

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK**

-----X

SHARP CORPORATION,

Plaintiff

CASE NO. 17-5404

v.

HISENSE ELECTRIC, CO. LTD., HISENSE
USA CORPORATION, AND HISENSE
ELECTRONICS MANUFACTURING
COMPANY OF AMERICA
CORPORATION,

JURY TRIAL DEMANDED

Defendants.

-----X

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Sharp Corporation, by way of Complaint against Hisense Electric, Co. Ltd., Hisense USA Corporation, and Hisense Electronics Manufacturing Company of America Corporation (collectively, “Hisense”), alleges as follows:

SUMMARY OF ACTION

1. This is a suit for patent infringement that seeks redress from Hisense for its misconduct in infringing certain Wi-Fi related patents owned by Sharp Corporation, including U.S. Patent No. 9,148,874 and U.S. Patent No. 9,258,074 (collectively “Asserted Patents”).

2. Hisense’s misconduct, as alleged with greater specificity below, is but the latest in a series of actions Hisense has taken to harm Sharp by severely compromising Sharp’s intellectual property rights.

3. Rather than innovate and develop its own technologies for Wi-Fi enabled devices, such as its so-called “smart” televisions, Hisense has elected to take these technologies without permission from Sharp.

4. By this present action, Sharp seeks to hold Hisense accountable for its misconduct, including through an award compensating Sharp for the substantial damages it has suffered as the result of Hisense’s patent infringement.

THE PARTIES

5. Sharp Corporation is a Japanese corporation having a principal place of business at 1 Takumi-cho, Sakai-ku, Sakai, 590-8522, Japan. Sharp Corporation is also known as “Sharp Kabushiki Kaisha.”

6. On information and belief, Hisense Electric, Co. Ltd. (“Hisense Electric”) is a corporation incorporated under the laws of the People’s Republic of China, with a principal place of business at No. 218 Qianwangang road, QingDao Economic & Technological Zone, Qingdao, China 266555.

7. On information and belief, Hisense Electric manufactures, sells, offers for sell, imports, and/or offers for importation products accused of infringement in this Complaint.

8. On information and belief, Hisense USA Corporation (“Hisense USA”) is a corporation incorporated and existing under the laws of the State of Georgia, with a principal place of business at 7310 McGinnis Ferry Road, Suwanee, GA 30024.

9. On information and belief, Hisense USA imports, sells, distributes, and sells after importation for products accused of infringement in this Complaint.

10. On information and belief, Hisense Electronics Manufacturing Company of America Corporation (“Hisense Mfg.”) is a corporation incorporated and existing under the laws of the State of Georgia with a principal place of business at 7310 McGinnis Ferry Road, Suwanee, GA 30024.

11. On information and belief, Hisense Mfg. also imports, sells, distributes, and sells after importation for products accused of infringement in this Complaint.

12. Collectively, Plaintiff refers to all of the above identified Hisense entities as “Hisense.”

13. On information and belief, Hisense conducts business in the United States directly and through subsidiaries and utilizes the website <http://global.hisense.com/> and <http://www.hisense-usa.com>. According to its website (<http://www.hisense-usa.com/>), Hisense or others on its behalf, offers for sale several Wi-Fi enabled devices, including smart televisions. For example, Hisense branded televisions that are Wi-Fi enabled include at least Model Nos. 50H8C, 50H5C, 50H6D, and 43H7C.

JURISDICTION AND VENUE

14. This action arises under the patent laws of the United States. This Court has jurisdiction over the subject matter of this action under 28 U.S.C. §§ 1331 and 1338(a).

15. On information and belief, Hisense is subject to personal jurisdiction in this District because it has conducted and does conduct business within the United States and this State. On information and belief, Hisense, directly or through intermediaries (including distributors, retailers, and others) ships, distributes, offers for sale, sells, and advertises products that infringe the patent claims involved in this action in this District. For example, Hisense advertises products that infringe the patent claims involved in this action on its nationally accessible websites. *See, e.g.*, <https://www.hisense-usa.com/>. In addition, on information and belief, consumers from anywhere in the country, including this State, can purchase products that infringe the patent claims involved in this action by clicking on an external link from Hisense’s nationally accessible websites. On information and belief, Hisense has purposefully availed itself of the privileges of conducting business in the United States, and more specifically in this District. On information and belief, Hisense sought protection and benefit from the laws of this State by placing infringing products into the stream of commerce through an established

distribution channel with the awareness and/or intent that they will be purchased by consumers in this District.

16. Venue is proper in this Court pursuant to 28 U.S.C. § 1391 and/or 28 U.S.C. § 1400(b). *See TC Heartland LLC v. Kraft Foods Group Brands LLC*, No. 16-341 (S. Ct. May 22, 2017) at n.2 (leaving intact patent venue rules for foreign corporation defendants). In particular, upon information and belief, venue is proper because

- a. Hisense has a physical presence in the district, including but not limited to property, inventory, infrastructure, and/or people. For example, Hisense employs several people who work and/or reside in New York and in this District, including, without limitation, Hisense's Vice President of Marketing, its group marketing director, its regional sales manager, its director of special markets, and others;
- b. Hisense has represented that it has a presence in this district. Hisense has made press releases touting its products from New York, and conducted product launches and "viewing experiences" in New York.
- c. Hisense has derived substantial benefits from its presence in the district, including, without limitation, substantial sales revenue.
- d. Hisense has also relied upon and specified New York law in its agreements, and has filed counterclaims against a New York based entity in this Court previously.

THE ASSERTED PATENTS

17. Plaintiff is the owner of U.S. Patent No. 9,148,874 (" '874 patent") which is attached as Exhibit A. The '874 patent discloses and claims a communication method and a radio transmitter.

18. Plaintiff is the owner of U.S. Patent No. 9,258,074 (" '074 patent") which is attached as Exhibit B. The '074 patent discloses and claims a wireless communication system.

19. Plaintiff is an innovator and industry leader in the Wi-Fi field. It spent substantial resources and owns several important patents, including the asserted patents, whose technology was ultimately incorporated in prevailing Wi-Fi standards promulgated by the IEEE, including, without limitation, the 802.11ac standard. Other industry leaders have recognized the importance of Sharp's Wi-Fi related patents, including the asserted patents, and have duly licensed that intellectual property.

20. Sharp televisions have critically important consumer-demanded technology, such as the Wi-Fi technology that is described in the Asserted Patents

21. Although Sharp and Hisense have entered into an agreement to produce Sharp branded televisions sold in the United States, no agreement exists with respect to Hisense branded products.

22. As part of its agreement with Hisense, Sharp envisioned that the Sharp brand would be used to market larger panel and higher margin TVs, especially due to its innovative features such as the Wi-Fi technology described in the Asserted Patents.

23. Nevertheless, the average sale price of Sharp branded TVs has continued to deteriorate since its agreement with Hisense, despite Sharp's self-developed, and industry leading "smart TV" technology embodied in the Asserted Patents.

24. Hisense TVs did not previously contain the Wi-Fi functionality before Sharp's Asserted Patents issued.

25. Upon information and belief, after Hisense incorporated Sharp's Wi-Fi technology into its products, the average sale price of Hisense branded televisions increased, especially as compared to similar Hisense TVs without Wi-Fi capability.

26. By at least as late as 2014, crisp, high-definition televisions could be had for a few hundred dollars. Upon information and belief, in an effort to stave off lackluster sales, Hisense began offering so-called "smart TVs" that could connect to the Internet, stream media, connect to other devices, and/or run applications. These televisions rely upon prevailing Wi-Fi standards in order to offer these features, including the Wi-Fi technology claimed in Sharp's

Asserted Patents. Rather than innovating its own Wi-Fi technology that did not infringe upon the rights of Plaintiff, Hisense chose to steal it.

COUNT I

INFRINGEMENT OF U.S. PATENT NO. 9,148,874 (“ ‘874 Patent”)

27. Plaintiff incorporates Paragraphs 1-26 of this Complaint as if set forth fully herein.

28. On information and belief, Hisense has been and is now directly infringing the ‘874 patent by making, using, selling, and/or offering for sale in the United States and/or importing into the United States Wifi-enabled televisions (the “Accused Products”) that practice or embody at least claims 1-14 of the ‘874 patent, including at least the 65H10, 65H8, 65H7, 65H6, 55H8, 55H7, 55H5, 50H8, 50H7, 50H6, 50H5, 50H4, 48H4, 43H7, 43H6, 43H5, 40H5, 40H4 and 32H5 series televisions. Hisense is therefore liable for direct infringement of the ‘874 patent under 35 U.S.C. § 271(a).

29. On information and belief, the Accused Products include communication component(s) that transmit and receive wireless signals according to at least one version of the IEEE 802.11 standard, e.g., the 802.11ac standard, in a way that infringes the ‘874 patent. Attached as Exhibit C is a technical specification of the 802.11ac standard.

30. On information and belief, the Accused Products comprises a first communication apparatus configured to transmit OFDM signals by using at least some of a plurality of frequency sub-channels on a frequency band without a center subcarrier positioned in a center frequency of the frequency band, each of the OFDM signals comprising OFDM symbols for a first period and OFDM symbols for a second period. *See, e.g.,* Ex. C at 8, 31, 214, 229, 258, 272.

31. On information and belief, the Accused Products comprises a transmitting circuit configured for transmitting the OFDM signals to a second communication apparatus by using a plurality of subcarriers allocated among an even number of contiguous frequency sub-channels that can be used simultaneously by the second communication apparatus, wherein the even

number comprises at least an even number smaller than a number of the plurality of frequency sub-channels on the frequency band. *See, e.g.*, Ex. C at 7, 10, 31.

32. On information and belief, the Accused Products comprises a processing circuit configured for allocating data for constructing each of the OFDM symbols for the first period to a first subset of subcarriers of the plurality of subcarriers without allocating data to each of respective subcarriers positioned in respective centers of frequency sub-channels among the even number of the contiguous frequency sub-channels. *See, e.g.*, Ex. C at 237-38, 247, 262.

33. On information and belief, in the Accused Products the processing circuit is configured for allocating data for constructing each of the OFDM symbols for the second period to a second subset of subcarriers of the plurality of subcarriers without allocating data to a subcarrier positioned in a center of a frequency band of the even number of the contiguous frequency sub-channels for the second period, the unused subcarrier being in a center between contiguous frequency sub-channels, the second subset of subcarriers comprising the respective subcarriers positioned in respective centers of frequency sub-channels among the even number of the contiguous frequency sub-channels. *See, e.g.*, Ex. C at 241-42, 247.

34. On information and belief, Hisense has been and is now indirectly infringing the '874 patent by actively inducing others, including distributors, customers and end-users who use, sell or offer to sell the Accused Products, to directly infringe at least claims 1-14 of the '874 patent. On information and belief, distributors, customers and end-users who use, sell or offer to sell the Accused Products directly infringe the '874 patent. Further, on information and belief, Hisense, by providing at least manuals, training, guides, videos and/or demonstrations, induces distributors, customers and/or end-users of the Accused Products to perform acts intended by Hisense to cause direct infringement of the '874 patent. On information and belief, Hisense has knowledge of the '874 patent or has acted with willful blindness to its existence at least as late as of the service of the Complaint. Hisense is therefore liable for inducing infringement of the '874 patent under 35 U.S.C. § 271(b).

35. On information and belief, Hisense has been and is now indirectly infringing at least claims 1-14 of the '874 patent by contributing to infringement by others of the '874 patent, including distributors, customers and end-users who use, sell or offer to sell the Accused Products. On information and belief, Hisense contributes to such infringement at least by providing to such distributors, customers and end-users, televisions or components thereof, which are specially made or adapted for use in an infringement of the '874 patent and are not staple articles of commerce suitable for substantial non-infringing use. On information and belief, Hisense had knowledge or acted with willful blindness to the fact that the televisions or components thereof are specially made or adapted for use to infringe the '874 patent and are not staple articles of commerce suitable for substantial non-infringing use at least as late as of service of the Complaint. Hisense is therefore liable for contributory infringement of the '874 patent under 35 U.S.C. § 271(c).

36. As a result of its infringement of the '874 patent, Hisense has damaged Plaintiff. Hisense is liable to Plaintiff in an amount to be determined at trial that adequately compensates Plaintiff for the infringement, which by law can be no less than a reasonable royalty.

37. Hisense's acts have caused, and unless restrained and enjoined, will continue to cause, irreparable injury and damage to Plaintiff for which there is no adequate remedy at law. Unless enjoined by this Court, Hisense will continue to infringe the '874 patent.

COUNT II

INFRINGEMENT OF U.S. PATENT NO. 9,258,074

38. Plaintiff incorporates Paragraphs 1-37 of this Complaint as if set forth fully herein.

39. On information and belief, Hisense has been and is now directly infringing the '074 patent by making, using, selling, and/or offering for sale in the United States and/or importing into the United States Wifi-enabled televisions (the "Accused Products") that practice or embody claims 1-3 and 5-10 of the '074 patent, including at least the 65H10, 65H8, 65H7,

65H6, 55H8, 55H7, 55H5, 50H8, 50H7, 50H6, 50H5, 50H4, 48H4, 43H7, 43H6, 43H5, 40H5, 40H4 and 32H5 series televisions. Hisense is therefore liable for direct infringement of the '074 patent under 35 U.S.C. § 271(a).

40. On information and belief, the Accused Products include communication component(s) that transmit and receive wireless signals according to at least one version of the IEEE 802.11 standard, e.g., the 802.11ac standard, in a way that infringes the '074 patent.

41. On information and belief, the Accused Products implement a method for a wireless station of a wireless LAN to communicate wireless signals using a plurality of frequency bands, wherein the plurality of frequency bands includes a primary frequency band and at least one additional frequency band. *See, e.g.,* Ex. C at 7, 31, 214.

42. On information and belief, the Accused Products transmit, by the wireless station, a wireless control signal via the primary frequency band to an additional wireless station, wherein the wireless control signal comprises a request to send communication data to the additional wireless station from the wireless station and a request to allocate a time period for transmitting the communication data. *See, e.g.,* Ex. C at 6, 42-43, 120-21.

43. On information and belief, the Accused Products receive, at the wireless station, a wireless response signal from the additional wireless station in response to transmitting the wireless control signal, wherein the wireless response signal is received via the primary frequency band instead of the at least one additional frequency band, and indicates (i) an allocated time period and (ii) that the at least one additional frequency band is allocated to the wireless station for transmitting the communication data during the allocated time period. *See, e.g.,* Ex. C at 42-43, 120-123.

44. On information and belief, the Accused Products simultaneously transmit, by the wireless station during the allocated time period, a first wireless communication data signal via the primary frequency band and at least one second wireless communication data signal via the at least one additional frequency band, wherein at least one of the first wireless communication data signal and the at least one second wireless communication data signal includes the

communication data, and wherein the first wireless communication data signal and the at least one second wireless communication data signal are time-synchronized. *See, e.g.*, Ex. C at 3, 31, 34-35.

45. On information and belief, Hisense has been and is now indirectly infringing the '074 patent by actively inducing others, including distributors, customers and end-users who use, sell or offer to sell the Accused Products, to directly infringe at least claims 1-3 and 5-10 of the '074 patent. On information and belief, distributors, customers and end-users who use, sell or offer to sell the Accused Products directly infringe the '074 patent. Further, on information and belief, Hisense, by providing at least manuals, training, guides, videos and/or demonstrations, induces distributors, customers and/or end-users of the Accused Products to perform acts intended by Hisense to cause direct infringement of the '074 patent. On information and belief, Hisense has knowledge of the '074 patent or has acted with willful blindness to its existence at least as late of service of the Complaint. Hisense is therefore liable for inducing infringement of the '074 patent under 35 U.S.C. § 271(b).

46. On information and belief, Hisense has been and is now indirectly infringing at least claims 1-3 and 5-10 of the '074 patent by contributing to infringement by others of the '074 patent, including distributors, customers and end-users who use, sell or offer to sell the Accused Products. On information and belief, Hisense contributes to such infringement at least by providing to such distributors, customers and end-users, televisions or components thereof, which are specially made or adapted for use in an infringement of the '074 patent and are not staple articles of commerce suitable for substantial non-infringing use. On information and belief, Hisense had knowledge or acted with willful blindness to the fact that the televisions or components thereof are specially made or adapted for use to infringe the '074 patent and are not staple articles of commerce suitable for substantial non-infringing use at least as of the service of the Complaint. Hisense is therefore liable for contributory infringement of the '074 patent under 35 U.S.C. § 271(c).

47. As a result of its infringement of the '074 patent, Hisense has damaged Plaintiff. Hisense is liable to Plaintiff in an amount to be determined at trial that adequately compensates Plaintiff for the infringement, which by law can be no less than a reasonable royalty.

48. Hisense's acts have caused, and unless restrained and enjoined, will continue to cause, irreparable injury and damage to Plaintiff for which there is no adequate remedy at law. Unless enjoined by this Court, Hisense will continue to infringe the '074 patent.

PRAYER FOR RELIEF

49. Plaintiff requests that:

- a. Judgment be entered that Hisense has directly and indirectly infringed the '874 patent and '074 patent literally and/or under the doctrine of equivalents, and that Plaintiff is entitled to damages due to Hisense's infringement of the '874 patent and '074 patent pursuant to 35 U.S.C. § 284;
- b. Judgment be entered that Hisense's infringement of the '874 patent and '074 patent is willful and knowing;
- c. For an accounting, including a post-judgment accounting, to determine the damages to be awarded to Plaintiff as a result of all of Hisense's making, using, selling, offering for sale, or importing of any product or service falling within the scope of any claim of the '874 patent and '074 patent, or otherwise infringing any claim of the '874 patent and '074 patent;
- d. Judgment be entered that this is an exceptional case, and that Plaintiff is entitled to its reasonable attorney's fees pursuant to 35 U.S.C. § 285;
- e. Judgment be entered that Plaintiff is entitled to interest and costs of suit, including pre-judgment and post-judgment interest and costs pursuant to 35 U.S.C. § 284;
- f. Judgment be entered permanently enjoining Hisense and its parents, subsidiaries, affiliates, successors, and assigns, and each of their officers,

directors, employees, representatives, agents, attorneys, and all persons acting in concert or active participation with them, or on their behalf, or within their control, from making, using, selling, offering for sale, or importing any product or service falling within the scope of any claim of the '874 patent and '074 patent, or otherwise infringing any claim of the '874 patent and '074 patent; and

- g. For such other and further relief as the Court may deem just and proper under the circumstances.

JURY DEMAND

Plaintiff demands a trial by jury on all issues so triable.

Dated: July 17, 2017

Respectfully submitted,

/s/ Eric A. Prager

Eric A. Prager
Matthew J. Weldon
K&L Gates LLP
599 Lexington Avenue
New York, NY 10022
Tel (212) 536-4042
Fax (212) 536-3901

Harold H. Davis, Jr. (Pro Hac Pending)
Rachel Burnim (Pro Hac Pending)
K&L Gates LLP
Four Embarcadero Center, Suite 1200
San Francisco, CA 94111
harold.davis@klgates.com
rachel.burnim@klgates.com
Tel: 415.882.8200
Fax: 415.882.8220

Jay Chiu (Pro Hac Pending)
K&L Gates LLP
Twelfth Floor
1 Park Plaza

Irvine, CA 92614
jay.chiu@klgates.com
Tel: 949.253.0900
Fax: 949.253.0902

Min Wu (Pro Hac Pending)
K&L Gates LLP
630 Hansen Way
Palo Alto, CA 94304
min.wu@klgates.com
Tel: 650.798.6700
Fax: 650.798.6701

Jason Engel (Pro Hac Pending)
K&L Gates LLP
70 West Madison Street, Suite 2800
Chicago, IL 60602
jason.engel@klgates.com
Tel: 312.372.1121
Fax: 312.827.8000

**ATTORNEYS FOR PLAINTIFF
SHARP CORPORATION**