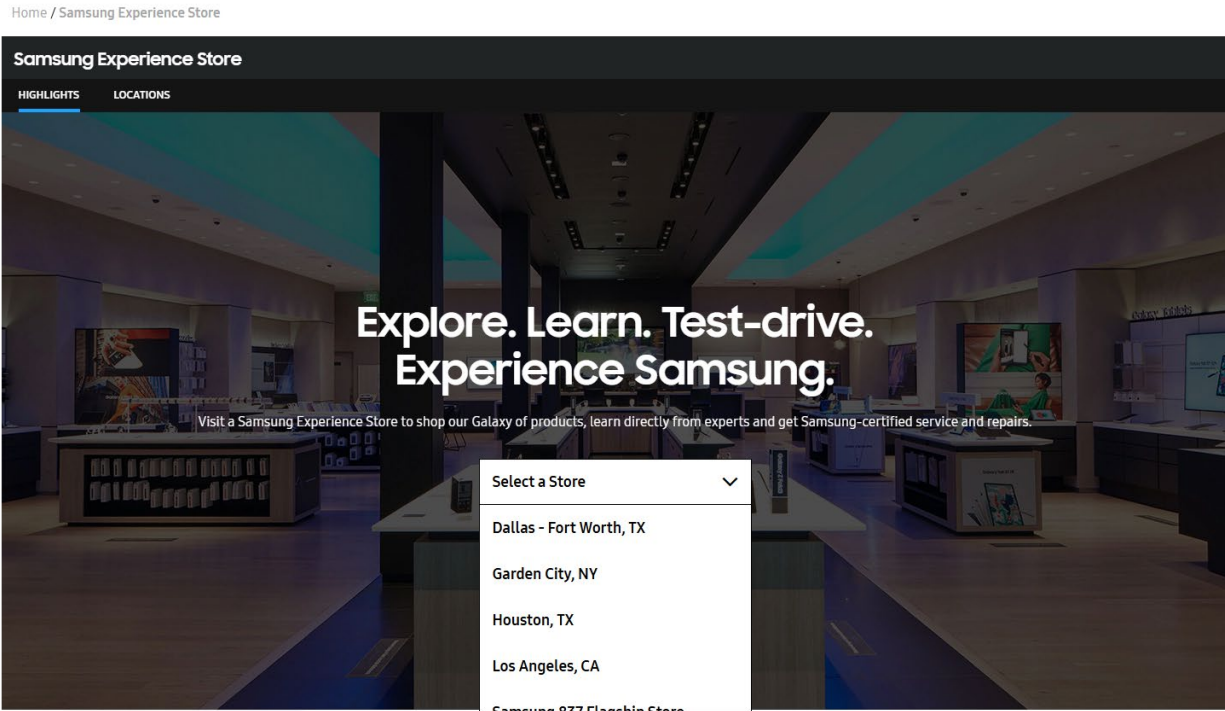
Special hours:
12/8-12/23 Monday to Saturday: 10am - 9pm
12/8-12/23 Sunday: 11am - 7pm

Product Categories in Store

Products	Services
Smartphones	Device Repair
Tablets	Drop Point for Repairs
Laptops	Software Help
Audio / Buds	Device Education
Wearables	Business Solutions
Mobile Accessories	Assistance with other online purchases

² <https://www.samsung.com/us/samsung-experience-store/locations/?msockid=3f42d2540b1366bflcffe7040a5c673f> (last accessed, March 29, 2025).

28. Samsung induces and instructs consumers to “Explore. Learn. Test-drive. Experience Samsung,” and to “visit a Samsung Experience Store to shop our Galaxy products, learn directly from experts and get Samsung-certified service and repairs.”³



29. On information and belief, Samsung regularly and consistently provides instructions concerning its products to consumers in this District, including employing experts and sales personnel in this District, for example, to assist with marketing products, to address technical issues, to use Samsung devices and features (including the allegedly infringing functionalities), etc.

THE ASSERTED PATENTS

U.S. Patent No. 9,338,348

30. SnapAid is the lawful owner of all right, title and interest in the '348 Patent, titled “Real Time Assessment of Picture Quality,” including the right to sue and recover for infringement

³ <https://www.samsung.com/us/samsung-experience-store/> (last accessed, March 29, 2025).

thereof. A copy of the '348 Patent is attached hereto as Exhibit A, which was duly and legally issued on May 10, 2016.

31. None of the claims of the '348 Patent are directed to an abstract idea, and the claim limitations, individually and as an ordered combination, involve more than performance of well understood, routine, and conventional activities previously known to the industry as of the priority date of the '348 Patent.

32. The claims of the '348 Patent are directed to a specific area of application of computing the photo quality of a captured image in a device image acquisition system.

33. The claims of the '348 Patent also recite more than generic computer functionality and recite elements that were not purely conventional as of the priority date of the '348 Patent.

34. The claims of the '348 Patent recite specific improvements over prior art and conventional systems, apparatuses, and methods and represent meaningful limitations and/or inventive concepts. Further, in view of these specific improvements, the claims of the '348 Patent, when such claims are viewed as a whole and in ordered combination, were not routine, well-understood, conventional, generic, existing, commonly used, well-known previously known, or typical as of the earliest priority date of the '348 Patent.

35. None of the claims of the '348 Patent are representative of the '348 Patent's other claims or claims of the other Asserted Patents.

36. As the '348 patent explains, using quality indicators independently to assess picture quality was a difficult technical problem. The inventor of the '348 Patent solved this problem by conceiving a specific system and method, implemented in a tangible, non-abstract digital image acquisition system that departs from earlier approaches by using multiple quality indicators, and

taking into account data from other quality indicators when estimating weights for certain quality indicators, in real time, to assess picture quality.

37. The claims of the '348 Patent recite more than generic computer functionality and recite elements that were not purely conventional as of its priority date. The claims of the '348 Patent recite at least steps or capabilities which, either alone or as an ordered combination, were unconventional and unique, and were not well-known, routine, or conventional. For example, Claim 1 recites a digital image acquisition system that includes an image capture component for capturing digital images and a digital processor that computes multiple quality indicators of the images in real time. The system automatically captures and stores images in user-accessible memory only after a first logical criterion predefined on the multiple quality indicators is satisfied. If the images do not meet the quality criterion, the system provides suggestions to the user on how to improve image quality. These suggestions are selected from a pre-stored table and are based on second logical criterion pre-defined on at least one of the multiple quality indicators. And at least one of the logical criteria are pre-defined over a time-dependent confidence level defined over at least one of the quality indicators. The novel features of the invention are recited in the claims. For example, Claim 1 of the '348 Patent recites:

A digital image acquisition system comprising

- an image capture component for capturing in a buffer, a current digital image having pixels;
- at least one digital processor programmed for real time computation of multiple quality indicators characterizing quality of the current digital image;
- automatic image capturing, and storing in user-accessible memory, of at least one image only after a first logical criterion predefined on said multiple quality indicators, is satisfied; and
- a message provider operative, while said first logical criterion is still not satisfied, to select, based on at least one second logical criterion pre-defined on at least one of said multiple quality indicators, at least one appropriate

suggestion from a pre-stored table of suggestions of how a user of the system may cause said first logical criterion to be satisfied and to present said appropriate suggestion to the user,

wherein at least one of said logical criteria are pre-defined over a time-dependent confidence level defined over at least one of said quality indicators.

'348 Patent at 21:8-28.

38. In explaining the reasons for allowability of the claims of the '348 Patent, the United States Patent and Trademark Office described how the prior art did not disclose or teach the claimed inventive elements of the '348 patent.

The prior art does not teach a digital image acquisition system comprising an image capture component for capturing in a buffer, a current digital image having pixels; at least one digital processor programmed for real time computation of multiple quality indicators characterizing quality of the current digital image; automatic image capturing, and storing in user-accessible memory, of at least one image only after a first logical criterion predefined on said multiple quality indicators, is satisfied; and a message provider operative, while said first logical criterion is still not satisfied, to select, based on at least one second logical criterion pre-defined on at least one of said multiple quality indicators, at least one appropriate suggestion from a pre-stored table of suggestions of how a user of the system may cause said first logical criterion to be satisfied and to present said appropriate suggestion to the user, wherein at least one of said logical criteria are pre-[]defined over a time-dependent confidence level defined over at least one of said quality indicators. Therefore, the claims are allowed over the prior art.

'348 Patent File History, Notice of Allowance and Fee(s) Due (October 28, 2015), Notice of Allowability at 2-3 (attached as Exhibit I).

U.S. Patent No. 9,661,226

39. SnapAid is the lawful owner of all right, title and interest in the '226 Patent, titled "Real Time Assessment of Picture Quality," including the right to sue and recover for infringement thereof. A copy of the '226 Patent is attached hereto as Exhibit B, which was duly and legally issued on May 23, 2017.

40. None of the claims of the '226 Patent are directed to an abstract idea, and the claim limitations, individually and as an ordered combination, involve more than performance of well

understood, routine, and conventional activities previously known to the industry as of the priority date of the '226 Patent.

41. The claims of the '226 Patent are directed to a specific area of application of computing the photo quality of a captured image in a device image acquisition system.

42. The claims of the '226 Patent also recite more than generic computer functionality and recite elements that were not purely conventional as of the priority date of the '226 Patent.

43. The claims of the '226 Patent recite specific improvements over prior art and conventional systems, apparatuses, and methods and represent meaningful limitations and/or inventive concepts. Further, in view of these specific improvements, the claims of the '226 Patent, when such claims are viewed as a whole and in ordered combination, were not routine, well-understood, conventional, generic, existing, commonly used, well-known previously known, or typical as of the earliest priority date of the '226 Patent.

44. None of the claims of the '226 Patent are representative of the '226 Patent's other claims or claims of the other Asserted Patents.

45. As the '226 Patent explains, assessing picture quality using independent quality indicators was the conventional approach to disclosed in the prior art. The '226 Patent claims, however, a specific method for real-time estimation of image quality, implemented in a tangible, non-abstract device that departs from earlier approaches by specifically using a value responsive to device motion and estimating a corresponding weight, a value associated with a digital camera and estimating corresponding weight, and a value associated with the analysis of the captured image and estimating corresponding weight, and then calculating a total value based on the weighted values, in real time, to assess picture quality.

46. The claims of the '226 Patent recite more than generic computer functionality and recite elements that were not purely conventional as of its priority date. The claims of the '226 Patent recite at least steps or capabilities which, either alone or as an ordered combination, were unconventional and unique, and were not well-known, routine, or conventional. For example, Claim 1 recites a method for real-time estimation of image quality in a device integrating a digital camera, motion or location sensor, and a processor in a single enclosure. The method involves the processor obtaining a motion-related value (QI1) from the motion or location sensor and estimating a corresponding weight (c1). It also obtains a camera-related value (QI2) and its weight (c2). It also obtains a value related to analyzing a captured image to detect objects or characteristics (QI3) and its weight (c3). A total value is calculated using the values and their respective weights. The total value is then compared to a threshold to determine if it meets the threshold. Based on this comparison, the device takes appropriate actions to ensure image quality. The novel features of the invention are recited in the claims. For example, Claim 1 of the '226 Patent recites:

A method for real-time estimating of an image quality, for use with a device that comprises in a single enclosure a digital camera module or functionality that comprises an optical lens for focusing received light from a scene and an image sensor coupled to the optical lens for capturing an image of the scene; a motion or location sensor for sensing the device motion; and a processor coupled to the image sensor and to the digital camera for receiving data therefrom, the method by the processor comprising:

obtaining a first value (QI1) responsive to the device motion from the motion or location sensor;

estimating a first weight (c1) associated with the first value;

obtaining a second value (QI2) associated with the digital camera;

estimating a second weight (c2) associated with the second value;

analyzing the captured image for detecting or recognizing one or more objects in, or one or more characteristics of, the image;

obtaining a third value (QI3) associated with the analysis;

estimating a third weight (c3) associated with the third value;

calculating a total value according to, or based on, the first value (QI1) weighted according to first weight (c1), the second value (QI2) weighted according to second weight (c2), and the third value (QI3) weighted according to third weight (c3);

comparing the total value to a threshold;

determining whether the total value is higher than, or below than, the threshold; and

acting in response to the determining.

'226 Patent at 22:7-37.

47. In explaining the reasons for allowability of the claims of the '226 Patent, the United States Patent and Trademark Office described how the prior art did not disclose or teach the claimed inventive elements, of the '226 patent.

The prior art teaches a method for real-time estimating of an image quality, for use with a device that comprises in a single enclosure a digital camera module or functionality that comprises an optical lens for focusing received light from a scene and an image sensor coupled to the optical lens for capturing an image of the scene; a motion or location sensor for sensing the device motion; and a processor coupled to the image sensor and to the digital camera for receiving data therefrom, the method by the processor comprising: Obtaining a first value (QI1) responsive to the device motion from the motion or location sensor; estimating a first weight (c1) associated with the first[]; obtaining a second value (QI2) associated with the digital camera. However, the prior art does not teach estimating a second weight (c2) associated with the second value; analyzing the captured image for detecting or recognizing one or more objects in, or one or more characteristics of, the image; obtaining a third value (QI3) associated with the analysis; estimating a third weight (c3) associated with the third value; calculating a total value according to, or based on, the first value (QI1) weighted according to first weight (c1), the second value (QI2) weighted according to second weight (c2), the third value (QI3) weighted according to third weight (c3); comparing the total value to a threshold; determining whether the total value is higher than, or below than, the threshold; and acting in response to the determining. Therefore, the claims are allowed over the prior art.

'226 Patent File History, Notice of Allowance and Fee(s) Due (February 15, 2017), Notice of Allowability at 2-3 (attached as Exhibit J) (emphasis in original).

U.S. Patent No. 10,009,537

48. SnapAid is the lawful owner of all right, title and interest in the '537 Patent, titled "Real Time Assessment of Picture Quality," including the right to sue and recover for infringement thereof. A copy of the '537 Patent is attached hereto as Exhibit C, which was duly and legally issued on June 26, 2018.

49. None of the claims of the '537 Patent are directed to an abstract idea, and the claim limitations, individually and as an ordered combination, involve more than performance of well understood, routine, and conventional activities previously known to the industry as of the priority date of the '537 Patent.

50. The claims of the '537 Patent are directed to a specific area of application of computing the photo quality of a captured image in a device image acquisition system.

51. The claims of the '537 Patent also recite more than generic computer functionality and recite elements that were not purely conventional as of the priority date of the '537 Patent.

52. The claims of the '537 Patent recite specific improvements over prior art and conventional systems, apparatuses, and methods and represent meaningful limitations and/or inventive concepts. Further, in view of these specific improvements, the claims of the '537 Patent, when such claims are viewed as a whole and in ordered combination, were not routine, well-understood, conventional, generic, existing, commonly used, well-known previously known, or typical as of the earliest priority date of the '537 Patent.

53. None of the claims of the '537 Patent are representative of the '537 Patent's other claims or claims of the other Asserted Patents.

54. As the '537 Patent explains, assessing picture quality using independent quality indicators was the conventional approach disclosed in the prior art. The '537 Patent claims a specific method for estimating the quality of a digital image frame captured from a video stream

using a tangible, non-abstract digital camera that departs from earlier approaches by obtaining quality indicators values and corresponding weights, and basing certain weight estimations on quality indicators derived from a previous image in the video stream, to estimate the quality of a digital image frame having pixels.

55. The claims of the '537 Patent recite more than generic computer functionality and recite elements that were not purely conventional as of its priority date. The claims of the '537 Patent recite at least steps or capabilities which, either alone or as an ordered combination, were unconventional and unique, and were not well-known, routine, or conventional. For example, Claim 1 recites a method for estimating the quality of a digital image frame captured from a video stream using a digital camera. The method involves obtaining a value (QI1) related to the camera at the time of image capture and estimating its corresponding weight (c1). The captured image is then analyzed to detect or recognize objects or characteristics, resulting in a second value (QI2) and its corresponding weight (c2). The total quality value is calculated by combining these weighted values. This total value is compared to a threshold to determine if it meets the threshold. The method includes taking action based on this determination. Additionally, the second weight (c2) is partially based on respective values of previous images in the video stream. The novel features of the invention are recited in the claims. For example, Claim 1 of the '537 Patent recites:

A method for estimating quality of a digital image frame having pixels, where image is taken from a video stream comprising multiple images, each image frame comprises an image of the scene; where video stream was taken by a digital camera;

obtaining a first value (QI1) associated with the digital camera at the time of said image capture;

estimating a first weight (c1) associated with the first value;

analyzing the captured image for detecting or recognizing one or more objects in, or one or more characteristics of, the image;

obtaining a second value (QI2) associated with the analysis;
estimating a second weight (c2) associated with the third value;
calculating a total value according to, or based on, the first value (QI1) weighted according to first weight (c1), the second value (QI2) weighted according to second weight (c2);
comparing the total value to a threshold;
determining whether the total value is higher than, or below than, the threshold; and
acting in response to the determining;
where second weight (c2) is partially based respective values of previous images in said video.

'537 Patent at 22:8-33.

56. In explaining the reasons for allowability of the claims of the '537 Patent, the United States Patent and Trademark Office described how the prior art did not disclose or teach the claimed inventive elements of the '537 patent.

The prior art does not teach analyzing the captured image for detecting or recognizing one or more objects in, or one or more characteristics of, the image; obtaining a second value (QI2) associated with the analysis; estimating a second weight (c2) associated with the third value; calculating a total value according to, or based on, the first value (Q[I]1) weighted according to first weight (c1), the second value (QI2) weighted according to second weight (c2); comparing the total value to a threshold; determining whether the total value is higher than, or below than, the threshold; and acting in response to the determining; where second weight (c2) is partially based respective values of previous images in said video when taken in combination with all the limitations of the independent claim.

'537 Patent File History, Notice of Allowance and Fee(s) Due (February 26, 2018), Notice of Allowability at 2-3 (attached as Exhibit K).

U.S. Patent No. 10,659,682

57. SnapAid is the lawful owner of all right, title and interest in the '682 Patent, titled "Real Time Assessment of Picture Quality," including the right to sue and recover for infringement

thereof. A copy of the '682 Patent is attached hereto as Exhibit D, which was duly and legally issued on May 19, 2020.

58. None of the claims of the '682 Patent are directed to an abstract idea, and the claim limitations, individually and as an ordered combination, involve more than performance of well understood, routine, and conventional activities previously known to the industry as of the priority date of the '682 Patent.

59. The claims of the '682 Patent are directed to a specific area of application of computing the photo quality of a captured image in a device image acquisition system.

60. The claims of the '682 Patent also recite more than generic computer functionality and recite elements that were not purely conventional as of the priority date of the '682 Patent.

61. The claims of the '682 Patent recite specific improvements over prior art and conventional systems, apparatuses, and methods and represent meaningful limitations and/or inventive concepts. Further, in view of these specific improvements, the claims of the '682 Patent, when such claims are viewed as a whole and in ordered combination, were not routine, well-understood, conventional, generic, existing, commonly used, well-known previously known, or typical as of the earliest priority date of the '682 Patent.

62. None of the claims of the '682 Patent are representative of the '682 Patent's other claims or claims of the other Asserted Patents.

63. As the '682 Patent explains, assessing picture quality using independent quality indicators was the conventional approach disclosed in the prior art. The '682 Patent claims a specific method for estimating the quality of at least one image from a stream of images from a video using a tangible, non-abstract digital camera that departs from earlier approaches by obtaining quality indicators values and corresponding weights, calculating a total quality value

based on the values and corresponding weights, including based on previous quality indicators and previous weights.

64. The claims of the '682 Patent recite more than generic computer functionality and recite elements that were not purely conventional as of its priority date. The claims of the '682 Patent recite at least steps or capabilities which, either alone or as an ordered combination, were unconventional and unique, and were not well-known, routine, or conventional. For example, Claim 17 recites a method for evaluating the quality of at least one image in a video stream captured by a device that includes a digital camera module, a motion or location sensor, and a processor. The method involves obtaining a first value based on device motion, a second value related to camera exposure and focus, and a third value derived from deep learning analysis of the image to detect objects or characteristics. Each value is associated with an estimated weight. The total quality value is calculated by combining these values and their weights, along with previous values and weights from the image stream. The processor then selects at least one image from a plurality of images based at least partly on the total quality value. The novel features of the invention are recited in the claims. For example, Claim 17 of the '682 Patent recites:

A method for estimating quality of at least one image from a stream of images from a video, for use with a device that comprises in a single enclosure a digital camera module or functionality that comprises at least one optical lens for focusing received light from a scene and an image sensor coupled to at least one optical lens for capturing an image of the scene; a motion or location sensor for sensing the device motion; and a processor coupled to the image sensor and to the digital camera for receiving data therefrom, the method by the processor comprising use of at least one value and weight;

obtaining a first value (QI1) responsive to the device motion from the motion or location sensor;

estimating a first weight (c1) associated with the first value;

obtaining a second value (QI2) value is a combination of at least one of digital camera exposure, focus and under or over exposure;

estimating a second weight (c2) associated with the second value;

analyzing the captured image via deep learning algorithms for detecting or recognizing one or more objects in, or one or more characteristics of image or at least one of object characteristics to obtain a third value (QI3) associated with the analysis;

estimating a third weight (c3) associated with the third value;

calculating a total quality value according to, or based on values QI1, QI2, QI3 and weights c1, c2, c3 and previous values QI1, QI2, QI3 and previous weights c1, c2, c3 in said image stream; and

selecting by said processor at least one image from the plurality of images at least partly on said total quality value.

'682 Patent at 23:33-24:27.

65. In explaining the reasons for allowability of the claims of the '682 Patent, the United States Patent and Trademark Office described how the prior art did not disclose or teach the claimed inventive elements, of the '682 patent:

The prior art does not teach the method by the processor comprising use of at least one value and weight; obtaining a first value (QI1) responsive to the device motion from the motion or location sensor; estimating a first weight (c1) associated with the first; obtaining a second value (QI2) associated with the digital camera; estimating a second weight (c2) associated with the second value; analyzing the captured image for detecting or recognizing one or more objects in the image and obtaining a third value (QI3) associated with motion of at least one of said objects; estimating a third weight (c3) associated with the third value; obtaining a fourth value (Q[I]4) associated with recognition of object characteristics; estimating a fourth weight (c4) associated with the fourth value; obtaining a fifth value (QI5) associated with aesthetic quality of image based on composition; estimating a fifth weight (c5) associated with the fifth value; and calculating a total quality value according to, or based on values QI1, Q[I]2, Q[I]3, and QI5 and weights c1, c2, c3, c4 and c5 when taken in combination with all the limitations of the independent claim. Furthermore, the prior art does not teach the method by the processor comprising use of at least one value and weight; obtaining a first value (QI1) responsive to the device motion from the motion or location sensor; estimating a first weight (c1) associated with the first; obtaining a second value (Q[I]2) value is a combination of at least one of digital camera exposure, focus and under or over exposure; estimating a second weight (c2) associated with the second value; analyzing the captured image via deep learning algorithms for detecting or recognizing one or more objects in, or one or more characteristics of image or at

least one of object characteristics to obtain a third value (Q[I]3) associated with the analysis; calculating a total quality value according to, or based on values QI1, QI2, Q[I]3 and weights c1, c2, c3 and previous values QI1, QI2, Q[I]3 and previous weights c1, c2, c3 in said image stream; and selecting by said processor at least one image from the plurality of images at least partly on said total quality value when taken in combination with all the limitations of the independent claim.

'682 Patent File History, Notice of Allowance and Fee(s) Due (January 14, 2020), Notice of Allowability at 2-3 (attached as Exhibit L).

U.S. Patent No. 10,944,901

66. SnapAid is the lawful owner of all right, title and interest in the '901 Patent, titled "Real Time Assessment of Picture Quality," including the right to sue and recover for infringement thereof. A copy of the '901 Patent is attached hereto as Exhibit E, which was duly and legally issued on March 9, 2021.

67. None of the claims of the '901 Patent are directed to an abstract idea, and the claim limitations, individually and as an ordered combination, involve more than performance of well understood, routine, and conventional activities previously known to the industry as of the priority date of the '901 Patent.

68. The claims of the '901 Patent are directed to a specific area of application of computing the photo quality of a captured image in a device image acquisition system.

69. The claims of the '901 Patent also recite more than generic computer functionality and recite elements that were not purely conventional as of the priority date of the '901 Patent.

70. The claims of the '901 Patent recite specific improvements over prior art and conventional systems, apparatuses, and methods and represent meaningful limitations and/or inventive concepts. Further, in view of these specific improvements, the claims of the '901 Patent, when such claims are viewed as a whole and in ordered combination, were not routine, well-understood, conventional, generic, existing, commonly used, well-known previously known, or typical as of the earliest priority date of the '901 Patent.

71. None of the claims of the '901 Patent are representative of the '901 Patent's other claims or claims of the other Asserted Patents.

72. As the '901 Patent explains, assessing picture quality using independent quality indicators was the conventional approach disclosed in the prior art. This resulted in many problems including "since each QI algorithm has its own assumptions, and each sensor may have measurement errors, the quality indication (QI) value may therefore not be reliable. Also, a QI value that fluctuates widely may not be reliable, and in certain cases, re-assessment of the quality indicator may be called for." '901 Patent at 3:12-17. The '901 Patent claims a specific method for estimating the quality of at least one image from a plurality of images, using a tangible, non-abstract device that departs from earlier approaches by obtaining quality indicators values and corresponding weights, and if any of the quality indicators are unreliable, using a pre-stored table to reassess and improve the quality indicators.

73. The claims of the '901 Patent recite more than generic computer functionality and recite elements that were not purely conventional as of its priority date. The claims of the '682 Patent recite at least steps or capabilities which, either alone or as an ordered combination, were unconventional and unique, and were not well-known, routine, or conventional. For example, Claim 1 recites a method for evaluating the quality of images from a device that includes a digital camera, an optical lens, an image sensor, and a motion sensor (which may be an accelerometer, gyroscope, or both) all housed in a single enclosure. The claim then recites obtaining a first value related to the device's angle to the horizon and assigning it a corresponding weight. It also obtains a second value related to the aesthetic quality of the image based on its composition and assigns it another weight. If either value is unreliable and falls below a certain threshold, an appropriate suggestion is selected from a pre-stored table and presented to the user in order to reassess and

improve the first or second value. The novel features of the invention are recited in the claims. For example, Claim 1 of the '901 Patent recites:

A method for estimating quality of at least one image from a plurality of images, for use with a device that comprises in a single enclosure a digital camera module or functionality that comprises at least one optical lens for focusing received light from a scene and an image sensor coupled to the optical lens for capturing an image of the scene; a motion sensor for sensing the device motion; wherein the motion sensor consists of, or comprises, an accelerometer, a gyroscope or both, and a processor coupled to at least one image sensor and to the digital camera for receiving data therefrom, the method by the processor comprising use of at least one value and weight:

obtaining a first value (QI1) responsive to the device angle to the horizon;

estimating a first weight (c1) associated with the first value;

obtaining a second value (QI2) associated with an aesthetic quality of image based on the composition; and

estimating a second weight (c2) associated with the second value;

wherein at least one of said values is below threshold, to select, at least one appropriate suggestion from a pre-stored table of suggestions of how a user may cause at least one of QI1 or QI2, to be above said threshold and to present said appropriate suggestion to the user.

'901 Patent at 21:48-22:5.

74. In explaining the reasons for allowability of the claims of the '901 Patent, the United States Patent and Trademark Office described how the prior art did not disclose or teach the claimed inventive elements, of the '901 patent:

The prior art does not teach obtaining a first value (QI1) responsive to the device angle to the horizon; estimating a first weight (c1) associated with the first value; obtaining a second value (Q[I]2) associated with an aesthetic quality of image based on the composition; and estimating a second weight (c2) associated with the second value; wherein at least one of said values is below threshold, to select, at least one appropriate suggestion from a pre-stored table of suggestions of how a user may cause at least one of QI1 or Q[I]2, to be above said threshold and to present said appropriate suggestion to the user when taken in combination with all the limitations of the independent claim.

'901 Patent File History, Notice of Allowance and Fee(s) Due (November 3, 2020), Notice of Allowability at 2-3 (attached as Exhibit M).

U.S. Patent No. 11,252,325

75. SnapAid is the lawful owner of all right, title and interest in the '325 Patent, titled "Real Time Assessment of Picture Quality," including the right to sue and recover for infringement thereof. A copy of the '325 Patent is attached hereto as Exhibit F, which was duly and legally issued on February 15, 2022.

76. None of the claims of the '325 Patent are directed to an abstract idea, and the claim limitations, individually and as an ordered combination, involve more than performance of well understood, routine, and conventional activities previously known to the industry as of the priority date of the '325 Patent.

77. The claims of the '325 Patent are directed to a specific area of application of computing the photo quality of a captured image in a device image acquisition system.

78. The claims of the '325 Patent also recite more than generic computer functionality and recite elements that were not purely conventional as of the priority date of the '325 Patent.

79. The claims of the '325 Patent recite specific improvements over prior art and conventional systems, apparatuses, and methods and represent meaningful limitations and/or inventive concepts. Further, in view of these specific improvements, the claims of the '325 Patent, when such claims are viewed as a whole and in ordered combination, were not routine, well-understood, conventional, generic, existing, commonly used, well-known previously known, or typical as of the earliest priority date of the '325 Patent.

80. None of the claims of the '325 Patent are representative of the '325 Patent's other claims or claims of the other Asserted Patents.

81. As the '325 Patent explains, assessing picture quality using independent quality indicators was the conventional approach disclosed in the prior art. The '325 Patent claims a specific method for estimating the quality of at least one image from a stream of images, using a tangible, non-abstract device that departs from earlier approaches by obtaining quality indicators values and corresponding weights, using a pre-stored table with suggestions, which are based on the previous quality indicators and their corresponding weights, to reassess and improve at least one unreliable quality indicator.

82. The claims of the '325 Patent recite more than generic computer functionality and recite elements that were not purely conventional as of its priority date. The claims of the '325 Patent recite at least steps or capabilities which, either alone or as an ordered combination, were unconventional and unique, and were not well-known, routine, or conventional. For example, Claim 1 recites a method for evaluating the quality of images from a stream of images captured by a device that includes a digital camera, optical lens, image sensor, motion or location sensor, and a processor. The processor obtains various quality values: a first value related to device motion, a second value measuring image exposure, a third value analyzing facial properties (such as detection, expression, and movement), and a fourth value indicating lens obstruction. Each value is assigned a corresponding weight. And at least one of the values or weights is calculated based on an artificial neural network with deep learning algorithms. If any value becomes unreliable and falls below a threshold, invention selects an appropriate suggestion from a pre-stored table, which is based on the previous values and corresponding weights and presents the suggestion to the user to reassess and improve the value so that its reliability is above the threshold.

83. The novel features of the invention are recited in the claims. For example, Claim 1 of the '325 Patent recites:

A method for estimating quality of at least one image from a stream of images, for use with a device that comprises in a single enclosure a digital camera module or functionality that comprises at least one optical lens for focusing received light from a scene and an image sensor coupled to at least one optical lens for capturing an image of the scene; a motion or location sensor for sensing the device motion; and a processor coupled to the image sensor and to the digital camera for receiving data therefrom, the method by the processor comprising use of at least one value and weight;

obtaining a first value (QI1) responsive to the device motion from at least one motion or location sensor;

estimating a first weight (c1) associated with the first;

obtaining a second value (QI2), where value is a measurement of under or over exposure of at least one of a part of image or face exposure;

estimating a second weight (c2) associated with the second value;

analyzing the captured image for detecting or recognizing zero or more faces in the picture, calculates properties of at least one of said faces if exist, where said properties are at least one of:

looking at camera, smiling, crying, face detection quality, face exposure or subject movement to obtain a third value (QI3);

estimating a third weight (c3) associated with the third value;

obtaining a fourth value (QI4) responsive to obstruction of at least one optical lens;

and

estimating a fourth weight (c4) associated with the fourth value;

wherein at least one of the values QI1, QI2, QI3, QI4 or the weights c1, c2, c3, c4 are calculated based on an artificial neural network employing deep learning algorithm

to select, based on values QI1, QI2, QI3, QI4 and weights c1, c2, c3, c4, at least one appropriate suggestion from a pre-stored table of suggestions of how a user of the system may cause at least on said value to be above or below a threshold and to present said appropriate suggestion to the user.

'325 Patent at 21:47-22:21.

84. In explaining the reasons for allowability of the claims of the '325 Patent, the United States Patent and Trademark Office described how the prior art did not disclose or teach the claimed inventive elements, of the '325 patent:

The prior art does not teach obtaining a first value (Q11) responsive to the device motion from at least one motion or location sensor; estimating a first weight (c1) associated with the first; obtaining a second value (QI2), where value is a measurement of under or over exposure of at least one of a part of image or face exposure; estimating a second weight (c2) associated with the second value; analyzing the captured image for detecting or recognizing zero or more faces in the picture, calculates properties of at least one of said faces if exist, where said properties are at least one of: looking at camera, smiling, crying, face detection quality, face exposure or subject movement to obtain a third value (QI3); estimating a third weight (c3) associated with the third value; obtaining a fourth value (QI4) responsive to obstruction of at least one optical lens; and estimating a fourth weight (c4) associated with the fourth value; wherein at least one of the values QI1, QI2, QI3, QI4 or the weights c1, c2, c3, c4 are calculated based on an artificial neural network employing deep learning algorithm to select, based on values QI1, QI2, QI3, QI4 and weights c1, c2, c3, c4, at least one appropriate suggestion from a pre-stored table of suggestions of how a user of the system may cause at least on said value to be above or below a threshold and to present said appropriate suggestion to the user when taken in combination with all the limitations of the independent claims.

'325 Patent File History, Notice of Allowance and Fee(s) Due (October 12, 2021), Notice of Allowability at 2-3 (attached as Exhibit N).

U.S. Patent No. 11,671,702

85. SnapAid is the lawful owner of all right, title and interest in the '702 Patent, titled "Real Time Assessment of Picture Quality," including the right to sue and recover for infringement thereof. A copy of the '702 Patent is attached hereto as Exhibit G, which was duly and legally issued on February 15, 2022.

86. None of the claims of the '702 Patent are directed to an abstract idea, and the claim limitations, individually and as an ordered combination, involve more than performance of well understood, routine, and conventional activities previously known to the industry as of the priority date of the '702 Patent.

87. The claims of the '702 Patent are directed to a specific area of application of computing the photo quality of a captured image in a device image acquisition system.

88. The claims of the '702 Patent also recite more than generic computer functionality and recite elements that were not purely conventional as of the priority date of the '702 Patent.

89. The claims of the '702 Patent recite specific improvements over prior art and conventional systems, apparatuses, and methods and represent meaningful limitations and/or inventive concepts. Further, in view of these specific improvements, the claims of the '702 Patent, when such claims are viewed as a whole and in ordered combination, were not routine, well-understood, conventional, generic, existing, commonly used, well-known previously known, or typical as of the earliest priority date of the '702 Patent.

90. None of the claims of the '702 Patent are representative of the '702 Patent's other claims or claims of the other Asserted Patents.

91. As the '702 Patent explains, assessing picture quality using independent quality indicators was the conventional approach to disclosed in the prior art. The '702 Patent claims, however, a specific method for real-time estimation of image quality, implemented in a tangible, non-abstract device that departs from earlier approaches by specifically using a value responsive to device motion, a value derived from measuring under or over exposure of at least one part of an image, a value associated with the analysis of the captured image, a value responsive to obstruction of at least one optical lens and estimating a corresponding weight, and then calculating a total value based on the weighted values, in real time, to assess picture quality and providing an appropriate suggestion from a pre-stored table of suggestions.

92. The claims of the '702 Patent recite more than generic computer functionality and recite elements that were not purely conventional as of its priority date. The claims of the '702

Patent recite at least steps or capabilities which, either alone or as an ordered combination, were unconventional and unique, and were not well-known, routine, or conventional. For example, Claim 1 recites a method for estimating the quality of images from a stream of images using a device that includes a digital camera, motion or location sensors, and a processor. The method involves the processor obtaining a motion-related value (QI1) from the motion or location sensor. It also obtains an image exposure related value (QI2). It also obtains a value related to analyzing a captured image to detect objects or characteristics (QI3). It also obtains a value related to any obstruction of the optical lenses (QI4) and estimates a corresponding weight (c4). A total value is calculated using the values and their respective weights. The values are used to select and present suggestions to the user on how to improve at least one of the values, to improve image quality, based on pre-stored recommendations. The novel features of the invention are recited in the claims. For example, Claim 1 of the '702 Patent recites

93. The novel features of the invention are recited in the claims. For example, Claim 1 of the '702 Patent recites:

A method for estimating quality of at least one image from a stream of images, for use with a device that comprises in a single enclosure a digital camera module or functionality that comprises at least one optical lens for focusing received light from a scene and an image sensor coupled to at least one optical lens for capturing an image of the scene; a motion or location sensor for sensing the device motion; and a processor coupled to the image sensor and to the digital camera for receiving data therefrom, the method by the processor comprising use of at least one value from the following QI1 to QI4:

obtaining a first value (QI1) responsive to the device motion from at least one motion or location sensor;

obtaining a second value (QI2), where value is a measurement of under or over exposure of at least one of a part of image or face exposure;

analyzing the captured image for detecting or recognizing zero or more faces in the picture, calculates properties of at least one of said faces if exist, where said properties are at least one of: looking at camera, smiling, crying, face

detection quality, face exposure or subject movement to obtain a third value (QI3);

obtaining a fourth value (QI4) responsive to obstruction of at least one optical lens;
and

estimating a fourth weight (c4) associated with the fourth value;

to select, based on values QI1, QI2, QI3, QI4, at least one appropriate suggestion from a pre-stored table of suggestions of how a user of the system may cause at least one said value to be above or below a threshold and to present said appropriate suggestion to the user.

'702 Patent at 21:48 – 22:11.

94. In explaining the allowable subject matter for the claims of the '702 Patent, the United States Patent and Trademark Office described how the prior art did not disclose or teach the claimed inventive elements, of the '702 patent:

The following is a statement of reasons for the indication of allowable subject matter: The prior art does not teach obtaining a first value (QI1) responsive to the device motion from at least one motion or location sensor; obtaining a second value (QI2), where value is a measurement of under or over exposure of at least one part of image or face exposure; analyzing the captured image for detecting or recognizing zero or more faces in the picture, calculates properties of at least one of said faces if exist, where said properties are at least one of: looking at camera, smiling, crying, face detection quality, face exposure or subject movement to obtain a third value (QI3); obtaining a fourth value (QI4) responsive to obstruction of at least one optical lens; and estimating a fourth weight (c4) associated with the fourth value; to select, based on values QI1, QI2, QI3, QI4, at least one appropriate suggestion from a pre-stored table of suggestions of how a user of the system may cause at least one said value to be above or below a threshold and to present said appropriate suggestion to the user when taken in combination with all the limitation of the independent claim.

'702 Patent File History, October 5, 2022, Office Action at 3-4 (attached as Exhibit O).

U.S. Patent No. 12,250,452

95. SnapAid is the lawful owner of all right, title and interest in the '452 Patent, titled “Real Time Assessment of Picture Quality,” including the right to sue and recover for infringement

thereof. A copy of the '452 Patent is attached hereto as Exhibit H, which was duly and legally issued on March 11, 2025.

96. None of the claims of the '452 Patent are directed to an abstract idea, and the claim limitations, individually and as an ordered combination, involve more than performance of well understood, routine, and conventional activities previously known to the industry as of the priority date of the '452 Patent.

97. The claims of the '452 Patent are directed to a specific area of application of computing the photo quality of a captured image in a device image acquisition system.

98. The claims of the '452 Patent also recite more than generic computer functionality and recite elements that were not purely conventional as of the priority date of the '452 Patent.

99. The claims of the '452 Patent recite specific improvements over prior art and conventional systems, apparatuses, and methods and represent meaningful limitations and/or inventive concepts. Further, in view of these specific improvements, the claims of the '452 Patent, when such claims are viewed as a whole and in ordered combination, were not routine, well-understood, conventional, generic, existing, commonly used, well-known previously known, or typical as of the earliest priority date of the '452 Patent.

100. None of the claims of the '452 Patent are representative of the '452 Patent's other claims or claims of the other Asserted Patents.

101. As the '452 Patent explains, assessing picture quality using independent quality indicators was the conventional approach disclosed in the prior art. The '452 Patent claims a specific method for providing movement suggestions to a user of a device equipped with a tangible, non-abstract device that departs from earlier approaches by obtaining quality indicators values, calculating a total quality indicator value based on at least one of the values and selecting a

suggestion to move the device to a different location from a pre-stored table with suggestions, and presenting the suggestion to the user.

102. The claims of the '452 Patent recite more than generic computer functionality and recite elements that were not purely conventional as of its priority date. The claims of the '452 Patent recite at least steps or capabilities which, either alone or as an ordered combination, were unconventional and unique, and were not well-known, routine, or conventional. For example, Claim 1 recites a method for providing movement suggestions to a user. The method includes a processor calculating from an image, a quality indicator of a face or object, and calculating an aesthetic quality indicator that uses a background blurring test of said face or object, and calculating a total quality indicator that is based on at least one of the quality indicators. The processor the selects, based on the total quality indicator, an appropriate suggestion to the user, to move the device, from a pre-stored table of suggestions.

103. The novel features of the invention are recited in the claims. For example, Claim 1 of the '452 Patent recites:

A method for presenting suggestion to a user of a device to move the device to a different location, where the device comprises at least one digital camera module that comprises at least one optical lens and an image sensor coupled to said optical lens for capturing an image, and at least one processor coupled to the image sensor or digital camera for receiving data therefrom, the method by the processor comprising: calculating from an image received by at least one sensor and lens, a quality indicator QI1 of a face or object, and calculating an aesthetic quality indicator QI2 that uses a background blurring test of said face or object, and calculating a total quality indicator that is based at least partially on at least one of QI1 and QI2; selecting based on the total quality indicator at least one appropriate suggestion from a pre-stored table of suggestions, suggesting to the user to move the device to different location; and presenting the suggestion to the user.

'452 Patent at 21:45-22:6.

104. In explaining the reasons for allowability of the claims of the '452 Patent, the United States Patent and Trademark Office described how the prior art did not disclose or teach the claimed inventive elements, of the '452 patent:

The prior art does not teach calculating from an image received by at least one sensor and lens, a quality indicator of a face or object, calculating an aesthetic quality indicator QI2 that uses a background blurring test of said face or object, and calculating a total quality indicator that is based on the total quality indicator at least one appropriate suggestion from a pre-stored table of suggestions, and suggesting to the user to move the device to different location; and presenting the selected suggestion to the user when taken in combination with all the limitations of the independent claims.

'452 Patent File History, Notice of Allowance and Fee(s) Due (December 9, 2024), Notice of Allowability at 2 (attached as Exhibit P).

SAMSUNG'S KNOWLEDGE OF SNAPAID'S PROPRIETARY TECHNOLOGY

105. On or about September 2015, the parties entered into a dual non-disclosure agreement, whereby SnapAid disclosed its technology to Samsung including SnapAid installing its technology onto Samsung phones that were provided by Samsung.

106. On or about September 2015, SnapAid met with Samsung in Israel at Samsung's office in Yakom near Tel-Aviv.

107. Between approximately October 2015 and January 2016, SnapAid provided Samsung several iterations of its proprietary image improvement technology, including for example, SnapAid's Android Package Kit ("APK") which contained object code to implement and execute SnapAid's proprietary image improvement algorithms.

108. Between approximately October 2015 and January 2016, SnapAid also provided Samsung critical technical details regarding how to implement the APK such as user manuals and communications conveying critical technical details.

109. On or about September 14, 2017, Samsung was made aware of SnapAid's patent rights, at least a because of information SnapAid provided Samsung concerning the publication of the '348 Patent and the '226 Patent.

110. On information and belief, Samsung was on notice of the Asserted Patents.

SAMSUNG'S ACCUSED PRODUCTS

111. Samsung devices are renowned for taking clear, high-resolution pictures. Consumers often purchase these Samsung devices for the picture quality technologies implemented in the devices. For example, Samsung's picture quality functionalities (including Flaw Detection, Shot Suggestions, and Palm Gesture) significantly contribute to providing consumers with top-tier photography experience when using Samsung devices.

112. Samsung makes, uses, sells, offers for sale, and/or imports into the United States a variety of smart devices. These devices include, among others, Galaxy series smartphones and tablets. Samsung actively markets and supports sales of the Galaxy line through its website and through third-party sellers.

113. The Flaw Detection Accused Products are any products Samsung makes, uses, sells, offers for sale, and/or imports into the United States, within the relevant damages period, that are capable of performing the Flaw Detection functionality, including at least Samsung's Galaxy products, like the Samsung Galaxy 21 FE 5G.

114. The Shot Suggestion Accused Products are any products Samsung makes, uses, sells, offers for sale, and/or imports into the United States, within the relevant damages period, that are capable of performing the Shot Suggestion functionality, including at least Samsung's Galaxy products, like the Samsung Galaxy 21 FE 5G.

115. The Palm Gesture Accused Products are any products Samsung makes, uses, sells, offers for sale, and/or imports into the United States, within the relevant damages period, that are capable of performing the Palm Detection functionality, including at least Samsung's Galaxy products, like the Samsung Galaxy 21 FE 5G.

COUNT I – INFRINGEMENT OF THE '348 PATENT

116. SnapAid incorporates herein the allegations made in paragraphs 1 through 115.

117. Samsung has directly infringed (either literally or under the doctrine of equivalents) one or more claims of the '348 Patent, including, for example, Claim 1, in violation of 35 U.S.C. § 271(a) by making, using, selling, offering for sale, and/or importing into the United States infringing products including, but not limited to, the Palm Gesture Accused Products.

118. An exemplary claim chart demonstrating Samsung's infringement of the '348 Patent is attached as Exhibit Q and incorporated herein by reference.

119. Samsung has had knowledge of the '348 Patent and of its infringement of the '348 Patent at least since on or about September 14, 2017, and through the service of this Complaint.

120. On information and belief, despite Samsung's actual knowledge of the '348 Patent and of its infringement of the '348 Patent, Samsung has not sought to remedy its infringement or sought to identify any good faith belief as to why it does not infringe the '348 Patent. Samsung's infringement of the '348 Patent, following its knowledge of the '348 Patent, is intentional and deliberate and thus willful and SnapAid is entitled to treble damages and attorneys' fees and costs incurred in this action under 35 U.S.C. §§ 284 and 285.

121. On information and belief, Samsung will continue intentionally and deliberately infringing, notwithstanding actual knowledge of the '348 Patent. Samsung's future acts of infringement will constitute continuing willful infringement of the '348 Patent.

122. On information and belief, Samsung's actions represented a specific intent to induce infringement of at least Claim 1 of the '348 Patent. For example, Samsung offered its customers extensive customer support and instructions that instructed and encouraged its customers to infringe the '348 Patent via at least their use of the Palm Gesture Accused Products.

123. SnapAid has complied with 35 U.S.C. § 287 with respect to the '348 Patent.

124. SnapAid may recover pre-suit damages for Samsung's infringement of the '348 Patent under 35 U.S.C. § 287.

125. As a result of Samsung's infringement of the '348 Patent, SnapAid has suffered and is owed monetary damages adequate to compensate it for the infringement under 35 U.S.C. § 284, but in no event less than a reasonable royalty.

126. Additionally, on information and belief, Samsung has also indirectly infringed one or more claims of the '348 Patent in violation of 35 U.S.C. § 271(b) by inducing others to directly infringe the '348 Patent, in reckless disregard of SnapAid's patent rights. Samsung has induced end-users and other third-parties to directly infringe (literally or under the doctrine of equivalents) the '348 Patent by using the Palm Gesture Accused Products. Samsung took active steps, directly or through contractual relationships with others, with the specific intent to cause them to use the Palm Gesture Accused Products in a manner that infringes one or more claims of the '348 Patent, including, for example, Claim 1 of the '348 Patent. Such steps by Samsung included, among other things, advising or directing end-users and other third-parties to use the Palm Gesture Accused Products in an infringing manner; advertising and promoting the use of the Palm Gesture Accused Products in an infringing manner; or distributing instructions that guide end-users and other third-parties to use the Palm Gesture Accused Products in an infringing manner. Samsung performed these steps, which constitute induced infringement with the knowledge of the '348 Patent and with

the knowledge that the induced acts constitute infringement. Samsung was aware that the normal and customary use of the Palm Gesture Accused Products by others would infringe the '348 Patent.

127. Samsung has also indirectly infringed by contributing to the infringement of the '348 Patent. Samsung has contributed to the direct infringement of the '348 Patent by its customers, partners, personnel, contractors, clients, and suppliers. The Palm Gesture Accused Products have special features that are specially designed to be used in an infringing way and that have no substantial uses other than ones that infringe one or more claims of the '348 Patent, including, for example, Claim 1 of the '348 Patent. The special features include, for example, the digital image acquisition system recited in Claim 1, wherein the system presents suggestions to a user if a captured image does not satisfy certain logical criterion. The special features constitute a material part of the invention of one or more of the claims of the '348 Patent and are not staple articles of commerce suitable for substantial non-infringing use. Samsung's contributory infringement is ongoing.

128. Samsung's direct and indirect infringement of the '348 Patent was willful, intentional, deliberate, willful blindness of a high probability that the activities result in the infringement of the patent, or in conscious disregard of SnapAid's rights under the patent.

COUNT II – INFRINGEMENT OF THE '226 PATENT

129. SnapAid incorporates herein the allegations made in paragraphs 1 through 128.

130. Samsung has directly infringed (either literally or under the doctrine of equivalents) one or more claims of the '226 Patent, including, for example, Claim 1, in violation of 35 U.S.C. § 271(a) by making, using, selling, offering for sale, and/or importing into the United States infringing products including, but not limited to, the Flaw Detection Accused Products.

131. An exemplary claim chart demonstrating Samsung's infringement of the '226 Patent is attached as Exhibit R and incorporated herein by reference.

132. Samsung has had knowledge of the '226 Patent and of its infringement of the '226 Patent at least since on or about September 14, 2017, and through the service of this Complaint.

133. On information and belief, despite Samsung's actual knowledge of the '226 Patent and of its infringement of the '226 Patent, Samsung has not sought to remedy its infringement or sought to identify any good faith belief as to why it does not infringe the '226 Patent. Samsung's infringement of the '226 Patent, following its knowledge of the '226 Patent, is intentional and deliberate and thus willful and SnapAid is entitled to treble damages and attorneys' fees and costs incurred in this action under 35 U.S.C. §§ 284 and 285.

134. On information and belief, Samsung will continue intentionally and deliberately infringing, notwithstanding actual knowledge of the '226 Patent. Samsung's future acts of infringement will constitute continuing willful infringement of the '226 Patent.

135. On information and belief, despite Samsung's knowledge of the '226 Patent and of its infringement of the '226 Patent, Samsung has not sought to remedy its infringement or sought to identify any good faith belief as to why it does not infringe the '226 Patent.

136. On information and belief, Samsung's actions represented a specific intent to induce infringement of at least Claim 1 of the '226 Patent. For example, Samsung offered its customers extensive customer support and instructions that instructed and encouraged its customers to infringe the '226 Patent via at least their use of the Flaw Detection Accused Products.

137. SnapAid has complied with 35 U.S.C. § 287 with respect to the '226 Patent.

138. SnapAid may recover pre-suit damages for Samsung's infringement of the '226 Patent under 35 U.S.C. § 287.

139. As a result of Samsung's infringement of the '226 Patent, SnapAid has suffered and is owed monetary damages adequate to compensate it for the infringement under 35 U.S.C. § 284, but in no event less than a reasonable royalty.

140. Additionally, on information and belief, Samsung has also indirectly infringed one or more claims of the '226 Patent in violation of 35 U.S.C. § 271(b) by inducing others to directly infringe the '226 Patent, in reckless disregard of SnapAid's patent rights. Samsung has induced end-users and other third-parties to directly infringe (literally or under the doctrine of equivalents) the '226 Patent by using the Flaw Detection Accused Products. Samsung took active steps, directly or through contractual relationships with others, with the specific intent to cause them to use the Flaw Detection Accused Products in a manner that infringes one or more claims of the '226 Patent, including, for example, Claim 1 of the '226 Patent. Such steps by Samsung included, among other things, advising or directing end-users and other third-parties to use the Flaw Detection Accused Products in an infringing manner; advertising and promoting the use of the Flaw Detection Accused Products in an infringing manner; or distributing instructions that guide end-users and other third-parties to use the Flaw Detection Accused Products in an infringing manner. Samsung performed these steps, which constitute induced infringement with the knowledge of the '226 Patent and with the knowledge that the induced acts constitute infringement. Samsung was aware that the normal and customary use of the Flaw Detection Accused Products by others would infringe the '226 Patent.

141. Samsung has also indirectly infringed by contributing to the infringement of the '226 Patent. Samsung has contributed to the direct infringement of the '226 Patent by its customers, partners, personnel, contractors, clients, and suppliers. The Flaw Detection Accused Products have special features that are specially designed to be used in an infringing way and that

have no substantial uses other than ones that infringe one or more claims of the '226 Patent, including, for example, Claim 1 of the '226 Patent. The special features include, for example, the method for real-time estimating of an image quality, recited in Claim 1, wherein the processor obtains quality indicator values and estimates associated weights, and determines if the total value is reliable enough to be higher than a threshold value. The special features constitute a material part of the invention of one or more of the claims of the '226 Patent and are not staple articles of commerce suitable for substantial non-infringing use. Samsung's contributory infringement is ongoing.

142. Samsung's direct and indirect infringement of the '226 Patent was willful, intentional, deliberate, willful blindness of a high probability that the activities result in the infringement of the patent, or in conscious disregard of SnapAid's rights under the patent.

COUNT III – INFRINGEMENT OF THE '537 PATENT

143. SnapAid incorporates herein the allegations made in paragraphs 1 through 142.

144. Samsung has directly infringed (either literally or under the doctrine of equivalents) one or more claims of the '537 Patent, including, for example, Claim 1, in violation of 35 U.S.C. § 271(a) by making, using, selling, offering for sale, and/or importing into the United States infringing products including, but not limited to, the Flaw Detection Accused Products.

145. An exemplary claim chart demonstrating Samsung's infringement of the '537 Patent is attached as Exhibit S and incorporated herein by reference.

146. Samsung has had knowledge of the '537 Patent and of its infringement of the '537 Patent at least through the service of this Complaint.

147. On information and belief, despite Samsung's actual knowledge of the '537 Patent and of its infringement of the '537 Patent, Samsung has not sought to remedy its infringement or

sought to identify any good faith belief as to why it does not infringe the '537 Patent. Samsung's infringement of the '537 Patent, following its knowledge of the '537 Patent, is intentional and deliberate and thus willful and SnapAid is entitled to treble damages and attorneys' fees and costs incurred in this action under 35 U.S.C. §§ 284 and 285.

148. On information and belief, Samsung will continue intentionally and deliberately infringing, notwithstanding actual knowledge of the '537 Patent. Samsung's future acts of infringement will constitute continuing willful infringement of the '537 Patent.

149. On information and belief, despite Samsung's knowledge of the '537 Patent and of its infringement of the '537 Patent, Samsung has not sought to remedy its infringement or sought to identify any good faith belief as to why it does not infringe the '537 Patent.

150. On information and belief, Samsung's actions represented a specific intent to induce infringement of at least Claim 1 of the '537 Patent. For example, Samsung offered its customers extensive customer support and instructions that instructed and encouraged its customers to infringe the '537 Patent via at least their use of the Flaw Detection Accused Products.

151. SnapAid has complied with 35 U.S.C. § 287 with respect to the '537 Patent.

152. SnapAid may recover pre-suit damages for Samsung's infringement of the '537 Patent under 35 U.S.C. § 287.

153. As a result of Samsung's infringement of the '537 Patent, SnapAid has suffered and is owed monetary damages adequate to compensate it for the infringement under 35 U.S.C. § 284, but in no event less than a reasonable royalty.

154. Additionally, on information and belief, Samsung has also indirectly infringed one or more claims of the '537 Patent in violation of 35 U.S.C. § 271(b) by inducing others to directly infringe the '537 Patent, in reckless disregard of SnapAid's patent rights. Samsung has induced

end-users and other third-parties to directly infringe (literally or under the doctrine of equivalents) the '537 Patent by using the Flaw Detection Accused Products. Samsung took active steps, directly or through contractual relationships with others, with the specific intent to cause them to use the Flaw Detection Accused Products in a manner that infringes one or more claims of the '537 Patent, including, for example, Claim 1 of the '537 Patent. Such steps by Samsung included, among other things, advising or directing end-users and other third-parties to use the Flaw Detection Accused Products in an infringing manner; advertising and promoting the use of the Flaw Detection Accused Products in an infringing manner; or distributing instructions that guide end-users and other third-parties to use the Flaw Detection Accused Products in an infringing manner. Samsung performed these steps, which constitute induced infringement with the knowledge of the '537 Patent and with the knowledge that the induced acts constitute infringement. Samsung was aware that the normal and customary use of the Flaw Detection Accused Products by others would infringe the '537 Patent.

155. Samsung has also indirectly infringed by contributing to the infringement of the '537 Patent. Samsung has contributed to the direct infringement of the '537 Patent by its customers, partners, personnel, contractors, clients, and suppliers. The Flaw Detection Accused Products have special features that are specially designed to be used in an infringing way and that have no substantial uses other than ones that infringe one or more claims of the '537 Patent, including, for example, Claim 1 of the '537 Patent. The special features include, for example, the method for estimating quality of a digital image frame having pixels recited in Claim 1, wherein the processor obtains quality indicator values and estimates associated weights and determines if the total value is reliable enough to be higher than a threshold value. The special features constitute a material part of the invention of one or more of the claims of the '537 Patent and are not staple

articles of commerce suitable for substantial non-infringing use. Samsung's contributory infringement is ongoing.

156. Samsung's direct and indirect infringement of the '537 Patent was willful, intentional, deliberate, willful blindness of a high probability that the activities result in the infringement of the patent, or in conscious disregard of SnapAid's rights under the patent.

COUNT IV – INFRINGEMENT OF THE '682 PATENT

157. SnapAid incorporates herein the allegations made in paragraphs 1 through 156.

158. Samsung has directly infringed (either literally or under the doctrine of equivalents) one or more claims of the '682 Patent, including, for example, Claim 17, in violation of 35 U.S.C. § 271(a) by making, using, selling, offering for sale, and/or importing into the United States infringing products including, but not limited to, the Flaw Detection Accused Products.

159. An exemplary claim chart demonstrating Samsung's infringement of the '682 Patent is attached as Exhibit T and incorporated herein by reference.

160. Samsung has had knowledge of the '682 Patent and of its infringement of the '682 Patent at least through the service of this Complaint.

161. On information and belief, despite Samsung's actual knowledge of the '682 Patent and of its infringement of the '682 Patent, Samsung has not sought to remedy its infringement or sought to identify any good faith belief as to why it does not infringe the '682 Patent. Samsung's infringement of the '682 Patent, following its knowledge of the '682 Patent, is intentional and deliberate and thus willful and SnapAid is entitled to treble damages and attorneys' fees and costs incurred in this action under 35 U.S.C. §§ 284 and 285.

162. On information and belief, Samsung will continue intentionally and deliberately infringing, notwithstanding actual knowledge of the '682 Patent. Samsung's future acts of infringement will constitute continuing willful infringement of the '682 Patent.

163. On information and belief, despite Samsung's knowledge of the '682 Patent and of its infringement of the '682 Patent, Samsung has not sought to remedy its infringement or sought to identify any good faith belief as to why it does not infringe the '682 Patent.

164. On information and belief, Samsung's actions represented a specific intent to induce infringement of at least Claim 17 of the '682 Patent. For example, Samsung offered its customers extensive customer support and instructions that instructed and encouraged its customers to infringe the '682 Patent via at least their use of the Flaw Detection Accused Products.

165. SnapAid has complied with 35 U.S.C. § 287 with respect to the '682 Patent.

166. SnapAid may recover pre-suit damages for Samsung's infringement of the '682 Patent under 35 U.S.C. § 287.

167. As a result of Samsung's infringement of the '682 Patent, SnapAid has suffered and is owed monetary damages adequate to compensate it for the infringement under 35 U.S.C. § 284, but in no event less than a reasonable royalty.

168. Additionally, on information and belief, Samsung has also indirectly infringed one or more claims of the '682 Patent in violation of 35 U.S.C. § 271(b) by inducing others to directly infringe the '682 Patent, in reckless disregard of SnapAid's patent rights. Samsung has induced end-users and other third-parties to directly infringe (literally or under the doctrine of equivalents) the '682 Patent by using the Flaw Detection Accused Products. Samsung took active steps, directly or through contractual relationships with others, with the specific intent to cause them to use the Flaw Detection Accused Products in a manner that infringes one or more claims of the '682 Patent,

including, for example, Claim 17 of the '682 Patent. Such steps by Samsung included, among other things, advising or directing end-users and other third-parties to use the Flaw Detection Accused Products in an infringing manner; advertising and promoting the use of the Flaw Detection Accused Products in an infringing manner; or distributing instructions that guide end-users and other third-parties to use the Flaw Detection Accused Products in an infringing manner. Samsung performed these steps, which constitute induced infringement with the knowledge of the '682 Patent and with the knowledge that the induced acts constitute infringement. Samsung was aware that the normal and customary use of the Flaw Detection Accused Products by others would infringe the '682 Patent.

169. Samsung has also indirectly infringed by contributing to the infringement of the '682 Patent. Samsung has contributed to the direct infringement of the '682 Patent by its customers, partners, personnel, contractors, clients, and suppliers. The Flaw Detection Accused Products have special features that are specially designed to be used in an infringing way and that have no substantial uses other than ones that infringe one or more claims of the '682 Patent, including, for example, Claim 17 of the '682 Patent. The special features include, for example, the method for estimating quality of at least one image from a stream of images from a video, recited in Claim 17, wherein the processor obtains quality indicator values and estimates associated weights, and uses previous values and weights to calculate the total value. The special features constitute a material part of the invention of one or more of the claims of the '682 Patent and are not staple articles of commerce suitable for substantial non-infringing use. Samsung's contributory infringement is ongoing.

170. Samsung's direct and indirect infringement of the '682 Patent was willful, intentional, deliberate, willful blindness of a high probability that the activities result in the infringement of the patent, or in conscious disregard of SnapAid's rights under the patent.

COUNT V – INFRINGEMENT OF THE '901 PATENT

171. SnapAid incorporates herein the allegations made in paragraphs 1 through 170.

172. Samsung has directly infringed (either literally or under the doctrine of equivalents) one or more claims of the '901 Patent, including, for example, Claim 1, in violation of 35 U.S.C. § 271(a) by making, using, selling, offering for sale, and/or importing into the United States infringing products including, but not limited to, the Shot Suggestion Accused Products.

173. An exemplary claim chart demonstrating Samsung's infringement of the '901 Patent is attached as Exhibit U and incorporated herein by reference.

174. Samsung has had knowledge of the '901 Patent and of its infringement of the '901 Patent at least through the service of this Complaint.

175. On information and belief, despite Samsung's actual knowledge of the '901 Patent and of its infringement of the '901 Patent, Samsung has not sought to remedy its infringement or sought to identify any good faith belief as to why it does not infringe the '901 Patent. Samsung's infringement of the '901 Patent, following its knowledge of the '901 Patent, is intentional and deliberate and thus willful and SnapAid is entitled to treble damages and attorneys' fees and costs incurred in this action under 35 U.S.C. §§ 284 and 285.

176. On information and belief, Samsung will continue intentionally and deliberately infringing, notwithstanding actual knowledge of the '901 Patent. Samsung's future acts of infringement will constitute continuing willful infringement of the '901 Patent.

177. On information and belief, despite Samsung's knowledge of the '901 Patent and of its infringement of the '901 Patent, Samsung has not sought to remedy its infringement or sought to identify any good faith belief as to why it does not infringe the '901 Patent.

178. On information and belief, Samsung's actions represented a specific intent to induce infringement of at least Claim 1 of the '901 Patent. For example, Samsung offered its customers extensive customer support and instructions that instructed and encouraged its customers to infringe the '901 Patent via at least their use of the Shot Suggestion Accused Products.

179. SnapAid has complied with 35 U.S.C. § 287 with respect to the '901 Patent.

180. SnapAid may recover pre-suit damages for Samsung's infringement of the '901 Patent under 35 U.S.C. § 287.

181. As a result of Samsung's infringement of the '901 Patent, SnapAid has suffered and is owed monetary damages adequate to compensate it for the infringement under 35 U.S.C. § 284, but in no event less than a reasonable royalty.

182. Additionally, on information and belief, Samsung has also indirectly infringed one or more claims of the '901 Patent in violation of 35 U.S.C. § 271(b) by inducing others to directly infringe the '901 Patent, in reckless disregard of SnapAid's patent rights. Samsung has induced end-users and other third-parties to directly infringe (literally or under the doctrine of equivalents) the '901 Patent by using the Shot Suggestion Accused Products. Samsung took active steps, directly or through contractual relationships with others, with the specific intent to cause them to use the Shot Suggestion Accused Products in a manner that infringes one or more claims of the '901 Patent, including, for example, Claim 1 of the '901 Patent. Such steps by Samsung included, among other things, advising or directing end-users and other third-parties to use the Shot Suggestion Accused Products in an infringing manner; advertising and promoting the use of the

Shot Suggestion Accused Products in an infringing manner; or distributing instructions that guide end-users and other third-parties to use the Shot Suggestion Accused Products in an infringing manner. Samsung performed these steps, which constitute induced infringement with the knowledge of the '901 Patent and with the knowledge that the induced acts constitute infringement. Samsung was aware that the normal and customary use of the Shot Suggestion Accused Products by others would infringe the '901 Patent.

183. Samsung has also indirectly infringed by contributing to the infringement of the '901 Patent. Samsung has contributed to the direct infringement of the '901 Patent by its customers, partners, personnel, contractors, clients, and suppliers. The Shot Suggestion Accused Products have special features that are specially designed to be used in an infringing way and that have no substantial uses other than ones that infringe one or more claims of the '901 Patent, including, for example, Claim 1 of the '901 Patent. The special features include, for example, the method for estimating quality of at least one image from a plurality of images, recited in Claim 1, wherein the processor obtains quality indicator values and estimates associated weights, and determines if the values are reliable enough to be higher than a threshold value. The special features constitute a material part of the invention of one or more of the claims of the '901 Patent and are not staple articles of commerce suitable for substantial non-infringing use. Samsung's contributory infringement is ongoing.

184. Samsung's direct and indirect infringement of the '901 Patent was willful, intentional, deliberate, willful blindness of a high probability that the activities result in the infringement of the patent, or in conscious disregard of SnapAid's rights under the patent.

COUNT VI – INFRINGEMENT OF THE '325 PATENT

185. SnapAid incorporates herein the allegations made in paragraphs 1 through 184.

186. Samsung has directly infringed (either literally or under the doctrine of equivalents) one or more claims of the '325 Patent, including, for example, Claim 1, in violation of 35 U.S.C. § 271(a) by making, using, selling, offering for sale, and/or importing into the United States infringing products including, but not limited to, the Flaw Detection Accused Products.

187. An exemplary claim chart demonstrating Samsung's infringement of the '325 Patent is attached as Exhibit V and incorporated herein by reference.

188. Samsung has had knowledge of the '325 Patent and of its infringement of the '325 Patent at least through the service of this Complaint.

189. On information and belief, despite Samsung's actual knowledge of the '325 Patent and of its infringement of the '325 Patent, Samsung has not sought to remedy its infringement or sought to identify any good faith belief as to why it does not infringe the '325 Patent. Samsung's infringement of the '325 Patent, following its knowledge of the '325 Patent, is intentional and deliberate and thus willful and SnapAid is entitled to treble damages and attorneys' fees and costs incurred in this action under 35 U.S.C. §§ 284 and 285.

190. On information and belief, Samsung will continue intentionally and deliberately infringing, notwithstanding actual knowledge of the '325 Patent. Samsung's future acts of infringement will constitute continuing willful infringement of the '325 Patent.

191. On information and belief, despite Samsung's knowledge of the '325 Patent and of its infringement of the '325 Patent, Samsung has not sought to remedy its infringement or sought to identify any good faith belief as to why it does not infringe the '325 Patent.

192. On information and belief, Samsung's actions represented a specific intent to induce infringement of at least Claim 1 of the '325 Patent. For example, Samsung offered its

customers extensive customer support and instructions that instructed and encouraged its customers to infringe the '325 Patent via at least their use of the Flaw Detection Accused Products.

193. SnapAid has complied with 35 U.S.C. § 287 with respect to the '325 Patent.

194. SnapAid may recover pre-suit damages for Samsung's infringement of the '325 Patent under 35 U.S.C. § 287.

195. As a result of Samsung's infringement of the '325 Patent, SnapAid has suffered and is owed monetary damages adequate to compensate it for the infringement under 35 U.S.C. § 284, but in no event less than a reasonable royalty.

196. Additionally, on information and belief, Samsung has also indirectly infringed one or more claims of the '325 Patent in violation of 35 U.S.C. § 271(b) by inducing others to directly infringe the '325 Patent, in reckless disregard of SnapAid's patent rights. Samsung has induced end-users and other third-parties to directly infringe (literally or under the doctrine of equivalents) the '325 Patent by using the Flaw Detection Accused Products. Samsung took active steps, directly or through contractual relationships with others, with the specific intent to cause them to use the Flaw Detection Accused Products in a manner that infringes one or more claims of the '325 Patent, including, for example, Claim 1 of the '325 Patent. Such steps by Samsung included, among other things, advising or directing end-users and other third-parties to use the Flaw Detection Accused Products in an infringing manner; advertising and promoting the use of the Flaw Detection Accused Products in an infringing manner; or distributing instructions that guide end-users and other third-parties to use the Flaw Detection Accused Products in an infringing manner. Samsung performed these steps, which constitute induced infringement with the knowledge of the '325 Patent and with the knowledge that the induced acts constitute infringement. Samsung was aware

that the normal and customary use of the Flaw Detection Accused Products by others would infringe the '325 Patent.

197. Samsung has also indirectly infringed by contributing to the infringement of the '325 Patent. Samsung has contributed to the direct infringement of the '325 Patent by its customers, partners, personnel, contractors, clients, and suppliers. The Flaw Detection Accused Products have special features that are specially designed to be used in an infringing way and that have no substantial uses other than ones that infringe one or more claims of the '325 Patent, including, for example, Claim 1 of the '325 Patent. The special features include, for example, the method for estimating quality of at least one image from a stream of images, recited in Claim 1, wherein the processor presents suggestions to a user to cause at least one of the values to be above or below a threshold. The special features constitute a material part of the invention of one or more of the claims of the '325 Patent and are not staple articles of commerce suitable for substantial non-infringing use. Samsung's contributory infringement is ongoing.

198. Samsung's direct and indirect infringement of the '325 Patent was willful, intentional, deliberate, willful blindness of a high probability that the activities result in the infringement of the patent, or in conscious disregard of SnapAid's rights under the patent.

COUNT VII – INFRINGEMENT OF THE '702 PATENT

199. SnapAid incorporates herein the allegations made in paragraphs 1 through 198.

200. Samsung has directly infringed (either literally or under the doctrine of equivalents) one or more claims of the '702 Patent, including, for example, Claim 1, in violation of 35 U.S.C. § 271(a) by making, using, selling, offering for sale, and/or importing into the United States infringing products including, but not limited to, the Flaw Detection Accused Products.

201. An exemplary claim chart demonstrating Samsung's infringement of the '702 Patent is attached as Exhibit W and incorporated herein by reference.

202. Samsung has had knowledge of the '702 Patent and of its infringement of the '702 Patent at least through the service of this Complaint.

203. On information and belief, despite Samsung's actual knowledge of the '702 Patent and of its infringement of the '702 Patent, Samsung has not sought to remedy its infringement or sought to identify any good faith belief as to why it does not infringe the '702 Patent. Samsung's infringement of the '702 Patent, following its knowledge of the '702 Patent, is intentional and deliberate and thus willful and SnapAid is entitled to treble damages and attorneys' fees and costs incurred in this action under 35 U.S.C. §§ 284 and 285.

204. On information and belief, Samsung will continue intentionally and deliberately infringing, notwithstanding actual knowledge of the '702 Patent. Samsung's future acts of infringement will constitute continuing willful infringement of the '702 Patent.

205. On information and belief, despite Samsung's knowledge of the '702 Patent and of its infringement of the '702 Patent, Samsung has not sought to remedy its infringement or sought to identify any good faith belief as to why it does not infringe the '702 Patent.

206. On information and belief, Samsung's actions represented a specific intent to induce infringement of at least Claim 1 of the '702 Patent. For example, Samsung offered its customers extensive customer support and instructions that instructed and encouraged its customers to infringe the '702 Patent via at least their use of the Flaw Detection Accused Products.

207. SnapAid has complied with 35 U.S.C. § 287 with respect to the '702 Patent.

208. SnapAid may recover pre-suit damages for Samsung's infringement of the '702 Patent under 35 U.S.C. § 287.

209. As a result of Samsung's infringement of the '702 Patent, SnapAid has suffered and is owed monetary damages adequate to compensate it for the infringement under 35 U.S.C. § 284, but in no event less than a reasonable royalty.

210. Additionally, on information and belief, Samsung has also indirectly infringed one or more claims of the '702 Patent in violation of 35 U.S.C. § 271(b) by inducing others to directly infringe the '702 Patent, in reckless disregard of SnapAid's patent rights. Samsung has induced end-users and other third-parties to directly infringe (literally or under the doctrine of equivalents) the '702 Patent by using the Flaw Detection Accused Products. Samsung took active steps, directly or through contractual relationships with others, with the specific intent to cause them to use the Flaw Detection Accused Products in a manner that infringes one or more claims of the '702 Patent, including, for example, Claim 1 of the '702 Patent. Such steps by Samsung included, among other things, advising or directing end-users and other third-parties to use the Flaw Detection Accused Products in an infringing manner; advertising and promoting the use of the Flaw Detection Accused Products in an infringing manner; or distributing instructions that guide end-users and other third-parties to use the Flaw Detection Accused Products in an infringing manner. Samsung performed these steps, which constitute induced infringement with the knowledge of the '702 Patent and with the knowledge that the induced acts constitute infringement. Samsung was aware that the normal and customary use of the Flaw Detection Accused Products by others would infringe the '702 Patent.

211. Samsung has also indirectly infringed by contributing to the infringement of the '702 Patent. Samsung has contributed to the direct infringement of the '702 Patent by its customers, partners, personnel, contractors, clients, and suppliers. The Flaw Detection Accused Products have special features that are specially designed to be used in an infringing way and that

have no substantial uses other than ones that infringe one or more claims of the '702 Patent, including, for example, Claim 1 of the '702 Patent. The special features include, for example, the method for estimating quality of at least one image from a stream of images, recited in Claim 1, wherein the processor presents suggestions to a user to cause at least one of the values to be above or below a threshold. The special features constitute a material part of the invention of one or more of the claims of the '702 Patent and are not staple articles of commerce suitable for substantial non-infringing use. Samsung's contributory infringement is ongoing.

212. Samsung's direct and indirect infringement of the '702 Patent was willful, intentional, deliberate, willful blindness of a high probability that the activities result in the infringement of the patent, or in conscious disregard of SnapAid's rights under the patent.

COUNT VIII – INFRINGEMENT OF THE '452 PATENT

213. SnapAid incorporates herein the allegations made in paragraphs 1 through 212.

214. Samsung has directly infringed (either literally or under the doctrine of equivalents) one or more claims of the '452 Patent, including, for example, Claim 1, in violation of 35 U.S.C. § 271(a) by making, using, selling, offering for sale, and/or importing into the United States infringing products including, but not limited to, the Shot Suggestion Accused Products.

215. An exemplary claim chart demonstrating Samsung's infringement of the '452 Patent is attached as Exhibit X and incorporated herein by reference.

216. Samsung has had knowledge of the '452 Patent and of its infringement of the '452 Patent at least through the service of this Complaint.

217. On information and belief, despite Samsung's actual knowledge of the '452 Patent and of its infringement of the '452 Patent, Samsung has not sought to remedy its infringement or sought to identify any good faith belief as to why it does not infringe the '452 Patent. Samsung's

infringement of the '452 Patent, following its knowledge of the '452 Patent, is intentional and deliberate and thus willful and SnapAid is entitled to treble damages and attorneys' fees and costs incurred in this action under 35 U.S.C. §§ 284 and 285.

218. On information and belief, Samsung will continue intentionally and deliberately infringing, notwithstanding actual knowledge of the '452 Patent. Samsung's future acts of infringement will constitute continuing willful infringement of the '452 Patent.

219. On information and belief, despite Samsung's knowledge of the '452 Patent and of its infringement of the '452 Patent, Samsung has not sought to remedy its infringement or sought to identify any good faith belief as to why it does not infringe the '452 Patent.

220. On information and belief, Samsung's actions represented a specific intent to induce infringement of at least Claim 1 of the '452 Patent. For example, Samsung offered its customers extensive customer support and instructions that instructed and encouraged its customers to infringe the '452 Patent via at least their use of the Shot Suggestion Accused Products.

221. SnapAid has complied with 35 U.S.C. § 287 with respect to the '452 Patent.

222. SnapAid may recover pre-suit damages for Samsung's infringement of the '452 Patent under 35 U.S.C. § 287.

223. As a result of Samsung's infringement of the '452 Patent, SnapAid has suffered and is owed monetary damages adequate to compensate it for the infringement under 35 U.S.C. § 284, but in no event less than a reasonable royalty.

224. Additionally, on information and belief, Samsung has also indirectly infringed one or more claims of the '452 Patent in violation of 35 U.S.C. § 271(b) by inducing others to directly infringe the '452 Patent, in reckless disregard of SnapAid's patent rights. Samsung has induced end-users and other third-parties to directly infringe (literally or under the doctrine of equivalents)

the '452 Patent by using the Shot Suggestion Accused Products. Samsung took active steps, directly or through contractual relationships with others, with the specific intent to cause them to use the Shot Suggestion Accused Products in a manner that infringes one or more claims of the '452 Patent, including, for example, Claim 1 of the '452 Patent. Such steps by Samsung included, among other things, advising or directing end-users and other third-parties to use the Shot Suggestion Accused Products in an infringing manner; advertising and promoting the use of the Shot Suggestion Accused Products in an infringing manner; or distributing instructions that guide end-users and other third-parties to use the Shot Suggestion Accused Products in an infringing manner. Samsung performed these steps, which constitute induced infringement with the knowledge of the '452 Patent and with the knowledge that the induced acts constitute infringement. Samsung was aware that the normal and customary use of the Shot Suggestion Accused Products by others would infringe the '452 Patent.

225. Samsung has also indirectly infringed by contributing to the infringement of the '452 Patent. Samsung has contributed to the direct infringement of the '452 Patent by its customers, partners, personnel, contractors, clients, and suppliers. The Shot Suggestion Accused Products have special features that are specially designed to be used in an infringing way and that have no substantial uses other than ones that infringe one or more claims of the '452 Patent, including, for example, Claim 1 of the '452 Patent. The special features include, for example, the method for estimating quality of at least one image from a plurality of images, recited in Claim 1, wherein the processor obtains quality indicator values, calculates a total quality indicator, and selects a suggestion to move the device based on the total quality indicator, and presents the suggestion to the user. The special features constitute a material part of the invention of one or

more of the claims of the '452 Patent and are not staple articles of commerce suitable for substantial non-infringing use. Samsung's contributory infringement is ongoing.

226. Samsung's direct and indirect infringement of the '452 Patent was willful, intentional, deliberate, willful blindness of a high probability that the activities result in the infringement of the patent, or in conscious disregard of SnapAid's rights under the patent.

JURY DEMAND

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, SnapAid hereby demands a trial by jury on all issues so triable by right.

PRAYER FOR RELIEF

WHEREFORE, SnapAid requests that the Court enter judgment for SnapAid, find in its favor and against Samsung, and that the Court grant SnapAid the following relief:

a. Judgment that one or more claims of the Asserted Patents have been infringed, either literally or under the doctrine of equivalents, by Samsung or all others acting in concert therewith;

b. Judgment awarding SnapAid compensatory damages as a result of Samsung's infringement of one or more claims of the Asserted Patents, together with pre-and post-interest and costs, including supplemental damages for any continuing post-verdict or post-judgment infringement with an accounting as needed;

c. Judgment that Samsung accounts for and pays to SnapAid all damages to and costs incurred by SnapAid because of Samsung's infringing activities and other conduct complained of herein;

d. Judgment that Samsung's infringements be found willful, and that the Court award treble damages for the period of such willful infringement pursuant to 35 U.S.C. § 284;

e. Pre-judgment and post-judgment interest on the damages caused by Samsung's infringing activities and other conduct complained of herein;

f. That this Court declare this an exceptional case and award SnapAid its reasonable attorneys' fees and costs in accordance with 35 U.S.C. § 285;

g. An order awarding SnapAid costs and expenses in this action;

h. A permanent injunction restraining and enjoining Samsung, its officers, partners, agents, servants, employees, parents, subsidiaries, divisions, affiliate corporations, joint ventures, other related business entities and all other persons acting in concert, participation, or in privity with them, and their successors and assigns, from infringing the Asserted Patents; and

i. All other and further relief as the Court may deem just and proper under the circumstances.

Dated: April 10, 2025

Respectfully submitted,

By: /s/ James R. Nuttall
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