

**UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF TEXAS
WACO DIVISION**

Lynk Labs, Inc.,

Plaintiff,

v.

Samsung Electronics Co., Ltd. and Samsung
Electronics America, Inc.

Defendants.

Case No. 6:21-cv-00526-ADA

JURY TRIAL DEMANDED

**FIRST AMENDED COMPLAINT
FOR PATENT INFRINGEMENT**

Plaintiff, Lynk Labs, Inc. (“Lynk”), files this First Amended Complaint for patent infringement against Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (together, “Samsung”) and in support thereof alleges and avers as follows:

NATURE OF THE ACTION

1. This is a civil action arising under the patent laws of the United States, 35 U.S.C. § 1 et seq., specifically including 35 U.S.C. § 271, based on Samsung’s infringement of U.S. Patent Nos. 11,019,697 (the “’697 Patent”); 10,652,979 (the “’979 Patent”); and 10,154,551 (the “’551 Patent”) (collectively, the “Patents-in-Suit”). The Patents-in-Suit are attached hereto as Exhibits A–C.

THE PARTIES

2. Lynk is a corporation incorporated in the State of Illinois with its principal place of business at 2511 Technology Drive, Suite 108, Elgin, Illinois 60124. Before then, Lynk’s principal place of business was 585 Tollgate Road, Suite E, Elgin, Illinois 60017.

3. Upon information and belief, Defendant Samsung Electronics Co., Ltd. (“Samsung Korea”) is a corporation organized under the laws of South Korea, with its principal place of business at 129 Samsung-Ro, Maetan-3dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, 443-742, South Korea

4. Upon information and belief, Defendant Samsung Electronics America, Inc. (“Samsung America”) is a wholly-owned subsidiary of Samsung Electronics Co., Ltd. and a corporation organized under the laws of the State of New York, with its principal place of business at 85 Challenger Rd., Ridgefield Park, New Jersey 07660.

5. Defendants Samsung Korea and Samsung America are each individually liable and are jointly and severally liable for infringement of the Patents-in-Suit. Under theories of alter ego, single business enterprise liability, and agency, the conduct of each can be attributed to and

considered the conduct of others for purposes of infringement of the Patents-in-Suit. SEC and SEA have in the past and continue to hold themselves out in the United States as a single entity—“Samsung”—acting in concert, with knowledge of each other’s actions and control over each other.

JURISDICTION AND VENUE

6. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a) because the claims arise under the patent laws of the United States, 35 U.S.C. § 1 et seq., including 35 U.S.C. § 271.

7. This Court has personal jurisdiction over Samsung in this action because its contacts with the Western District of Texas are significant and pervasive. Samsung has committed acts within the Western District of Texas giving rise to this action and Samsung has established minimum contacts with this forum such that the exercise of jurisdiction over Samsung would not offend traditional notions of fair play and substantial justice.

8. Upon information and belief, Samsung has committed and continues to commit acts of infringement in this District by, among other things, (i) availing itself of the rights and benefits of the laws of the State of Texas, (ii) transacting, conducting, and/or soliciting business and engaged in a persistent course of conduct in the State of Texas (and in this District), (iii) deriving substantial revenue from the sales and/or use of products, such as the products accused in this lawsuit (the “Accused Products”), in the State of Texas (and in this District), (iv) purposefully directing activities (directly and/or through intermediaries), such as shipping, distributing, offering for sale, selling, and/or advertising the Accused Products, at residents of the State of Texas (and residents in this District), (v) delivering Accused Products into the stream of commerce with the expectation that the Accused Products will be used and/or purchased by consumers in the State of

Texas (and in this District), and (vi) committing acts of patent infringement in the State of Texas (and in this District).

9. Specifically, Samsung has regular and established places of businesses in this District, including at 12100 Samsung Boulevard, Austin, Texas 78754; 3900 San Clemente Suite 300, North Capital of Texas Highway, Austin, Texas 78746; 7300 Ranch Road 2222, Austin, Texas 78730; and 1700 Scenic Loop, Round Rock, Texas 78681. Upon information and belief, Samsung employs approximately 10,000 employees and contractors in this District serving in a variety of capacities, including the manufacturing and research and development of components used in the Accused Products.

10. Upon information and belief, Samsung's presence in the District continues to grow, as Samsung recently purchased approximately 258 acres of additional land on which it plans to expand its existing facilities in the District with a new \$17 billion factory that is expected to bring 1,800 new permanent jobs to the District in the first 10 years. Samsung is seeking approximately \$1 billion in state and local tax incentives in connection with its planned expansion. See **Exhibit D**, Austin American-Statesman, *Samsung wants \$1 billion tax incentive for new Austin plant that would create 1,800 jobs* (Feb 4, 2021), available at <https://www.statesman.com/story/business/2021/02/04/samsung-austin-expansion-chip-plant-seeks-1-billion-taxpayer-incentives/4309503001/>.

11. Likewise, Samsung makes, sells, and offers for sale LED lighting and consumer electronic products including, but not limited to, smartphones and tablet computers, throughout the United States, including in this District.

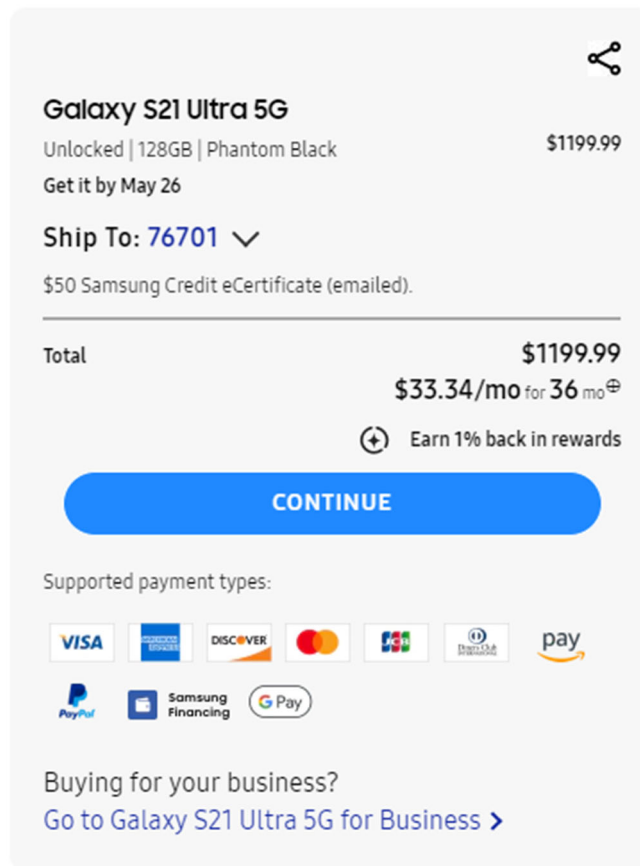
12. Further, Samsung America is registered to do business in the State of Texas, and has appointed CT Corporation System, located at 1999 Bryan Street, Suite 900, Dallas, Texas 75201, as its registered agent.

13. Venue is proper in this district under 28 U.S.C. §§ 1391 and 1400(b).

14. For instance, venue is proper as to a foreign defendant in any district. 28 U.S.C. § 1391(c)(3); *In re HTC Corp.*, 889 F.3d 1349 (Fed. Cir. 2018). Defendant Samsung Korea is a foreign corporation organized under the laws of Korea, with a principal place of business in Korea.

15. Further, Samsung has committed acts of direct infringement in this District.

16. For example, the accused Samsung Galaxy S21 Ultra is available for sale to customers in this District on the Samsung website:



17. Likewise, the accused Samsung ACOM Round LED device is available for sale through a number of Samsung's partner distributors in this District. See <https://www.samsung.com/led/support/sales-network/>. Moreover, the accused ACOM Round LED device is sold as a part of finished, infringing LED lighting products sold by companies in this District including Home Depot, a party accused of infringing the same patents in this District.

18. Upon information and belief, other products accused of infringement in this Complaint are similarly sold in this District through, *inter alia*, the physical and online stores of authorized Samsung retailers such as Best Buy, Target, AT&T, T-Mobile, and Verizon.

FACTUAL BACKGROUND

19. Lynk was founded in 1997 by Mike Miskin, who is and was President and CEO of Lynk. Since its inception, Lynk has been a technology pioneer, challenging industry understanding of conventional physics, beginning with technology in fields such as broadband communications, wireless communications, and wireless power.

20. In the early 2000s, after being negatively impacted by the telecom bubble, Lynk needed to explore other market opportunities to reshape the company. While trying to continue to innovate in telecommunications, high speed backplanes, wireless power, etc., Lynk realized it could also apply and advance some of its technology in the general lighting field. At that time, the development of light emitting diode (“LEDs”) for general lighting uses was still in its very early stages. Over the course of the next several years, Lynk developed and patented pioneering innovations that are now common place in the LED lighting and consumer electronics industry including but not limited to: LED lighting systems driven by constant voltage power supplies, smart LED lighting systems, warm dim or warm glow LED lighting devices, LED lighting devices and/or systems allowing users to select the brightness and/or color temperature of light, direct AC mains connected LED assemblies known as driver-on-board, wireless power, and many more.

21. Lynk’s groundbreaking research, which continues to this day, has consistently cut directly against conventional wisdom in the industry, resulting in inventions that are now common in the industry. Many of Lynk’s patented technologies were revolutionary in the early 2000’s when Lynk developed them, but they are now common in LED lighting products and consumer electronics such as Samsung’s Galaxy products including its smartphones and tablet computers.

22. Lynk was, and still is, a small American business that supplies LED lighting assemblies, modules, lamps, drivers, and system solutions.

23. Lynk has witnessed with dismay the increasing unlicensed presence of Lynk's patented technology on the shelves and websites of retail stores, including in the products of massive international companies such as Samsung.

24. On December 4, 2019, Lynk sent Samsung its patent portfolio, which specifically identified at least the '551 Patent.

25. On May 26, 2020, counsel for Lynk specifically informed Samsung that its products, including the accused Samsung ACOM Downlight LED device, infringe at least the '551 Patent and the '979 Patent. *See Exhibit E*, May 26, 2020 Shimota Letter. Further, on May 29, 2020, counsel for Lynk sent Samsung a non-limiting exemplary infringement chart showing that the accused LED device infringes at least Claim 1 of the '551 Patent. *See Exhibit F*, May 29, 2020 Shimota Letter.

THE PATENTS-IN-SUIT

26. On May 25, 2021, the '697 Patent, entitled "AC Light Emitting Diode and AC LED Drive Methods and Apparatus," was duly and legally issued by the United States Patent and Trademark Office. A true and accurate copy of the '697 Patent is attached hereto as **Exhibit A**.

27. On May 12, 2020, the '979 Patent, entitled "LED Lighting System," was duly and legally issued by the United States Patent and Trademark Office. A true and accurate copy of the '979 Patent is attached hereto as **Exhibit B**.

28. On December 11, 2018, the '551 Patent, entitled "AC Light Emitting Diode and AC LED Drive Methods and Apparatus," was duly and legally issued by the United States Patent and Trademark Office. A true and accurate copy of the '551 Patent is attached hereto as **Exhibit C**.

29. The Patents-in-Suit are emblematic of Lynk's significant investment into groundbreaking technology. Lynk has been on the forefront of LED technology development for nearly twenty years and has over 35 issued patents to show for its efforts.

FIRST CAUSE OF ACTION

(Infringement of the '697 Patent)

30. Lynk incorporates by reference and realleges each and every allegation of Paragraphs 1 through 29 as if set forth herein.

31. Samsung imports, offers for sale, and sells certain smartphone products, which directly infringe at least Claims 1, 7, and 14 of the '697 Patent. The infringing products include any and all Samsung smartphone products featuring the LED technology set forth in certain claims of the '697 Patent.

32. For instance, as described by the exemplary photographs below, the Samsung Galaxy S21 Ultra ("S21 Ultra") is, as recited in claim 1 of the '697 Patent, an "apparatus" comprising:

at least one LED;

a semiconductor device configured to emit a laser;

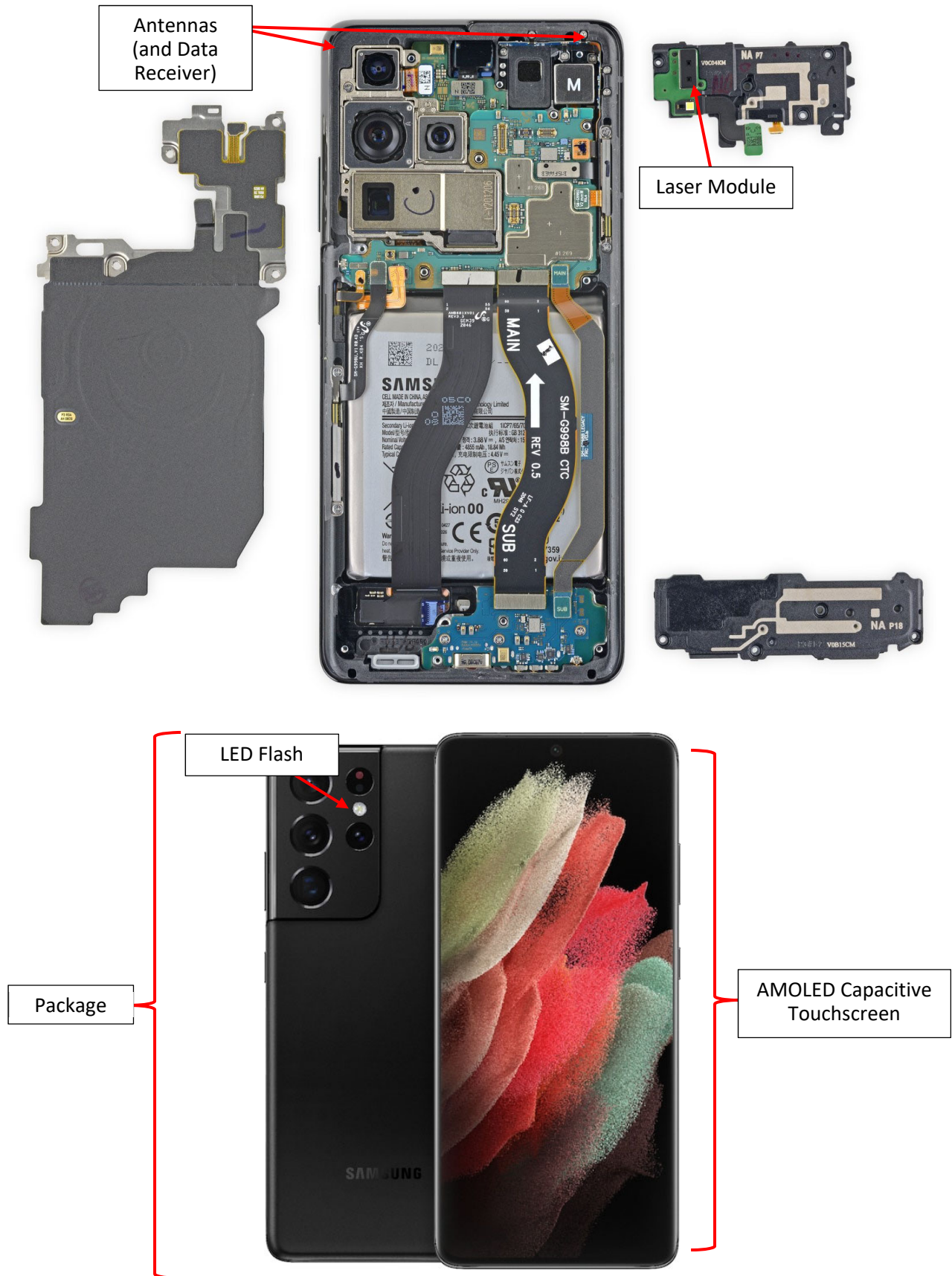
a data receiver including an antenna, wherein the data receiver is configured to transmit and receive data;

a circuit configured to detect human touch via capacitive sensing;
and

a battery ground capacitively coupled to at least one of the data receiver, the circuit, the at least one LED, or the semiconductor device via a conductor,

wherein the apparatus is portable, and

wherein the at least one LED, the semiconductor device, the data receiver, the circuit, and the battery ground are contained within a package and connected to at least one circuit board within the package.



33. More specifically, the S21 Ultra contains:

- a. at least one LED, including the LED flash and the LED backlights within the device's AMOLED capacitive touchscreen;
- b. a laser autofocus module, a semiconductor device configured to emit a laser;
- c. multiple data receivers and antennas supporting mobile data, Wi-Fi, Bluetooth, and other data transmission protocols;
- d. a capacitive touchscreen, *i.e.*, a circuit configured to detect human touch via capacitive sensing; and
- e. upon information and belief, a battery ground capacitively coupled to at least one of the data receiver, the circuit, the at least one LED, or the semiconductor device via a conductor.

34. Further, the S21 Ultra is a mobile phone, which is designed to be carried by a user and therefore portable.

35. Finally, the S21 Ultra's various components are all contained within its external housing (*i.e.*, a package) and connected the device's various circuit boards such that the device can function.

36. Lynk has been damaged as a result of the infringing conduct by Samsung alleged above. Thus, Samsung is at least liable to Lynk in an amount that compensates it for such infringement, which by law cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

37. Samsung's infringement of the '697 Patent has caused, and will continue to cause, Lynk to suffer substantial and irreparable harm.

38. Samsung will have been aware that it infringes the '697 Patent since at least the issuance of the '697 Patent and the filing of this Complaint on May 25, 2021. Therefore, any infringement of the '697 Patent by Samsung occurring after May 25, 2021 is willful.

39. Lynk has complied with the marking requirements of 35 U.S.C. § 287 with respect to the '697 Patent.

SECOND CAUSE OF ACTION

(Infringement of the '979 Patent)

40. Lynk incorporates by reference and realleges each and every allegation of Paragraphs 1 through 39 as if set forth herein.

41. Samsung imports, offers for sale, and sells certain lighting components and products, which directly infringe at least Claim 7 of the '979 Patent. The infringing products include any and all Samsung lighting components and products featuring the driver-on-board technology set forth in certain claims of the '979 Patent.

42. For instance, as described by the exemplary photographs below, the Samsung ACOM Round LED device is, or is part of, as recited in claim 7 of the '979 Patent, an "LED lighting system" comprising:

a lighting device configured to be connected directly to a mains AC voltage power source, wherein the lighting device comprises:

an LED circuit comprising two or more LEDs connected together in series to match a forward voltage drop of the mains AC power source,

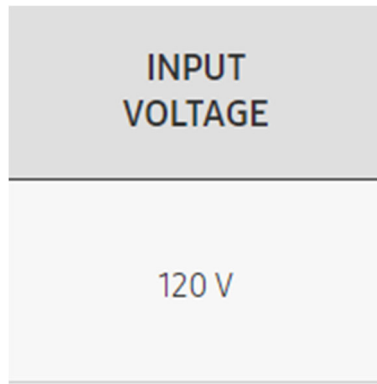
an LED driver circuit comprising a driver integrated circuit, a bridge rectifier, and a capacitor,

wherein the driver integrated circuit, the bridge rectifier, the capacitor, and the LEDs are all mounted on a single insulating substrate, and

wherein the LED driver circuit comprises an input configured to receive a first AC voltage from the mains AC voltage power source and to provide a DC voltage output to the LEDs; and

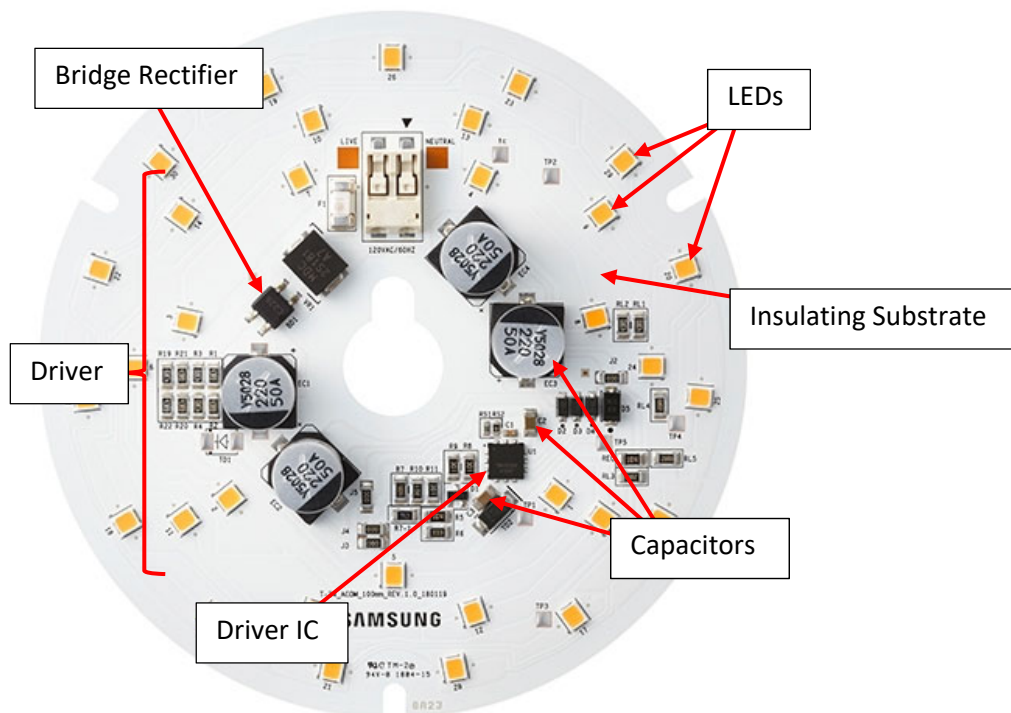
a first lens covering the lighting device.

43. More specifically, the Samsung ACOM Round LED device comprises a lighting device configured to be connected directly to a mains AC voltage power source (120V).



44. The Samsung ACOM Round LED device includes an LED circuit comprising numerous LEDs which are, upon information and belief, connected together in series to match a forward voltage drop of the 120V mains AC power source.

45. The Samsung ACOM Round LED device also includes an LED driver circuit comprising a driver integrated circuit, a bridge rectifier, and multiple capacitors all mounted on a metal core printed circuit board, which contains an insulating dielectric layer.



46. The Samsung ACOM Round LED device also includes an input configured to receive a first AC voltage from the 120V mains AC voltage power source and, upon information and belief, to provide a DC voltage output to the LEDs.

47. Further, the Samsung ACOM Round LED device is designed for use with a diffuser lens (i.e. a first lens) covering the lighting device.

48. Samsung also actively induces infringement of at least Claim 7 of the '979 Patent by selling each of the infringing products with accompanying instructions and offering support for use consistent with the claim limitations.

49. Likewise, Samsung aids, instructs, or otherwise acts with the intent to cause its customers and end users to use the infringing products in an infringing manner.

50. The infringing products have no substantial non-infringing uses.

51. For instance, Home Depot offers a number of in-house private label products using Samsung's LED modules in an infringing manner.

52. Lynk has been damaged as a result of the infringing conduct by Samsung alleged above. Thus, Samsung is at least liable to Lynk in an amount that compensates it for such infringement, which by law cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

53. Samsung's infringement of the '979 Patent has caused, and will continue to cause, Lynk to suffer substantial and irreparable harm.

54. Samsung was aware of its infringement of and has willfully infringed the '979 Patent since at least May 26, 2020. *See* Ex. E. Upon information and belief, Samsung was aware of its infringement of and has willfully infringed the '979 Patent since as early as May 12, 2020, when the '979 Patent issued, through Samsung's own freedom to operate analysis.

55. Lynk has complied with the marking requirements of 35 U.S.C. § 287 with respect to the '979 Patent.

THIRD CAUSE OF ACTION

(Infringement of the '551 Patent)

56. Lynk incorporates by reference and realleges each and every allegation of Paragraphs 1 through 55 as if set forth herein.

57. Samsung imports, offers for sale, and sells certain lighting components and products, which directly infringe at least Claims 1 and 5 of the '551 Patent. The infringing products include any and all Samsung lighting components and products featuring the driver-on-board technology set forth in certain claims of the '551 Patent.

58. For instance, as described by the exemplary photographs below, the Samsung ACOM Round LED device is, or is part of, as recited in claim 1 of the '551 Patent, an "LED lighting system" comprising:

an LED circuit having at least one LED;

a bridge rectifier;

at least one capacitor;

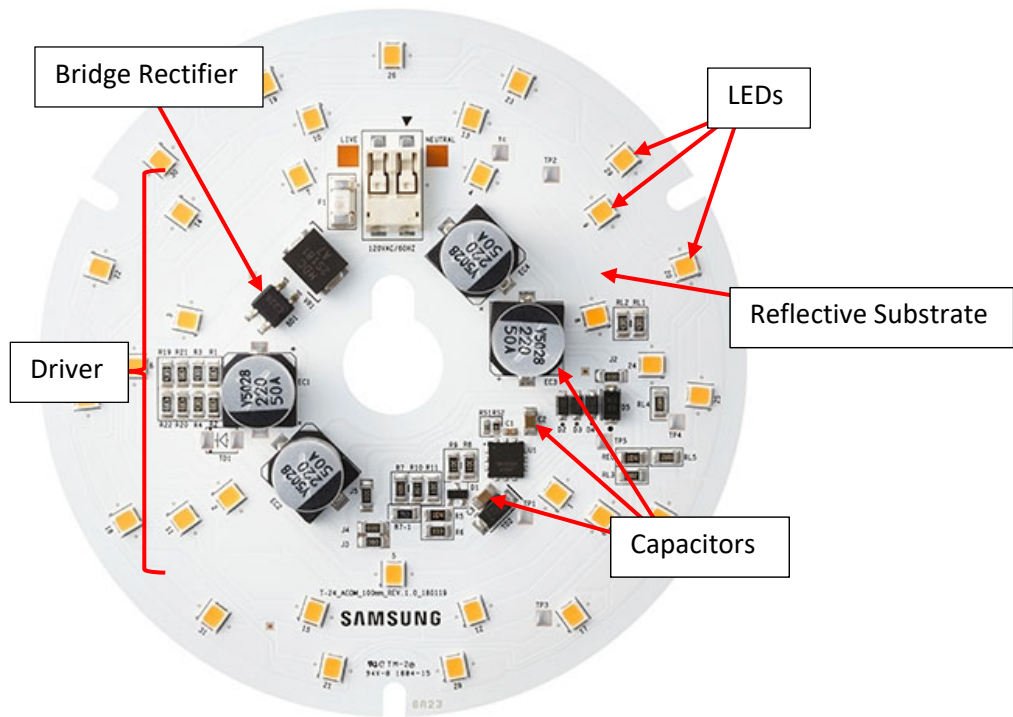
a driver connected to the bridge rectifier;

the driver, bridge rectifier, at least one capacitor and at least one LED circuit all mounted on a reflective substrate,

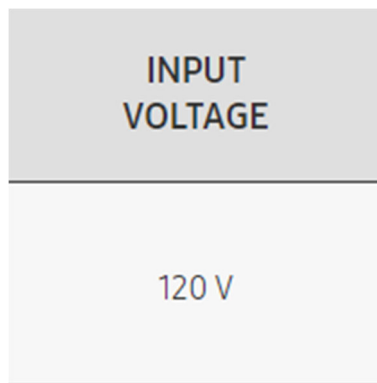
the driver providing rectified AC voltage and current to the LED circuit,

the driver having an input of a first rectified AC voltage and a first frequency from a mains power source.

59. The Samsung ACOM Round LED device includes an LED circuit comprising numerous LEDs, a bridge rectifier, multiple capacitors, and a driver connected to the bridge rectifier, all mounted on a reflective substrate.



60. The Samsung ACOM Round LED device’s driver has an input of a first rectified AC voltage and a first frequency from a mains power source and, upon information and belief, provides rectified AC voltage and current to the LED circuit.



61. Samsung also actively induces infringement of at least Claims 1 and 5 of the ’551 Patent by selling each of the infringing products with accompanying instructions and offering support for use consistent with the claim limitations.

62. Likewise, Samsung aids, instructs, or otherwise acts with the intent to cause its customers and end users to use the infringing products in an infringing manner.

63. The infringing products have no substantial non-infringing uses.

64. For instance, Home Depot offers a number of in-house private label products using Samsung's LED modules in an infringing manner.

65. Lynk has been damaged as a result of the infringing conduct by Samsung alleged above. Thus, Samsung is at least liable to Lynk in an amount that compensates it for such infringement, which by law cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

66. Samsung's infringement of the '551 Patent has caused, and will continue to cause, Lynk to suffer substantial and irreparable harm.

67. Samsung was aware of its infringement of and has willfully infringed the '551 Patent since at least December 4, 2019. Upon information and belief, Samsung was aware of its infringement of and has willfully infringed the '551 Patent since as early as December 11, 2018, when the '551 Patent issued, through Samsung's own freedom to operate analysis.

68. Lynk has complied with the marking requirements of 35 U.S.C. § 287 with respect to the '551 Patent.

PRAYER FOR RELIEF

WHEREFORE, Lynk requests that:

A. The Court find that Samsung has directly infringed the Patents-in-Suit and hold Samsung liable for such infringement;

B. The Court find that Samsung has indirectly infringed at least the '979 Patent and the '551 Patent by inducing its customers and end users to directly infringe the patents and hold Samsung liable for such infringement;

C. The Court find that Samsung has indirectly infringed at least the '979 Patent and the '551 Patent by contributing to its customers' and end users' direct infringement of the Patents-in-Suit and hold Samsung liable for such infringement;

D. The Court award damages pursuant to 35 U.S.C. § 284 adequate to compensate Lynk for Samsung's past infringement of the Patents-in-Suit, including both pre- and post-judgment interest and costs as fixed by the Court;

E. The Court increase the damages to be awarded to Lynk by three times the amount found by the jury or assessed by the Court for infringement occurring after May 25, 2021;

F. The Court declare that this is an exceptional case entitling Lynk to its reasonable attorneys' fees under 35 U.S.C. § 285;

G. The Court grant injunctive relief permanently enjoining Samsung from further infringement of the Patents-in-Suit; and

H. The Court award such other relief as the Court may deem just and proper.

JURY DEMAND

Plaintiff Lynk Labs, Inc. hereby demands a trial by jury on every issue on which it is so entitled.

Dated: June 9, 2021

Respectfully submitted,

By: /s/ Darlene F. Ghavimi

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