# IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

SAMSUNG LED CO., LTD.,	)
Plaintiff,	) ) ) C.A. No.
v.	)
OSRAM GMBH, OSRAM OPTO SEMICONDUCTORS GMBH,	) DEMANDED
OSRAM OPTO SEMICONDUCTORS GMBH, OSRAM OPTO SEMICONDUCTORS INC., and OSRAM SYLVANIA INC.	)
	)
Defendants.	) )

### **COMPLAINT FOR PATENT INFRINGEMENT**

Samsung LED Co., Ltd. ("Samsung LED") brings this patent infringement action against OSRAM GmbH, OSRAM Opto Semiconductors GmbH, OSRAM Opto Semiconductors Inc., and OSRAM Sylvania Inc. (collectively, "OSRAM") and alleges as follows:

### **PARTIES**

- 1. Samsung LED Co., Ltd. is a joint venture of Samsung Electronics Co., Ltd. and Samsung Electro-Mechanics Co., Ltd., and is organized under the laws of Korea, with its principal place of business at 314, Maetan 3-Dong, Yeongtong-gu. Suwon City, Gyeonggi-Do 443-743, Korea.
- 2. Samsung LED is informed and believes, and thereupon alleges, that OSRAM GmbH is a corporation organized under the laws of Germany with its principal place of business at Hellabrunner Strasse 1, 81543 Munich, Germany. Samsung LED is

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further informed and believes, and thereupon alleges, that OSRAM GmbH makes, uses, sells, offers for sale, and imports into the United States light-emitting devices (LEDs) and products containing LEDs.

- 3. Samsung LED is informed and believes, and thereupon alleges, that OSRAM GmbH directs its LEDs and related products to the United States through established distribution channels with the knowledge that these products are used, sold, and offered for sale within the United States, including within this judicial district.
- 4. Samsung LED is informed and believes, and thereupon alleges, that OSRAM Opto Semiconductors GmbH is a corporation organized under the laws of Germany with its principal place of business at Leibnizstr 4, 93055 Regensburg, Germany.
- 5. Samsung LED is informed and believes, and thereupon alleges, that OSRAM Opto Semiconductors Inc. is a corporation organized under the laws of the State of Delaware, with its principal place of business at 1150 Kifer Road Suite 100, Sunnyvale, California 94086.
- 6. Samsung LED is informed and believes, and thereupon alleges, that OSRAM Opto Semiconductors Inc. is a U.S. subsidiary of OSRAM GmbH.
- 7. OSRAM Opto Semiconductors GmbH makes, uses, sells, offers for sale, and imports into the United States LEDs and products containing LEDs, including within this judicial district, and including but not limited to in coordination with its U.S. sistercompany OSRAM Opto Semiconductors Inc.
- 8. OSRAM Opto Semiconductors Inc. uses, sells, offers for sale, and imports LEDs and products containing LEDs into the United States, including within this judicial district. Samsung LED is informed and believes, and thereupon alleges, that OSRAM

Opto Semiconductors Inc. makes LEDs and products containing LEDs, including but not limited to in coordination with its German sister-company OSRAM Opto Semiconductors GmbH.

- 9. Samsung LED is informed and believes, and thereupon alleges, that OSRAM Sylvania Inc. is a corporation organized under the laws of the State of Delaware, with its principal place of business at 100 Endicott Street, Danvers, Massachusetts 01923. On information and belief, OSRAM Sylvania Inc. is a U.S. subsidiary of OSRAM GmbH.
- 10. OSRAM Sylvania Inc. makes, uses, sells, offers for sale, and imports LEDs and products containing LEDs into the United States, including within this judicial district.

### **JURISDICTION AND VENUE**

- 11. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. § 1, *et seq.*, including 35 U.S.C. § 271. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).
- 12. This Court has personal jurisdiction over OSRAM GmbH, OSRAM Opto Semiconductors GmbH, OSRAM Opto Semiconductors Inc., and OSRAM Sylvania Inc. because each entity has committed and continues to commit acts of patent infringement in this judicial district, has placed infringing LEDs and products containing LEDs into the stream of commerce by selling those products in this judicial district, and has knowledge that their LEDs and products containing LEDs would be shipped into this judicial district. Samsung LED is informed and believes, and thereupon alleges, that each of the Defendants conducts continuous and systematic business in this district by selling and offering for sale LEDs and products containing LEDs. Additionally, OSRAM Opto Semiconductors Inc. and OSRAM Sylvania Inc. are Delaware corporations.

13. Venue in this judicial district is proper pursuant to 28 U.S.C. §§ 1391(c) and 1400(b). The acts and transactions at issue had effect within this district, among other places. Samsung LED is informed and believes, and thereupon alleges, that each of the Defendants conducts business activities in this judicial district, including regularly doing or soliciting business, and engaging in conduct and/or deriving substantial revenue from goods provided to consumers in this district. Further, OSRAM Opto Semiconductors Inc. and OSRAM Sylvania Inc. are registered to do business with the Delaware Secretary of State.

### THE ASSERTED PATENTS

- 14. This is a lawsuit for infringement of eight United States Patents. Each of these patents relate to light emitting devices, or LEDs. LEDs are used in a wide range of products and appliances. These include things like light bulbs for use in the home or outdoors, car headlights, turn signals, and brake signals, car dashboard lights, kitchen appliances, consumer electronics, wireless phones, and televisions. LEDs are increasingly popular as a result of qualities like their energy efficiency, small size, and/or the quality of the light they produce.
- 15. Six of the Samsung LED patents in suit concern the structure of LEDs.Two of the patents concern methods for making LEDs.
- 16. OSRAM makes, uses, sells, offers for sale, and imports many different LEDs. Two of its popular brands are the "TOPLED" and the "Dragon Family." Products within these brands sometimes include variations on these names (like the "Golden Dragon Plus"). OSRAM also sells packaged LEDs under the name OSLON. OSRAM makes a partial list of its LED products available on its website.

- 17. OSRAM also makes, uses, sells, offers for sale, and imports products that contain their LEDs, including but not limited to electronic components like circuit boards with OSRAM LEDs on them. These also include a range of the consumer products noted above, including but not limited to light bulbs, appliances, and consumer electronics.
- 18. Samsung LED owns, by assignment, all right, title, and interest in and to United States Letters Patent No. 7,268,372 ("the '372 patent"), entitled "Vertical GAN Light Emitting Diode and Method for Manufacturing the Same." The United States Patent & Trademark Office ("PTO") duly and legally issued the '372 patent on September 11, 2007. A true and correct copy of the '372 patent is attached as Exhibit A.
- 19. Samsung LED owns, by assignment, all right, title, and interest in and to United States Letters Patent No. 7,959,312 ("the '312 patent"), entitled "White Light Emitting Device and White Light Source Module Using the Same." The PTO duly and legally issued the '312 patent on June 14, 2011. A true and correct copy of the '312 patent is attached as Exhibit B.
- 20. Samsung LED owns, by assignment, all right, title, and interest in and to United States Letters Patent No. 7,893,443 ("the '443 patent"), entitled "Nitride Based Semiconductor Light-Emitting Device." The PTO duly and legally issued the '443 patent on February 22, 2011. A true and correct copy of the '443 patent is attached as Exhibit C.
- 21. Samsung LED owns, by assignment, all right, title, and interest in and to United States Letters Patent No. 7,282,741 ("the '741 patent"), entitled "Vertical Type Nitride Semiconductor Light Emitting Diode." The PTO duly and legally issued the '741 patent on October 16, 2007. A true and correct copy of the '741 patent is attached as Exhibit D.

- 22. Samsung LED owns, by assignment, all right, title, and interest in and to United States Letters Patent No. 7,838,315 ("the '315 patent"), entitled "Method of Manufacturing Vertical Light Emitting Diode." The PTO duly and legally issued the '315 patent on November 23, 2010. A true and correct copy of the '315 patent is attached as Exhibit E.
- 23. Samsung LED owns, by assignment, all right, title, and interest in and to United States Letters Patent No. 7,964,881 ("the '881 patent"), entitled "Semiconductor Light Emitting Device, Method of Manufacturing The Same, And Semiconductor Light Emitting Device Package Using The Same." The PTO duly and legally issued the '881 patent on June 21, 2011. A true and correct copy of the '881 patent is attached as Exhibit F.
- 24. Samsung LED owns, by assignment, all right, title, and interest in and to United States Letters Patent No. 6,551,848 ("the '848 patent"), entitled "Method For Fabricating Semiconductor Light Emitting Device." The PTO duly and legally issued the '848 patent on April 22, 2003. A true and correct copy of the '848 patent is attached as Exhibit G.
- 25. Samsung LED owns, by assignment, all right, title, and interest in and to United States Letters Patent No. 7,771,081 ("the '081 patent"), entitled "LED Package and Backlight Unit Using the Same." The PTO duly and legally issued the '081 patent on August 10, 2010. A true and correct copy of '081 patent is attached as Exhibit H.
- 26. The '372 patent, the '312 patent, the '443 patent, the '741 patent, the '315 patent, the '881 patent, the '848 patent and the '081 patent are collectively referred to herein as the "asserted Patents."

# **COUNT I Infringement Of The '372 Patent**

- 27. In violation of 35 U.S.C. § 271, OSRAM has, without authorization or license, infringed and continues to directly infringe and induce the infringement of the '372 patent in this judicial district and elsewhere in the United States through the manufacture, use, offer for sale, sale, and/or importation of OSRAM LEDs and products containing OSRAM LEDs. This group of products includes, without limitation, LEDs sold under the TOPLED and Dragon Family names, and myriad other components and products that incorporate LEDs that infringe the '372 patent.
- 28. OSRAM has knowledge of the '372 patent, and despite that knowledge instructs its customers on how to use infringing LEDs and products containing infringing LEDs.
- 29. OSRAM will continue to infringe the '372 patent unless enjoined therefrom by this Court. OSRAM'S acts of infringement of the '372 patent have caused and will continue to cause Samsung substantial and irreparable injury, for which Samsung LED is entitled to receive injunctive relief and damages adequate to compensate it for such infringement.
- 30. OSRAM's acts of infringement of the '372 patent have been and are being committed with knowledge of the '372 patent, intentionally and in a willful and wanton manner in deliberate disregard of Samsung LED's patent rights.

# **COUNT II Infringement Of The '312 Patent**

31. In violation of 35 U.S.C. § 271, OSRAM has, without authorization or license, infringed and continues to directly infringe, contributorily infringe, and induce the

infringement of the '312 patent in this judicial district and elsewhere in the United States through the manufacture, use, offer for sale, sale, and/or importation of OSRAM LEDs and products containing OSRAM LEDs including but not limited to the Advanced Power TOPLED Plus, Golden Dragon Plus, and OSLON SSL 80, and other components and products that incorporate these devices.

- 32. OSRAM has knowledge of the '312 patent, and despite that knowledge instructs its customers on how to use infringing LEDs and products containing infringing LEDs.
- 33. The infringing LEDs and circuit boards containing infringing LEDs lack substantial non-infringing uses.
- 34. OSRAM will continue to infringe the '312 patent unless enjoined therefrom by this Court. OSRAM'S acts of infringement of the '312 patent have caused and will continue to cause Samsung substantial and irreparable injury, for which Samsung is entitled to receive injunctive relief and damages adequate to compensate it for such infringement.
- 35. OSRAM's acts of infringement of the '312 patent have been and are being committed with knowledge of the '312 patent, intentionally and in a willful and wanton manner in deliberate disregard of Samsung LED's patent rights.

# **COUNT III Infringement of the '443 Patent**

36. In violation of 35 U.S.C. § 271, OSRAM has, without authorization or license, infringed and continues to directly infringe and induce the infringement of the '443 patent in this judicial district and elsewhere in the United States through the manufacture, use, offer for sale, sale, and/or importation of OSRAM LEDs and products

containing OSRAM LEDs. This group of products includes, without limitation, LEDs sold under the TOPLED, Dragon Family, and OSLON Family names, and myriad other components and products that incorporate LEDs that infringe the '443 patent.

- 37. OSRAM has knowledge of the '443 patent, and despite that knowledge instructs its customers on how to use infringing LEDs and products containing infringing LEDs.
- 38. OSRAM will continue to infringe the '443 patent unless enjoined therefrom by this Court. OSRAM'S acts of infringement of the '443 patent have caused and will continue to cause Samsung substantial and irreparable injury, for which Samsung is entitled to receive injunctive relief and damages adequate to compensate it for such infringement.
- 39. OSRAM's acts of infringement of the '443 patent have been and are being committed with knowledge of the '443 patent, intentionally and in a willful and wanton manner in deliberate disregard of Samsung LED's patent rights.

# **COUNT IV Infringement of the '741 Patent**

40. In violation of 35 U.S.C. § 271, OSRAM has, without authorization or license, infringed and continues to directly infringe and induce the infringement of the '741 patent in this judicial district and elsewhere in the United States through the manufacture, use, offer for sale, sale, and/or importation of OSRAM LEDs and products containing OSRAM LEDs. This group of products includes, without limitation, LEDs sold under the TOPLED and Dragon Family names, and myriad other components and products that incorporate LEDs that infringe the '741 patent.

- 41. OSRAM has knowledge of the '741 patent, and despite that knowledge instructs its customers on how to use infringing LEDs and products containing infringing LEDs.
- 42. OSRAM will continue to infringe the '741 patent unless enjoined therefrom by this Court. OSRAM'S acts of infringement of the '741 patent have caused and will continue to cause Samsung substantial and irreparable injury, for which Samsung is entitled to receive injunctive relief and damages adequate to compensate it for such infringement.
- 43. OSRAM's acts of infringement of the '741 patent have been and are being committed with knowledge of the '741 patent, intentionally and in a willful and wanton manner in deliberate disregard of Samsung LED's patent rights.

# **COUNT V Infringement Of The '315 Patent**

- 44. Samsung LED is informed and believes, and thereupon alleges, that, in violation of 35 U.S.C. § 271, OSRAM has, without authorization or license, infringed and continues to directly infringe the '315 patent through the manufacture and fabrication of OSRAM LEDs and products containing OSRAM LEDs by the claimed processes in the '315 patent, and by using, selling, offering for sale, and importing products in this judicial district and throughout the United States made by those processes. This group of products includes, without limitation, LEDs sold under the TOPLED, Dragon Family, and OSLON Family names, and myriad other components and products that incorporate LEDs that infringe the '315 patent.
- 45. OSRAM will continue to infringe the '315 patent unless enjoined therefrom by this Court. OSRAM'S acts of infringement of the '315 patent have caused and will

continue to cause Samsung substantial and irreparable injury, for which Samsung is entitled to receive injunctive relief and damages adequate to compensate it for such infringement.

# **COUNT VI Infringement Of The '881 Patent**

- 46. In violation of 35 U.S.C. § 271, OSRAM has, without authorization or license, infringed and continues to directly infringe and induce the infringement of the '881 patent in this judicial district and elsewhere in the United States through the manufacture, use, offer for sale, sale, and/or importation of OSRAM LEDs and products containing OSRAM LEDs. This group of products includes, without limitation, LEDs sold under the UX-3 name, UX-3 products packaged under the name OSLON Family brand, and myriad other components and products that incorporate LEDs that infringe the '881 patent.
- 47. OSRAM has knowledge of the '881 patent, and despite that knowledge instructs its customers on how to use infringing LEDs and products containing infringing LEDs.
- 48. OSRAM will continue to infringe the '881 patent unless enjoined therefrom by this Court. OSRAM'S acts of infringement of the '881 patent have caused and will continue to cause Samsung substantial and irreparable injury, for which Samsung is entitled to receive injunctive relief and damages adequate to compensate it for such infringement.
- 49. OSRAM's acts of infringement of the '881 patent have been and are being committed with knowledge of the '881 patent, intentionally and in a willful and wanton manner in deliberate disregard of Samsung LED's patent rights.

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# **COUNT VII Infringement Of The '848 Patent**

- 50. Samsung LED is informed and believes, and thereupon alleges, that, in violation of 35 U.S.C. § 271, OSRAM has, without authorization or license, infringed and continues to directly infringe, the '848 patent through the manufacture and fabrication of OSRAM LEDs and products containing OSRAM LEDs by the claimed processes in the '848 patent, and by using, selling, offering for sale, and importing products in this judicial district and throughout the United States made by those processes. This group of products includes, without limitation, LEDs sold under the TOPLED and Dragon Family names, and myriad other components and products that incorporate LEDs that infringe the '848 patent.
- 51. OSRAM will continue to infringe the '848 patent unless enjoined therefrom by this Court. OSRAM'S acts of infringement of the '848 patent have caused and will continue to cause Samsung substantial and irreparable injury, for which Samsung is entitled to receive injunctive relief and damages adequate to compensate it for such infringement.

# **COUNT VIII Infringement Of The '081 Patent**

52. In violation of 35 U.S.C. § 271, OSRAM GmbH, OSRAM Opto Semiconductors GmbH, and OSRAM Opto Semiconductors Inc. have, without authorization or license, infringed and continues to directly infringe and induce the infringement of the '081 patent in this judicial district and elsewhere in the United States through the manufacture, use, offer for sale, sale, and/or importation of OSRAM LEDs and products containing OSRAM LEDs. This group of products includes, without

limitation, LEDs sold under the Golden Dragon Plus name, and myriad other components and products that incorporate LEDs that infringe the '081 patent.

- 53. OSRAM GmbH, OSRAM Opto Semiconductors GmbH, and OSRAM Opto Semiconductors Inc. have knowledge of the '081 patent, and despite that knowledge instructs its customers on how to use infringing LEDs and products containing infringing LEDs.
- 54. OSRAM GmbH, OSRAM Opto Semiconductors GmbH, and OSRAM Opto Semiconductors Inc. will continue to infringe the '081 patent unless enjoined therefrom by this Court. OSRAM GmbH, OSRAM Opto Semiconductors GmbH, and OSRAM Opto Semiconductors Inc.'s acts of infringement of the '081 patent have caused and will continue to cause Samsung substantial and irreparable injury, for which Samsung is entitled to receive injunctive relief and damages adequate to compensate it for such infringement.
- 55. OSRAM GmbH, OSRAM Opto Semiconductors GmbH, and OSRAM Opto Semiconductors Inc.'s acts of infringement of the '081 patent have been and are being committed with knowledge of the '081 patent, intentionally and in a willful and wanton manner in deliberate disregard of Samsung LED's patent rights.

### **DEMAND FOR RELIEF**

WHEREFORE, Samsung LED prays that this Court enter judgment in its favor and against OSRAM and grant the following relief:

A. Enjoin OSRAM GmbH, OSRAM Opto Semiconductors GmbH, OSRAM Opto Semiconductors Inc. and OSRAM Sylvania Inc., and their affiliates, subsidiaries, officers, directors, agents, servants, employees, representatives, licensees, successors,

assignees, and all those acting for them and on their behalf, from further infringement of each of the asserted Samsung LED Patents;

- B. Award Samsung LED damages resulting from OSRAM's acts of infringement, order OSRAM to account for and pay to Samsung LED damages adequate to compensate Samsung LED for the infringement of its patent rights, and award Samsung LED its costs and pre-judgment and post-judgment interest at the highest rate allowable by law, pursuant to 35 U.S.C. § 284;
- C. As a result of OSRAM's willful acts of infringement of the '372, '312, '443, '741, '881, and '081 patents, award Samsung LED treble damages pursuant to 35 U.S.C. § 284;
- D. Declare this case exceptional pursuant to 35 U.S.C. § 285, and award Samsung LED its attorney fees, costs and expenses; and
  - E. Grant Samsung LED such other relief as is just and proper.

#### **JURY DEMAND**

Samsung LED hereby demands trial by jury in this action.

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Dated: July 15, 2011

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