

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

IMAGE PROCESSING TECHNOLOGIES,)
LLC,)

Plaintiff,)

v.)

LG ELECTRONICS, INC., and)
LG ELECTRONICS USA, INC.,)

Defendants.)

Civil No. 2:22-cv-00077

JURY TRIAL DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Image Processing Technologies, LLC (“Plaintiff” or “IPT”) files this Complaint for Patent Infringement against Defendants LG Electronics, Inc. (“LGE”) and LG Electronics USA, Inc. (“LG USA”) (LGE and LG USA collectively, “LG” or “Defendants”) alleging as follows:

PARTIES

1. Plaintiff Image Processing Technologies, LLC is a limited liability company duly formed under the laws of the State of Florida with a place of business at 75 Montebello Road, Ste. 104, Suffern, New York 10901.

2. Upon information and belief, Defendant LG Electronics, Inc. is a company organized under the laws of Korea with a principal place of business at LG Twin Tower 128, Yeoui-daero, Yeongdeungpo-gu, Seoul, Korea 07336, and may be served with process pursuant to the provisions of the Hague Convention. LGE manufactures various products, including smartphones, and ships the products to the United States for sale and distribution within this country, both directly and through its subsidiaries.

3. Upon information and belief, Defendant LG Electronics USA, Inc. is a corporation organized under the laws of the State of Delaware, with a principal place of business at 111 Sylvan Ave., Englewood Cliffs, New Jersey 07632. LG USA is a wholly-owned subsidiary of LGE. LG USA sells various LG products in the United States, including smartphones. LG USA may be served with process through its registered agent in the State of Texas, United States Corporation Co., 211 East 7th St., Ste. 620, Austin, Texas 78701.

4. On information and belief, LG has regular and established places of business at 2153-2155 Eagle Pkwy., Fort Worth, Texas 76177 and 14901 Beach St., Fort Worth, Texas 76177, both in Denton County, Texas.

JURISDICTION AND VENUE

5. This action arises under the patent laws of the United States, 35 U.S.C. § 101, *et seq.* This Court has jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

6. LGE is subject to specific and general personal jurisdiction in this Court. This Court has personal jurisdiction over LGE because LGE has engaged in continuous, systematic, and substantial activities within this State, including substantial marketing and sales of products and services within this State and District. Furthermore, upon information and belief, this Court has personal jurisdiction over LGE because LGE has committed acts of infringement giving rise to IPT's claims for patent infringement within and directed to this District.

7. Upon information and belief, LGE has conducted, and does conduct, substantial business in this forum, directly and/or through subsidiaries, agents, representatives, or intermediaries, including but not limited to: (i) at least a portion of the acts of infringement alleged herein; (ii) purposefully and voluntarily placing one or more infringing products and services into the stream of commerce with the expectation that they will be purchased by consumers in this forum; and/or (iii) regularly doing or soliciting business, engaging in other persistent courses of

conduct, or deriving substantial revenue from goods and services provided to individuals in Texas and in this District. Thus, LGE is subject to this Court's specific and general personal jurisdiction pursuant to due process and the Texas Long-Arm Statute. To the extent LGE is not subject to jurisdiction in any State's courts of general jurisdiction, this Court has personal jurisdiction over LGE pursuant to Federal Rule of Civil Procedure 4(k)(2) because IPT's claims arise under federal law and exercising jurisdiction is consistent with the United States Constitution and laws.

8. LGE is a foreign company that does not reside in the United States. Therefore, venue is proper in this District as to LGE under 28 U.S.C. § 1391(c)(3).

9. To the extent that there is no district in which an action may otherwise be brought against LGE, venue is proper in this District as to LGE under 28 U.S.C. § 1391(b)(3) because LGE is subject to personal jurisdiction in this Court.

10. LG USA is subject to specific and general personal jurisdiction in this Court. The Court has personal jurisdiction over LG USA because it has engaged in continuous, systematic, and substantial activities within this State, including substantial marketing and sales of products and services within this State and District. Furthermore, upon information and belief, this Court has personal jurisdiction over LG USA because LG USA has committed acts of infringement giving rise to IPT's claims for patent infringement within and directed to this District.

11. Upon information and belief, LG USA has conducted and does conduct substantial business in this forum, directly and/or through subsidiaries, agents, representatives, or intermediaries, such substantial business including but not limited to: (i) at least a portion of the acts of infringement alleged herein; (ii) purposefully and voluntarily placing one or more infringing products and services into the stream of commerce with the expectation that they will be purchased by consumers in this forum; and/or (iii) regularly doing or soliciting business,

engaging in other persistent courses of conduct, or deriving substantial revenue from goods and services provided to individuals in Texas and in this District. Thus, LG USA is subject to this Court's specific and general personal jurisdiction pursuant to due process and the Texas Long-Arm Statute.

12. The exercise of personal jurisdiction over LGE and LG USA would not offend traditional notions of fair play and substantial justice.

13. Upon information and belief, LG USA has committed acts of infringement in this District and has regular and established places of business within this District under 28 U.S.C. § 1400(b). Thus, venue is proper in this District as to LG USA under 28 U.S.C. § 1400(b).

14. LG maintains a permanent physical presence within this District. For example, it maintains regular and established places of business in Denton County, Texas at 2153-2155 Eagle Pkwy., Fort Worth, Texas 76177 and 14901 Beach St., Fort Worth, Texas 76177.

15. Exemplar images of LG's regular and established places of business at 2153-2155 Eagle Pkwy., Fort Worth, Texas 76177 are below:



16. Exemplar images of LG's regular and established places of business at 14901 Beach St., Fort Worth, Texas 76177 are below:



17. LG's locations in this District, including at least those identified in paragraphs 4 and 14–16 above, are regular and established places of business under 28 U.S.C. § 1391, 28 U.S.C. § 1400(b), and *In re Cray, Inc.*, 871 F.3d 1355, 1360 (Fed. Cir. 2017).

a. LG's locations in this District, including at least those identified in paragraphs 4 and 14–16 above, are physical, geographical locations in this District. Each office location comprises one or more buildings or office spaces from which the business of LG is carried out. The locations are set apart for the purpose of carrying out LG's business, including but not limited to, making, using, selling, offering for sale, and/or supporting infringing products. Indeed, LG itself advertises its physical locations in this District as places of its business, and it features commercial signage at these locations.

b. LG's locations in this District, including at least those identified in paragraphs 4 and 14–16 above, are regular and established. LG features commercial signage at the locations identified in paragraphs 4 and 14–16 above, identifying each location as a regular and established place of LG's business.

c. LG's locations in this District, including at least those identified in paragraphs 4 and 14–16 above, are places of business of LG. LG conducts business from its locations in this District, including at least those identified in paragraphs 4 and 14–16 above, including but not limited to, making, using, selling, offering for sale, and/or supporting infringing products.

d. LG's locations in this District, including at least those identified in paragraphs 4 and 14–16 above, are physical, geographical location(s) in this District from which LG carries out its business.

e. LG employees work at LG's locations, including at least those identified in paragraphs 4 and 14–16 above. Upon information and belief, these LG employees are regularly and physically present at LG's locations, including at least those identified in

paragraphs 4 and 14–16 above, during business hours and they are conducting LG’s business while working there.

f. LG owns, and pays taxes on, at least the locations identified in paragraphs 4 and 14–16 above in Denton County, Texas.

FACTUAL ALLEGATIONS

PATENT-IN-SUIT

18. U.S. Patent No. 6,959,293 (“the ’293 Patent”) is entitled “Method and Device for Automatic Visual Perception.” The United States Patent and Trademark Office duly and legally issued the ’293 Patent on October 25, 2005, from U.S. Patent Application No. 09/792,436, filed on February 23, 2001.

19. IPT is the current owner of all rights, title, and interest in and to the ’293 Patent, including the right to sue for past damages.

20. A true and correct copy of the ’293 Patent is attached hereto as **Exhibit A** and is incorporated by reference herein.

21. The ’293 Patent generally relates to methods and devices for automatic visual perception, and more particularly to methods and devices for processing image signals using one or more self-adapting histogram calculation units capable of implementing anticipation and learning modes. Such devices can be termed electronic spatio-temporal neurons, and are particularly useful for image processing. In such image processing, the electronic device constitutes histograms of certain parameters and uses them in visual perception in order to acquire, manipulate and process statistical information. The inventions claimed and described in the ’293 Patent provide visual perception devices and methods for automatically detecting an event occurring in a space with respect to at least one parameter.

22. Claim 1 is illustrative of the claimed invention of the '293 Patent. It is directed to:

1. A visual perception processor for automatically detecting an event occurring in a multidimensional space (i, j) evolving over time with respect to at least one digitized parameter in the form of a digital signal on a data bus, said digital signal being in the form of a succession a_{ijT} of binary numbers associated with synchronization signals enabling to define a given instant (T) of the multidimensional space and the position (i, j) in this space, the visual perception processor comprising:

the data bus;
a control unit;
a time coincidences bus carrying at least a time coincidence signal; and
at least two histogram calculation units for the treatment of the at least one parameter,

the histogram calculation units being configured to form a histogram representative of the parameter as a function of a validation signal and to determine by classification a binary classification signal resulting from a comparison of the parameter and a selection criterion C, wherein the classification signal is sent to the time coincidences bus, and wherein the validation signal is produced from time coincidences signals from the time coincidence bus so that the calculation of the histogram depends on the classification signals carried by the time coincidence bus.

23. Numerous companies enjoy a license the '293 Patent, including well-known camera and mobile phone manufacturers.

DEFENDANTS' KNOWLEDGE OF THE PATENT

24. LG had knowledge of the '293 Patent prior to the filing of this suit.

25. On or about March 25, 2015, IPT sent a letter to LG through IPT's licensing agent, identifying the '293 Patent and offering LG a license to the '293 Patent. A true and correct copy of the March 25, 2015 letter, not including attachments, is attached hereto as **Exhibit B**. LG confirmed receipt of the letter via email on June 26, 2015. A true and correct copy of the June 26, 2015 confirmation email is attached hereto as **Exhibit C**.

26. On or about December 29, 2015, IPT sent another letter to LG through IPT's licensing agent, again identifying the '293 Patent, and stating that "Image Processing believes LG is infringing at least U.S. Patent No. 6,959,293 through its business activities that are directed to

the United States regarding facial detection algorithms and products that include facial detection technology.” A true and correct copy of the December 29, 2015 letter, not including enclosures, is attached hereto as **Exhibit D**.

27. On or about January 18, 2016, IPT and LG entered into a Confidentiality Agreement to protect confidential information exchanged between IPT and LG for “assessing the appropriateness of obtaining a license from Image Processing and negotiating the terms of such license with Image Processing.” A true and correct copy of the January 18, 2016 Confidentiality Agreement is attached hereto as **Exhibit E**.

28. On or about March 17, 2016, IPT sent another letter to LG through IPT’s licensing agent identifying the ’293 Patent, again notifying LG of LG’s infringement. Specifically, in the March 17, 2016 letter, IPT asserted that LG infringed the ’293 Patent both directly and indirectly. IPT again offered LG a “non-exclusive license to the IPT portfolio” on “fair and reasonable terms.” A true and correct copy of the March 17, 2016 letter, not including attachments, is attached hereto as **Exhibit F**.

29. In or about the Spring of 2017, IPT’s representatives met in-person with LG in Korea. During this meeting, IPT’s representatives again notified LG of the ’293 Patent as well as LG’s infringement of the ’293 Patent.

30. On or about December 15, 2017, IPT sent another letter to LG through IPT’s licensing agent, informing LG of the status of IPT’s litigation with Samsung Electronics America, Inc. and pending *Inter Partes Reviews* (“IPRs”). IPT expressly informed LG that “Claim 1 of the ’293 Patent has already survived Samsung’s validity challenges” and that the “PTAB denied [sic] to institute trial.” IPT asserted that “[w]e continue to believe that LG infringes at least Claim 1 of

the '293 Patent.” And again, IPT invited LG to license the '293 Patent. A true and correct copy of the December 15, 2017 letter is attached hereto as **Exhibit G**.

31. On or about March 29, 2018, IPT sent another letter to LG through IPT's licensing agent, again informing LG that “Claim 1 of the '293 Patent survived Samsung's IPR challenge” and that “[w]e continue to believe that LG infringes Claim 1 of the '293 Patent.” IPT also attached to its March 29, 2018 a claim chart illustrating LG's infringement of claim 1 of the '293 Patent. A true and correct copy of the March 29, 2018 letter, not including attachments, is attached hereto as **Exhibit H**.

32. During the period of approximately 2020–2021, IPT engaged in a series of emails and telephone calls with LG, during which IPT again informed LG of the '293 Patent and offered LG a license to IPT's Patents.

33. For example, on or about July 23, 2021, IPT again provided representatives of LG with a copy of the claim chart illustrating LG's infringement of claim 1 of the '293 Patent that IPT previously provided to LG on or about March 29, 2018.

34. For another example, on or about September 7, 2021, IPT had a telephone conference with one or more representatives of LG regarding at least LG's infringement of claim 1 of the '293 Patent.

35. Despite IPT's continuous correspondence and meetings with LG, LG refused to take a license to the '293 Patent and refused to cease its infringing activity. Instead, LG proceeded with its infringing business activities with disregard to IPT's patent rights. As a result, LG's infringing conduct is deliberate, purposeful, and willful.

THE ACCUSED PRODUCTS

36. LG manufactures and sells a variety of consumer electronics, including certain mobile phones and tablets with one or more cameras. Defendants' mobile phones with one or more cameras have been widely available for sale in the United States.

37. Defendants' infringing products include at least their smartphones and tablets running the Android OS, or substantially similar technology, made, used, sold, or offered for sale in the United States, or imported into the United States (the "Accused Products"). In particular, Defendants' infringing products include at least the LG G7 ThinQ GSM smartphone.

38. Defendants continue to advertise the Accused Products on the LG.com website,¹ including making available numerous user guides for the Accused Products and features.²

39. The Accused Products include different features such as "Face Detection" and an "AI CAM" capability. The AI CAM is a camera that recognizes specified targets, such as puppies, food, landscapes, people, and more to suggest the best filters for a specific scene.

COUNT I: INFRINGEMENT OF THE '293 PATENT

40. IPT incorporates by reference and realleges paragraphs 1 through 39 as if specifically set forth herein.

41. In violation of 35 U.S.C. § 271(a), Defendants LGE and LG USA are and have been directly infringing one or more of the claims of the '293 Patent, including at least Claim 1, by

¹ LG, LG Mobile Phones: Browse LG Dual Screen™ Phones, 5G Smartphones & More, <https://www.lg.com/us/cell-phones> (last visited Mar. 4, 2022).

² E.g., LG, LG LMG710VMX.AUCLPL: Support, Manuals, Warranty & More, <https://www.lg.com/us/support/product/lg-LMG710VMX.AUCLPL> (last visited Mar. 4, 2022); LG, LG LMG710TMR.ATMORP: Support, Manuals, Warranty & More, <https://www.lg.com/us/support/product/lg-LMG710TMR.ATMORP> (last visited Mar. 4, 2022); LG, LGG710PM.ASPRWU: Support, Manuals, Warranty & More, <https://www.lg.com/us/support/product/lg-LGG710PM.ASPRWU> (last visited Mar. 4, 2022).

making, using, selling, and/or offering for sale in the United States, without authority, the Accused Products, including but not limited to smartphones and tablets, such as the LG G7 ThinQ GSM smartphone.

42. Defendants LGE and LG USA are infringing claims of the '293 Patent, including at least Claim 1, literally and/or under the doctrine of equivalents.

43. Upon information and belief, the Accused Products, including at least the LG G7 ThinQ GSM smartphone, run at least Android OS versions 8 through 10.

44. The Accused Products include a processor. For example, the LG G7 ThinQ GSM smartphone includes a Qualcomm SDM845 Snapdragon 845 (10 nm) processor.

45. Upon information and belief, Snapdragon 845 features the Qualcomm Spectra 280 Image Signal Processor ("ISP"), which Qualcomm claims is designed to deliver a premium camera and XR experience, with a high-performance capture of up to 16 MP at 60 images per second.

46. Upon information and belief, Snapdragon 845 includes a Qualcomm Kryo™ 385 CPU built on ARM Cortex technology.

47. The Accused Products also include one or more cameras. For example, the LG G7 ThinQ GSM smartphone includes (i) a 16 MP, f/1.6, 30mm (standard), 1/3.1", 1.0µm, PDAF, Laser AF, OIS camera, (ii) a 16 MP, f/1.9, 16mm (ultrawide), 1/3.1", no AF camera, and (iii) an 8 MP, f/1.9, 26mm (wide) camera.³

³ GSMArena, LG G7 ThinQ – Full Phone specifications, https://www.gsmarena.com/lg_g7_thinq-9115.php (last visited Mar. 4, 2022).



48. Upon information and belief, the Accused Products include an image processing system configured to receive an image signal that consists of a series of frames of pixel data. The image signal is received from the Accused Products' front and/or rear camera(s).

49. Upon information and belief, the processor of the Accused Products is for automatically detecting an event occurring in a multidimensional space (i, j) evolving over time with respect to at least one digitized parameter in the form of a digital signal on a data bus, said digital signal being in the form of a succession $a_{ij}T$ of binary numbers associated with synchronization signals enabling to define a given instant (T) of the multidimensional space and the position (i, j) in this space.

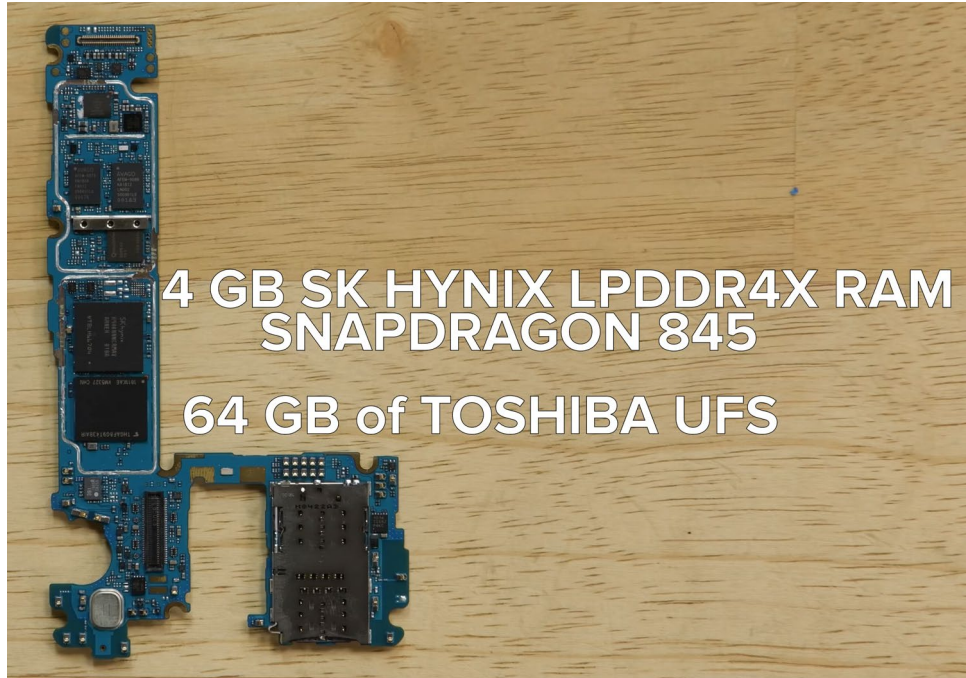
50. Upon information and belief, the Accused Products detect an event occurring in a multidimensional space evolving over time with respect to at least one digitized parameter in the form of a digital signal on a data bus. An event (e.g., an occurrence of a person's face) is detected based on a multidimensional image occurring over time with respect to several digitized parameters (e.g., brightness, color) transferred over a camera bus.



51. Upon information and belief, the Accused Products contain a processor that contains an ARM core and/or other processing hardware that calculates a histogram.

52. Upon information and belief, the Accused Products include a data bus, control unit, controller coupled to a controller bus and a transfer bus, and a time coincidences bus carrying at least a time coincidence signal.

⁴ LG Mobile Global, *LG G7 ThinQ: Main Tutorial (AI CAM + Super Wide Angle Camera)*, YOUTUBE (July 18, 2018), <https://www.youtube.com/watch?v=4KJMnEBv0WM>.



53. Upon information and belief, the Accused Products comprise at least two histogram calculation units for the treatment of at least one parameter, the histogram calculation units being configured to form a histogram representative of the parameter as a function of a validation signal and to determine by classification a binary classification signal resulting from a comparison of the parameter and a selection criterion C. The Accused Products generate histograms based on the classification values of pixels in subsequent frames of the image signal and adjust the face location based on the histograms generated based on these subsequent frames.

54. Upon information and belief, the Accused Products come with firmware and a number of files pre-installed, including, among other files, “Libfilterpack_facedetect.so,” which uses histogram calculation units to form histograms, to recognize faces.

⁵ iFixit, LG G7 ThinQ Teardown, <https://www.ifixit.com/Teardown/LG+G7+ThinQ+Teardown/110419> (last visited Mar. 4, 2022).

55. Upon information and belief, the Accused Products generate a histogram based on classification values in a first frame, identify a target—for example, a face—from the histogram, and determine the target’s location based on the generated histogram.

56. Upon information and belief, the Accused Products generate histograms based on classification values of pixels in subsequent frames and adjust the target location based on the histograms generated on these subsequent frames.

57. Upon information and belief, the Accused Products send classification signals to the time coincidences bus.

58. Upon information and belief, the Accused Products produce validation signals from time coincidences signals from the time coincidence bus so that the calculation of the histogram depends on the classification signals carried by the time coincidence bus.

59. In violation of 35 U.S.C. § 271(b), Defendants are and have been infringing one or more of the claims of the '293 Patent, including at least Claim 1, indirectly by inducing the infringement of at least Claim 1 of the '293 Patent by third parties, including for example LG customers and/or end-users of the Accused Products, in this District and elsewhere in the United States. Direct infringement by, for example, LG customers and/or end-users of the Accused Products occurs by the use of the Accused Products, including at least the LG G7 ThinQ GSM smartphone.

60. Upon information and belief, Defendants provide instructive materials and information concerning the operation and use of the Accused Products,⁶ including at least the AI

⁶ *E.g.*, LG, LG LMG710VMX.AUCLPL: Support, Manuals, Warranty & More, <https://www.lg.com/us/support/product/lg-LMG710VMX.AUCLPL> (last visited Mar. 4, 2022); LG, LG LMG710TMR.ATMORP: Support, Manuals, Warranty & More, <https://www.lg.com/us/support/product/lg-LMG710TMR.ATMORP> (last visited Mar. 4, 2022);

CAM capability,⁷ to induce third parties, including LG customers and/or end-users of the Accused Products, to use the Accused Products, including at least the LG G7 ThinQ GSM smartphone, in a manner that would infringe at least Claim 1 of the '293 Patent.

61. Upon information and belief, Defendants also market, advertise and sell the Accused Products on the LG.com website, make available user guides for the Accused Products, and offer technical support and instructions for the Accused Products, including at least the LG G7 ThinQ GSM smartphone. These acts instruct third parties, including LG customers and/or end-users of the Accused Products, to use the Accused Products in a manner that infringes one or more claims of the '293 Patent, including at least Claim 1.

62. For example, Defendants provide an Owner's Manual for the LG G7 ThinQ GSM smartphone on the LG.com website.⁸ The manual instructs third parties, including LG customers and/or end-users of the Accused Products, in the use of the Accused Products, including at least the LG G7 ThinQ GSM smartphone.

63. Defendants offer technical support for the Accused Products, including at least the LG G7 ThinQ GSM smartphone, on the lg.com website.⁹

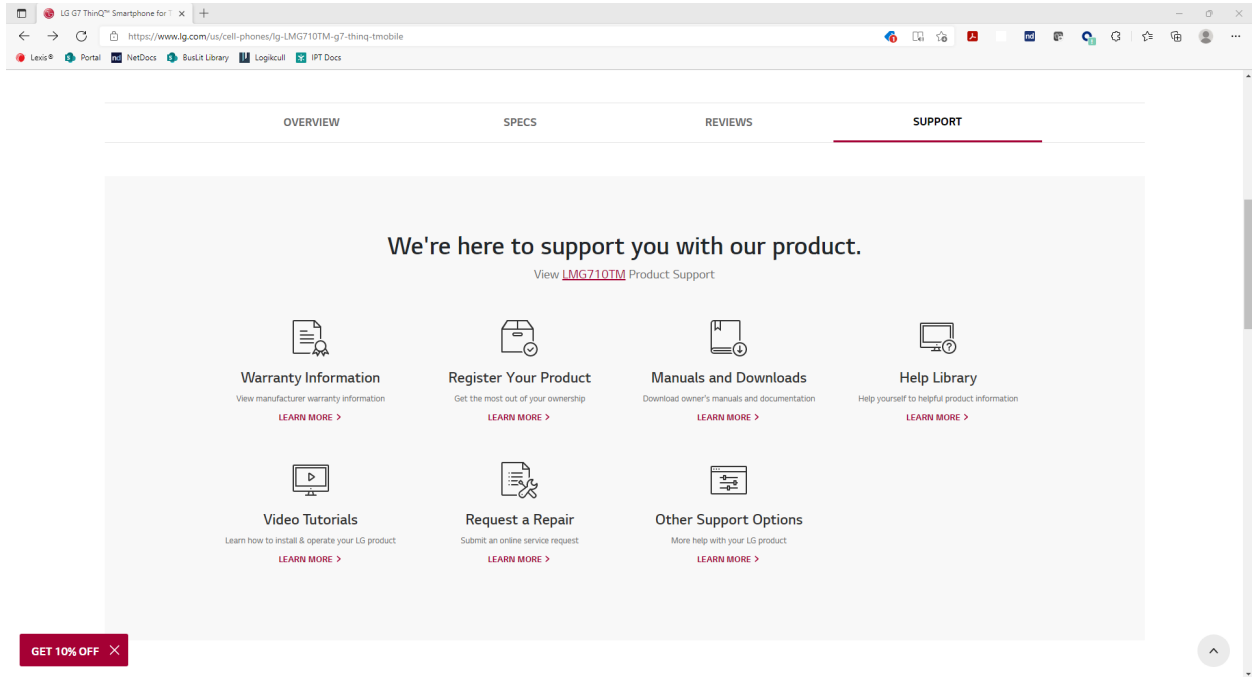
LG, LGG710PM.ASPRWU: Support, Manuals, Warranty & More, <https://www.lg.com/us/support/product/lg-LGG710PM.ASPRWU> (last visited Mar. 4, 2022).

⁷ *E.g.*, LG, LG G7 ThinQ – Camera Overview and Settings, <https://www.lg.com/us/support/help-library/lg-g7-thinq-camera-overview-and-settings-CT10000027-20150726477193> (last visited Mar. 4, 2022).

⁸ *E.g.*, LG, User Guide: LG G7 ThinQ LM-G710TM, available at <https://gscs-b2c.lge.com/downloadFile?fileId=EnTAsmzn9Y5WNZqf0T7sQ> (last accessed Mar. 4, 2022).

⁹ LG, Product Support: Help Library, <https://www.lg.com/us/support/help-library> (last visited Mar. 4, 2022).

64. For example, below is a screenshot of the product page for the LG G7 ThinQ GSM smartphone, including links for manuals, a help library, video tutorials, requests for repairs, and other support options.¹⁰



65. Upon information and belief, Defendants also publish tutorials on YouTube instructing third parties, including LG customers and/or end-users, in the use of Accused Products, including at least the LG G7 ThinQ GSM smartphone¹¹ and the AI CAM capability¹² to automatically recognize the target object, such as a face.

¹⁰ LG, LG G7 ThinQ™ Smartphone for T-Mobile | LMG710TM, <https://www.lg.com/us/cell-phones/lg-LMG710TM-g7-thinq-tmobile> (last visited Mar. 4, 2022) (select “Support” tab).

¹¹ E.g., LG Mobile Global, *LG G7 ThinQ* Playlist, YOUTUBE (last updated Nov. 5, 2018), <https://www.youtube.com/playlist?list=PLShKiWbiCfxYMXgvW2WloDSzX6ZsIpJfR> (last visited March 4, 2022).

¹² E.g., LG Mobile Global, *LG G7 ThinQ: Main Tutorial (AI CAM)*, YOUTUBE (July 16, 2018), <https://www.youtube.com/watch?v=SuEktB1Gp54>.

66. For example, below is a screenshot from a YouTube video published by Defendants entitled “LG G7 ThinQ: Main Tutorial (AI CAM)” instructing third parties, including LG customers and/or end-users, in the use of the Accused Products, including at least the LG G7 ThinQ GSM smartphone in a manner that infringes one or more claims of the ’293 Patent, including at least Claim 1.¹³



67. Defendants knew or should have known of the ’293 Patent through a series of correspondence and meetings expressly notifying LG of the ’293 Patent and LG’s infringement thereof. As a result, not only did LG know of its infringement, but LG knew it infringed the ’293 Patent at least as early as March 25, 2015. Despite this knowledge, LG continued to induce third parties, including LG customers and/or end-users of the Accused Products, and LG knew or should have known that those acts would induce actual infringement by third parties, including LG customers and/or end-users of the Accused Products, of one or more of the claims of the ’293 Patent, including at least Claim 1.

68. Defendants also have actual knowledge of the ’293 Patent at least as of the date of filing of this Complaint.

¹³ *Id.*

69. Defendants have taken active steps to encourage third parties, including LG customers and/or end-users of the Accused Products, to use the Accused Products in a manner that infringes one or more claims of the '293 Patent, including at least Claim 1. These steps include advertising the Accused Products, including at least the LG G7 ThinQ GSM smartphone, with an emphasis on the AI CAM capability,¹⁴ publishing instructional manuals on the use of the Accused Products, including at least the LG G7 ThinQ GSM smartphone,¹⁵ in a manner that infringes one or more claims of the '293 Patent, including at least Claim 1, and publishing videos to instruct, encourage, and assist in the same.¹⁶

70. Defendants also publish extensive technical support on the LG.com website for third parties, including LG customers and/or end-users of the Accused Products, to use the Accused Products, including at least the LG G7 ThinQ GSM smartphone, in a manner that infringes one or more claims of the '293 Patent, including at least Claim 1.¹⁷

71. In light of its actual knowledge of the '293 Patent and its infringement of at least Claim 1 of the '293 Patent, LG subjectively believed there was a high probability that the Accused Products infringed at least Claim 1 of the '293 Patent and that LG's customers and/or end-users of

¹⁴ LG Mobile Global, *LG G7 ThinQ: Product Video*, YOUTUBE (May 2, 2018), <https://www.youtube.com/watch?v=ybG8iWK4e2I&list=PLShKiWbiCfxYMXgvW2WloDSzX6ZsIpJfR&index=25>.

¹⁵ E.g., LG, User Guide: LG G7 ThinQ LM-G710TM, available at <https://gscs-b2c.lge.com/downloadFile?fileId=EnTAsmzn9Y5WNZqf0T7sQ> (last accessed Mar. 4, 2022).

¹⁶ E.g., LG Mobile Global, *LG G7 ThinQ Playlist*, YOUTUBE (last updated Nov. 5, 2018), <https://www.youtube.com/playlist?list=PLShKiWbiCfxYMXgvW2WloDSzX6ZsIpJfR> (last visited March 4, 2022).

¹⁷ E.g., LG, LG G7 ThinQ™ Smartphone for T-Mobile | LMG710TM, <https://www.lg.com/us/cell-phones/lg-LMG710TM-g7-thinq-tmobile> (last visited Mar. 4, 2022) (select "Support" tab).

the Accused Products would infringe at least Claim 1 of the '293 Patent. To the extent that LG lacked actual knowledge of the '293 Patent, LG took deliberate actions to avoid learning of those facts.

72. Therefore, Defendants have induced infringement of one or more of the claims of the '293 Patent, including at least Claim 1.

73. Defendants' infringement of at least Claim 1 of the '293 Patent has been, and continues to be, willful.

74. Defendants had actual knowledge of the '293 Patent at least as early as March 25, 2015, when IPT first notified LG of the '293 Patent. Despite knowing of the '293 Patent as early as March 25, 2015, LG did not cease its infringing activities.

75. As explained above in paragraphs 24–35 above, between March 25, 2015 and 2021, IPT notified LG on several occasions of the '293 Patent and LG's infringement of the '293 Patent. IPT also informed LG that the United States Patent & Trademark Office confirmed the validity of Claim 1 of the '293 Patent after Samsung's failed invalidity challenge in *Inter Partes* Review.

76. Despite this knowledge, Defendants continued to infringe at least Claim 1 of the '293 Patent in disregard of IPT's patent rights. As a result, LG deliberately and intentionally infringed the '293 Patent after receiving express and actual knowledge of both the '293 Patent and its infringement thereof.

77. Therefore, Defendants' infringement of the '293 Patent has been and continues to be willful, wanton, malicious, in bad faith, deliberate, consciously wrongful, flagrant, or characteristic of a pirate, entitling IPT to increased damages pursuant to 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action pursuant to 35 U.S.C. § 285.

DAMAGES

78. Defendants' acts of infringement have caused damages to IPT, and IPT is entitled to recover the damages it has sustained as a result of Defendants' wrongful acts in an amount to be determined at trial.

79. IPT is entitled to, and now seeks to, recover damages in an amount not less than the maximum amount permitted by law caused by Defendants' acts of infringement.

80. As a result of Defendants' acts of infringement, IPT has suffered actual and consequential damages. To the fullest extent permitted by law, IPT seeks recovery of damages in an amount to compensate for Defendants' infringement. IPT further seeks any other damages to which IPT would be entitled to in law or in equity.

INJUNCTIVE RELIEF

81. Defendants' acts of infringement have caused—and unless restrained and enjoined, Defendants' acts of infringement will continue to cause—irreparable injury and damage to IPT for which IPT has no adequate remedy at law. Unless preliminarily and permanently enjoined by this Court, Defendants will continue to infringe the claims of the '293 Patent, including at least Claim 1.

ATTORNEYS' FEES

82. IPT is entitled to recover reasonable and necessary attorneys' fees under applicable law.

DEMAND FOR JURY TRIAL

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

PRAYER FOR RELIEF

WHEREFORE, Plaintiff prays for judgment and requests that the Court find in its favor and against Defendants. Plaintiff respectfully requests that the Court enter preliminary and final orders, declarations, and judgments against Defendants as are necessary to provide Plaintiff with the following relief:

- a. A judgment that Defendants have infringed and/or are infringing one or more claims of the '293 Patent, literally or under the doctrine of equivalents, as alleged above;
- b. A judgment that Defendants have infringed and/or are infringing one or more claims of the '293 Patent, directly, as alleged above;
- c. A judgment that Defendants have infringed and/or are infringing one or more claims of the '293 Patent, indirectly, as alleged above;
- d. A judgment that Defendants' infringement of the claims of the '293 Patent has been willful;
- e. An award for all damages and costs arising out of Defendants' infringement, to adequately compensate IPT for LG's infringement of IPT's patents, but in no event less than a reasonable royalty for the use made by LG of the inventions claimed in the '293 Patent, including supplemental damages for any continuing post-verdict infringement up until entry of the final judgment, with an accounting, as needed;
- f. Pre-judgment and post-judgment interest, jointly and severally, in an amount according to proof;
- g. Treble damages based on LG's willful infringement;

h. An accounting of damages and any future compensation due to Plaintiff for Defendants' infringement (past, present, or future) not specifically accounted for in a damages award (or other relief), and/or permanent injunctive relief;

i. A judgment that this case is exceptional and an award of reasonable attorneys' fees as provided by 35 U.S.C. § 285 and enhanced damages as provided by 35 U.S.C. § 284;

j. An award of costs of suit;

k. The entry of an order preliminarily and permanently enjoining and restraining Defendants and their parents, affiliates, subsidiaries, officers, agents, servants, employees, attorneys, successors, and assigns and all those person in active concert or participation therewith, from making, importing, using, offering for sale, selling, or causing to be sold any product falling within the scope of any claim of the '293 Patent, or otherwise infringing or inducing infringement of any claim of the '293 Patent; and

l. All further relief in law or in equity as the Court may deem just and proper.

Dated: March 11, 2022

Respectfully submitted,

/s/ Jamie H. McDole

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