

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

DIGITAL AUDIO ENCODING  
SYSTEMS, LLC,

Plaintiff,

v.

APPLE INC.,

Defendant.

Civil Action No. \_\_\_\_\_

**JURY TRIAL DEMANDED**

**COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Digital Audio Encoding Systems, LLC (“DAE” or “Plaintiff”), for its Complaint against Defendant Apple Inc., (“Apple” or “Defendant”) alleges the following:

**NATURE OF THE ACTION**

1. This is an action for patent infringement arising under the Patent Laws of the United States, 35 U.S.C. § 1 *et seq.*

**THE PARTIES**

2. Plaintiff is a limited liability company organized under the laws of the State of Texas with a place of business at 717 N. Union Street, Suite 127, Wilmington, DE 19805.

3. Upon information and belief, Apple is a corporation organized and existing under the laws of California, with a place of business at 1 Infinite Loop, Cupertino, California 95014 and can be served through its registered agent, C T Corporation, 818 West Seventh Street, Suite 930, Los Angeles, California 90017. Upon information and belief, Apple sells and offers to sell products and services throughout the United States, including in this judicial district, and introduces products and services into the stream of commerce and that incorporate infringing

technology knowing that they would be sold in this judicial district and elsewhere in the United States.

**JURISDICTION AND VENUE**

4. This is an action for patent infringement arising under the Patent Laws of the United States, Title 35 of the United States Code.

5. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

6. Venue is proper in this judicial district under 28 U.S.C. §§ 1391(b), (c), (d) and/or 1400(b). On information and belief, Defendant conducts business in this District, the claims alleged in this Complaint arise in this District, and the acts of infringement have taken place and are continuing to take place in this District.

7. On information and belief, Defendant is subject to this Court's general and specific personal jurisdiction because Defendant has sufficient minimum contacts within the State of Delaware and this District, pursuant to due process and/or the Delaware Long Arm Statute because Defendant purposefully availed itself of the privileges of conducting business in the State of Delaware and in this District, because Defendant regularly conducts and solicits business within the State of Delaware and within this District, and because Plaintiff's causes of action arise directly from Defendant's business contacts and other activities in the State of Delaware and this District.

**COUNT I – INFRINGEMENT OF U.S. PATENT NO. 7,490,037 B2**

8. The allegations set forth in the foregoing paragraphs 1 through 7 are incorporated into this First Claim for Relief.

9. On February 10, 2009, U.S. Patent No. 7,490,037 B2 ("the '037 patent"), entitled "Method and Apparatus for Encoding Signals" was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the '037 patent is attached as Exhibit 1.

10. The inventions of the '037 patent resolve technical problems related to encoding signals, such as digitized audio signals, and processing of such signals. For example, the inventions allow parties to encode signals in a given transmission or storage format by implementing encoding that is adapted to a particular transmission channel.

11. The claims of the '037 patent do not merely recite the performance of some business practice known from the pre-Internet world along with the requirement to perform it on the Internet. Instead, the claims of the '037 patent recite one or more inventive concepts that are rooted in computerized signal encoding and processing technology, and overcome problems specifically arising in the realm of computerized signal encoding and processing technologies.

12. The claims of the '037 patent recite an invention that is not merely the routine or conventional use of signal encoding and processing. Instead, the invention uses a method that implements encoding that may be adapted to a given transmission channel, resulting in improved signal transmission. The '037 patent claims thus for example specify how signals may be manipulated to yield a desired result.

13. The technology claimed in the '037 patent does not preempt all ways of signal encoding or processing, nor preempt any other well-known or prior art technology.

14. Accordingly, each claim of the '037 patent recites a combination of elements sufficient to ensure that the claim in practice amounts to significantly more than a patent on an ineligible concept.

15. Plaintiff is the assignee and owner of the right, title and interest in and to the '037 patent, including the right to assert all causes of action arising under that patent and the right to any remedies for infringement of it.

16. Upon information and belief, Defendant has and continues to directly infringe at least claims 1, 5, 9-11, 13, 17, 21-22, 24, 29, and 32 of the '037 patent by making, using, selling, importing and/or providing and causing to be used products including but not limited to the Apple HTTP Live Streaming (HLS) Server, which practices a method and/or apparatus in which a signal is encoded, wherein the encoding format corresponds to at least one property of a processing device, and wherein a test signal is transmitted by a test signal generator to the processing device, and wherein at least one property of the processing device is detected (the "Accused Instrumentalities").

17. In particular, claim 1 of the '037 patent recites a method of encoding signals comprising an encoding device for encoding a signal in an encoding format, a processing device for processing the encoded signal, and a control device that determines the encoding format. The encoding format corresponds to at least one property of the processing device. The control device determines the encoding format by transmitting a test signal to the processing device, wherein the test signal is transmitted by a test signal generator within the control device, and detecting at least one property of the processing device.

18. The Accused Instrumentalities infringe claim 1 of the '037 patent. (*See, e.g.*, <https://developer.apple.com/library/mac/documentation/NetworkingInternet/Conceptual/StreamingMediaGuide/Introduction/Introduction.html>; <https://developer.apple.com/streaming/>; Best Practices for Creating and Deploying HTTP Live Streaming Media for the iPhone and iPad, Workflow, [https://developer.apple.com/library/ios/technotes/tn2224/\\_index.html#//apple\\_ref/doc/uid/DTS40009745-CH1-INTRODUCTION-GETTING\\_STARTED](https://developer.apple.com/library/ios/technotes/tn2224/_index.html#//apple_ref/doc/uid/DTS40009745-CH1-INTRODUCTION-GETTING_STARTED); '037 Patent at 16:57-58.)

19. Claim 5 of the '037 patent recites the method of claim 1, wherein the encoding format corresponds to the processor power of the processing device so that the encoding format is determined in such a way that is processed by the processing device in real time.

20. The Accused Instrumentalities infringe claim 5 of the '037 patent. (*See, e.g.*, How to Deliver Great Looking HLS Video to Web and Mobile, <https://zencoder.com/en/hls-guide>; Best Practices for Creating and Deploying HTTP Live Streaming Media for the iPhone and iPad, [https://developer.apple.com/library/ios/technotes/tn2224/\\_index.html](https://developer.apple.com/library/ios/technotes/tn2224/_index.html).)

21. Claim 9 of the '037 patent recites the method of claim 1, wherein the signal is digitized prior to the encoding operation.

22. The Accused Instrumentalities infringe claim 9 of the '037 patent. (*See, e.g.*, <https://developer.apple.com/library/mac/documentation/NetworkingInternet/Conceptual/StreamingMediaGuide/Introduction/Introduction.html>; Best Practices for Creating and Deploying HTTP Live Streaming Media for the iPhone and iPad, Encode Your Variants, [https://developer.apple.com/library/ios/technotes/tn2224/\\_index.html](https://developer.apple.com/library/ios/technotes/tn2224/_index.html).)

23. Claim 10 of the '037 patent recites the method of claim 1, wherein the signal is encoded in a bit rate-reduced encoding format.

24. The Accused Instrumentalities infringe claim 10 of the '037 patent. (*See, e.g.*, Frequently Asked Questions, <https://developer.apple.com/library/ios/documentation/NetworkingInternet/Conceptual/StreamingMediaGuide/FrequentlyAskedQuestions/FrequentlyAskedQuestions.html>; Best Practices for Creating and Deploying HTTP Live Streaming Media for the iPhone and iPad, Create Variant Playlist,

[https://developer.apple.com/library/ios/technotes/tn2224/\\_index.html#//apple\\_ref/doc/uid/DTS40009745-CH1-INTRODUCTION-GETTING\\_STARTED](https://developer.apple.com/library/ios/technotes/tn2224/_index.html#//apple_ref/doc/uid/DTS40009745-CH1-INTRODUCTION-GETTING_STARTED); '037 Patent at 6:66-7:2.)

25. Claim 11 of the '037 patent recites the method of claim 1, wherein the signal is a digitized audio signal and the signal is source-encoded having regard to psycho-acoustic phenomena.

26. The Accused Instrumentalities infringe claim 11 of the '037 patent. (*See, e.g.*, Audio Acquisition, Representation and Storage, p.23,

[http://www.springer.com/cda/content/document/cda\\_downloaddocument/9781447167341-c2.pdf?SGWID=0-0-45-1518289-p177534973](http://www.springer.com/cda/content/document/cda_downloaddocument/9781447167341-c2.pdf?SGWID=0-0-45-1518289-p177534973);

<https://developer.apple.com/library/ios/documentation/NetworkingInternet/Conceptual/StreamingMediaGuide/FrequentlyAskedQuestions/FrequentlyAskedQuestions.html>; Psycho-Acoustic Model, <http://iedf.in/index.php/blog/item/psycho-acoustic-model>.)

27. Claim 13 of the '037 patent recites the method of claim 1, wherein the signals are audio signals, the audio signals are encoded in bit-rate reduced form by the encoding device, wherein multiple transmission channels and/or bit rates are available for transmission of the signal, and the transmission channel and/or the bit rate in the transmission are selected that the signal can be transmitted in real time.

28. The Accused Instrumentalities infringe claim 13 of the '037 patent. (*See, e.g.*, <https://developer.apple.com/library/mac/documentation/NetworkingInternet/Conceptual/StreamingMediaGuide/Introduction/Introduction.html>; Best Practices for Creating and Deploying HTTP Live Streaming Media for the iPhone and iPad, Create Variant Playlist,

[https://developer.apple.com/library/ios/technotes/tn2224/\\_index.html#//apple\\_ref/doc/uid/DTS40009745-CH1-INTRODUCTION-GETTING\\_STARTED](https://developer.apple.com/library/ios/technotes/tn2224/_index.html#//apple_ref/doc/uid/DTS40009745-CH1-INTRODUCTION-GETTING_STARTED); *Id.* at Workflow.)

29. Claim 17 of the '037 patent recites an apparatus for encoding signals comprising an encoding device for encoding a signal in an encoding format, a processing device for processing the encoded signal, and a control device that determines the encoding format. The encoding format corresponds to at least one property of the processing device. The control device determines the encoding format by transmitting a test signal to the processing device, wherein the test signal is transmitted by a test signal generator within the control device, and detecting at least one property of the processing device.

30. The Accused Instrumentalities infringe claim 17 of the '037 patent. (*See, e.g.*, <https://developer.apple.com/library/mac/documentation/NetworkingInternet/Conceptual/StreamingMediaGuide/Introduction/Introduction.html>; <https://developer.apple.com/streaming/>; Best Practices for Creating and Deploying HTTP Live Streaming Media for the iPhone and iPad, Workflow, [https://developer.apple.com/library/ios/technotes/tn2224/\\_index.html#//apple\\_ref/doc/uid/DTS40009745-CH1-INTRODUCTION-GETTING\\_STARTED](https://developer.apple.com/library/ios/technotes/tn2224/_index.html#//apple_ref/doc/uid/DTS40009745-CH1-INTRODUCTION-GETTING_STARTED); *Id.* at Decide on Your Variants, '037 Patent at 16:57-58.)

31. Claim 21 of the '037 patent recites the apparatus of claim 17 that has a decoding device connected to the control device, which acts as a processing device, for decoding of the signals, and wherein the encoding format corresponds to at least one property of the decoding device.

32. The Accused Instrumentalities infringe claim 21 of the '037 patent. (*See, e.g.*, Encoding & Delivery Guide, 2.0 Encoding Definitions, [http://support.video.limelight.com/support/docs/encoding\\_guide/](http://support.video.limelight.com/support/docs/encoding_guide/); Best Practices for Creating and

Deploying HTTP Live Streaming Media for the iPhone and iPad, Decide on Your Variants,  
[https://developer.apple.com/library/ios/technotes/tn2224/\\_index.html](https://developer.apple.com/library/ios/technotes/tn2224/_index.html).)

33. Claim 22 of the '037 patent recites the apparatus of claim 17 wherein the test signal is an encoded audio signal.

34. The Accused Instrumentalities infringe claim 22 of the '037 patent. (*See, e.g.*, <https://developer.apple.com/library/mac/documentation/NetworkingInternet/Conceptual/StreamingMediaGuide/Introduction/Introduction.html>; Best Practices for Creating and Deploying HTTP Live Streaming Media for the iPhone and iPad, Bit Rate Recommendations, Create Variant Playlist, [https://developer.apple.com/library/ios/technotes/tn2224/\\_index.html#//apple\\_ref/doc/uid/DTS40009745-CH1-VARIANTPLAYLISTS](https://developer.apple.com/library/ios/technotes/tn2224/_index.html#//apple_ref/doc/uid/DTS40009745-CH1-VARIANTPLAYLISTS).)

35. Claim 24 of the '037 patent recites the apparatus of claim 17 wherein a storage unit is connected to the control device and in which at least one encoding format is stored.

36. The Accused Instrumentalities infringe claim 24 of the '037 patent. (*See, e.g.*, HTTP Streaming Architecture, <https://developer.apple.com/library/ios/documentation/NetworkingInternet/Conceptual/StreamingMediaGuide/HTTPStreamingArchitecture/HTTPStreamingArchitecture.html>.)

37. Claim 29 of the '037 patent recites the apparatus of claim 17 wherein the signal being transmitted with the transmission device and/or stored with the storage device and/or received from the transmission device can be listened to in a listening device.

38. The Accused Instrumentalities infringe claim 29 of the '037 patent. (*See, e.g.*, HTTP Streaming Architecture, <https://developer.apple.com/library/ios/documentation/NetworkingInternet/Conceptual/Streaming>



[gMediaGuide/HTTPStreamingArchitecture/HTTPStreamingArchitecture.html](https://developer.apple.com/streaming/);

[https://developer.apple.com/streaming/.](https://developer.apple.com/streaming/))

39. Claim 32 of the '037 patent recites the apparatus of claim 17 wherein the control device can be operated either cable-less or via a cabled interface.

40. The Accused Instrumentalities infringe claim 32 of the '037 patent. (*See, e.g.*, Compressor 4: HTTP Live Streaming,

[https://support.apple.com/kb/PH21144?viewlocale=en\\_US&locale=en\\_US](https://support.apple.com/kb/PH21144?viewlocale=en_US&locale=en_US); HTTP Streaming Architecture,

<https://developer.apple.com/library/ios/documentation/NetworkingInternet/Conceptual/StreamingMediaGuide/HTTPStreamingArchitecture/HTTPStreamingArchitecture.html>; '037 Patent at 7:17-20 and 7:30-34.)

41. On information and belief, these Accused Instrumentalities are used, marketed, provided to, and/or used by or for Defendant's partners, clients, customers and end users across the country and in this District.

42. Defendant was made aware of the '037 patent and its infringement thereof at least as early as the filing of this Complaint.

43. Upon information and belief, since at least the time Defendant received notice, Defendant has induced and continues to induce others to infringe at least one claim of the '037 patent under 35 U.S.C. § 271(b) by, among other things, with specific intent or willful blindness, actively aiding and abetting others to infringe, including but not limited to Defendant's partners, clients, customers, and end users, whose use of the Accused Instrumentalities constitutes direct infringement of at least one claim of the '037 patent.

44. In particular, Defendant's actions that aid and abet others such as its partners, customers, clients, and end users to infringe include advertising and distributing the Accused Instrumentalities and providing instruction materials, training, and services regarding the Accused Instrumentalities. On information and belief, Defendant has engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement since Defendant has had actual knowledge of the '037 patent and knowledge that its acts were inducing infringement of the '037 patent since at least the date Defendant received notice that such activities infringed the '037 patent.

45. Upon information and belief, Defendant is liable as a contributory infringer of the '037 patent under 35 U.S.C. § 271(c) by offering to sell, selling and importing into the United States signal encoding technologies to be especially made or adapted for use in an infringement of the '037 patent. The Accused Instrumentalities are a material component for use in practicing the '037 patent and are specifically made and are not a staple article of commerce suitable for substantial non-infringing use.

46. Plaintiff has been harmed by Defendant's infringing activities.

#### **JURY DEMAND**

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, Plaintiff demands a trial by jury on all issues triable as such.

#### **PRAYER FOR RELIEF**

WHEREFORE, Plaintiff demands judgment for itself and against Defendant as follows:

- A. An adjudication that Defendant has infringed the '037 patent;
- B. An award of damages to be paid by Defendant adequate to compensate Plaintiff for Defendant's past infringement of the '037 patent, and any continuing or future infringement

through the date such judgment is entered, including interest, costs, expenses and an accounting of all infringing acts including, but not limited to, those acts not presented at trial;

C. A declaration that this case is exceptional under 35 U.S.C. § 285, and an award of Plaintiff's reasonable attorneys' fees; and

D. An award to Plaintiff of such further relief at law or in equity as the Court deems just and proper.

Dated: May 25, 2016

DEVLIN LAW FIRM LLC

*/s/ Timothy Devlin*

Timothy Devlin (#4241)

tdevlin@devlinlawfirm.com

1306 N. Broom St., 1<sup>st</sup> Floor

Wilmington, Delaware 19806

Telephone: (302) 449-9010

Facsimile: (302) 353-4251

*Attorneys for Plaintiff*

*Digital Audio Encoding Systems, LLC*