

**UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF NEW YORK**

_____	)	
	)	
ANDREA ELECTRONICS	)	
CORPORATION,	)	
	)	
	)	Civil Action No. 2:15-cv-212
Plaintiff,	)	
	)	
	)	<b>COMPLAINT</b>
v.	)	
	)	
	)	<b>JURY TRIAL DEMANDED</b>
LENOVO HOLDING COMPANY, INC.	)	
and LENOVO (UNITED STATES) INC.	)	
	)	
	)	
Defendants.	)	
_____	)	

**COMPLAINT FOR PATENT INFRINGEMENT**

Pursuant to Federal Rule of Civil Procedure 15(a)(1)(B), Plaintiff Andrea Electronics Corporation (“Andrea”), by and through its counsel, Pepper Hamilton LLP, for its Complaint against defendants Lenovo Holding Company, Inc. and Lenovo (United States) Inc. (collectively, “Lenovo” or “Defendants”) alleges as follows:

**NATURE OF ACTION**

1. This is an action for patent infringement under the patent laws of the United States, 35 U.S.C. §§ 271, *et seq.*, to enjoin infringement and obtain damages resulting from Defendants’ unauthorized and ongoing actions, in the state of New York and elsewhere, of

making, having made, using, selling, having sold, offering to sell, and/or importing or having imported into the United States, certain personal computer products that infringe one or more claims of Andrea's U.S. Patent No. 6,377,637 (the "'637 Patent" or "Asserted Patent").

2. This is an action for direct infringement. Upon information and belief, Defendants make, have made, use, sell, offer to sell, and/or import or have imported into the United States certain personal computer products including, but not limited to, desktops, notebooks, laptops, all-in-ones, Chromebooks, and tablets that infringe one or more claims of the '637 Patent, either literally or under the doctrine of equivalents.

3. In addition, this is an action for indirect infringement. Upon information and belief, Defendants induce or contribute to the direct infringement, either literally or under the doctrine of equivalents, of one or more claims of the '637 Patent.

#### **THE PARTIES**

4. Plaintiff Andrea is a corporation organized and existing under the laws of the state of New York with its principal place of business at 65 Orville Drive, Suite One, Bohemia, New York 11716.

5. Upon information and belief, Lenovo Holding Company, Inc. is a corporation organized and existing under the laws of the State of Delaware with its principal place of business at 1009 Think Place, Morrisville, North Carolina 27650. Upon information and belief Lenovo Holding Inc. is the subsidiary of, or in the alternative, is controlled by Lenovo Group Ltd. Lenovo Holding Company, Inc. may be served through its registered agent for service of process, The Corporation Trust Company, at Corporation Trust Center, 1209 Orange St., Wilmington, Delaware 19801.

6. Upon information and belief, Lenovo (United States) Inc. is a corporation organized under the laws of the State of Delaware and has a principal place of business at 1009

Think Place, Morrisville, North Carolina 27560. Upon information and belief, Lenovo (United States) Inc. is the subsidiary of or, in the alternative, is controlled by Lenovo Holding Company, Inc. Lenovo (United States) Inc. may be served through its registered agent for service of process, The Corporation Trust Company, Corporation Trust Center, 1209 Orange St., Wilmington, Delaware 19801.

**JURISDICTION AND VENUE**

7. This is an action for patent infringement. Federal Question jurisdiction is conferred upon this Court pursuant to 28 U.S.C. § 1331 and § 1338(a).

8. Upon information and belief, Defendants are subject to personal jurisdiction in the Eastern District of New York because they regularly transact business in this judicial district by, among other things, offering their products to customers, business affiliates, and/or partners located in this judicial district. In addition, Defendants have committed acts of infringement of one or more claims of the Asserted Patent in this judicial district. Infringing products made and sold by Defendants including, but not limited to, desktops, notebooks, laptops, all-in-ones, Chromebooks, and tablets are widely advertised in New York and are readily available at numerous retail locations throughout the state, including within the Eastern District of New York. Upon information and belief, Defendants make ongoing and continuous shipments of infringing products into the Eastern District of New York and maintain an established distribution network that encompasses New York. Infringing products are manufactured by Defendants, or at their direction, and are used or consumed within this State in the ordinary course of trade.

9. Venue is proper in the Eastern District of New York under 28 U.S.C. §§ 1391(b) and (c) as well as 28 U.S.C. § 1400(b) because Defendants are subject to personal jurisdiction in

this district and have committed acts of infringement in this district. Additionally, Plaintiff's principal place of business is located in this judicial district.

**BACKGROUND AND FACTS RELATED TO THIS ACTION**

10. Andrea is a leading industry developer of product solutions which optimize the performance of voice user interfaces and has a decorated history deeply rooted in the state of New York. Its technology has been applied to products related to, among other things, voice over internet protocol ("VoIP") telephone, VoIP teleconferencing, video conferencing, speech recognition, computer gaming, in-car computing, and 3D audio recording.

11. The leadership of Andrea has spanned three familial generations over 80 years, and the company has been headquartered in the Long Island community since 1934. Andrea's products are featured in the Henry Ford Museum and Smithsonian National Museum of American History.

12. In the early 1900s, Frank Andrea, an Italian immigrant, started his business career. He began as an electroplater for I.P. Frink manufacturing company and studied at night as a tool maker and machinist at the Mechanics Institute in New York City. In 1913 he joined the Frederick Pierce Company and, after the outbreak of World War I, worked to design tools to manufacture parts for a new aircraft radio receiver that he had built. Mr. Andrea soon thereafter started his own company, FADA.

13. As founder of FADA, Mr. Andrea employed his family members, including his 16 year-old brother, John. FADA picked up momentum when Mr. Andrea convinced Marconi, the predecessor of RCA, to place an order for radio parts. FADA began manufacturing parts for crystal sets and "Do It Yourself" kits. FADA also soon began manufacturing parts such as sockets and rheostats for tube type radios.

14. After selling his controlling interest in FADA, Mr. Andrea founded the Andrea Radio Corporation (“Andrea Radio”). Andrea Radio’s offerings evolved over time. In 1939, Andrea Radio developed and produced one of the first television sets, which was displayed at the World’s Fair in Queens, New York. Andrea Radio sold TV kits and the first television console models that also housed a radio and phonograph. In 1954, Andrea Radio began developing a color television and introduced a set in 1957.

15. During the Second World War, the firm engaged in the production of military electronics. In 1942, Andrea Radio was presented with the prestigious high honors Navy E Award for manufacturing excellence and providing military audio communications equipment. In the early 1960s, Andrea Radio developed and produced several types of high reliability intercommunication systems for installation in various military and commercial aircraft. Indeed, Andrea Radio produced the audio intercom system for Project Mercury’s first manned spacecraft.

16. Mr. Andrea passed away in 1965, leaving his son, Frank Jr., to continue the Andrea business.

17. In the 1970s and 1980s, Andrea Radio became a premier supplier of high performance avionic intercom equipment for defense industry manufacturers like Bell Helicopter, Boeing, Sikorsky, and Lockheed, prompting Andrea Radio to change its name to Andrea Electronics Corporation. Andrea produced microphone audio pre-amplifiers for Navy aviators’ oxygen mask helmet systems. The experience gained from producing audio intercom systems for high noise environments paved the way for Andrea’s emphasis on active noise cancellation.

18. Product development continued in the 1990s with Andrea producing the first Active Noise Canceling (“ANC”) boom microphone computer headset for deployment with computer speech recognition. Andrea shipped millions of headsets and microphone products to software OEMs. In 1998, Andrea developed and produced the first digital array microphone for commercial use, providing hands-free voice command and control functionality. In 1999, Andrea developed and produced the first USB headset as well as the first desktop digital array microphone.

19. In the 2000s, Andrea broadened the application of its product offerings. In 2001, it developed and produced digital noise canceling array microphones for speech control systems in police cruisers. In 2002, Andrea revolutionized PC audio input by introducing the first stereo array microphone interface for integrated audio coder/decoders (“CODECs”). By the late 2000s, Andrea had shipped over one million SuperBeam stereo array microphones, and millions of DSDA stereo array microphone and EchoStop speakerphone products.

20. Andrea has continued its innovation and offers microphone and earphone technologies designed to enhance sound quality. Andrea, now led by Frank Andrea’s grandson, Douglas Andrea, successfully transformed itself from a manufacturer of industrial and military intercommunication systems into a creator of cutting-edge audio technologies. Andrea incorporates its new patented technologies to enable natural language interfaces and enhance the performance of voice-related applications. Today, Andrea offers a variety of products incorporating its technologies such as headsets and headphones, microphones, software algorithms, USB audio solutions and related accessories. Since its inception, Andrea has gone through a remarkable evolution as an audio technology leader, meeting the ever-changing needs of a demanding audio communications marketplace.

21. On July 25, 2014, Andrea filed a complaint for patent infringement against Defendants seeking to enjoin infringement and obtain damages resulting from Defendants' unauthorized and ongoing actions, in the state of New York and elsewhere, of making, having made, using, selling, having sold, offering to sell, and/or importing or having imported into the United States, certain personal computer products that infringe one or more claims in Andrea's U.S. Patent No. 5,825,898, U.S. Patent No. 6,049,607, U.S. Patent No. 6,363,345, and U.S. Patent No. 6,483,923. On November 10, 2014 Andrea filed its First Amended Complaint. That action, Case No. 2:14-cv-4489 (KAM-GRB), has been consolidated with Case Nos. 2:14-cv-4488 and 2:14-cv-4492, and is currently pending before the Eastern District of New York.

## **COUNT I**

### **(Infringement of the '637 Patent)**

22. Paragraphs 1 through 21 are incorporated by reference as if fully restated herein.

23. On April 23, 2002, United States Patent No. 6,377,637 (the "'637 Patent'") was duly and legally issued for "Sub-Band Exponential Smoothing Noise Canceling System." The '637 Patent is in full force and effect. A true and correct copy of the '637 Patent is attached hereto as Exhibit A and made part hereof.

24. Andrea is the owner of all right, title, and interest in and to the '637 Patent, with the exclusive right to enforce the '637 Patent against infringers and the exclusive right to collect damages for all relevant times, including the right to prosecute this action.

25. The '637 Patent generally relates to noise cancellation and reduction and, more specifically, to noise cancellation and reduction using sub-band processing and exponential smoothing.

26. Upon information and belief, Defendants – without authority, consent, right, or license – manufacture, make, have made, use, sell, offer for sale, and/or import into the United

States certain personal computer products that directly infringe, either literally and/or under the doctrine of equivalents, or enable the practice of, at least one claim of the '637 Patent.

27. Further, upon information and belief, Defendants have also indirectly infringed the '637 Patent by inducing infringement of at least one claim of the '637 Patent.

28. Defendants have been aware of the '637 Patent and of Andrea's allegations of infringement since at least the filing of this Complaint. Additionally, Defendants had constructive notice of the '637 patent prior to the filing of this Complaint by virtue of Andrea's marking practice, as set forth in Count II below.

29. Despite Defendants' awareness of the '637 Patent and Andrea's allegations, they have knowingly and actively induced others to infringe the '637 Patent by selling personal computer products containing at least one microphone or microphone input with noise cancellation which, when used, results in the direct infringement of at least one of the claims of the '637 Patent by end-users – *e.g.*, customers. Defendants have provided and continue to provide promotional materials advertising noise cancellation functionality as described and claimed in the '637 Patent. *See, e.g.*, Exhibit B

(<http://www.lenovo.com/shop/emea/content/pdf/ThinkPad/XSeries/X230DSEN.pdf>) and Exhibit C (<http://shop.lenovo.com/us/en/laptops/thinkpad/t-series/t440/>). Upon information and belief, Defendants' implementation of noise cancellation reduces or cancels noise in a manner that infringes the claims of the '637 Patent. By advertising such functionality, Defendants have induced and are actively inducing end-users to use that functionality and infringe at least one claim of Andrea's '637 Patent.

30. Further, upon information and belief, Defendants have also indirectly infringed the '637 Patent by contributing to the infringement of at least one claim of the '637 Patent.



31. The noise cancellation technology in Defendants' personal computer products, which comprises a combination of hardware (*e.g.*, microphone(s) or microphone input(s)) and software (*e.g.*, for voice/audio processing) is made solely for the purpose of reducing or eliminating noise from voice and/or other audio signals received through at least one microphone in a manner that infringes at least one claim of the '637 Patent. Further, this combination of hardware and software is especially made and/or especially adapted for use in the infringement of Andrea's '637 Patent, is not a staple commodity of commerce, and is not suitable for substantial non-infringing use. By selling personal computer products containing this combination of hardware and software, Defendants have contributed to the infringement of the '637 Patent by end-users – *e.g.*, customers – who use said combination of hardware and software provided in Defendants' products.

32. As a result of Defendants' infringing conduct, Andrea has suffered damages and will continue to suffer damages in an amount that, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by the Court under 35 U.S.C. § 284.

33. Upon information and belief, Defendants will continue their infringement of the '637 Patent unless enjoined by the Court. Defendants' infringing conduct has caused Andrea irreparable harm and will continue to cause such harm without the issuance of an injunction.

## COUNT II

### **(Notice of the Asserted Patent under 35 U.S.C. § 287)**

34. Paragraphs 1 through 33 are incorporated by reference as if fully restated herein.

35. Prior to the initiation of this action, Andrea provided constructive notice to the public, including Defendants, of the Asserted Patent, by consistently marking substantially all of their articles practicing the Asserted Patent.

**JURY DEMAND**

Andrea hereby requests a trial by jury pursuant to Rule 38 of the Federal Rules of Civil Procedure.

**PRAYER FOR RELIEF**

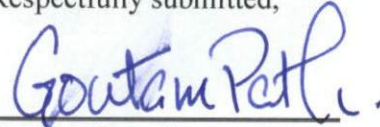
Wherefore, Andrea requests the following relief:

- a. Judgment that one or more claims of the '637 Patent have been directly infringed either literally and/or under the Doctrine of Equivalents by Defendants;
- b. Judgment that one or more of the claims of the '637 Patent have been indirectly infringed either literally and/or under the Doctrine of Equivalents by Defendants;
- c. Judgment that Defendants be held liable and ordered to account for and pay to Andrea:
  - (1) Damages adequate to compensate Andrea for Defendants' infringement of the '637 Patent, for Andrea's lost profits and/or in an amount no less than a reasonable royalty, pursuant to 35 U.S.C. § 284;
  - (2) Andrea's reasonable attorneys' fees under 35 U.S.C. § 285; and
  - (3) Andrea's pre-judgment and post-judgment interest and costs pursuant to 35 U.S.C. §284;
- d. Judgment that Defendants be permanently enjoined from any further conduct that infringes one or more claims of the '637 Patents; and

- e. Judgment that Andrea be granted such other and further relief as the Court may deem just and proper under the circumstances.

Date: January 14, 2015

Respectfully submitted,



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