IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF GEORGIA ATLANTA DIVISION

HISENSE USA CORPORATION, Plaintiff, v. BRIGHTPLUS VENTURES LLC, Defendant.	Civil Action No.: 1:22-cv-02774-TCB **Jury Trial Demanded**
BRIGHTPLUS VENTURES LLC, Counter-Claim Plaintiff v. HISENSE USA CORPORATION, HISENSE CO. LTD., HISENSE INTERNATIONAL (HK) CO. LTD., HISENSE VISUAL TECHNOLOGY CO., LTD., and TVS REGZA CORPORATION, Counter-Claim Defendants.	Civil Action No.: 1:22-cv-02774-TCB **Jury Trial Demanded**

DEFENDANT BRIGHTPLUS'S ANSWER TO PLAINTIFF HISENSE USA CORPORATION'S COMPLAINT FOR DECLARATORY JUDGMENT AND COUNTERCLAIMS

Defendant Brightplus Ventures LLC ("Brightplus") answers the Complaint

of Plaintiff Hisense USA Corporation ("Hisense-USA") (Dkt. 1) as follows:

[HISENSE-USA'S ALLEGATION] NATURE OF THE ACTION

1. Hisense brings this action seeking a declaratory judgment that Plaintiff's solid state lighting system products, including the Hisense H4, R6, U6, and ULED series televisions (for example, the 40H4030F1, 75R6E3, 50U6G, and U9G models; the "Relevant Products") (a) do not infringe any claim of United States Patent 7,690,812 ("the '812 Patent," attached hereto as Exhibit A); (b) do not infringe any claim of United States Patent 7,872,705 ("the '705 Patent," attached hereto as Exhibit B); (c) do not infringe any claim of United States Patent 8,177,382 ("the '382 Patent," attached hereto as Exhibit C); (d) do not infringe any claim of United States Patent 8,294,075 ("the '075 Patent," attached hereto as Exhibit D); (e) do not infringe any claim of United States Patent 8,330,710 ("the '710 Patent," attached hereto as Exhibit E); (f) do not infringe any claim of United States Patent 8,941,331 ("the '331 Patent," attached hereto as Exhibit F); (g) do not infringe any claim of United States Patent 9,605,835 ("the '835 Patent," attached hereto as Exhibit G); (h) do not infringe any claim of United States Patent RE42,598 ("the '598 Patent," attached hereto as Exhibit H); (i) do not infringe any claim of United States Patent RE45,796 ("the '796 Patent," attached hereto as Exhibit I); and (j) Plaintiff does not and has not infringed, induced others to

infringe, or contributed to the infringement by others of any claim of the ’812 Patent, ’705 Patent, ’382 Patent, ’075 Patent, ’710 Patent, ’331 Patent, ’835 Patent, ’598 Patent, and ’796 Patent (collectively, “the Asserted Patents”).

ANSWER: Brightplus admits that Hisense-USA purports to bring “this action seeking a declaratory judgment that Plaintiff’s solid state lighting system products, including the Hisense H4, R6, U6, and ULED series televisions (for example, the 40H4030F1, 75R6E3, 50U6G, and U9G models; the “Relevant Products”)” do not infringe any claim of the Asserted Patents and that Hisense-USA “does not and has not infringed, induced others to infringe, or contributed to the infringement by others of any claim of the” Asserted Patents. Brightplus denies that only the above-identified series and model numbers of Hisense and Toshiba products are the only “Relevant Products” since Brightplus’s letter expressly noted that these series and model numbers were exemplary and the patents were infringed by “other products with substantially similar technology.” Brightplus denies the remaining allegations of paragraph 1 of Hisense-USA’s Complaint.

2. Plaintiff seeks a declaratory judgment that Plaintiff and its customers, distributors, and end-users do not infringe and have not infringed under 35 U.S.C. § 271 (or any sub-section thereof) any claim of the Asserted Patents and a declaratory judgment that the Relevant Products do not infringe and have not

infringed under 35 U.S.C. § 271 (or any sub-section thereof) any claim of the Asserted Patents.

ANSWER: Brightplus admits that Hisense-USA purports to seek a declaratory judgment that Hisense-USA and its customers, distributors, end-users, and products do not infringe and have not infringed any claim of the Asserted Patents. Brightplus denies any remaining allegations of paragraph 2 of Hisense-USA's Complaint.

3. Plaintiff seeks this necessary relief because Brightplus, which claims to be the owner of the Asserted Patents, has contacted Hisense in writing, and in that writing, alleged infringement of at least one claim of each of the Asserted Patents. (See Exhibit J).

ANSWER: Brightplus agrees that it has provided, in writing, notice of infringement of at least one claim of the Asserted Patents to Hisense-USA and to its Chinese parent Hisense Co. Ltd. ("Hisense-China") and foreign related companies Hisense International (HK) Co., Ltd. ("Hisense-HK") and Toshiba Corporation. Brightplus denies any remaining allegations of paragraph 3 of Hisense-USA's Complaint.

4. In its communications with Hisense, Brightplus specifically

referenced the Relevant Products and explicitly identified an allegedly infringing claim, and thereby established at least a reasonable apprehension and reasonable potential that Brightplus would file a lawsuit against Plaintiff or its customers, distributors, or end-users alleging infringement of one or more claims of each of the Asserted Patents.

ANSWER: Brightplus admits that its notice letter to Hisense-USA, Hisense-China, and Hisense-HK identified H4, R6, U6, and ULED series televisions (for example, the 40H4030F1, 75R6E3, 50U6G, and U9G models as well as "other products with substantially similar technology") as infringing exemplary claims of the Asserted Patents. Brightplus denies the remaining allegations of paragraph 4 of Hisense-USA's Complaint.

5. The strong likelihood that Brightplus will file a lawsuit is increased by Brightplus's recent lawsuits in the Eastern District of Texas, where Brightplus sued corporations within a month of sending letters referencing relevant products and claiming infringement. *See, e.g., Brightplus Ventures LLC v. TCL Electronics Holding Ltd.*, No. 2:22-CV-194, at ¶ 35 (E.D. Tex. filed June 7, 2022), ECF No. 1; *Brightplus Ventures LLC v. LG Electronics, Inc.*, No. 2:22-CV-170, at ¶ 20 (E.D. Tex. filed May 24, 2022), ECF No. 1.

ANSWER: Brightplus denies the allegations of paragraph 5 of Hisense-USA's Complaint.

6. Brightplus's actions have thus (i) cast uncertainty over Plaintiff's businesses, products, and customers, distributors, or end-users; (ii) injured and are injuring Plaintiff's businesses and business relationships; and (iii) created a concrete and immediate justiciable controversy between Plaintiff and Brightplus. Accordingly, Plaintiff brings this case to clear its name and to protect itself against Brightplus's meritless claims.

ANSWER: Brightplus denies the allegations of paragraph 6 of Hisense-USA's Complaint.

[HISENSE-USA'S ALLEGATION] PARTIES

7. Plaintiff Hisense USA Corporation is a Georgia corporation with a principal place of business at 7310 McGinnis Ferry Road, Suwanee, GA, 30024.

ANSWER: On information and belief, Brightplus admits the allegations of paragraph 7 of Hisense-USA's Complaint.

8. Brightplus Ventures LLC is a Texas limited liability company with a principal place of business at 17330 Preston Road, Suite 200D, Dallas, TX 75252.

ANSWER: Brightplus admits the allegations of paragraph 7 of Hisense-USA's Complaint.

[HISENSE-USA'S ALLEGATION] JURISDICTION AND VENUE

9. This Court has subject matter jurisdiction over this action under 28 U.S.C. §§ 2201, 1331, and 1338(a) because this action arises under the patent laws, and seeks relief under the Federal Declaratory Judgment Act. 28 U.S.C. § 2201.

ANSWER: Brightplus agrees that this Court has subject matter jurisdiction over Hisense-USA's Complaint. Brightplus denies any remaining allegations of paragraph 9 of Hisense-USA's Complaint.

10. Brightplus is subject to personal jurisdiction in the Northern District of Georgia.

ANSWER: Brightplus denies that it is subject to general or specific personal jurisdiction in the Northern District of Georgia.

11. Brightplus recently sent a letter to Hisense, a resident of the District, pressuring Hisense to license the Asserted Patents for the production and sale of products in the District that Brightplus alleges are covered by one or more claims of each of the Asserted Patents. Brightplus also conducted electronic and voice communications with Hisense individuals in Georgia. Upon information and belief,

Brightplus's only business is to license patents and thus Brightplus conducted substantial business in this District.

ANSWER: Brightplus admits that it sent a notice letter to Hisense-USA and offered to participate in licensing discussions with Hisense-USA. Brightplus denies the remaining allegations of paragraph 11 of Hisense-USA's Complaint.

12. Venue is proper in this District pursuant to 28 U.S.C. § 1391.

ANSWER: Brightplus denies the allegations of paragraph 12 of Hisense-USA's Complaint.

[HISENSE-USA'S ALLEGATION] BACKGROUND

13. Hisense USA Corporation is headquartered in Suwanee, GA and its mission is to improve consumers' lives by providing innovative and affordable products through the research and development of electronic products for the home.

ANSWER: On information and belief, Brightplus admits that Hisense-USA is headquartered in Suwanee, GA. Brightplus lacks knowledge or information sufficient to form a belief as to the truth of the rest of the allegations contained in paragraph 13 of Hisense-USA's Complaint, and therefore denies them.

14. Brightplus Ventures LLC was established March 10, 2022 and is a

limited liability company based in Dallas, Texas.

ANSWER: Brightplus admits the allegations of paragraph 14 of Hisense-USA's Complaint.

15. Brightplus purports to own the '812 Patent, entitled "Apparatus and Methods for Conformable Diffuse Reflectors for Solid State Lighting Devices." The '812 Patent issued on April 6, 2010.

ANSWER: Brightplus admits that it owns the '812 Patent, entitled "Apparatus and Methods for Conformable Diffuse Reflectors for Solid State Lighting Devices."

16. Brightplus purports to own the '705 Patent, entitled "LED Backlight System for LCD Displays." The '705 Patent issued on January 18, 2011.

ANSWER: Brightplus admits that it owns the '705 Patent, entitled "LED Backlight System for LCD Displays."

17. Brightplus purports to own the '382 Patent, entitled "Apparatus and Methods for Multiplanar Optical Diffusers and Display Panels for Using the Same." The '382 Patent issued on May 15, 2012.

ANSWER: Brightplus admits that it owns the ’382 Patent, entitled “Apparatus and Methods for Multiplanar Optical Diffusers and Display Panels for Using the Same.”

18. Brightplus purports to own the ’075 Patent, entitled “Solid State Luminaires for General Illumination.” The ’075 Patent issued on October 23, 2012.

ANSWER: Brightplus admits that it owns the ’075 Patent, entitled “Solid State Luminaires for General Illumination.”

19. Brightplus purports to own the ’710 Patent, entitled “Systems and Methods for Controlling a Solid State Lighting Panel.” The ’710 Patent issued on December 11, 2012.

ANSWER: Brightplus admits that it owns the ’710 Patent, entitled “Systems and Methods for Controlling a Solid State Lighting Panel.”

20. Brightplus purports to own the ’331 Patent, entitled “Solid State Lighting Panels with Variable Voltage Boost Current Sources.” The ’331 Patent issued on January 27, 2015.

ANSWER: Brightplus admits that it owns the ’331 Patent, entitled “Solid State Lighting Panels with Variable Voltage Boost Current Sources.”

21. Brightplus purports to own the ’835 Patent, entitled “Solid-State

Luminaires for General Illumination." The '835 Patent issued on March 28, 2017.

ANSWER: Brightplus admits that it owns the '835 Patent, entitled "Solid-State Luminaires for General Illumination."

22. Brightplus purports to own the '598 Patent, entitled "Light Emitting Diode Arrays for Direct Backlighting of Liquid Crystal Displays." The '598 Patent issued on August 9, 2011.

ANSWER: Brightplus admits that it owns the '598 Patent, entitled "Light Emitting Diode Arrays for Direct Backlighting of Liquid Crystal Displays."

23. Brightplus purports to own the '796 Patent, entitled "Light Emitting Diode Arrays for Direct Backlighting of Liquid Crystal Displays." The '796 Patent issued on November 10, 2015.

ANSWER: Brightplus admits that it owns the '796 Patent, entitled "Light Emitting Diode Arrays for Direct Backlighting of Liquid Crystal Displays."

24. On or about May 31, 2022, Brightplus sent a letter to Hisense in Georgia, alleging that Hisense infringed one or more claims of each of the Asserted Patents (the "Demand Letter," which is attached as Ex. J).

ANSWER: Brightplus admits the allegations of paragraph 24 of Hisense-USA's Complaint.

25. In the Demand Letter, Brightplus alleges that making, using, selling, and/or offering for sale the identified Hisense Relevant Products infringe one or more claims of each of the Asserted Patents.

ANSWER: Brightplus admits that its notice letter identified a number of exemplary series and model numbers of Hisense and Toshiba products that infringe claims of the Asserted Patents. Brightplus admits that its notice letter informed Hisense-USA and its Chinese parent Hisense Co. Ltd. ("Hisense-China") and foreign related companies Hisense International (HK) Co., Ltd. ("Hisense-HK") and Toshiba Corporation that making, using, selling, and/or offering for sale those products or "products with substantially similar technology" in the United States, or importing such products into the United States, infringed one or more claims of the Asserted Patents. Brightplus denies that only the above-identified series and model numbers of Hisense and Toshiba products are the only "Relevant Products" since Brightplus's letter expressly noted that these series and model numbers were exemplary and the patents were infringed by "other products with substantially similar technology." Brightplus denies any remaining allegations in paragraph 25 of Hisense-USA's Complaint.

26. Based on the above Demand Letter, Plaintiff has a reasonable apprehension, and there exists a reasonable potential, that Brightplus will file an

action against Plaintiff and allege that Plaintiff has directly infringed one or more claims of each of the Asserted Patents by making, using, selling, and/or offering for sale the Relevant Products.

ANSWER: Brightplus admits that it attempted to initiate a good-faith licensing discussion, only to be sued by Hisense-USA. Brightplus lacks knowledge or information sufficient to form a belief as to the truth of the rest of the allegations contained in paragraph 26 of Hisense-USA's Complaint, and therefore denies them.

27. Plaintiff also has a reasonable apprehension, and there exists a reasonable potential, that Brightplus will file an action against Plaintiff and allege that Plaintiff has actively induced customers, distributors, or end-users to infringe one or more claims of each of the Asserted Patents by, among other things, making available to end-users the Relevant Products.

ANSWER: Brightplus admits that it attempted to initiate a good-faith licensing discussion, only to be sued by Hisense-USA. Brightplus lacks knowledge or information sufficient to form a belief as to the truth of the rest of the allegations contained in paragraph 27 of Hisense-USA's Complaint, and therefore denies them.

28. Plaintiff also has a reasonable apprehension, and there exists a reasonable potential, that Brightplus will file an action against Plaintiff and allege that Plaintiff has contributed to the infringement of one or more claims of each of the Asserted Patents by, among other things, making available to end-users the Relevant Products

ANSWER: Brightplus admits that it attempted to initiate a good-faith licensing discussion, only to be sued by Hisense-USA. Brightplus lacks knowledge or information sufficient to form a belief as to the truth of the rest of the allegations contained in paragraph 28 of Hisense-USA's Complaint, and therefore denies them.

29. However: (i) Plaintiff has not infringed any claim of the Asserted Patents, (ii) the Relevant Products do not infringe any claim of the Asserted Patents, (iii) Plaintiff has not induced others to infringe any claim of the Asserted Patents, and (iv) Plaintiff has not contributed to the infringement by others of any claim of the Asserted Patents.

ANSWER: Brightplus denies the allegations of paragraph 29 of Hisense-USA's Complaint.

30. Brightplus's meritless claims and allegations have (i) cast uncertainty

over Plaintiff's businesses and the Relevant Products, (ii) injured and are injuring Plaintiff's businesses and business relationships, and (iii) created a concrete and immediate justiciable controversy between Plaintiff and Brightplus.

ANSWER: Brightplus denies the allegations of paragraph 30 of Hisense-USA's Complaint.

31. Hisense brings this case to clear its name and to protect its customers, distributors, or end-users against Brightplus's meritless claims of infringement.

ANSWER: Brightplus denies the allegations of paragraph 31 of Hisense-USA's Complaint.

[HISENSE-USA'S ALLEGATION] FIRST CLAIM FOR RELIEF

(Declaratory Judgment of Non-Infringement of the '812 Patent)

32. Plaintiff repeats, realleges, and incorporates the prior allegations of the Complaint as if fully set forth herein.

ANSWER: Brightplus repeats, realleges, and incorporates its responses to Paragraphs 1 through 31 of Hisense-USA's Complaint, as if fully set forth herein.

33. Plaintiff has not infringed, induced others to infringe, or contributed to the infringement by others of any of the independent claims of the '812 Patent, or any of the claims that depend thereupon.

ANSWER: Brightplus denies the allegations of paragraph 33 of Hisense-USA's Complaint.

34. The Relevant Products at least, by way of example, do not literally, or under the doctrine of equivalents, meet the limitation of claim 1 of the '812 Patent that requires: "the reflector sheet configured to conform to a shape of a protruding feature on the tile." (Ex. A, at col. 8, ll. 43-45). The Relevant Products do not infringe because, among other reasons, they do not include the "reflector sheet configured to conform to a shape of a protruding feature on the tile." (Ex. A, at col. 8, ll. 43-45).

ANSWER: Brightplus submits that the claim language of the '812 Patent speaks for itself. Brightplus denies that only the above-identified series and model numbers of Hisense and Toshiba products are the only "Relevant Products" since Brightplus's letter expressly noted that these series and model numbers were exemplary and the patents were infringed by "other products with substantially similar technology." Brightplus denies the remaining allegations of paragraph 34 of Hisense-USA's Complaint.

35. The claim limitation recited by the preceding paragraph is present in independent claim 1 of the '812 Patent, which Brightplus alleges Hisense's

Relevant Products meet.

ANSWER: Brightplus admits that it alleges that Hisense-USA infringes claim 1 of the ’812 Patent. Brightplus submits that the claim language of the ’812 Patent speaks for itself. Brightplus denies any remaining allegations in paragraph 35 of Hisense-USA’s Complaint.

36. Because the Relevant Products do not meet, literally or under the doctrine of equivalents, at least one limitation of the identified independent claim of the ’812 Patent, the manufacture, use, sale, offer for sale, or importation of the Relevant Products does not infringe claim 1 of the ’812 Patent.

ANSWER: Brightplus denies the allegations of paragraph 36 of Hisense-USA’s Complaint.

37. Plaintiff seeks and is entitled to a declaratory judgment that the manufacture, use, sale, offer for sale, or importation of the Relevant Products does not infringe under 35 U.S.C. § 271 (or any sub-section thereof) any claim of the ’812 Patent, literally or under the doctrine of equivalents.

ANSWER: Brightplus denies the allegations of paragraph 37 of Hisense-USA’s Complaint.

38. Plaintiff seeks and is entitled to a declaratory judgment that neither it

nor its customers, distributors, or end-users infringe any claim of the ’812 Patent, literally or under the doctrine of equivalents.

ANSWER: Brightplus denies the allegations of paragraph 38 of Hisense-USA’s Complaint.

39. Plaintiff seeks and is entitled to a declaratory judgment that neither it nor its customers, distributors, or end-users have induced others to infringe or contributed to the infringement by others of any claim of the ’812 Patent, literally or under the doctrine of equivalents.

ANSWER: Brightplus denies the allegations of paragraph 39 of Hisense-USA’s Complaint.

[HISENSE-USA’S ALLEGATION] SECOND CLAIM FOR RELIEF

(Declaratory Judgment of Non-Infringement of the ’705 Patent)

40. Plaintiff repeats, realleges, and incorporates the prior allegations of the Complaint as if fully set forth herein.

ANSWER: Brightplus repeats, realleges, and incorporates its responses to Paragraphs 1 through 39 of Hisense-USA’s Complaint, as if fully set forth herein.

41. Plaintiff has not infringed, induced others to infringe, or contributed to the infringement by others of any of the independent claims of the ’705 Patent, or

any of the claims that depend thereupon.

ANSWER: Brightplus denies the allegations of paragraph 41 of Hisense-USA's Complaint.

42. The Relevant Products at least, by way of example, do not literally or under the doctrine of equivalents meet the limitation of claim 1 of the '705 Patent that requires: "at least one waveguide element comprising a plurality of light entry regions," "a first light-emitting source comprising a first plurality of LEDs arranged in a first strip and positioned to emit light into the at least one waveguide element at a first light entry region of the plurality of light entry regions," and "a second light-emitting source comprising a second plurality of LEDs arranged in a second strip and positioned to emit light into the at least one waveguide element at a second light entry region of the plurality of light entry region." (Ex. B, at col. 13, ll. 36-46). The Relevant Products do not infringe because, among other reasons, they do not include the waveguide element and they do not include "a first light-emitting source comprising a first plurality of LEDs arranged in a first strip and positioned to emit light into the at least one waveguide element at a first light entry region of the plurality of light entry regions" and "a second light-emitting source comprising a second plurality of LEDs arranged in a second strip and positioned to emit light into the at least one waveguide element at a second light entry region of

the plurality of light entry regions." (Ex. B, at col. 13, ll. 38-46).

ANSWER: Brightplus submits that the claim language of the '705 Patent speaks for itself. Brightplus denies that only the above-identified series and model numbers of Hisense and Toshiba products are the only "Relevant Products" since Brightplus's letter expressly noted that these series and model numbers were exemplary and the patents were infringed by "other products with substantially similar technology." Brightplus denies the remaining allegations of paragraph 42 of Hisense-USA's Complaint.

43. The claim limitation recited by the preceding paragraph is present in independent claim 1 of the '705 Patent, which Brightplus alleges Hisense's Relevant Products meet.

ANSWER: Brightplus admits that it alleges that Hisense-USA infringes claim 1 of the '705 Patent. Brightplus submits that the claim language of the '705 Patent speaks for itself. Brightplus denies any remaining allegations in paragraph 43 of Hisense-USA's Complaint.

44. Because the Relevant Products do not meet, literally or under the doctrine of equivalents, at least one limitation of the identified independent claim of the '705 Patent, the manufacture, use, sale, offer for sale, or importation of the

Relevant Products does not infringe claim 1 of the ’705 Patent.

ANSWER: Brightplus denies the allegations of paragraph 44 of Hisense-USA’s Complaint.

45. Plaintiff seeks and is entitled to a declaratory judgment that the manufacture, use, sale, offer for sale, or importation of the Relevant Products does not infringe under 35 U.S.C. § 271 (or any sub-section thereof) any claim of the ’705 Patent, literally or under the doctrine of equivalents.

ANSWER: Brightplus denies the allegations of paragraph 45 of Hisense-USA’s Complaint.

46. Plaintiff seeks and is entitled to a declaratory judgment that neither it nor its customers, distributors, or end-users infringe any claim of the ’705 Patent, literally or under the doctrine of equivalents.

ANSWER: Brightplus denies the allegations of paragraph 46 of Hisense-USA’s Complaint.

47. Plaintiff seeks and is entitled to a declaratory judgment that neither it nor its customers, distributors, or end-users have induced others to infringe or contributed to the infringement by others of any claim of the ’705 Patent, literally or under the doctrine of equivalents.

ANSWER: Brightplus denies the allegations of paragraph 47 of Hisense-USA's Complaint.

[HISENSE-USA'S ALLEGATION] THIRD CLAIM FOR RELIEF

(Declaratory Judgment of Non-Infringement of the '382 Patent)

48. Plaintiff repeats, realleges, and incorporates the prior allegations of the Complaint as if fully set forth herein.

ANSWER: Brightplus repeats, realleges, and incorporates its responses to Paragraphs 1 through 47 of Hisense-USA's Complaint, as if fully set forth herein.

49. Plaintiff has not infringed, induced others to infringe, or contributed to the infringement by others of any of the independent claims of the '382 Patent, or any of the claims that depend thereupon.

ANSWER: Brightplus denies the allegations of paragraph 49 of Hisense-USA's Complaint.

50. The Relevant Products at least, by way of example, do not literally or under the doctrine of equivalents meet the limitation of claim 1 of the '382 Patent that requires: "a second diffusion plane that is a second distance from the plurality of solid state emitters that is different from the first distance" and "the first distance is a function of the third distance." (Ex. C, at col. 8, ll. 56-58; col. 9, ll. 3-

4). The Relevant Products do not infringe because, among other reasons, they do not include the "second diffusion plane that is a second distance from the plurality of solid state emitters that is different from the first distance" and "the first distance is a function of the third distance." (Ex. C, at col. 8, ll. 56-58; col. 9, ll. 3-4).

ANSWER: Brightplus submits that the claim language of the '382 Patent speaks for itself. Brightplus denies that only the above-identified series and model numbers of Hisense and Toshiba products are the only "Relevant Products" since Brightplus's letter expressly noted that these series and model numbers were exemplary and the patents were infringed by "other products with substantially similar technology." Brightplus denies the remaining allegations of paragraph 50 of Hisense-USA's Complaint.

51. The claim limitation recited by the preceding paragraph is present in independent claim 1 of the '382 Patent, which Brightplus alleges Hisense's Relevant Products meet.

ANSWER: Brightplus admits that it alleges that Hisense-USA infringes claim 1 of the '382 Patent. Brightplus submits that the claim language of the '382 Patent speaks for itself. Brightplus denies any remaining allegations in paragraph 51 of Hisense-USA's Complaint.

52. Because the Relevant Products do not meet, literally or under the doctrine of equivalents, at least one limitation of the identified independent claim of the ’382 Patent, the manufacture, use, sale, offer for sale, or importation of the Relevant Products does not infringe claim 1 of the ’382 Patent.

ANSWER: Brightplus denies the allegations of paragraph 52 of Hisense-USA’s Complaint.

53. Plaintiff seeks and is entitled to a declaratory judgment that the manufacture, use, sale, offer for sale, or importation of the Relevant Products does not infringe under 35 U.S.C. § 271 (or any sub-section thereof) any claim of the ’382 Patent, literally or under the doctrine of equivalents.

ANSWER: Brightplus denies the allegations of paragraph 53 of Hisense-USA’s Complaint.

54. Plaintiff seeks and is entitled to a declaratory judgment that neither it nor its customers, distributors, or end-users infringe any claim of the ’382 Patent, literally or under the doctrine of equivalents.

ANSWER: Brightplus denies the allegations of paragraph 54 of Hisense-USA’s Complaint.

55. Plaintiff seeks and is entitled to a declaratory judgment that neither it

nor its customers, distributors, or end-users have induced others to infringe or contributed to the infringement by others of any claim of the ’382 Patent, literally or under the doctrine of equivalents.

ANSWER: Brightplus denies the allegations of paragraph 55 of Hisense-USA’s Complaint.

[HISENSE-USA’S ALLEGATION] FOURTH CLAIM FOR RELIEF

(Declaratory Judgment of Non-Infringement of the ’075 Patent)

56. Plaintiff repeats, realleges, and incorporates the prior allegations of the Complaint as if fully set forth herein.

ANSWER: Brightplus repeats, realleges, and incorporates its responses to Paragraphs 1 through 55 of Hisense-USA’s Complaint, as if fully set forth herein.

57. Plaintiff has not infringed, induced others to infringe, or contributed to the infringement by others of any of the independent claims of the ’075 Patent, or any of the claims that depend thereupon.

ANSWER: Brightplus denies the allegations of paragraph 57 of Hisense-USA’s Complaint.

58. The Relevant Products at least, by way of example, do not literally or under the doctrine of equivalents meet the limitation of claim 1 of the ’075 Patent

that requires: "at least one substrate having a first side parallel to a principal plane of the lighting panel," "a diffuser sheet between the reflector sheet and the brightness enhancement film," and "the reflector sheet, the diffuser sheet and brightness enhancement film extend and are arranged parallel to the principal plane of the lighting panel." (Ex. D, at col. 21, ll. 52-53; col. 21 ll. 66-67; col. 21, ll. 67 to col. 22, ll. 3). The Relevant Products do not infringe because, among other reasons, they do not include the first side parallel to a principal plane of the lighting panel, the diffuser sheet and the reflector sheet extends and is arranged parallel to the principal plane of the lighting panel.

ANSWER: Brightplus submits that the claim language of the '075 Patent speaks for itself. Brightplus denies that only the above-identified series and model numbers of Hisense and Toshiba products are the only "Relevant Products" since Brightplus's letter expressly noted that these series and model numbers were exemplary and the patents were infringed by "other products with substantially similar technology." Brightplus denies the remaining allegations of paragraph 59 of Hisense-USA's Complaint.

59. The claim limitation recited by the preceding paragraph is present in independent claim 1 of the '075 Patent, which Brightplus alleges Hisense's Relevant Products meet.

ANSWER: Brightplus admits that it alleges that Hisense-USA infringes claim 1 of the ’075 Patent. Brightplus submits that the claim language of the ’075 Patent speaks for itself. Brightplus denies any remaining allegations in paragraph 59 of Hisense-USA’s Complaint.

60. Because the Relevant Products do not meet, literally or under the doctrine of equivalents, at least one limitation of the identified independent claim of the ’075 Patent, the manufacture, use, sale, offer for sale, or importation of the Relevant Products does not infringe claim 1 of the ’075 Patent.

ANSWER: Brightplus denies the allegations of paragraph 60 of Hisense-USA’s Complaint.

61. Plaintiff seeks and is entitled to a declaratory judgment that the manufacture, use, sale, offer for sale, or importation of the Relevant Products does not infringe under 35 U.S.C. § 271 (or any sub-section thereof) any claim of the ’075 Patent, literally or under the doctrine of equivalents.

ANSWER: Brightplus denies the allegations of paragraph 61 of Hisense-USA’s Complaint.

62. Plaintiff seeks and is entitled to a declaratory judgment that neither it nor its customers, distributors, or end-users infringe any claim of the ’075 Patent,

literally or under the doctrine of equivalents.

ANSWER: Brightplus denies the allegations of paragraph 62 of Hisense-USA's Complaint.

63. Plaintiff seeks and is entitled to a declaratory judgment that neither it nor its customers, distributors, or end-users have induced others to infringe or contributed to the infringement by others of any claim of the '075 Patent, literally or under the doctrine of equivalents.

ANSWER: Brightplus denies the allegations of paragraph 63 of Hisense-USA's Complaint.

[HISENSE-USA'S ALLEGATION] FIFTH CLAIM FOR RELIEF

(Declaratory Judgment of Non-Infringement of the '710 Patent)

64. Plaintiff repeats, realleges, and incorporates the prior allegations of the Complaint as if fully set forth herein.

ANSWER: Brightplus repeats, realleges, and incorporates its responses to Paragraphs 1 through 63 of Hisense-USA's Complaint, as if fully set forth herein.

65. Plaintiff has not infringed, induced others to infringe, or contributed to the infringement by others of any of the independent claims of the '710 Patent, or any of the claims that depend thereupon.

ANSWER: Brightplus denies the allegations of paragraph 33 of Hisense-USA's Complaint.

66. The Relevant Products at least, by way of example, do not literally or under the doctrine of equivalents meet the limitation of claim 1 of the '710 Patent that requires: "a control system configured to receive a user input and to selectively provide control signals to the current supply circuit responsive to the user input to selectively drive the plurality of strings." (Ex. E, col. 17, ll. 59-62). The Relevant Products do not infringe because, among other reasons, they do not include a control system configured to receive a user input and to selectively provide control signals to the current supply circuit responsive to the user input to selectively drive the plurality of strings.

ANSWER: Brightplus submits that the claim language of the '710 Patent speaks for itself. Brightplus denies that only the above-identified series and model numbers of Hisense and Toshiba products are the only "Relevant Products" since Brightplus's letter expressly noted that these series and model numbers were exemplary and the patents were infringed by "other products with substantially similar technology." Brightplus denies the remaining allegations of paragraph 66 of Hisense-USA's Complaint.

67. The claim limitation recited by the preceding paragraph is present in independent claim 1 of the ’710 Patent, which Brightplus alleges Hisense’s Relevant Products meet.

ANSWER: Brightplus admits that it alleges that Hisense-USA infringes claim 1 of the ’710 Patent. Brightplus submits that the claim language of the ’710 Patent speaks for itself. Brightplus denies any remaining allegations in paragraph 67 of Hisense-USA’s Complaint.

68. Because the Relevant Products do not meet, literally or under the doctrine of equivalents, at least one limitation of the identified independent claim of the ’710 Patent, the manufacture, use, sale, offer for sale, or importation of the Relevant Products does not infringe claim 1 of the ’710 Patent.

ANSWER: Brightplus denies the allegations of paragraph 68 of Hisense-USA’s Complaint.

69. Plaintiff seeks and is entitled to a declaratory judgment that the manufacture, use, sale, offer for sale, or importation of the Relevant Products does not infringe under 35 U.S.C. § 271 (or any sub-section thereof) any claim of the ’710 Patent, literally or under the doctrine of equivalents.

ANSWER: Brightplus denies the allegations of paragraph 69 of Hisense-USA's Complaint.

70. Plaintiff seeks and is entitled to a declaratory judgment that neither it nor its customers, distributors, or end-users infringe any claim of the '710 Patent, literally or under the doctrine of equivalents.

ANSWER: Brightplus denies the allegations of paragraph 70 of Hisense-USA's Complaint.

71. Plaintiff seeks and is entitled to a declaratory judgment that neither it nor its customers, distributors, or end-users have induced others to infringe or contributed to the infringement by others of any claim of the '710 Patent, literally or under the doctrine of equivalents.

ANSWER: Brightplus denies the allegations of paragraph 71 of Hisense-USA's Complaint.

[HISENSE-USA'S ALLEGATION] SIXTH CLAIM FOR RELIEF

(Declaratory Judgment of Non-Infringement of the '331 Patent)

72. Plaintiff repeats, realleges, and incorporates the prior allegations of the Complaint as if fully set forth herein.

ANSWER: Brightplus repeats, realleges, and incorporates its responses to Paragraphs 1 through 71 of Hisense-USA's Complaint, as if fully set forth herein.

73. Plaintiff has not infringed, induced others to infringe, or contributed to the infringement by others of any of the independent claims of the '331 Patent, or any of the claims that depend thereupon.

ANSWER: Brightplus denies the allegations of paragraph 73 of Hisense-USA's Complaint.

74. The Relevant Products at least, by way of example, do not literally or under the doctrine of equivalents meet the limitation of claim 17 of the '331 Patent that requires: "a lighting panel including at least first and second strings of solid state lighting devices that are respectively configured to emit at least a first light and a second light, respectively" and "a pulse width modulation (PWM) controller that is coupled to the first current supply circuit and the second current supply circuit and that is configured to generate, for each of the first current supply circuit and the second current supply circuit, a first PWM control signal and a second PWM control signal that are supplied to the each of the at least first and second strings." (Ex. F, at col. 17, ll. 18-21; col. 17, ll. 27-33). The Relevant Products do not infringe because, among other reasons, they do not include "first and second

strings of solid state lighting devices that are respectively configured to emit at least a first light and a second light, respectively" and they do not include "a pulse width modulation (PWM) controller" which "is configured to generate, for each of the first current supply circuit and the second current supply circuit, a first PWM control signal and a second PWM control signal." (Ex. F, at col. 17, ll. 18-21; col. 17, ll. 27; col. 17, ll. 29-32).

ANSWER: Brightplus submits that the claim language of the '331 Patent speaks for itself. Brightplus denies that only the above-identified series and model numbers of Hisense and Toshiba products are the only "Relevant Products" since Brightplus's letter expressly noted that these series and model numbers were exemplary and the patents were infringed by "other products with substantially similar technology." Brightplus denies the remaining allegations of paragraph 74 of Hisense-USA's Complaint.

75. The claim limitation recited by the preceding paragraph is present in independent claim 17 of the '331 Patent, which Brightplus alleges Hisense's Relevant Products meet.

ANSWER: Brightplus admits that it alleges that Hisense-USA infringes claim 17 of the '331 Patent. Brightplus submits that the claim language of the '331 Patent

speaks for itself. Brightplus denies any remaining allegations in paragraph 75 of Hisense-USA's Complaint.

76. Because the Relevant Products do not meet, literally or under the doctrine of equivalents, at least one limitation of the identified independent claim of the '331 Patent, the manufacture, use, sale, offer for sale, or importation of the Relevant Products does not infringe claim 17 of the '331 Patent.

ANSWER: Brightplus denies the allegations of paragraph 76 of Hisense-USA's Complaint.

77. Plaintiff seeks and is entitled to a declaratory judgment that the manufacture, use, sale, offer for sale, or importation of the Relevant Products does not infringe under 35 U.S.C. § 271 (or any sub-section thereof) any claim of the '331 Patent, literally or under the doctrine of equivalents.

ANSWER: Brightplus denies the allegations of paragraph 77 of Hisense-USA's Complaint.

78. Plaintiff seeks and is entitled to a declaratory judgment that neither it nor its customers, distributors, or end-users infringe any claim of the '331 Patent, literally or under the doctrine of equivalents.

ANSWER: Brightplus denies the allegations of paragraph 78 of Hisense-USA's Complaint.

79. Plaintiff seeks and is entitled to a declaratory judgment that neither it nor its customers, distributors, or end-users have induced others to infringe or contributed to the infringement by others of any claim of the '331 Patent, literally or under the doctrine of equivalents.

ANSWER: Brightplus denies the allegations of paragraph 79 of Hisense-USA's Complaint.

[HISENSE-USA'S ALLEGATION] SEVENTH CLAIM FOR RELIEF

(Declaratory Judgment of Non-Infringement of the '835 Patent)

80. Plaintiff repeats, realleges, and incorporates the prior allegations of the Complaint as if fully set forth herein.

ANSWER: Brightplus repeats, realleges, and incorporates its responses to Paragraphs 1 through 79 of Hisense-USA's Complaint, as if fully set forth herein.

81. Plaintiff has not infringed, induced others to infringe, or contributed to the infringement by others of any of the independent claims of the '835 Patent, or any of the claims that depend thereupon.

ANSWER: Brightplus denies the allegations of paragraph 81 of Hisense-USA's Complaint.

82. The Relevant Products at least, by way of example, do not literally or under the doctrine of equivalents meet the limitation of claim 1 of the '835 Patent that requires: "at least one substrate having a first side parallel to a principal plane of the lighting panel" and "a generally planar diffuser sheet between the reflector and the brightness enhancement film." (Ex. G, at col. 22, ll. 34-35; col. 22, ll. 48-49). The Relevant Products do not infringe because, among other reasons, they do not include the first side parallel to a principal plane of the lighting panel and the generally planar diffuser sheet.

ANSWER: Brightplus submits that the claim language of the '835 Patent speaks for itself. Brightplus denies that only the above-identified series and model numbers of Hisense and Toshiba products are the only "Relevant Products" since Brightplus's letter expressly noted that these series and model numbers were exemplary and the patents were infringed by "other products with substantially similar technology." Brightplus denies the remaining allegations of paragraph 82 of Hisense-USA's Complaint.

83. The claim limitation recited by the preceding paragraph is present in

independent claim 1 of the ’835 Patent, which Brightplus alleges Hisense’s Relevant Products meet.

ANSWER: Brightplus admits that it alleges that Hisense-USA infringes claim 1 of the ’835 Patent. Brightplus submits that the claim language of the ’835 Patent speaks for itself. Brightplus denies any remaining allegations in paragraph 83 of Hisense-USA’s Complaint.

84. Because the Relevant Products do not meet, literally or under the doctrine of equivalents, at least one limitation of the identified independent claim of the ’835 Patent, the manufacture, use, sale, offer for sale, or importation of the Relevant Products does not infringe claim 1 of the ’835 Patent.

ANSWER: Brightplus denies the allegations of paragraph 84 of Hisense-USA’s Complaint.

85. Plaintiff seeks and is entitled to a declaratory judgment that the manufacture, use, sale, offer for sale, or importation of the Relevant Products does not infringe under 35 U.S.C. § 271 (or any sub-section thereof) any claim of the ’835 Patent, literally or under the doctrine of equivalents.

ANSWER: Brightplus denies the allegations of paragraph 85 of Hisense-USA’s Complaint.

86. Plaintiff seeks and is entitled to a declaratory judgment that neither it nor its customers, distributors, or end-users infringe any claim of the ’835 Patent, literally or under the doctrine of equivalents.

ANSWER: Brightplus denies the allegations of paragraph 86 of Hisense-USA’s Complaint.

87. Plaintiff seeks and is entitled to a declaratory judgment that neither it nor its customers, distributors, or end-users have induced others to infringe or contributed to the infringement by others of any claim of the ’835 Patent, literally or under the doctrine of equivalents.

ANSWER: Brightplus denies the allegations of paragraph 87 of Hisense-USA’s Complaint.

[HISENSE-USA’S ALLEGATION] EIGHTH CLAIM FOR RELIEF

(Declaratory Judgment of Non-Infringement of the ’598 Patent)

88. Plaintiff repeats, realleges, and incorporates the prior allegations of the Complaint as if fully set forth herein.

ANSWER: Brightplus repeats, realleges, and incorporates its responses to Paragraphs 1 through 87 of Hisense-USA’s Complaint, as if fully set forth herein.

89. Plaintiff has not infringed, induced others to infringe, or contributed to

the infringement by others of any of the independent claims of the ’598 Patent, or any of the claims that depend thereupon.

ANSWER: Brightplus denies the allegations of paragraph 89 of Hisense-USA’s Complaint.

90. The Relevant Products at least, by way of example, do not literally or under the doctrine of equivalents meet the limitation of claim 43 of the ’598 Patent that requires: “a front face comprising a planar array of liquid crystal display (LCD) devices” and “wherein the at least one solid block comprises a plurality of solid block tiles that are arranged in an array that is congruent to the planar array of LCD devices.” (Ex. H, at col. 13, ll. 35-36; col. 13, ll. 43-45). The Relevant Products do not infringe because, among other reasons, they do not include at least one solid block comprises a plurality of solid block tiles that are arranged in an array that is congruent to the planar array of LCD devices.

ANSWER: Brightplus submits that the claim language of the ’598 Patent speaks for itself. Brightplus denies that only the above-identified series and model numbers of Hisense and Toshiba products are the only “Relevant Products” since Brightplus’s letter expressly noted that these series and model numbers were exemplary and the patents were infringed by “other products with substantially

similar technology." Brightplus denies the remaining allegations of paragraph 90 of Hisense-USA's Complaint.

91. The claim limitation recited by the preceding paragraph is present in independent claim 43 of the '598 Patent, which Brightplus alleges Hisense's Relevant Products meet.

ANSWER: Brightplus admits that it alleges that Hisense-USA infringes claim 43 of the '598 Patent. Brightplus submits that the claim language of the '598 Patent speaks for itself. Brightplus denies any remaining allegations in paragraph 91 of Hisense-USA's Complaint.

92. Because the Relevant Products do not meet, literally or under the doctrine of equivalents, at least one limitation of the identified independent claim of the '598 Patent, the manufacture, use, sale, offer for sale, or importation of the Relevant Products does not infringe claim 43 of the '598 Patent.

ANSWER: Brightplus denies the allegations of paragraph 92 of Hisense-USA's Complaint.

93. Plaintiff seeks and is entitled to a declaratory judgment that the manufacture, use, sale, offer for sale, or importation of the Relevant Products does not infringe under 35 U.S.C. § 271 (or any sub-section thereof) any claim of the

’598 Patent, literally or under the doctrine of equivalents.

ANSWER: Brightplus denies the allegations of paragraph 93 of Hisense-USA’s Complaint.

94. Plaintiff seeks and is entitled to a declaratory judgment that neither it nor its customers, distributors, or end-users infringe any claim of the ’598 Patent, literally or under the doctrine of equivalents.

ANSWER: Brightplus denies the allegations of paragraph 94 of Hisense-USA’s Complaint.

95. Plaintiff seeks and is entitled to a declaratory judgment that neither it nor its customers, distributors, or end-users have induced others to infringe or contributed to the infringement by others of any claim of the ’598 Patent, literally or under the doctrine of equivalents.

ANSWER: Brightplus denies the allegations of paragraph 95 of Hisense-USA’s Complaint.

[HISENSE-USA’S ALLEGATION] NINTH CLAIM FOR RELIEF

(Declaratory Judgment of Non-Infringement of the ’796 Patent)

96. Plaintiff repeats, realleges, and incorporates the prior allegations of the Complaint as if fully set forth herein.

ANSWER: Brightplus repeats, realleges, and incorporates its responses to Paragraphs 1 through 95 of Hisense-USA's Complaint, as if fully set forth herein.

97. Plaintiff has not infringed, induced others to infringe, or contributed to the infringement by others of any of the independent claims of the '796 Patent, or any of the claims that depend thereupon.

ANSWER: Brightplus denies the allegations of paragraph 97 of Hisense-USA's Complaint.

98. The Relevant Products at least, by way of example, do not literally or under the doctrine of equivalents meet the limitation of claim 45 of the '796 Patent that requires: "the plurality of solid metal block tiles being connected end-to-end in the flat panel, the plurality of solid metal block tiles including mating surfaces therebetween" and "wherein the second face includes therein a plurality of metal heat sink fins." (Ex. I, at col. 12, ll. 67 to col. 13, ll. 3; col. 13, ll. 31-32). The Relevant Products do not infringe because, among other reasons, the plurality of solid metal block tiles is not being connected end-to-end, the solid metal block tiles are separated, and the solid metal block tiles do not include mating surfaces therebetween the second face do not include metal heat sink fins.

ANSWER: Brightplus submits that the claim language of the ’796 Patent speaks for itself. Brightplus denies that only the above-identified series and model numbers of Hisense and Toshiba products are the only “Relevant Products” since Brightplus’s letter expressly noted that these series and model numbers were exemplary and the patents were infringed by “other products with substantially similar technology.” Brightplus denies the remaining allegations of paragraph 98 of Hisense-USA’s Complaint.

99. The claim limitation recited by the preceding paragraph is present in independent claim 45 of the ’796 Patent, which Brightplus alleges Hisense’s Relevant Products meet.

ANSWER: Brightplus submits that the claim language of the ’796 Patent speaks for itself. Brightplus denies any remaining allegations in paragraph 99 of Hisense-USA’s Complaint.

100. Because the Relevant Products do not meet, literally or under the doctrine of equivalents, at least one limitation of the identified independent claim of the ’796 Patent, the manufacture, use, sale, offer for sale, or importation of the Relevant Products does not infringe claim 45 of the ’796 Patent.

ANSWER: Brightplus denies the allegations of paragraph 100 of Hisense-USA's Complaint.

101. Plaintiff seeks and is entitled to a declaratory judgment that the manufacture, use, sale, offer for sale, or importation of the Relevant Products does not infringe under 35 U.S.C. § 271 (or any sub-section thereof) any claim of the '796 Patent, literally or under the doctrine of equivalents.

ANSWER: Brightplus denies the allegations of paragraph 101 of Hisense-USA's Complaint.

102. Plaintiff seeks and is entitled to a declaratory judgment that neither it nor its customers, distributors, or end-users infringe any claim of the '796 Patent, literally or under the doctrine of equivalents.

ANSWER: Brightplus denies the allegations of paragraph 102 of Hisense-USA's Complaint.

103. Plaintiff seeks and is entitled to a declaratory judgment that neither it nor its customers, distributors, or end-users have induced others to infringe or contributed to the infringement by others of any claim of the '796 Patent, literally or under the doctrine of equivalents.

ANSWER: Brightplus denies the allegations of paragraph 103 of Hisense-USA's Complaint.

RESPONSE TO HISENSE-USA'S REQUEST FOR RELIEF

Brightplus denies that Hisense-USA is entitled to any of the requested relief and denies any and all allegations contained within the Prayer for Relief of the Complaint. Brightplus requests a judgment in its favor denying Hisense-USA all relief requested in its Complaint and dismissing all of Hisense-USA's Counts with prejudice.

Brightplus denies all remaining allegations not specifically admitted herein.

DEMAND FOR JURY TRIAL

Pursuant to Rule 38 of the Fed. R. Civ. Proc., Brightplus hereby demands trial by jury in this action of all claims so triable.

COUNTERCLAIMS

Counter-Claim Plaintiff Brightplus Ventures LLC ("Brightplus") hereby counterclaims against Counter-Claim Defendants Hisense USA Corporation ("Hisense-USA"), Hisense Co. Ltd. ("Hisense-China"), Hisense International (HK) Co., Ltd. ("Hisense-HK"), Hisense Visual Technology Co., Ltd. ("Hisense-Visual"), and TVS REGZA Corporation ("TVS") (collectively, "Hisense" or

"Defendants") as follows:

PARTIES

1. Brightplus Ventures LLC is a limited liability company organized and existing under the laws of the State of Texas, having its principal place of business at 17330 Preston Road, Suite 200D, Dallas, Texas 75252.

2. Hisense USA Corporation is a Georgia corporation with a principal place of business at 7310 McGinnis Ferry Road, Suwanee, GA, 30024.

3. On information and belief, Hisense Co. Ltd. is a corporation organized and existing under the laws of the People's Republic of China ("PRC" or "China") with its principal place of business at Hisense Tower, No. 17 Donghaixi Road, Qingdao, Shandong Province, 266071, China.

4. On information and belief, Hisense International (HK) Co., Ltd. is a corporation organized and existing under the laws of the Honk Kong, China with its principal place of business at Room 3101-3105, Singga Commercial Centre, No. 148 Connaught Road West, Hong Kong, China.

5. On information and belief, Hisense Visual Technology Co., Ltd. is a corporation organized and existing under the laws of China with its principal place of business at No. 218, Qianwangang Road, Economic and Technological Development Zone, Qingdao, Shandong Province, 266555, China.

6. On information and belief, TVS REGZA Corporation is a corporation organized and existing under the laws of Japan with its principal place of business at 1-chōme-1-2 Kashimada, Saiwai Ward, Kawasaki, Kanagawa 212-0058, Japan.

7. On information and belief, Hisense Co. Ltd. is the ultimate parent company of all of the other named defendants, and as the ultimate parent, induces its subsidiaries, affiliates, retail partners, and customers in the making, using, selling, offering for sale, and/or importing of products accused of infringement in these Counterclaims through its subsidiaries.

8. On information and belief, Defendants are part of the same corporate structure and distribution chain for making, using, selling, offering for sale, and/or importing the accused displays and televisions in the United States, including in this State and this District. Defendants do business as a collective whole in the designing, developing, manufacturing, importing, distributing, offering for sale, and selling of Hisense and/or Toshiba-branded displays and television.

9. Defendants form an interrelated group of companies which together comprise one of the largest makers and sellers of televisions in the world. Defendants are part of the same corporate structure and distribution chain for the making, importing, offering to sell, selling, and using of the accused devices in the United States, including in the State of Georgia generally and this District in

particular. On information and belief, Defendants (and their affiliates) share the same management, common ownership, advertising platforms, facilities, distribution chains and platforms, and accused product lines and products involving related technologies. Thus, Defendants (and their affiliates and subsidiaries) operate as a unitary business and are jointly and severally liable for the acts of patent infringement alleged herein.

JURISDICTION AND VENUE

10. This is an action under the patent laws of the United States, 35 U.S.C. §§ 1, *et seq.*, for infringement by Hisense of claims of U.S. Patent No. 7,690,812; U.S. Patent No. 7,872,705; U.S. Patent No. 8,177,382; U.S. Patent No. 8,294,075; U.S. Patent No. 8,330,710; U.S. Patent No. 8,941,331; U.S. Patent No. 9,605,835; U.S. Reissued Patent No. RE42,598; and U.S. Reissued Patent No. RE45,796 (collectively "the Patents-in-Suit").

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

12. Hisense-USA is subject to personal jurisdiction of this Court because, *inter alia*, on information and belief, (i) Hisense-USA maintains a regular and established place of business in Georgia in this Judicial District at 7310 McGinnis Ferry Road, Suwanee, GA, 30024 and 105 Satellite Blvd Suite I, Suwanee, GA,

30024; (ii) Hisense-USA has committed and continues to commit acts of patent infringement in the State of Georgia, including by making, using, offering to sell, selling, and/or importing the accused products into Georgia; (iii) Hisense-USA purposefully supplies and directs the accused products for storage, warehousing, and sales by distributors and resellers in the State of Georgia; (iv) Hisense-USA delivers its products into the stream of commerce with the expectation that they will be purchased by consumers in the State of Georgia; (v) Hisense-USA derives substantial revenue from its activities in this District; (vi) Hisense-USA has purposefully established substantial, systematic and continuous contacts with this District such that it should reasonably expect to be haled into court in this District; and (vii) Hisense-USA consents to personal jurisdiction of this Court by virtue of filing its Complaint. For example, Hisense-USA has registered with the Georgia Secretary of State to do business in the State of Georgia and has appointed a registered agent for service of process in the State of Georgia.

13. Hisense-China, Hisense-HK, Hisense-Visual, and TVS individually and collectively are subject to personal jurisdiction of this Court because, *inter alia*, on information and belief, (i) Hisense-China, Hisense-HK, Hisense-Visual, and TVS, directly or through affiliates, subsidiaries, agents, or intermediaries, has committed and continues to commit acts of patent infringement in the State of

Georgia, including by making, using, offering to sell, selling, and/or importing the accused products into Georgia; (ii) Hisense-China, Hisense-HK, Hisense-Visual, and TVS, directly or through affiliates, subsidiaries, agents, or intermediaries, purposefully supplies and directs the accused products for storage, warehousing, and sales by distributors and resellers in the State of Georgia; and (iii) Hisense-China, Hisense-HK, Hisense-Visual, and TVS, directly or through affiliates, subsidiaries, agents, or intermediaries, delivers its products into the stream of commerce with the expectation that they will be purchased by consumers in the State of Georgia. For example, Hisense products have been sold and are available for sale in this District at retail stores, and are also available for sale and offered for sale in this District through online retailers. Hisense also advertise their infringing products to consumers in this State and this District through the Hisense.com website. *See*, *e.g.*, https://global.hisense.com/tv. *See also* https://www.toshibatv-usa.com/tvs. In addition, or in the alternative, this Court has personal jurisdiction over Hisense-China, Hisense-HK, Hisense-Visual, and TVS pursuant to Fed. R. Civ. P. 4(k)(2).

14. Personal jurisdiction also exists specifically over each of the Defendants because, on information belief, they are commonly controlled, have interlocking corporate structures, and close relationships as manufacturers,

importers, and distributors of accused products.

15. Venue is proper as to Hisense-China, Hisense-HK, Hisense-Visual, and TVS in this District under 28 U.S.C. § 1391(c) because, *inter alia*, Hisense-China, Hisense-HK, Hisense-Visual, and TVS are foreign corporations.

16. Venue is proper as to Hisense-USA in this District under 28 U.S.C. § 1400(b) because, *inter alia*, on information and belief, Hisense-USA has a regular and established place of business in this Judicial District at 7310 McGinnis Ferry Road, Suwanee, GA, 30024 and 105 Satellite Blvd Suite I, Suwanee, GA, 30024, has committed acts of infringement in the District and/or has contributed to or induced acts of patent infringement by others in this District, and consents to venue in this District by virtue of filing its Complaint.

BACKGROUND

17. On April 6, 2010, the United States Patent and Trademark Office duly and lawfully issued U.S. Patent No. 7,690,812 ("the '812 Patent"), entitled "Apparatus And Methods For Conformable Diffuse Reflectors For Solid State Lighting Devices."

18. On January 18, 2011, the United States Patent and Trademark Office duly and lawfully issued U.S. Patent No. 7,872,705 ("the '705 Patent"), entitled "LED Backlight System For LCD Displays."

19. On May 15, 2012, the United States Patent and Trademark Office duly and lawfully issued U.S. Patent No. 8,177,382 ("the '382 Patent"), entitled "Apparatus And Methods For Multiplanar Optical Diffusers And Display Panels For Using The Same."

20. On October 23, 2012, the United States Patent and Trademark Office duly and lawfully issued U.S. Patent No. 8,294,075 ("the '075 Patent"), entitled "Solid State Luminaires For General Illumination."

21. On December 11, 2012, the United States Patent and Trademark Office duly and lawfully issued U.S. Patent No. 8,330,710 ("the '710 Patent"), entitled "Systems And Methods For Controlling A Solid State Lighting Panel."

22. On January 27, 2015, the United States Patent and Trademark Office duly and lawfully issued U.S. Patent No. 8,941,331 ("the '331 Patent"), entitled "Solid State Lighting Panels With Variable Voltage Boost Current Sources."

23. On March 28, 2017, the United States Patent and Trademark Office duly and lawfully issued U.S. Patent No. 9,605,835 ("the '835 Patent"), entitled "Solid-State Luminaires For General Illumination."

24. On August 9, 2011, the United States Patent and Trademark Office duly and lawfully issued U.S. Patent No. RE42,598 ("the '598 Patent"), entitled "Light Emitting Diode Arrays For Direct Backlighting Of Liquid Crystal

Displays."

25. On November 10, 2015, the United States Patent and Trademark Office duly and lawfully issued U.S. Reissued Patent No. RE45,796 ("the '796 Patent"), entitled "Light Emitting Diode Arrays For Direct Backlighting Of Liquid Crystal Displays."

26. Brightplus is the assignee and owner of the right, title, and interest in and to the Patents-in-Suit, including the right to assert all causes of action arising under said patents and the right to any remedies for infringement of them.

NOTICE

27. By letter dated May 31, 2022, Brightplus notified Hisense and Toshiba Corporation of the existence of the Patents-in-Suit and of Hisense's infringement of the Patents-in-Suit. Brightplus's letters identified exemplary infringed claims and exemplary infringing Hisense and Toshiba products.

28. Hisense has admitted, in its Complaint (Dkt. 1), to receiving notice of infringement of the Patents-in-Suit.

29. Hisense has infringed and continues to infringe the Patents-in-Suit by making, using, selling, or offering for sale in the United States, or importing into the United States televisions, monitors, displays, and products with lighting unit technology claimed in the Patents-in-Suit. The following is a non-exhaustive

listing of Accused Products: Hisense A4 Series, A6 Series, U6 Series, U7 Series, U8 Series, U9 Series, R6 Series, and H4 Series televisions, and Toshiba M550 Series, C350 Series, and V35 Series Televisions.

COUNT I: INFRINGEMENT OF THE '812 PATENT BY HISENSE

30. Plaintiff incorporates the preceding paragraphs as if fully set forth herein.

31. On information and belief, Hisense has infringed the '812 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, offering to sell, selling in the United States or importing into the United States the Accused Products and all other substantially similar displays and/or lighting units contained therein.

32. For example, on information and belief, Hisense has infringed and continues to infringe at least claim 1 of the '812 Patent by making, using, offering to sell, selling in the United States, or importing into the United States the Accused Products, such as the Hisense/Toshiba 55M550KU television. The Accused Products include a solid state lighting tile. Exs. 1-5 (the Hisense/Toshiba 55M550KU includes a backlighting tile). The Accused Products' solid state lighting tile include a substrate. Ex. 6 (the Hisense/Toshiba 55M550KU solid state lighting tile includes a substrate). The Accused Products' solid state lighting tile

further include a solid state lighting element mounted on a surface of the substrate. Exs. 6-7 (the Hisense/Toshiba 55M550KU solid state lighting tile is mounted on the surface of the substrate). The Accused Products' solid state lighting tile further include a reflector sheet on the surface of the substrate, the reflector sheet configured to conform to a shape of a protruding feature on the tile. Exs. 4, 8 (the Hisense/Toshiba 55M550KU solid state lighting tile includes a reflector sheet on the surface of the substrate that conforms to a shape of a protruding feature on the tile, *e.g.*, a wire interconnect).

33. On information and belief, Hisense has induced infringement of the '812 Patent pursuant to 35 U.S.C. § 271(b), by actively and knowingly inducing, directing, causing, and encouraging others, including, but not limited to, its partners, resellers, distributers, customers, and end users, to make, use, sell, and/or offer to sell in the United States, and/or import into the United States, the Accused Products by, among other things, providing the accused products and incorporated lighting unit technology, specifications, instructions, manuals, advertisements, marketing materials, and technical assistance relating to the installation, set up, use, operation, and maintenance of said products.

34. On information and belief, Hisense has infringed the '812 Patent pursuant to 35 U.S.C. § 271(g), literally or under the doctrine of equivalents, by

importing into the United States or offering to sell, selling, or using within the United States the Accused Products and all other substantially similar displays and/or lighting units contained therein which are made by a patented process claimed by the ’812 Patent.

35. For example, on information and belief, Hisense has infringed and continues to infringe at least claim 15 of the ’812 Patent by importing into the United States or offering to sell, selling, or using within the United States the Accused Products, such as the Hisense/Toshiba 55M550KU television, that are made by a method of forming a solid state lighting device. Exs. 1-5 (making the Hisense/Toshiba 55M550KU includes forming a solid state lighting device). The method of forming a solid state lighting device comprises providing a substrate of a solid state lighting tile. Ex. 6 (forming the Hisense/Toshiba 55M550KU LED lighting device includes providing a substrate of a solid state lighting tile). The method of forming a solid state lighting device comprises mounting a solid state lighting element on a surface of the substrate. Exs. 6-7 (forming the Hisense/Toshiba 55M550KU LED lighting device includes mounting LEDs on the surface of the substrate). The method of forming a solid state lighting device comprises positioning a reflector sheet on the surface of the substrate, the reflector sheet configured to conform to a shape of a protruding feature on the solid state

lighting tile. Exs. 4, 8 (forming the Hisense/Toshiba 55M550KU solid state lighting device includes positioning a reflector sheet on the surface of the substrate that conforms to a shape of a protruding feature on the tile, *e.g.*, a wire interconnect).

36. On information and belief, Hisense has committed the foregoing infringing activities without a license.

37. On information and belief, Hisense knew the ’812 Patent existed and knew of exemplary infringing Hisense products while committing the foregoing infringing acts thereby willfully, wantonly and deliberately infringing the ’812 Patent.

COUNT II: INFRINGEMENT OF THE ’705 PATENT BY HISENSE

38. Plaintiff incorporates the preceding paragraphs as if fully set forth herein.

39. On information and belief, Hisense has infringed the ’705 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, offering to sell, selling in the United States or importing into the United States the Accused Products and all other substantially similar displays and/or lighting units contained therein.

40. For example, on information and belief, Hisense has infringed and

continues to infringe at least claim 1 of the ’705 Patent by making, using, offering to sell, selling in the United States, or importing into the United States the Accused Products, such as the Hisense/Toshiba 55M550KU television. The Accused Products include a liquid crystal display (LCD) system comprising a LCD panel. Exs. 1-2, 9 (the Hisense/Toshiba 55M550KU includes an LCD system comprising an LCD panel). The Accused Products’ LCD system further include at least one waveguide element comprising a plurality of light entry regions. Exs. 4, 10-11 (the Hisense/Toshiba 55M550KU includes at least one waveguide element comprising a plurality of light entry regions). The Accused Products’ LCD system further include a first light-emitting source comprising a first plurality of LEDs arranged in a first strip and positioned to emit light into the at least one waveguide element at a first light entry region of the plurality of light entry regions. Exs. 7, 11-12 (the Hisense/Toshiba 55M550KU includes a first light emitting source comprising a plurality of LEDs arranged in a first strip; the LEDs are positioned to emit light into the at least one waveguide element at a first light entry region of the plurality of light entry regions). The Accused Products’ LCD system further include a second light-emitting source comprising a second plurality of LEDs arranged in a second strip and positioned to emit light into the at least one waveguide element at a second light entry region of the plurality of light entry regions. Exs. 7, 11-12 (the

Hisense/Toshiba 55M550KU includes a second light-emitting source comprising a second plurality of LEDs arranged in a second strip; the LEDs are positioned to emit light into the at least one waveguide element at a second light entry region of the plurality of light entry regions). The Accused Products' LCD system further include a common control circuit in electrical communication with at least one of the first plurality of LEDs and the second plurality of LEDs. Exs. 13-14 (the Hisense/Toshiba 55M550KU includes a common control circuit in electrical communication with the first strip of plurality of LEDs and the second strip of plurality of LEDs).

41. On information and belief, Hisense has induced infringement of the '705 Patent pursuant to 35 U.S.C. § 271(b), by actively and knowingly inducing, directing, causing, and encouraging others, including, but not limited to, its partners, resellers, distributers, customers, and end users, to make, use, sell, and/or offer to sell in the United States, and/or import into the United States, the Accused Products by, among other things, providing the accused products and incorporated lighting unit technology, specifications, instructions, manuals, advertisements, marketing materials, and technical assistance relating to the installation, set up, use, operation, and maintenance of said products.

42. On information and belief, Hisense has committed the foregoing

infringing activities without a license.

43. On information and belief, Hisense knew the ’705 Patent existed and knew of exemplary infringing Hisense products while committing the foregoing infringing acts thereby willfully, wantonly and deliberately infringing the ’705 Patent.

COUNT III: INFRINGEMENT OF THE ’382 PATENT BY HISENSE

44. Plaintiff incorporates the preceding paragraphs as if fully set forth herein.

45. On information and belief, Hisense has infringed the ’382 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, offering to sell, selling in the United States or importing into the United States the Accused Products and all other substantially similar displays and/or lighting units contained therein performing a method of providing diffused light as claimed in the ’382 Patent.

46. For example, on information and belief, Hisense has infringed and continues to infringe at least claim 1 of the ’382 Patent by making, using, offering to sell, selling in the United States, or importing into the United States the Accused Products, such as the Hisense 75R6E3 television. The Accused Products include a solid state lighting device. Exs. 15-17 (the Hisense 75R6E3 includes a solid state

lighting device, *e.g.*, a backlighting device using light emitting diodes (LEDs)). The Accused Products' solid state lighting device further comprises a plurality of solid state light emitters that are configured to emit light. Exs. 17-18 (the Hisense 75R6E3 solid state lighting device includes solid state light emitters, *e.g.*, light emitting diodes (LEDs), that are configured to emit light). The Accused Products' solid state lighting device further comprises a multiplane light diffuser including a first diffusion plane that is a first distance from the plurality of solid state emitters and a second diffusion plane that is a second distance from the plurality of solid state emitters that is different from the first distance, the multiplane light diffuser including first side that corresponds to the first plane and that is configured to receive the light emitted from the plurality of solid state light emitters and a second side that corresponds to the second plane and that is configured to transmit diffused light. Ex. 19 (the Hisense 75R6E3 solid state lighting device includes a multiplane light diffuser including a first diffusion plane); Exs. 20-21 (in the Hisense 75R6E3, the first diffusion plane is a first distance, *e.g.*, approximately 19.49 mm, from the solid state emitters), Ex. 19 (the Hisense 75R6E3 multiplane light diffuser also includes a second diffusion plane); Exs. 21-22 (in the Hisense 75R6E3, the second diffusion plane is a second distance, *e.g.*, approximately 21.49 mm, from the solid state emitters, made up of the distance to the first diffusion plane, approximately

19.49 mm plus the thickness of the first diffusion plane, approximately 2 mm; in the Hisense 75R6E3, the second distance of approximately 21.49 mm is different from the first distance of approximately 19.49 mm); Ex. 19 (in the Hisense 75R6E3, the first side of the first diffusion plane that is closest to the solid state light emitters (LEDs) is configured to receive the lighted emitted from them; and the second side that corresponds to the second plane is the side of the second diffusion plane discussed above farthest from the LEDs and is configured to transmit the diffused light). The Accused Products' multiplane light diffuser comprises a diffuser plate that includes the first side of the multiplane light, the diffuser plate configured to define the first diffusion plane. Ex. 19 (the Hisense 75R6E3 multiplane light diffuser includes a diffuser plate that is configured to define the first diffusion plane and includes the first side of the multiplane light diffusor discussed above). The Accused Products' plurality of solid state emitters comprise a third distance between adjacent ones of the plurality of solid state light emitters, and wherein the first distance is a function of the third distance. Exs. 21, 23 (the Hisense 75R6E3 solid state emitters discussed above comprise a third distance, *e.g.*, approximately 126.15 mm, between adjacent solid state light emitters; in the Hisense 75R6E3, the first distance, *e.g.*, approximately 19.49 mm, is a function of the third distance. This function may be based on a number of

variables including the optical properties of the LEDs and caps incapsulating them, diffusion, reflection, and scattering factors of various layers, and distances between various elements, including the distance between the LEDs, *i.e.*, the third distance).

47. On information and belief, Hisense has induced infringement of the ’382 Patent pursuant to 35 U.S.C. § 271(b), by actively and knowingly inducing, directing, causing, and encouraging others, including, but not limited to, its partners, resellers, distributers, customers, and end users, to make, use, sell, and/or offer to sell in the United States, and/or import into the United States, the Accused Products by, among other things, providing the accused products and incorporated lighting unit technology, specifications, instructions, manuals, advertisements, marketing materials, and technical assistance relating to the installation, set up, use, operation, and maintenance of said products.

48. On information and belief, Hisense has committed the foregoing infringing activities without a license.

49. On information and belief, Hisense knew the ’382 Patent existed and knew of exemplary infringing Hisense products while committing the foregoing infringing acts thereby willfully, wantonly and deliberately infringing the ’382 Patent.

COUNT IV: INFRINGEMENT OF THE ’075 PATENT BY HISENSE

50. Plaintiff incorporates the preceding paragraphs as if fully set forth herein.

51. On information and belief, Hisense has infringed the ’075 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, offering to sell, selling in the United States or importing into the United States the Accused Products and all other substantially similar displays and/or lighting units contained therein.

52. For example, on information and belief, Hisense has infringed and continues to infringe at least claim 1 of the ’075 Patent by making, using, offering to sell, selling in the United States, or importing into the United States the Accused Products, such as the Hisense 40H4030F1 television. The Accused Products include a lighting panel. Exs. 24-26 (the Hisense 40H4030F1 includes a lighting panel, *e.g.*, a backlighting panel). The Accused Products’ lighting panel include at least one substrate having a first side parallel to a principal plane of the lighting panel. Exs. 27-28 (the Hisense 40H4030F1 lighting panel includes at least one substrate having a first side that is parallel to the plane of the lighting panel). The Accused Products’ lighting panel further include a plurality of solid state lighting devices arranged on the first side of the at least one substrate and configured to

emit light. Exs. 28-29 (the Hisense 40H4030F1 lighting panel includes solid state lighting devices, *e.g.*, light emitting diodes (LEDs), arranged on the first side of the substrate and are configured to emit light). The Accused Products' lighting panel further include a reflector sheet on the first side of the at least one substrate. Exs. 26, 28, 30 (the Hisense 40H4030F1 lighting panel includes a reflector sheet on the first side of the substrate). The Accused Products' lighting panel further include a brightness enhancement film on the reflector sheet, wherein the reflector sheet is arranged between the at least one substrate and the brightness enhancement film and the brightness enhancement film is configured to preferentially emit light having a first orientation from the lighting panel and to preferentially reflect light having a second orientation, different from the first orientation, back into the lighting panel. Exs. 26, 30 (the Hisense 40H4030F1 lighting panel includes a brightness enhancement film on top of the reflector sheet which is on top of the substrate); Exs. 31-33 (the Hisense 40H4030F1 lighting panel's brightness enhancement film is configured to preferentially emit light having a first orientation from the lighting panel and to preferentially reflect light having a second orientation, different from the first orientation, back into the lighting panel). The Accused Products' lighting panel further include a diffuser sheet between the reflector sheet and the brightness enhancement film, wherein the

reflector sheet, the diffuser sheet and brightness enhancement film extend and are arranged parallel to the principal plane of the lighting panel. Exs. 25-26 (the Hisense 40H4030F1 lighting panel includes a diffuser sheet between the reflector sheet and the brightness enhancement film; the diffuser sheet and the brightness enhancement film extend across and are parallel to the plane of the lighting panel).

53. On information and belief, Hisense has induced infringement of the ’075 Patent pursuant to 35 U.S.C. § 271(b), by actively and knowingly inducing, directing, causing, and encouraging others, including, but not limited to, its partners, resellers, distributers, customers, and end users, to make, use, sell, and/or offer to sell in the United States, and/or import into the United States, the Accused Products by, among other things, providing the accused products and incorporated lighting unit technology, specifications, instructions, manuals, advertisements, marketing materials, and technical assistance relating to the installation, set up, use, operation, and maintenance of said products.

54. On information and belief, Hisense has committed the foregoing infringing activities without a license.

55. On information and belief, Hisense knew the ’075 Patent existed and knew of exemplary infringing Hisense products while committing the foregoing infringing acts thereby willfully, wantonly and deliberately infringing the ’075

Patent.

COUNT V: INFRINGEMENT OF THE ’710 PATENT BY HISENSE

56. Plaintiff incorporates the preceding paragraphs as if fully set forth herein.

57. On information and belief, Hisense has infringed the ’710 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, offering to sell, selling in the United States or importing into the United States the Accused Products and all other substantially similar displays and/or lighting units contained therein.

58. For example, on information and belief, Hisense has infringed and continues to infringe at least claim 1 of the ’710 Patent by making, using, offering to sell, selling in the United States, or importing into the United States the Accused Products, such as the Hisense 50U6G television. The Accused Products include a lighting system. Exs. 34-35 (the Hisense 50U6G includes a lighting system, *e.g.*, a backlighting system). The Accused Products’ lighting system include a plurality of strings of solid state lighting devices arranged in a first direction and positioned at intervals in at least one second direction. Ex. 36 (the Hisense 50U6G lighting system includes strings of solid state lighting devices, *e.g.*, light emitting diodes (LEDs), arranged in a first direction, *e.g.*, horizontally, and positioned at intervals

in at least one second direction, *e.g.*, vertically). The Accused Products' lighting system further include a current supply circuit configured to selectively supply a plurality of on-state drive currents to the plurality of strings responsive to a plurality of control signals. Ex. 37, Ex. 38 at 2, Ex. 39 (the Hisense 50U6G lighting system includes a current supply circuit, such as a board and/or LED Driver, configured to selectively supply on-state drive currents to the LED strings responsive to control signals, *e.g.*, lighting and/or brightness settings for each dimming zone). The Accused Products' lighting system further include a control system configured to receive a user input and to selectively provide control signals to the current supply circuit responsive to the user input to selectively drive the plurality of strings. Ex. 38 at 1-2, Exs. 40-43 (the Hisense 50U6G lighting system includes a control system such as the main SoC and/or video/graphics processor which receives user input in the form of video/imagery data or menu inputs. In one example, in response to the user input, the main SoC and/or video/graphics processor selectively provides control signals to the LED lighting system, which includes the iW7027 LED Driver and the corresponding current supply circuits, to selectively drive the plurality of strings. In another example, in response to the user input, the boards housing or connected to the iW7027 LED Driver selectively provide the VSYNC/PWMIN, CSB, MOSI, SCK, MISO and/or CLKIN inputs to

the iW7027 LED Driver, to selectively drive the plurality of strings). The control system of the Accused Products' lighting system further includes firing logic, configured to determine a firing order of the plurality of strings. Ex. 38 at 1, 4, Exs. 41, 43 (the Hisense 50U6G control system includes firing logic on the main SoC and/or graphics processor, or on the LED Driver boards/chips, configured to determine a Pulse Width Modulation (PWM) firing order of the LED strings to dictate brightness of each dimming zone; for example, the control circuit includes firing logic configured to determine the firing order of the plurality of strings based on inputs such as VSYNC/PWMIN, CSB, MOSI, SCK, MISO and/or CLKIN determine the firing order of the plurality of strings).

59. On information and belief, Hisense has induced infringement of the '710 Patent pursuant to 35 U.S.C. § 271(b), by actively and knowingly inducing, directing, causing, and encouraging others, including, but not limited to, its partners, resellers, distributers, customers, and end users, to make, use, sell, and/or offer to sell in the United States, and/or import into the United States, the Accused Products by, among other things, providing the accused products and incorporated lighting unit technology, specifications, instructions, manuals, advertisements, marketing materials, and technical assistance relating to the installation, set up, use, operation, and maintenance of said products.

60. On information and belief, Hisense has committed the foregoing infringing activities without a license.

61. On information and belief, Hisense knew the ’710 Patent existed and knew of exemplary infringing Hisense products while committing the foregoing infringing acts thereby willfully, wantonly and deliberately infringing the ’710 Patent.

COUNT VI: INFRINGEMENT OF THE ’331 PATENT BY HISENSE

62. Plaintiff incorporates the preceding paragraphs as if fully set forth herein.

63. On information and belief, Hisense has infringed the ’331 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, offering to sell, selling in the United States or importing into the United States the Accused Products and all other substantially similar displays and/or lighting units contained therein.

64. For example, on information and belief, Hisense has infringed and continues to infringe at least claim 17 of the ’331 Patent by making, using, offering to sell, selling in the United States, or importing into the United States the Accused Products, such as the Hisense 50U6G television. The Accused Products include a lighting system. Exs. 34-35 (the Hisense 50U6G includes a lighting system, *e.g.*, a

backlighting system). The Accused Products' lighting system include a lighting panel including at least first and second strings of solid state lighting devices that are respectively configured to emit at least a first light and a second light, respectively. Exs. 35, 43 (the Hisense 50U6G lighting system includes a lighting panel including at least first and second strings of solid state lighting devices, *e.g.*, light emitting diode (LED) strings, that are respectively configured to emit at least a first light and a second light, respectively). The Accused Products' lighting system further include at least first and second current supply circuits coupled to the at least first and second strings of solid state lighting devices, respectively, and configured to supply an on-state drive currents to a respective one of the first and second strings of solid state lighting devices. Ex. 37, Ex. 38 at 2, Ex. 40 (for example, the Hisense 50U6G lighting system includes at least one iW7027 chip which includes at least a first and second current supply circuits, *e.g.*, each of the iW7027 chips is capable of supplying current to up to 16 channels or LED strings; the first current supply circuit includes portions of the power supply and a current sink and the second current supply circuit includes portions of the power supply and a current sink. In another example, the first current supply circuit comprises a first iW7027 chip and the second current supply circuit comprises a second iW7027 chip, with both chips including a common power supply and/or discrete

power supplies; in the Hisense 50U6, the first and second current supply circuits are coupled to the at least first and second strings of solid state lighting devices.); Ex. 38 at 1, Exs. 39, 42-43 (in the Hisense 50U6, the first and second current supply circuits discussed above are configured to supply an on-state drive current to a respective one of the first and second strings of solid state lighting devices discussed above, as demonstrated by oscilloscope measurements taken at the two strings). The Accused Products' lighting system further include a pulse width modulation (PWM) controller that is coupled to the first current supply circuit and the second current supply circuit, a first PWM control signal and a second PWM control signal that are supplied to the each of the at least first and second strings. Ex. 38 at 1, Exs. 42-44 (In one example, the Hisense 50U6's PWM controller, such as the iW7027 Sub-Module and/or corresponding control component, is coupled to the first and second current supply circuits; the PWM controller discussed above is configured to generate a first PWM control signal and a second PWM control signal, such as the signals supplied to each of the respective first and second strings via the current drivers and the power supply); Ex 45 (In another example (applicable to both examples of the first and second current supply circuits residing on the same and different chips), the Hisense 50U6 television's PWM controller is an SoC housed on the motherboard shown below (such as the main SoC or

video/graphics processor); such a PWM controller is coupled to the first and second current supply circuits discussed above, directly or via intermediary components that transmit the controller's signals).

65. On information and belief, Hisense has induced infringement of the '331 Patent pursuant to 35 U.S.C. § 271(b), by actively and knowingly inducing, directing, causing, and encouraging others, including, but not limited to, its partners, resellers, distributers, customers, and end users, to make, use, sell, and/or offer to sell in the United States, and/or import into the United States, the Accused Products by, among other things, providing the accused products and incorporated lighting unit technology, specifications, instructions, manuals, advertisements, marketing materials, and technical assistance relating to the installation, set up, use, operation, and maintenance of said products.

66. On information and belief, Hisense has committed the foregoing infringing activities without a license.

67. On information and belief, Hisense knew the '331 Patent existed and knew of exemplary infringing Hisense products while committing the foregoing infringing acts thereby willfully, wantonly and deliberately infringing the '331 Patent.

COUNT VII: INFRINGEMENT OF THE ’835 PATENT BY HISENSE

68. Plaintiff incorporates the preceding paragraphs as if fully set forth herein.

69. On information and belief, Hisense has infringed the ’835 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, offering to sell, selling in the United States or importing into the United States the Accused Products and all other substantially similar displays and/or lighting units contained therein.

70. For example, on information and belief, Hisense has infringed and continues to infringe at least claim 1 of the ’835 Patent by making, using, offering to sell, selling in the United States, or importing into the United States the Accused Products, such as the Hisense 75R6E3 television. The Accused Products include a lighting panel. Exs. 15-17 (the Hisense 75R6E3 includes a lighting panel, *e.g.*, a backlighting panel). The Accused Products’ lighting panel include at least one substrate having a first side parallel to a principal plane of the lighting panel. Exs. 17, 46 (the Hisense 75R6E3 lighting panel includes at least one substrate having a first side that is parallel to the plane of the lighting panel). The Accused Products’ lighting panel further include a plurality of solid state lighting devices arranged on the first side of the at least one substrate and configured to emit light. Exs. 18, 46-

48 (the Hisense 75R6E3 lighting panel includes solid state lighting devices, *e.g.*, light emitting diodes (LEDs), arranged on the first side of the substrate and are configured to emit light). The Accused Products' lighting panel further include a reflector on the first side of the at least one substrate. Exs. 49-50 (the Hisense 75R6E3 lighting panel includes a reflector sheet on the first side of the substrate). The Accused Products' lighting panel further include a brightness enhancement film on the reflector, wherein the reflector is arranged between the at least one substrate and the brightness enhancement film and the brightness enhancement film is configured to preferentially emit light having a first orientation from the lighting panel and to preferentially reflect light having a second orientation, different from the first orientation, back into the lighting panel. Exs. 19, 50 (the Hisense 75R6E3 lighting panel includes a brightness enhancement film on top of the reflector sheet which is on top of the substrate); Exs. 32-33, 51 (the Hisense 75R6E3 lighting panel's brightness enhancement film is configured to preferentially emit light having a first orientation from the lighting panel and to preferentially reflect light having a second orientation, different from the first orientation, back into the lighting panel). The Accused Products' lighting panel further include a generally planar diffuser sheet between the reflector and the brightness enhancement film, wherein the light having the second orientation that

is reflected back into the lighting panel is recycled within at least the diffuser sheet. Exs. 19, 32-33, 52 (the Hisense 75R6E3 lighting panel includes a diffuser sheet between the reflector sheet and the brightness enhancement film wherein some light is reflected and recycled back into the lighting panel within the diffuser sheet).

71. On information and belief, Hisense has induced infringement of the ’835 Patent pursuant to 35 U.S.C. § 271(b), by actively and knowingly inducing, directing, causing, and encouraging others, including, but not limited to, its partners, resellers, distributers, customers, and end users, to make, use, sell, and/or offer to sell in the United States, and/or import into the United States, the Accused Products by, among other things, providing the accused products and incorporated lighting unit technology, specifications, instructions, manuals, advertisements, marketing materials, and technical assistance relating to the installation, set up, use, operation, and maintenance of said products.

72. On information and belief, Hisense has committed the foregoing infringing activities without a license.

73. On information and belief, Hisense knew the ’835 Patent existed and knew of exemplary infringing Hisense products while committing the foregoing infringing acts thereby willfully, wantonly and deliberately infringing the ’835

Patent.

COUNT VIII: INFRINGEMENT OF THE ’598 PATENT BY HISENSE

74. Plaintiff incorporates the preceding paragraphs as if fully set forth herein.

75. On information and belief, Hisense has infringed the ’598 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, offering to sell, selling in the United States or importing into the United States the Accused Products and all other substantially similar displays and/or lighting units contained therein.

76. For example, on information and belief, Hisense has infringed and continues to infringe at least claim 46 of the ’598 Patent by making, using, offering to sell, selling in the United States, or importing into the United States the Accused Products, such as the Hisense 55U8H television. The Accused Products include a display panel for a flat panel display. Exs. 53-55 (the Hisense 55U8H includes a display panel for a flat panel liquid crystal display (LCD)). The Accused Products’ display panel include a front face comprising a planar array of liquid crystal display (LCD) devices. Exs. 53, 55 (the Hisense 55U8H display panel includes a front face, *i.e.*, a liquid crystal display (LCD) panel, having a planar array of LCD devices). The Accused Products’ display panel further include a back face

comprising at least one solid block including first and second opposing faces that extend parallel to the array of LCD devices, wherein the first face is facing toward the array of LCD devices and the second face is facing away from the array of LCD devices. Exs. 56-57 (the Hisense 55U8H display panel includes a back face having a solid block (the gray block) including a front and back face parallel to the array of LCD devices; for example, the first, front face faces toward the array of LCD devices and the second, back face faces away from the LCD devices). The Accused Products' display panel further include a plurality of LED devices mounted on the first face. Ex. 58-61 (the Hisense 55U8H display panel includes LED devices mounted on the first, front face discussed above). The at least one solid block of the Accused Products' display panel includes a plurality of solid block bars that are arranged face-to-face to be congruent to the planar array of LCD devices. Exs. 56, 62 (the Hisense 55U8H's solid block comprises a plurality of solid block bars, *e.g.*, LED bars, that that are arranged face-to-face, *i.e.*, the LED bars are arranged side by side, to be congruent to the planar array of LCD devices).

77. On information and belief, Hisense has induced infringement of the '598 Patent pursuant to 35 U.S.C. § 271(b), by actively and knowingly inducing, directing, causing, and encouraging others, including, but not limited to, its partners, resellers, distributers, customers, and end users, to make, use, sell, and/or

offer to sell in the United States, and/or import into the United States, the Accused Products by, among other things, providing the accused products and incorporated lighting unit technology, specifications, instructions, manuals, advertisements, marketing materials, and technical assistance relating to the installation, set up, use, operation, and maintenance of said products.

78. On information and belief, Hisense has committed the foregoing infringing activities without a license.

79. On information and belief, Hisense knew the ’598 Patent existed and knew of exemplary infringing Hisense products while committing the foregoing infringing acts thereby willfully, wantonly and deliberately infringing the ’598 Patent.

COUNT IX: INFRINGEMENT OF THE ’796 PATENT BY HISENSE

80. Plaintiff incorporates the preceding paragraphs as if fully set forth herein.

81. On information and belief, Hisense has infringed the ’796 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, offering to sell, selling in the United States or importing into the United States the Accused Products and all other substantially similar displays and/or lighting units contained therein.

82. For example, on information and belief, Hisense has infringed and continues to infringe at least claim 46 of the ’796 Patent by making, using, offering to sell, selling in the United States, or importing into the United States the Accused Products, such as the Hisense 55U8H television. The Accused Products include a flat panel. Exs. 53-56 (the Hisense 55U8H includes a flat panel liquid crystal display (LCD)). The Accused Products’ flat panel include a plurality of solid metal block bars, a respective one of which includes first and second opposing faces and four ends therebetween, the plurality of solid metal block bars being connected end-to-end in the flat panel, the plurality of solid metal block bars including mating surfaces therebetween. Exs. 56, 58, 62-65 (the Hisense 55U8H flat panel includes multiple solid metal block bars connected end-to-end in the flat panel; the solid metal block bars include a first (front face including LEDs) and second opposing faces (back metal sheet face) and four ends therebetween, *e.g.*, the block bar’s edge sides; the solid metal block bars include mating surfaces therebetween, *e.g.*, surfaces on the end-to-end portions of the bars used to fasten the bars to each other via overlapping film and/or adhesive material). The Accused Products’ flat panel further include a plurality of light emitting diodes (LEDs), a respective one of which is mounted on the first face of a respective solid metal block bar in the flat panel. Exs. 58-61 (the Hisense 55U8H flat panel includes light

emitting diodes (LEDs) mounted on the first, front face of the metal block bars in the flat panel).

83. On information and belief, Hisense has induced infringement of the ’796 Patent pursuant to 35 U.S.C. § 271(b), by actively and knowingly inducing, directing, causing, and encouraging others, including, but not limited to, its partners, resellers, distributers, customers, and end users, to make, use, sell, and/or offer to sell in the United States, and/or import into the United States, the Accused Products by, among other things, providing the accused products and incorporated lighting unit technology, specifications, instructions, manuals, advertisements, marketing materials, and technical assistance relating to the installation, set up, use, operation, and maintenance of said products.

84. On information and belief, Hisense has committed the foregoing infringing activities without a license.

85. On information and belief, Hisense knew the ’796 Patent existed and knew of exemplary infringing Hisense products while committing the foregoing infringing acts thereby willfully, wantonly and deliberately infringing the ’796 Patent.

PRAYER FOR RELIEF

WHEREFORE, Brightplus prays for judgment in its favor against Hisense for the following relief:

A. Entry of judgment in favor of Brightplus against Hisense on all counts;

B. Entry of judgment that Hisense has infringed the Patents-in-Suit;

C. Entry of judgment that Hisense's infringement of the Patents-in-Suit has been willful;

D. An order permanently enjoining Hisense from infringing the Patents-in-Suit;

E. Award of compensatory damages adequate to compensate Brightplus for Hisense's infringement of the Patents-in-Suit, in no event less than a reasonable royalty trebled as provided by 35 U.S.C. § 284;

F. Award of reasonable attorneys' fees and expenses against Hisense pursuant to 35 U.S.C. § 285;

G. Brightplus's costs;

H. Pre-judgment and post-judgment interest on Brightplus's award; and

I. All such other and further relief as the Court deems just or equitable.

DEMAND FOR JURY TRIAL

Pursuant to Rule 38 of the Fed. R. Civ. Proc., Plaintiff hereby demands trial by jury in this action of all claims so triable.

Dated: September 16, 2022

/s/ *Daniel A. Kent*

Daniel A. Kent
dankent@kentrisley.com
Tel: (404) 585-4214
Fax: (404) 829-2412
KENT & RISLEY LLC
5755 N Point Pkwy Ste 57
Alpharetta, GA 30022

Dmitry Kheyfits
dkheyfits@kblit.com
Brandon G. Moore
bmoore@kblit.com
KHEYFITS BELENKY LLP
180 Wild Basin Road South
Suite 250
Austin, TX 78748
Tel: 737-228-1838
Fax: 737-228-1843

Andrey Belenky
abelenky@kblit.com
Hanna G. Cohen
hgcohen@kblit.com
KHEYFITS BELENKY LLP
80 Broad Street, 5th Floor
New York, NY 10005
Tel: 212-203-5399
Fax: 212-203-6445

Attorneys for Plaintiff
Brightplus Ventures LLC