IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF FLORIDA

SEOUL VIOSYS CO., LTD.,

Plaintiff,

v.

SALON SUPPLY STORE LLC,

Defendant.

Case No. _____

JURY TRIAL DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Seoul Viosys Co., Ltd. ("SVC" or "Plaintiff") hereby sues Salon Supply Store LLC, and alleges as follows:

THE PARTIES

1. Seoul Viosys Co., Ltd. is a company organized and existing under the laws of the Republic of Korea, and having its principal place of business at 65-16, Sandan-ro163beon-gil, Danwon-gu Ansan-si, Gyeonggi-do, Korea.

2. SVC innovates light emitting diode technology. SVC designs, manufactures and sells LEDs of varying wavelengths (e.g., visible light, near ultra-violet, and UV) for numerous applications and products, including televisions, monitors, lighting, curing, printing, counterfeit detection, disinfection, sensors, and analytical and medical instrument applications.

3. On information and belief, Salon Supply Store LLC is a company organized and existing under the laws of Florida, and having its principal place of business at 350 Hiatt Drive, Palm Beach Gardens, Florida 33401. SSS's registered agent for service of process is John

White Jr., of Nason, Yeager, Gerson, White and Lioce, P.A., located at 1645 Palm Beach Lakes Boulevard, Suite 1200, West Palm Beach, Florida 33401.

4. SSS's authorized representatives as identified by the Florida State Division of Corporations are managers Gustavo Mitchell and Mariela Mitchell, both of 3710 Buckeye Street, Suite 120, Palm Beach Gardens, Florida 33410.

5. On information and belief, SSS is in the business of importing into the United States, and marketing, offering for sale, selling and distributing salon equipment and beauty supplies, including the Salon Edge Medium Round LED Gel Nail Polish Curing Lamp MAN-LED-TP27, the 18W Salon Edge LED Gel Nail Polish UV Curing Lamp Dryer Timer MAN-LED-TP35B, and other similar products, to customers in the State of Florida and throughout the United States. A true and correct copy of a printout from SSS's website which shows it offers Salon Edge Medium Round LED Gel Nail Polish Curing Lamp MAN-LED-TP27 for sale is attached to this Complaint as Exhibit A. A true and correct copy of a printout of SSS's website which shows it offers 18W Salon Edge LED Gel Nail Polish UV Curing Lamp Dryer Timer MAN-LED-TP35B for sale is attached to this Complaint as Exhibit B.

JURISDICTION AND VENUE

6. This is a civil action for patent infringement arising under the Patent Laws of the United States of America, 35 U.S.C. §1 *et. seq.* This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331, 1338(a).

7. This Court has personal jurisdiction over SSS because, among other things, SSS's principal place of business is located in, and SSS conducts business in the Southern District of Florida.

8. Venue is proper in this judicial district pursuant to 28 U.S.C. §§1391 (b) and (c), and 1400(b).

THE PATENTS IN SUIT

9. On May 1, 2012 United States Patent No. 8,168,988 ("the '988 Patent"), entitled, "Light Emitting Element with a Plurality of Cells Bonded, Method of Manufacturing the Same, and Light Emitting Device Using the Same", was duly and legally issued by the United States Patent and Trademark Office ("USPTO"). A true and correct copy of the '988 Patent is attached to this Complaint as Exhibit C.

10. SVC is the owner and assignee of all right, title and interest in and to the '988 Patent, and holds the right to sue and recover damages for infringement thereof, including past damages.

11. On July 19, 2011, United States Patent No. 7,982,207 ("the '207 Patent"), entitled, "Light Emitting Diode", was duly and legally issued by the USPTO. A true and correct copy of the '207 Patent is attached to this Complaint as Exhibit D.

12. SVC is the owner and assignee of all right, title and interest in and to the '207 Patent, and holds the right to sue and recover damages for infringement thereof, including past damages.

13. On May 26, 2015, United States Patent No. 9,041,032 ("the '032 Patent"), entitled, "Light Emitting Diode Having Strain-Enhanced Well Layer", was duly and legally issued by the USPTO. A true and correct copy of the '032 Patent is attached to this Complaint as Exhibit E.

14. SVC is the owner and assignee of all right, title and interest in and to the '032 Patent, and holds the right to sue and recover damages for infringement thereof, including past damages.

15. On December 29, 2015, United States Patent No. 9,224,935 ("the '935 Patent"), entitled, "Light Emitting Diode Package", was duly and legally issued by the USPTO. A true and correct copy of the '935 Patent is attached to this Complaint as Exhibit F.

16. SVC is the exclusive licensee of the '935 Patent, and holds the right to sue and recover damages for infringement thereof, including past damages.

17. On March 25, 2014 United States Patent No. 8,680,559 ("the '559 Patent"), entitled, "Light Emitting Diode Having Electrode Extensions for Current Spreading", was duly and legally issued by the USPTO. A true and correct copy of the '559 Patent is attached to this Complaint as Exhibit G.

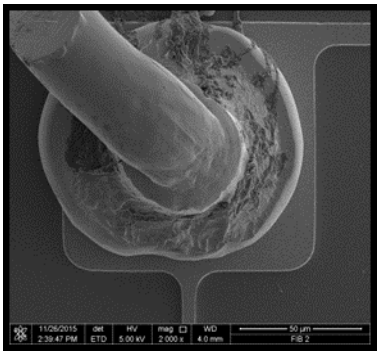
18. SVC is the owner and assignee of all right, title and interest in and to the '559 Patent, and holds the right to sue and recover damages for infringement thereof, including past damages.

INFRINGEMENT OF U.S. PATENT NO. 7,982,207,
CLAIM NOS. 1 AND 6

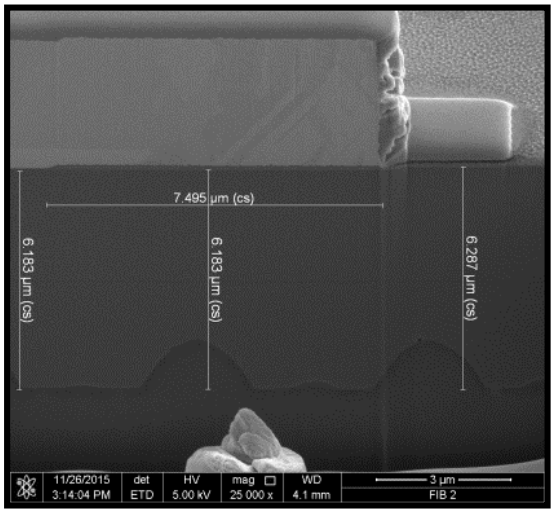
19. The 18W Salon Edge LED Gel Nail Polish UV Curing Lamp Dryer Timer MAN-LED-TP35B ("TP35B") is depicted below, and in Exhibit B to this Complaint.

20. The TP35B contains a plurality of light emitting diodes. The light emitting diodes include a silicon-based substrate, above which is an n-type semiconductor layer comprising silicon doped GaN. Above the n-type semiconductor layer is an active layer comprising InAlGaN. And above the active layer is a p-type semiconductor layer comprising magnesium doped GaN.

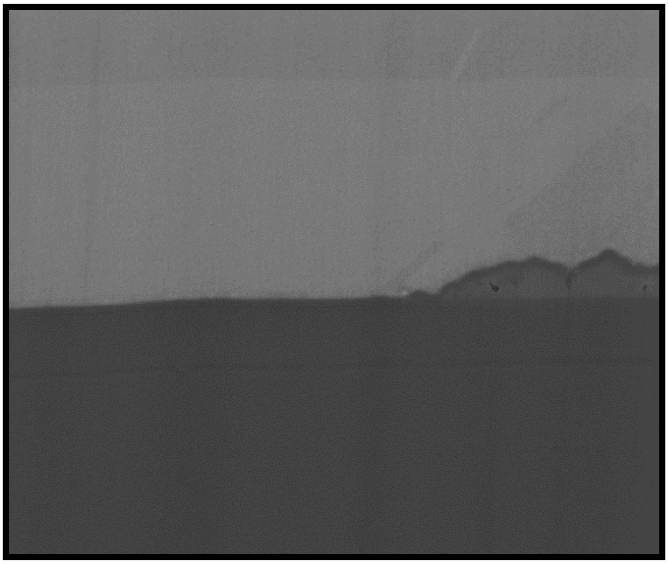
21. The below image is a magnified view of one of the gold P pads on an example light emitting diode chip.



22. The below image is a further magnified side view (cross section) of the P pad.



23. The below image is a further magnified image focusing on an area underlying the gold P pad. The right side of the below image depicts four layers, which from bottom to top, are: (1) a p-type (magnesium doped) GaN layer; (2) a transparent electrode comprising indium tin oxide (ITO); (3) a chromium layer; and (4) a platinum layer. The left side of the image below also shows an opening in the transparent electrode where the indium tin oxide layer is absent. Instead of being separated from the p-type GaN layer by the transparent electrode as shown on the right portion of the image, the chromium and platinum layers are in contact with the p-type GaN layer. The left side of the below image thus depicts from bottom to top: (1) a p-type (magnesium doped) GaN layer; (2) a chromium layer; (3) a platinum layer; and (4) the gold P pad. The chromium layer and platinum layer, when contacting p-type GaN layer and the P pad, are a current blocking portion.



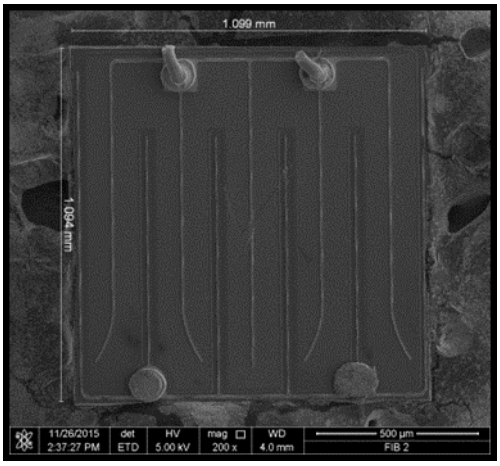
INFRINGEMENT OF U.S. PATENT NO. 9,041,032,
CLAIM NOS. 11-12, 15-16 AND 19

24. The TP35B contains a plurality of light emitting diodes. As described above, the light emitting diodes include an n-contact layer comprising silicon doped GaN, a p-contact layer comprising magnesium doped GaN, and an active layer comprising InAlGaN between the n-contact layer and p-contact layer.

25. The active layer of the TP35B includes alternating barrier and well layers. The barrier layers are comprised of AlGaN, whereas the well layers are comprised of InGaN. The barrier layers also include AlGaN-based quantum dots, that in combination with the barrier layers comprise strain enhancing layers. These high aluminum-containing quantum dots have a lower lattice constant than the low aluminum-containing aluminum gallium nitride barrier layer.

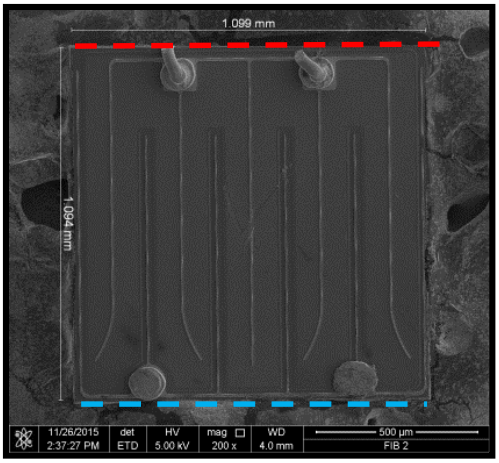
INFRINGEMENT OF U.S. PATENT NO. 8,680,559,
CLAIM NOS. 1, 6-8 AND 16

26. The TP35B contains a plurality of light emitting diodes. The image below depicts a magnified top view of a single light emitting diode.

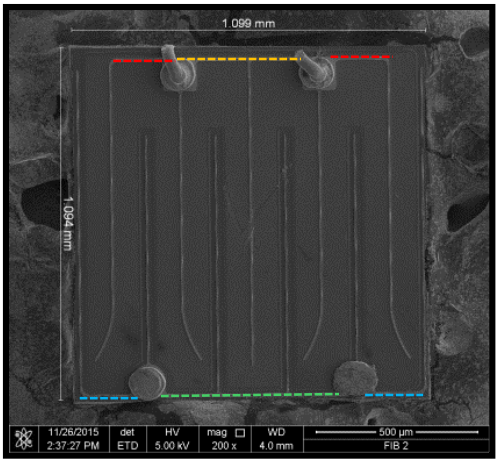


27. As previously described, the TP35B LEDs include a silicon based substrate layer. Disposed on the substrate is a multi-layer GaN based light based light emitting structure. Two of those layers are a magnesium doped GaN layer, which is a first semiconductor layer, and a silicon doped GaN layer, which is a second semiconductor layer. The first semiconductor layer is the upper most layer, and the second semiconductor layer is between the first semiconductor layer and the substrate.

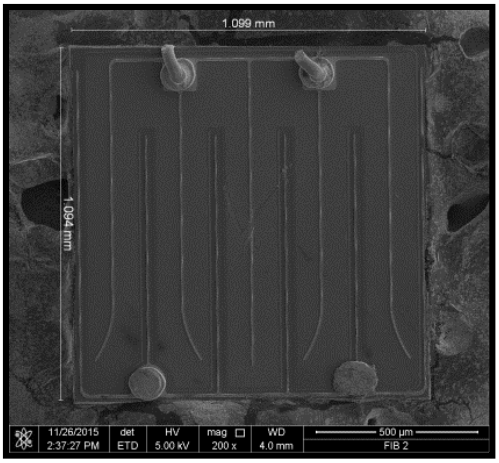
28. As shown in the annotated top view provided below, the silicon based substrate layer has a first edge (red dotted line) and second edge (blue dotted line) that are opposite each other. The LED chip further includes a plurality of first electrode pads in the vicinity of the first edge, and second electrode pads in the vicinity of the second edge. The first electrode pads are arranged on the upper surface of the first semiconductor layer, and the second electrode pads are arranged on the second semiconductor layer.



29. A plurality of first extensions extend from the first electrode pads. Two extensions are identified by red dotted lines below. The first extensions further include a first extension connection part connecting adjacent first electrode pads to each other, which is indicated with an orange dotted line below.



30. A plurality of second extensions extend from the second electrode pads. Two second extensions are identified by blue dotted lines above. The second extensions further include a second extension connection part connecting adjacent second electrode pads to each other, which is indicated above with a green dotted line.



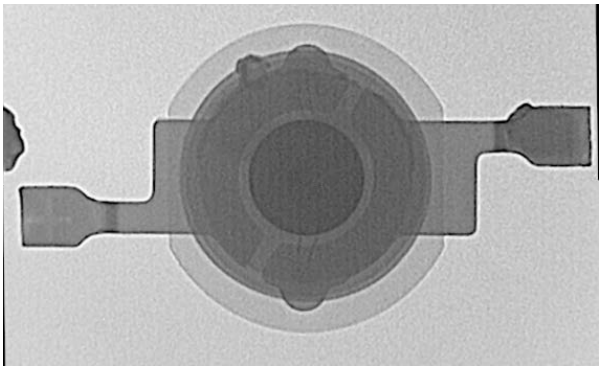
31. As shown in the above version of the top view, the first extensions include intrusion parts extending in the direction from the first to the second edge. They are spaced apart from one another and do not connect to the second electrode pads. The second extensions include intrusion parts extending in the direction from the second to the first edge. The first extension intrusion parts each extend into a region between two of the second extension intrusion parts. The outermost second extension intrusion parts extend to a distance closer to the first edge than the center of each of the first electrode pads. Also as shown above, two of the first extension intrusion parts directly extend from the first electrode pads to the vicinity of the second edge.

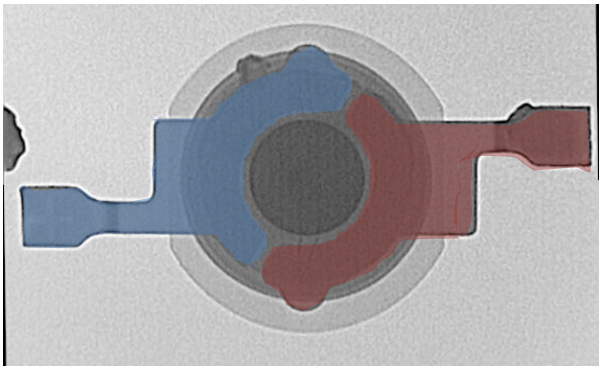
INFRINGEMENT OF U.S. PATENT NO. 9,224,935, CLAIM NOS. 1-3

32. An LED package of the TP35B is depicted below from different vantage points.

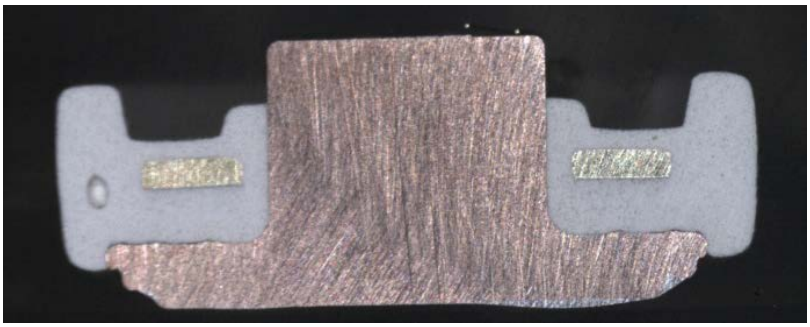
33. These photographs show in part an LED chip that is electrically connected to a first and second lead frame. A first lead frame is identified above with a plus sign and a second with a minus sign.

34. This arrangement may be more easily visualized from the above picture and below x-rays. First, the photographs above show the white housing, which covers most of two lead frames. To better show the lead frames, an x-ray was taken, which indicates the metal lead frames as darker than the housing. To the right is a colored version of the x-ray, which more clearly shows the two lead frames separated by a gap.



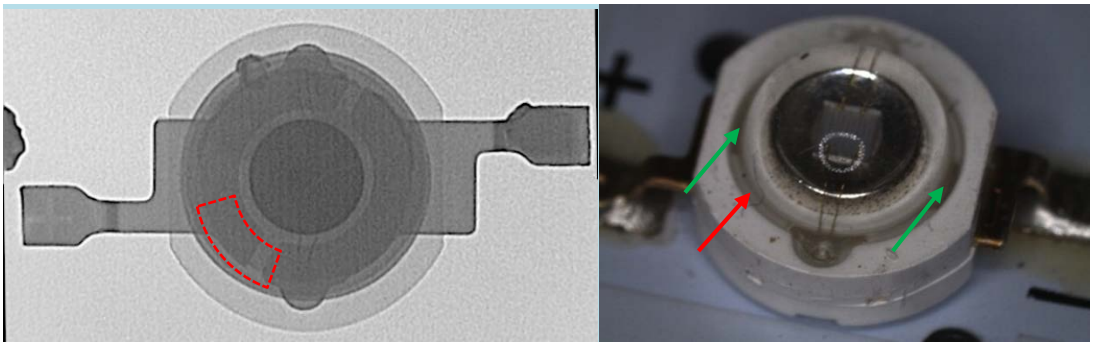


35. The below cross-section view shows the white housing as comprised of an external housing and an internal housing. As can be seen, a portion of the housing extends over the metal leads. The internal housing is lower than the top surface of the external housing.



36. As seen by considering the cross sectional view above in combination with the plain view below, the area between the external housing and internal housing comprises a cavity that extends inward from the external housing. The area between the external and internal housings within the cavity includes eight regions, four comprising exposed portions of the leads and four comprising portions of the housing partially covering portions of the leads and exposing other portions of the leads.

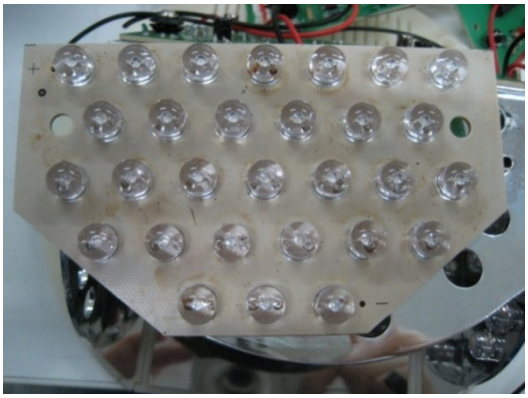
37. As shown in the images below, the internal housing includes a first bridge, indicated in red. The first bridge intersects the space between the leads. As shown in the picture to the right below, examples of portions of the exposed lead frame are indicated in green.

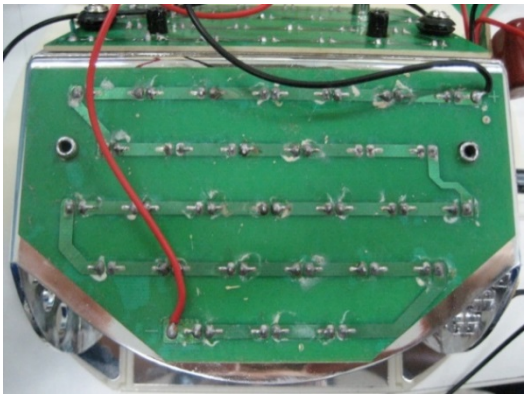


INFRINGEMENT OF U.S. PATENT NO. 8,168,988,
CLAIM NOS. 1-13

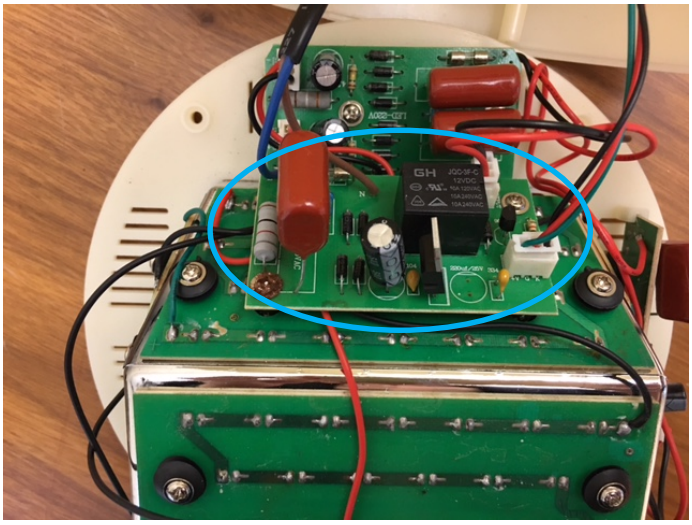
38. The Salon Edge Medium Round LED Gel Nail Polish Curing Lamp (MAN-LED-TP27) is depicted below, and in Exhibit A to this Complaint.

39. The TP27 light emitting device uses many light emitting cells as shown, for example, in the below left photograph of one of its LED mounting boards. These light emitting cells are connected in series as depicted in the below right photograph, which shows the reverse side of the LED mounting board.

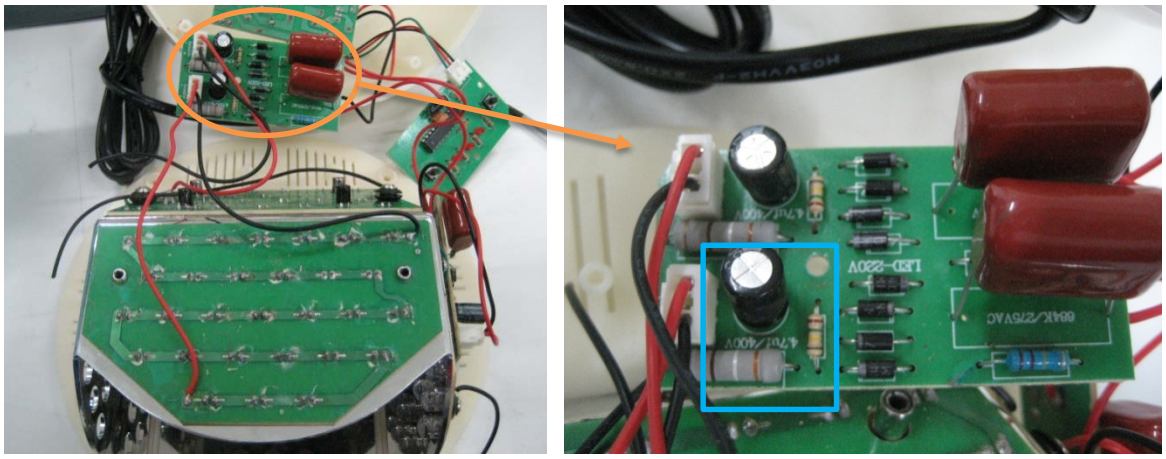




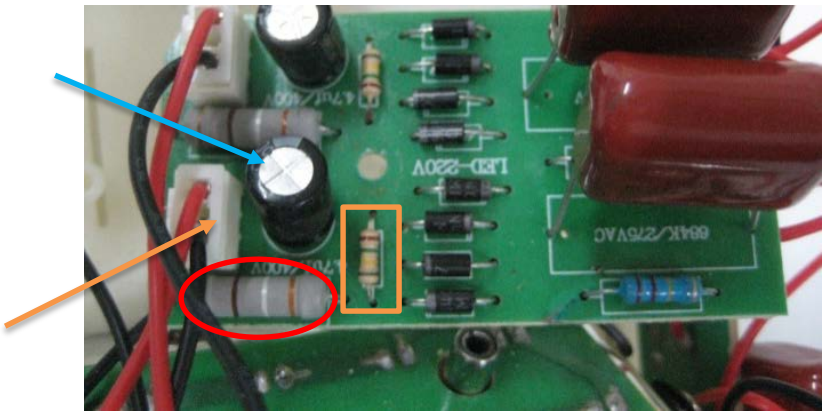
40. Another component of the TP27 is a power source unit, which comprises an alternating current power source. The alternating current power source is indicated with a blue oval in the photograph below.



41. Connected to an LED mounting board, is another board, which is circled in orange in the photograph below left, and also is enlarged in the photo to the right. The portion of the board that is identified with a blue rectangle, below right, is a control unit within the TP27.

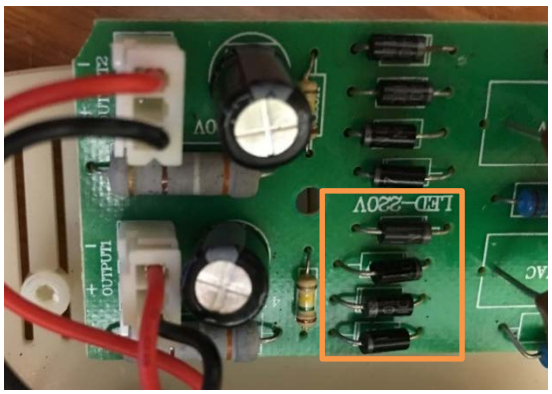


42. The control unit includes of a number of parts: a first resistor (identified with an orange box in the below enlarged photograph), a second resistor (identified with an red oval), and a capacitor (identified with a blue arrow). The light emitting cells are connected to the control unit via the connection identified with an orange arrow.



43. The reverse side of the board on which the control unit is provided indicates the electrical connections between the above described parts. The first resistor is connected in parallel with the light emitting cells. The second resister is connected in series with the light emitting cells. The first resistor is also connected in parallel to a capacitor. The control unit is configured to control a voltage and a current waveform applied to the light emitting element.

44. As shown in the photograph below, the light emitting element also includes a rectifying bridge unit (identified with an orange box). Each of the four grey and black objects within the orange box is a diode. Each of the diodes is connected to the power source unit.



Two of the diodes are also connected to an anode terminal of the light emitting cells (identified, e.g., on the above board as OUTPUT1 -), and the other two diodes are connected to a cathode terminal of the light emitting cells (identified, e.g., on the above board as OUTPUT1 +).

COUNT I

INFRINGEMENT OF U.S. PATENT NO. 8,168,988

45. Paragraphs 1 through 44 are incorporated herein by reference.

46. On information and belief, SVC alleges that SSS has directly infringed and continues to directly infringe, literally and/or under the doctrine of equivalents, claims 1-13 of the ’988 Patent by selling, offering for sale and/or importing products which include the claimed light emitting device, including but not limited to Salon Edge Medium Round LED Gel Nail Polish Curing Lamp MAN-LED-TP27, and other similar products.

47. SVC has suffered, and continues to suffer damages as a result of SSS’s infringement of the ’988 Patent, in an amount to be proved at trial.

COUNT II

INFRINGEMENT OF U.S. PATENT NO. 7,982,207

48. Paragraphs 1 through 44 are incorporated herein by reference.

49. On information and belief, SVC alleges that SSS has directly infringed and continues to directly infringe, literally and/or under the doctrine of equivalents, at least claims 1 and 6 of the ’207 Patent by selling, offering for sale and/or importing products which include the claimed light emitting diode, including but not limited to 18W Salon Edge LED Gel Nail Polish UV Curing Lamp Dryer Timer MAN-LED-TP35B and other similar products.

50. SVC has suffered, and continues to suffer damages as a result of SSS's infringement of the '207 Patent, in an amount to be proved at trial.

COUNT III

INFRINGEMENT OF U.S. PATENT NO. 9,041,032

51. Paragraphs 1 through 44 are incorporated herein by reference.

52. On information and belief, SVC alleges that SSS has directly infringed and continues to directly infringe, literally and/or under the doctrine of equivalents, at least claims 11-12, 15-16 and 19 of the '032 Patent by selling, offering for sale and/or importing products which include the claimed light emitting diode, including but not limited to 18W Salon Edge LED Gel Nail Polish UV Curing Lamp Dryer Timer MAN-LED-TP35B and other similar products.

53. SVC has suffered, and continues to suffer damages as a result of SSS's infringement of the '032 Patent, in an amount to be proved at trial.

COUNT IV

INFRINGEMENT OF U.S. PATENT NO. 9,224,935

54. Paragraphs 1 through 44 are incorporated herein by reference.

55. On information and belief, SVC alleges that SSS has directly infringed and continues to directly infringe, literally and/or under the doctrine of equivalents, at least claims 1-3 of the '935 Patent by selling, offering for sale and/or importing products which include the

claimed light emitting diode package, including but not limited to 18W Salon Edge LED Gel Nail Polish UV Curing Lamp Dryer Timer MAN-LED-TP35B and other similar products.

56. SVC has suffered, and continues to suffer damages as a result of SSS's infringement of the '935 Patent, in an amount to be proved at trial.

COUNT V

INFRINGEMENT OF U.S. PATENT NO. 8,680,559

57. Paragraphs 1 through 44 are incorporated herein by reference.

58. On information and belief, SVC alleges that SSS has directly infringed and continues to directly infringe, literally and/or under the doctrine of equivalents, at least claims 1, 6-8 and 16 of the '559 Patent by selling, offering for sale and/or importing products which include the claimed light emitting diode, including but not limited to 18W Salon Edge LED Gel Nail Polish UV Curing Lamp Dryer Timer MAN-LED-TP35B and other similar products.

59. SVC has suffered, and continues to suffer damages as a result of SSS's infringement of the '559 Patent, in an amount to be proved at trial.

PRAYER FOR RELIEF

WHEREFORE, Seoul Viosys Co., Ltd. respectfully requests that this Court enter judgment against Defendant as follows:

A. That Defendant has infringed the '988 Patent;

B. That Defendant has infringed the '207 Patent;

C. That Defendant has infringed the ’032 Patent;

D. That Defendant has infringed the ’935 Patent;

E. That Defendant has infringed the ’559 Patent;

F. That Plaintiff be awarded damages adequate to compensate it for Defendant’s infringement, together with pre-judgment and post-judgment interest;

G. That the Court permanently enjoin Defendant from marketing, offering for sale, selling and/or importing products, including Salon Edge Medium Round LED Gel Nail Polish Curing Lamp MAN-LED-TP27, 18W Salon Edge LED Gel Nail Polish UV Curing Lamp Dryer Timer MAN-LED-TP35B, and other similar products that infringe one or more of the asserted claims of the asserted patents; and

H. An Order for all other relief as the Court or a jury may deem proper and just.

s/Brian W. Toth
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Dated: March 18, 2016