

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF MASSACHUSETTS**

**LEXINGTON LUMINANCE LLC**

*Plaintiff,*

v.

**SAMSUNG ELECTRONICS CO., LTD,  
and SAMSUNG ELECTRONICS  
AMERICA, INC.**

*Defendants.*

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**No. 1:16-cv-11138-DJC**

**JURY DEMANDED**

**PLAINTIFF’S FIRST AMENDED COMPLAINT**

Plaintiff Lexington Luminance LLC (“Lexington” or “Plaintiff”) files this first amended complaint for patent infringement against Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (collectively “Samsung” or “Defendants”) and states as follows:

**THE PARTIES**

1. Plaintiff Lexington Luminance LLC is a limited liability company organized under the laws of Massachusetts with its principal place of business at 468 Lowell Street, Lexington, Massachusetts 02420.

2. On information and belief, Defendant Samsung Electronics Co., Ltd. (“Samsung Electronics”) is a company organized and existing under the laws of the country of Korea, with its principal place of business and home office at San #24 Nongseo-Dong Giheung-Gu Yongin-city, Gyeonggi-Do, Korea 446-711. Samsung is doing business and infringing Lexington’s patent in the District of Massachusetts, and the United States.

3. On information and belief, Defendant Samsung Electronics America, Inc. (“SEA”) is a corporation organized and existing under the laws of the state of New York, and maintains its

principal place of business at 85 Challenger Road, Ridgefield Park, New Jersey 07660. Upon information and belief, SEA is a wholly owned subsidiary of Samsung Electronics.

4. Defendants Samsung Electronics and SEA are collectively referred to as “Defendants” or “Samsung.” Samsung is doing business in the United States and, more particularly, in the Commonwealth of Massachusetts and this judicial District, by designing, marketing, making, using, selling, importing, and/or offering for sale products that infringe the patent claims involved in this action or by transacting other business in this District.

### **JURISDICTION AND VENUE**

5. This is an action for patent infringement arising under the patent laws of the United States, Title 35, United States Code. Jurisdiction as to these claims is conferred on this Court by 35 U.S.C. §§1331 and 1338(a).

6. Venue is proper in the District of Massachusetts under 28 U.S.C. §§1391 and 1400(b). On information and belief, Samsung has committed acts of infringement in this judicial district and has purposely transacted business in this judicial district.

7. This Court has personal jurisdiction over the Defendants. Defendants have conducted and do conduct business within the Commonwealth of Massachusetts. Defendants, directly or through intermediaries (including distributors, retailers, and others), ship, distribute, offer for sale, sell, and advertise products in the United States, the Commonwealth of Massachusetts, and the District of Massachusetts. Defendants purposefully and voluntarily sold one or more of their infringing products with the expectation that they will be purchased by consumers in the District of Massachusetts. These infringing products have been and continue to be purchased by consumers in the District of Massachusetts. Defendants have committed acts of patent

infringement within the United States and, more particularly, within the District of Massachusetts.

**PATENT INFRINGEMENT**

8. Lexington incorporates by reference paragraphs 1-7 as if fully set forth herein.

9. On August 30, 2005, United States Patent No. 6,936,851 B2 entitled “Semiconductor Light-Emitting Device and Method for Manufacturing the Same” was duly and legally issued after full and fair examination. Lexington is the owner of all right, title, and interest in and to the patent by assignment, with full right to bring suit to enforce the patent, including the right to recover for past infringement damages and the right to recover future royalties, damages, and income.

10. On September 30, 2013, an *ex parte* reexamination no. 90/012,964 was initiated for United States Patent No. 6,936,851 B2. An *ex parte* reexamination certificate was issued on December 5, 2014 for United States Patent No. 6,936,851 C1. The patent, together with the *ex parte* reexamination certificate, is attached hereto as Exhibit A. United States Patent No. 6,936,851 B2 and 6,936,851 C1 are collectively known as the ‘851 patent.

11. The ‘851 patent has been previously asserted in this District in (1) *Lexington Luminance LLC v. Feit Electric Company, Inc.*, No. 1:12-cv-11554 (D. Mass.); (2) *Lexington Luminance LLC v. Osram Sylvania, Inc.*, No. 1:12-cv-11551 (D. Mass.); (3) *Lexington Luminance LLC v. Lighting Science Group Corporation*, No. 1:12-cv-11552 (D. Mass.); (4) *Lexington Luminance LLC v. Amazon.com Inc.*, No. 1:12-cv-12216 (D. Mass.); and (5) *Lexington Luminance LLC v. Google, Inc.*, No. 1:12-cv-12218 (D. Mass.).

12. In *Lexington Luminance LLC v. Google, Inc.*, No. 1:12-cv-12218 (D. Mass.) (“the *Google* case”), Lexington claimed infringement of the ‘851 patent by the Nexus 4 phone, and

the Nexus 7 and Nexus 10 tablet computers. On December 16, 2013, Lexington served preliminary infringement contentions to Google, explaining how the Nexus 10 infringed the pre-reexamined '851 patent. The *Google* court granted Forepi's motion to intervene on January 16, 2014. Lexington amended its complaint, adding the Nexus 10 as an accused device on January 22, 2014. Lexington later voluntarily dropped its allegations against the Nexus 4, leaving the Nexus 7 and Nexus 10 tablet computers in the case. The Nexus 7 was co-developed by Google and ASUSTek Computer Inc. See [https://en.wikipedia.org/wiki/Nexus\\_7\\_\(2012\)](https://en.wikipedia.org/wiki/Nexus_7_(2012)). The Nexus 10 was co-developed by Google and Samsung Electronics Co., Ltd. See <http://www.samsung.com/us/news/20307>; see also [https://en.wikipedia.org/wiki/Nexus\\_10](https://en.wikipedia.org/wiki/Nexus_10). On information and belief, Google supplied most of the software, including its Android operating system, for the Nexus 10. *Id.* On information and belief, Samsung supplied most of the hardware for the Nexus 10. *Id.* In the *Google* case, Lexington had accused the LEDs used in the backlighting of the Nexus 10 display of infringing claim 1 of the '851 patent. On information and belief, given Samsung's role in the provision of the Nexus 10 hardware, Samsung has been aware of the events in the *Google* case since approximately December 16, 2013. On information and belief, Samsung has been aware how it infringed the pre-reexamined patent since approximately December 16, 2013.

13. On September 30, 2013, Forepi filed the *ex parte* reexamination of the '851 patent. On information and belief, given Samsung's role in the provision of the Nexus 10 hardware, Samsung has been aware of the *ex parte* reexamination of the '851 patent since at least approximately December 18, 2013. On May 27, 2015, Lexington served preliminary infringement contentions to Google, explaining how the Nexus 10 infringed the post-

reexamined '851 patent. On information and belief, Samsung has been aware how it infringed (and infringes) the post-reexamined patent since approximately May 27, 2015.

14. Claim 1 of the reexamined '851 patent differs from the pre-reexamined claim 1 in three ways. First, a semicolon was removed from the third limitation. Second, the phrase "so as to guide the extended lattice defects away from propagating into the active layer" was removed from the third limitation and the phrase "whereby said plurality of inclined lower portions are configured to guide extended lattice defects away from propagating into the active layer" was added to the fourth limitation. Third, the phrase "is selected from the group comprising" was replaced with the phrase "having at least one of a group consisting of" in the third limitation. There are no other differences between claim 1 of the reexamined '851 patent and claim 1 of the pre-reexamined patent.

15. On February 9, 2015, the Federal Circuit held that the phrase "said substrate is selected from the group comprising" appearing in pre-reexamined claim 1 of the '851 patent meant that "the substrate must contain one or more of the enumerated members of the claimed group." *Lexington Luminance LLC v. Amazon.com Inc.*, 601 Fed.Appx. 963, 969 (2015). On information and belief, the phrase "must contain one or more of the enumerated members of the claimed group" is equivalent to the phrase appearing in the post-reexamined claim 1 as "having at least one of a group consisting of".

16. On information and belief, given the similarity in the claim language between claim 1 of the pre-reexamination patent and claim 1 of the post-reexamination patent, Samsung knew or was willfully blind to the fact that infringement of the pre-reexamined patent created an objectively high likelihood of infringement of the post-reexamined patent. Accordingly and as further explained below, on information and belief, given Samsung's knowledge of the pre-

reexamined patent, Samsung knew or was willfully blind to the risk of infringement of the post-reexamined patent.

17. Upon information and belief, US-based SEA is a wholly owned subsidiary of the Korea-based Samsung Electronics. See [http://www.samsung.com/us/aboutsamsung/samsung\\_electronics/us\\_divisions/](http://www.samsung.com/us/aboutsamsung/samsung_electronics/us_divisions/). On information and belief, SEA is responsible for sales of consumer electronics and mobile products within the United States. *Id.* On information and belief, given SEA's role within Samsung Electronics, information pertaining to a United States patent known by Samsung Electronics would have been shared with its United States subsidiary, SEA unless SEA took steps to be willfully blind to such facts. On information and belief, SEA knew or was willfully blind to the existence of the pre-reexamined patent. On information and belief, SEA knew or was willfully blind to the fact that infringement of the pre-reexamined patent created an objectively high likelihood of infringement of the post-reexamined patent.

18. On information and belief, given Samsung Electronics' ownership of SEA, information pertaining to a United States patent known by SEA would have been shared with its corporate parent Samsung Electronics, unless Samsung Electronics took steps to be willfully blind to such facts. On information and belief, Samsung Electronics was also constructively in possession of the knowledge of the existence of the pre-reexamined patent through its wholly-owned subsidiary, SEA. On information and belief, Samsung Electronics knew or was willfully blind to the fact that infringement of the pre-reexamined patent created an objectively high likelihood of infringement of the post-reexamined patent.

19. The '851 patent is valid and enforceable.

20. On information and belief, to the extent any marking or notice was required by 35 U.S.C. § 287, Plaintiff, and all predecessors in interest and/or implied or express licensees of the '851 patent, if any, have complied with the marking requirements of 35 U.S.C. § 287 by placing a notice of the '851 patent on all goods made, offered for sale, sold, and/or imported into the United States that embody one or more claims of that patent and/or providing actual or constructive notice to Defendants.

21. Upon information and belief, Defendants have infringed and/or continue to infringe (literally and/or under the doctrine of equivalents) one or more claims of the '851 patent in this judicial district and elsewhere in Massachusetts and the United States, including at least claim 1, by, among other things, making, using, offering for sale, selling, and/or importing televisions, computer displays, mobile telephones, computers, and other electronic devices that use an LED-illuminated LCD display. The foregoing devices are collectively referred to as the "Accused Products."

22. By way of example only, and without limitation, exemplary infringing devices include television models such as Samsung's 46D6400 46-inch LCD television, UN65F6300AFXZA 65" LED HDTV Wi-Fi Smart Flat Screen television, UN60FH6003F 60" LED HDTV Flat Screen television, UN55HU7250 Curved 55" 4K Ultra HD Smart LED television, UN50EH5000F 50" LED HDTV television, UN46EH5000F 46" HDTV television, UN40FH6030 40" 3D LED television, UN40EH5000F 40" LED HDTV television, UN39FH5000 39" Slim HDMI LED television, UN29F4000 29" LED HDTV television, UN28H4500 28" Smart LED television, UN22D503 22" LED HDTV television, UN19D4003BD 19" LED HDTV television, and other similar products, which perform

substantially the same function as the devices embodied in one or more claims of the '851 patent in substantially the same way to achieve the same result.

23. By way of example only, and without limitation, exemplary infringing devices include display models such as Samsung's MD40C 40" Widescreen Direct-Lit LED Commercial Display, and other similar products, which perform substantially the same function as the devices embodied in one or more claims of the '851 patent in substantially the same way to achieve the same result.

24. By way of example only, and without limitation, exemplary infringing devices include laptop computer models such as Samsung's NP-RV515-A04US 15.6" laptop computer, and other similar products, which perform substantially the same function as the devices embodied in one or more claims of the '851 patent in substantially the same way to achieve the same result.

25. By way of example only, and without limitation, exemplary infringing devices include tablet computer models such as Samsung's Galaxy Tab 2 - 8GB - Silver GT-P3113TS; Samsung Galaxy Tab 3 SM-T217S 16 GB Wi-Fi & Sprint 7" White 3 MP; Samsung Galaxy Tab 4 SM-T230NU 8GB, Wi-Fi, 7 inch; Samsung Galaxy Tab 4 SM-T337T WiFi 4GLTE 8 inch (T-Mobile); Samsung Galaxy Tab 3 Lite SM-T110 8GB, Wi-Fi, 7in - Black; Samsung Galaxy Tab 3 SM-T210R 8GB, Wi-Fi, 7in - White; Samsung Galaxy Tab GT-N5110 Google Android Tablet PC Wi-Fi 16GB RAM 8"; Samsung Galaxy Tab SCH-I800 2GB, Wi-Fi + 3G (Verizon), 7inch Tablet PC - Black, and other similar products, which perform substantially the same function as the devices embodied in one or more claims of the '851 patent in substantially the same way to achieve the same result.



26. By way of example only, and without limitation, exemplary infringing devices include mobile telephone models such as Samsung's Galaxy Attain 4G LTE SCH-R920 Android Bluetooth Smartphone (MetroPCS), Samsung Admire SCH-R720 Android Touch Screen Wi-Fi, Bluetooth GPS Smart Phone (MetroPCS), Samsung Freeform III SCH-R380 - CDMA Bluetooth GPS Smart Phone (MetroPCS), Samsung Galaxy Stellar SCH-I200 Android 4G LTE Touch Screen CDMA Smartphone (Verizon), Samsung Straight Talk SGH-T528G GSM Prepaid Touchscreen Wi-Fi Smart Phone, Samsung Freeform 4 SCH-R390 QWERTY Keypad CDMA Bluetooth Cellular Phone (U.S. Cellular), Samsung Gem SCH-I100 - Android Bluetooth Touch Screen Smartphone (Verizon), Samsung Intercept SPH-M910 Android QWERTY Keypad Wi-Fi CDMA Smart Phone (Sprint), Samsung Galaxy Light SGH-T399 - 8GB - Android Smartphone (T-Mobile), Samsung Galaxy Admire 2 SCH-R830C CDMA Android Smartphone (Cricket), Samsung Galaxy Amp SGH-I407 - 4GB - (Aio Wireless) Smartphone, Samsung Galaxy Prevail 2 SPH-M840U - Touch Screen Wi-Fi Bluetooth GPS Smartphone (Boost Mobile), Samsung Galaxy Avant SM-G386T Android Touch Screen Bluetooth GPS Smartphone (T-Mobile), Samsung Galaxy Exhibit SGH-T599N - 4GB - Android Bluetooth Touch Screen Smartphone (MetroPCS), Samsung SGH-A157 GSM Quad Band Flip Phone (AT&T), and other similar products, which perform substantially the same function as the devices embodied in one or more claims of the '851 patent in substantially the same way to achieve the same result.

27. Defendants have been at no time, either expressly or impliedly, licensed under the '851 patent.

28. Defendants' acts of infringement have caused damage to Plaintiff. Plaintiff is entitled to recover from Defendants the damages sustained by Plaintiff as a result of the wrongful acts of Defendants in an amount subject to proof at trial.

29. On information and belief, Korean-based Defendant Samsung Electronics directly infringed, and still infringes, the '851 patent by importing one or more Accused Products into the United States. On information and belief, Korean-based Defendant Samsung Electronics directly infringed, and still infringes, the '851 patent by making, selling, or offering for sale one or more Accused Products knowing that the same will be sold in the United States. On information and belief, US-based Defendant SEA directly infringed, and still infringes, the '851 patent by making, selling, importing, or offering for sale, one or more Accused Products in the United States.

30. Upon information and belief, since at least January 26, 2012, Defendants have had knowledge of the '851 patent and have had knowledge of their infringement of the '851 patent. The examiner at the U.S. Patent and Trademark Office who examined the application leading to the '851 patent was Donghee Kang. Upon information and belief, after examining the application that led to the '851 patent, Mr. Kang joined Samsung Electronics Co., Ltd. Upon information and belief, since at least January 26, 2012, Mr. Kang has been employed as a Principal Engineer for Samsung Electronics Co., Ltd.

31. The '851 patent was identified in an office action from the United States Patent and Trademark Office concerning United States Patent Application No. 12/462,803, which cited the '851 patent as prior art of record in an Office Action mailed on October 4, 2010. The '851 patent was also identified by Samsung in an Information Disclosure Statement received by the U.S. Patent and Trademark Office on April 28, 2011 in connection with United States Patent

Application No. 13/096,445. The '851 patent was also identified by Samsung in an Information Disclosure Statement received by the U.S. Patent and Trademark Office on May 28, 2014 in connection with United States Patent Application No. 14/258,704. United States Patent Application Nos. 12/462,803, 13/096,445, and 14/258,704 were assigned to Samsung Electronics Co., Ltd.

32. Upon information and belief, since at least the filing and/or the date of service of the Original Complaint in this action, Defendants have had knowledge of the '851 patent and have had knowledge of their infringement of the '851 patent. In addition, Lexington explained how Samsung infringes the '851 patent at least as early as April 15, 2016 when Lexington served its preliminary infringement contentions. Upon information and belief, Defendants deliberately infringed the '851 patent and acted recklessly and in disregard to the '851 patent by making, having made, using, importing, and offering for sale products that infringe the '851 patent. Upon information and belief, the risks of infringement were known to Defendants and/or were so obvious under the circumstances that the infringement risks should have been known. Upon information and belief, Defendants have willfully infringed and/or continues to willfully infringe the '851 patent since at least the filing date or service date of the Original Complaint in this action.

33. Upon information and belief, Defendants deliberately infringed the '851 patent and acted recklessly and in disregard to the '851 patent by making, having made, using, importing, and offering for sale products that infringe the '851 patent. Upon information and belief, the risks of infringement were known to Defendants and/or were so obvious under the circumstances that the infringement risks should have been known. Upon information and

belief, Defendants have willfully infringed and/or continue to willfully infringe the '851 patent since at least October 4, 2010.

34. Defendants also indirectly infringe the '851 patent by inducing infringement by others, such as resellers, and/or end-users of the Accused Products, of one or more claims of the '851 patent in violation of 35 U.S.C. § 271. On information and belief, Defendants knew of the '851 patent and knew of its infringement, including by way of this lawsuit and earlier as described above.

35. Defendants' affirmative acts of selling the Accused Products, causing the Accused Products to be manufactured and distributed, and providing instruction manuals for the Accused Products have induced and continue to induce Defendants' manufacturers, resellers, and/or end-users to make or use the Accused Products in their normal and customary way to infringe the '851 patent. For example, it can be reasonably inferred that retailers will re-sell the infringing products, and that end-users will use the infringing products, which will cause the LEDs that are the subject of the claimed invention to be used. Defendants specifically intended and were aware that these normal and customary activities would infringe the '851 patent. By way of example, the LEDs that are the subject of the claim invention are energized and illuminated when an infringing television is turned on and its LED-backlit display is illuminated. In addition, Defendants provide instructional materials, such as user guides, that specifically teach end-users to use the Accused Products in an infringing manner. By providing such instructions, Defendants know (and have known), or were willfully blind to the probability that their actions have, and continue to, actively induce infringement. By way of example only, Defendants have induced infringement and continue to induce infringement of, in addition to other claims, at least claim 1 of the '851 patent by selling in the United States, without Lexington's authority,

infringing products and providing the instructional materials described above. These actions have induced and continue to induce the direct infringement of the '851 patent by end-users, businesses, distributors, resellers, and sales representatives. Defendants performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '851 patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. Upon information and belief, Defendants specifically intended (and intend) that their actions will result in infringement of at least claim 1 of the '851 patent, or subjectively believes that its actions will result in infringement of the '851 patent but took deliberate actions to avoid learning of those facts, as set forth above.

**DEMAND FOR JURY TRIAL**

Plaintiff hereby demands a jury for all issues so triable.

**PRAYER**

WHEREFORE, Plaintiff prays for judgment that:

1. Defendants have infringed the '851 patent;
2. Plaintiff recover actual damages under 35 U.S.C. § 284;
3. Plaintiff be awarded supplemental damages for any continuing post-verdict infringement up until final judgment;
4. Plaintiff be awarded an accounting of damages;
5. Plaintiff be awarded enhanced damages for willful infringement as permitted under the law;
6. A judgment and order requiring Defendants to pay to Plaintiff pre-judgment and post-judgment interest on the damages awarded, including an award of pre-judgment interest, pursuant to 35 U.S.C. § 284, from the date of each act of infringement of the '851 patent by

Defendants to the day a damages judgment is entered, and a further award of post-judgment interest, pursuant to 28 U.S.C. § 1961, continuing until such judgment is paid, at the maximum rate allowed by law;

7. An award to Plaintiff of the costs of this action and its reasonable attorneys' fees pursuant to 35 U.S.C. §285; and
8. Such other and further relief as the Court deems just and equitable.

DATED: August 11, 2016

Respectfully submitted,

LEXINGTON LUMINANCE LLC,  
By its attorneys,

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### **CERTIFICATE OF SERVICE**

I hereby certify that this document filed through the ECF system will be sent electronically to the registered participants as identified on the Notice of Electronic Filing (NEF) and paper copies will be sent to those indicated as non-registered participants on the above date.

/s/ Robert D. Katz  
Robert D. Katz