

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

SUNFLOWER LICENSING LLC,

Plaintiff,

v.

ADT LLC,

Defendant.

CIVIL ACTION

NO. 6:22-cv-902

Jury Trial Demanded

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Sunflower Licensing LLC (“Plaintiff”) files this Complaint for Patent Infringement against Defendant, and states as follows:

THE PARTIES

1. Plaintiff is a limited liability company organized and existing under the laws of the State of Texas, having its principal office at 1401 Lavaca St. #929, Austin, TX 78701.

2. Defendant ADT LLC (“Defendant”) is a corporation organized under the laws of the State of Delaware and, on information and belief, has a regular and established place of business in this judicial district at 1817 W Braker Ln, Austin, TX 78758. Defendant may be served with process through its registered agent, The Corporation Trust Company, Corporation Trust Center, 1209 Orange St., Wilmington, DE 19801. Upon information and belief, Defendant makes, uses, offers to sell, sells, and/or imports products and services throughout the United States, including in this judicial district.

JURISDICTION AND VENUE

3. This Court has exclusive subject matter jurisdiction over this case pursuant to 28 U.S.C. §§ 1331 and 1338(a) on the grounds that this action arises under the Patent Laws of the

United States, 35 U.S.C. § 1 et seq., including, without limitation, 35 U.S.C. §§ 271, 281, 284, and 285.

4. This Court has personal jurisdiction over Defendant, consistent with due process. Defendant is registered to do business in Texas and, on information and belief, has a regular and established place of business in this judicial district. Further, Defendant has minimum contacts with the State of Texas, and Defendant has purposefully availed itself of the privileges of conducting business in the State of Texas.

5. Venue is proper in this Court pursuant to 28 U.S.C. § 1400(b) on the grounds that, on information and belief, Defendant has a regular and established place of business and has committed acts of infringement in this judicial district.

FACTUAL BACKGROUND

U.S. Patent No. 6,487,528

6. Plaintiff is the owner by assignment of all right, title, and interest in and to United States Patent No. 6,487,528, entitled “Method and Apparatus for Encoding or Decoding Audio or Video Frame Data” (“the ’528 patent”), including the right to sue for all past, present, and future infringement, which assignment was duly recorded in the USPTO.

7. A true and correct copy of the ’528 patent is attached hereto as Exhibit A. The ’528 patent is incorporated herein by reference.

8. The application that became the ’528 patent was filed on January 6, 2000.

9. The ’528 patent issued on November 26, 2002, after a full and fair examination by the USPTO.

10. A true and correct copy of the prosecution history for the ’528 patent is attached hereto as Exhibit B and is incorporated herein by reference.

11. The '528 patent is, and is legally presumed to be, valid, enforceable, and directed to patent-eligible subject matter.

12. The elements recited in the asserted claims of the '528 patent were not well-understood, routine, or conventional when the application that became the '528 patent was filed. The United States Patent & Trademark Office determined that the claims of the '528 patent were allowable over the prior art of record after a full and fair examination.

13. The claims of the '528 patent, including claims 1 and 5, are directed to technical solutions to technical problems encountered during encoding or decoding operation when one or more parameters change.

14. The '528 patent states that the field of the invention “relates to a method and to an apparatus for encoding or decoding audio or video frame data.” '528 patent at 1:7-8. More particularly, the '528 patent states that, “It may happen that encoding parameters change during encoding operation. In order to avoid the output of invalid data the encoding parameters required for a specific processing path are added to the input streams for the audio channels and become linked with the associated audio data, i.e., the corresponding encoding parameters are kept linked with the audio data to be encoded throughout the encoding processing.” *Id.* at Abstract. The '528 patent states that “[i]t is one object of the invention to disclose a method for encoding or decoding audio or video frame data for which encoding or decoding parameters are required. It is a further object of the invention to disclose an apparatus which utilises the inventive method.” *Id.* at 1:57-61.

15. The '528 patent further describes a problem in the art as it existed as of the '528 patent's priority date. For example, the '528 patent states: “A problem arises when during normal encoding operation one or more parameters change. This may happen when the current type of

program changes, e.g., from pure speech or news to music.” *Id.* at 1:19-22. For example, the ’528 patent explains that “[n]ormally the audio frames are processed in an encoder in subsequent different stages, for example conversion to frequency coefficients in a first stage and bit allocation and quantisation in a further stage.” *Id.* at 1:23-26. The ’528 patent goes on to describe that, “[i]f the encoding parameters would generally change at a time instant where a certain audio frame has been processed in such first stage but not yet in such further stage, the data of this frame will become useless after having been processed in the further stage with the changed encoding parameters.” *Id.* at 1:37-42.

16. Elsewhere, the ’528 patent elaborates on this problem, stating that “a global parameter switching would cause assignment of the new parameters to also such buffers which still contain data to be processed by the previous set of parameters. This would make the content of such buffers useless.” *Id.* at 3:28-31.

17. The ’528 patent states that one potential way to avoid this problem is to utilize “a big table with the old encoding parameters and a big table with the new encoding parameters,” which “could be stored in the encoder for some time for each channel wherein the ‘depth’ of the tables would depend on the number of streams within the encoder and which would require repeated updating.” *Id.* at 1:43-48. However, the ’528 patent explains that this approach “could easily produce errors” and “would require more memory capacity than the solution described” in the ’528 patent. *Id.* at 1:51-56.

18. In discussing the disclosed invention, the ’528 patent describes an embodiment in which “the encoding parameters required for a specific processing path are added to the input streams for the audio channels and become linked with the associated audio data and are stored in the various buffers together with its audio data, i.e. the corresponding encoding parameters are

kept linked with the audio data to be encoded throughout the encoding processing in the different data streams and data paths.” *Id.* at 1:62-2:3. The ’528 patent states that, in accordance with the disclosed invention, “each data stream can be processed with the correct parameter set without waiting for finishing encoding of the old data stream and for reset and loading of new parameters before starting encoding of a new data stream with new parameters.” *Id.* at 2:8-12.

19. The ’528 patent states that, “[i]n principle, the inventive method is suited for encoding audio or video frame data for which encoding parameters are required, wherein the required encoding parameters become linked at the input of the processing with frames of said audio or video data to be encoded and throughout different stages in the encoding processing, and wherein in each of these stages the corresponding encoding parameters linked with current frame data to be processed are regarded in order to allow switching of the encoding parameters for any frame thereby avoiding encoding of invalid output data without reset.” *Id.* at 2:16-26.

20. The ’528 patent also states that, “the inventive method is suited . . . for decoding audio or video frame data for which decoding parameters are required, wherein the required decoding parameters become linked at the input of the processing with frames of said audio or video data to be decoded and throughout different stages in the decoding processing, and wherein in each of these stages the corresponding decoding parameters linked with current frame data to be processed are regarded in order to allow switching of the decoding parameters for any frame thereby avoiding decoding of invalid output data without reset.” *Id.* at 2:16-36.

21. The ’528 patent states that, by utilizing the disclosed invention, “various encoding parameters like coding mode (mono, stereo, dual, joint stereo), sample rate and data rate can be changed ‘on the fly’ without reset and without producing invalid encoder output data.” ’528 patent at 3:30-35.

22. The claims of the '528 patent recite inventions claiming one or more of the inventive technical solutions disclosed in the '528 patent. For example, claim 1 of the '528 patent, by reciting the following steps, is directed to an inventive technical solution to a technical problem disclosed in the '528 patent:

1. Method for encoding at least one of audio and video frame data for which encoding parameters are required, including the following steps:

linking the required encoding parameters at the input of the processing with frames of said at least one of audio and video data to be encoded;

keeping the required encoding parameters linked throughout different subsequent stages in the encoding processing, wherein in each of these stages the corresponding encoding parameters linked with current frame data to be processed are regarded in order to allow switching of the encoding parameters for any frame thereby avoiding encoding of invalid output data without reset.

23. The claims of the '528 patent recite inventions claiming one or more of the inventive technical solutions disclosed in the '528 patent. For example, claim 5 of the '528 patent, by reciting the following steps, is directed to an inventive technical solution to a technical problem disclosed in the '528 patent:

5. Method for decoding at least one of audio and video frame data for which decoding parameters are required, including the following steps:

linking the required decoding parameters at the input of the processing with frames of said at least one of audio and video data to be decoded;

keeping the required decoding parameters linked throughout different subsequent stages in the decoding processing, wherein in each of these stages the corresponding decoding parameters linked with current frame data to be processed are regarded in order to allow switching of the decoding parameters for any frame thereby avoiding decoding of invalid output data without reset.

24. The claims of the '528 patent, including claims 1 and 5, were not well-understood, routine, or conventional activities known to the industry before the priority date of the '528 patent. Rather, the claims of the '528 patent, including claims 1 and 5, represent a significant advancement over the prior art. This is evidenced, for example, by the '528 patent's

discussion of the problems in the art and the disclosed solution to those problems, including the passages quoted herein.

25. The claims of the '528 patent, including claims 1 and 5 specifically, are not merely directed to the idea of format conversion. This is evidenced by the language of the claims, including claim 1 (quoted above). Moreover, neither claim 1 nor claim 5 expressly recites format conversion.

26. The claims of the '528 patent, including claims 1 and 5 specifically, do not merely recite “attaching necessary information to a piece of data during the encoding process.” This is evidenced by the language of the claims, including claims 1 and 5 (quoted above).

27. The '528 patent explains how to perform the claimed method, including in the passages quoted above and through the disclosure of exemplary embodiments as further detailed in the Detailed Description of Preferred Embodiments. '528 patent at 3:36-5:27, including Figures 2 and 3 and the specification's discussion thereof.

28. As evidenced by the language of claims 1 and 5 (quoted above), the '528 patent claims particular methods and processes that would achieve the required linking of the coding data and video frame data. Moreover, the '528 patent claims particular technical solutions to address the technical problems described in the '528 patent, including those described above.

29. Furthermore, the '528 patent claims specific technical inventions distinct from other potential approaches described in the '528 patent, as described herein. *See id.* at 1:42-56. The claims of the '528 patent are not merely directed to conventional coding, decoding, compression, or broadcasting techniques, as the passages of the '528 patent quoted herein indicate.

30. As the passages of the '528 patent quoted herein indicate, the claims of the '528 patent, including claims 1 and 5, are directed to a specific improvement in computer capabilities and solve a technological problem. The claims of the '528 patent, including claims 1 and 5, do not merely invoke computers as a tool. *See, e.g., id.* at 4:54-5:21; Fig. 3. For example, as the passages of the '528 patent cited herein indicate, the inventions claimed in the '528 patent avoid invalid data, while also avoiding the production of errors and excess memory requirements involved in other potential approaches.

U.S. Patent No. 7,398,005

31. Plaintiff is the owner by assignment of all right, title, and interest in and to United States Patent No. 7,398,005, entitled "Trick Mode Playback of Recorded Video" ("the '005 patent"), including the right to sue for all past, present, and future infringement, which assignment was duly recorded in the USPTO.

32. A true and correct copy of the '005 patent is attached hereto as Exhibit C. The '005 patent is incorporated herein by reference.

33. The application that became the '005 patent was filed on December 19, 2001.

34. The '005 patent issued on July 8, 2008, after a full and fair examination by the USPTO.

35. A true and correct copy of the prosecution history for the '005 patent is attached hereto as Exhibit D and is incorporated herein by reference.

36. The '005 patent is, and is legally presumed to be, valid and enforceable and directed to patent-eligible subject matter. The United States Patent & Trademark Office determined that the claims of the '005 patent were allowable over the prior art of record after a full and fair examination.

37. The elements recited in the asserted claim of the '005 patent were not well-understood, routine, or conventional when the application that became the '005 patent was filed.

38. The claims of the '005 patent, including claim 1, are directed to technical solutions to technical problems relating to providing trick mode functionality.

39. The '005 patent states that the disclosed invention relates to the technical field of “video recording systems and more particularly to video recording systems that record digitally encoded video sequences onto disc media such as recordable digital video discs, hard drives and magneto optical discs.” '005 patent at 1:8-11. Even more particularly, the '005 patent is directed to inventions for producing a trick mode playback of a segment of video containing a plurality of predictive encoded pictures.

40. The '005 patent describes that “MPEG video generally uses three types of picture coding methods: Intra (I) pictures, predictive (P) pictures and bidirectional predictive (B) pictures. I pictures are encoded or decoded independently of any other picture. This creates a reference picture from which P and B pictures, or non-I pictures, can be constructed.” *Id.* at 1:14-19. However, as the '005 patent explains, “[a] number of MPEG video signals, however, are encoded without I pictures.” *Id.* at 1:20-21. This included, for example, MPEG signals broadcast by many U.S. cable systems. *Id.* at 1:21-22.

41. The '005 patent explains that in such cases, a portion of P pictures may be composed of I macroblocks, such that successive P pictures can be used to eventually properly decode a P picture, “which can then be used to decode the remaining pictures in the video signal.” *Id.* at 1:27-45. While this leads to “a brief period in which the picture quality suffers at the initial of playback,” this initial reduction was often considered acceptably brief. *Id.* at 1:53-2:3.

42. However, the '005 patent describes that “[s]ignificantly, however, initiating a trick mode command once the properly decoded P picture is obtained may cause problems in the decoding of subsequent pictures. Specifically, during a trick mode such as fast forward or fast reverse, a plurality of pictures are skipped to speed up the playback. If P pictures containing the I macroblocks are skipped, then the subsequent pictures that would have been predicted from the skipped P pictures can no longer be properly decoded, and the display of these pictures will be negatively affected during the trick mode.” *Id.* at 2:8-14.

43. The '005 patent also teaches that “initiating a fast motion trick mode command before a properly decoded P picture is acquired may be problematic as well, as P pictures containing I macroblocks are likely to be skipped and the user may have a difficult time recognizing sections of the video on which the fast motion trick mode is being performed.” *Id.* at 2:14-19.

44. The '005 patent states that “a need exists for a method and system for performing fast motion trick modes without requiring the prediction of a picture or a portion of a picture from another picture or increasing system costs or complexity.” *Id.* at 2:19-23.

45. The '005 patent discloses a technical solution to these technological problems involved in producing a trick mode playback of a segment of video containing a plurality of predictive encoded pictures. For example, the '005 patent teaches an embodiment of the disclosed invention that includes the steps of “(a) decoding a portion of a predictive picture from the plurality of predictive pictures; and (b) updating a portion of information stored in a memory with the portion of the predictive picture.” *Id.* at 2:30-34. The '005 patent goes on to state that “[t]he method can also include the step of repeating steps (a) and (b) during the trick mode playback such that a portion of each of a predetermined number of subsequent predictive pictures

are decoded and used to update a subsequent portion of the information stored in the memory.”
Id. at 2:34-39.

46. The '005 patent states that a system implementing the invention “also includes suitable software and circuitry to implement” the disclosed methods. *Id.* at 2:65-67. The '005 patent further states that “program routines can be provided for the microprocessor 118 in accordance with the inventive arrangements.” *Id.* at 3:30-32.

47. The '005 patent states that, “[i]n operation, a fast trick mode can be initiated, and the controller 112 can read a video signal containing a plurality of P pictures from the storage medium 110. The P pictures in this video signal can contain a number of I and P macroblocks. In one arrangement, the signal does not contain any I pictures; however, it should be noted that the invention is not limited in this regard, as a fast motion trick mode in accordance with the inventive arrangements can be performed on a signal containing I pictures.” *Id.* at 3:36-41.

48. The specification then states that, in accordance with the disclosed invention, “The decoder 114 can then decode a portion of a P picture from the plurality of P pictures. The decoded portion of this P picture can then be sent to the display memory 116, where it can be used to update a portion of information stored in the display memory 116. During the trick mode, the decoder 114 can continue to decode the video signal such that a portion of each of a predetermined number of subsequent P pictures can be decoded. These decoded portions can then update a subsequent portion of the information stored in the display memory 116.” *Id.* at 3:45-55. As the '005 patent notes, exemplary embodiments implementing this process are described in more detail in the section titled, “Trick Mode Playback of Recorded Video.” *Id.* at 3:54-55 (referring to 3:59-5:9).

49. The '005 patent teaches that “performing trick modes in this fashion can eliminate the need for predicting pictures from other pictures during the trick mode.” *Id.* at 4:43-44. The '005 patent also teaches that the disclosed technique can “lead to faster trick mode speeds, as the I macroblocks do not require any memory accesses for predictors.” *Id.* at 4:38-42.

50. The '005 patent also teaches that by utilizing the disclosed technical solution, “for fast motion speeds of 3X or less . . . substantially all of the information stored in memory can be updated as opposed to a mere portion of the information.” *Id.* at 5:1-9.

51. The claims of the '005 patent recite inventions claiming one or more of the technical solutions disclosed in the '005 patent, including claim 1, which is set forth below.

1. A method of producing a trick mode playback of a segment of video containing a plurality of predictive encoded pictures comprising the steps of:

(a) decoding a portion of a predictive picture from the plurality of predictive pictures without decoding the predictive picture in its entirety;

(b) updating a portion of information stored in a memory with the portion of the predictive picture; and

(c) repeating steps (a) and (b) during the trick mode playback such that a portion of each of a predetermined number of subsequent predictive pictures are decoded and used to update a subsequent portion of the information stored in the memory.

52. The claims of the '005 patent, including claim 1, were not well-understood, routine, or conventional activities known to the industry before the priority date of the '005 patent. Rather, the claims of the '005 patent, including claim 1, represent a significant advancement over the prior art. This is evidenced, for example, by the '005 patent's discussion of the problems in the art and the disclosed solution to those problems, including the passages quoted herein.

53. The '005 patent does not merely claim an abstract idea directed to the process of producing a trick mode playback. This is evidenced, for example, by the language of claim 1 and

the discussion of the technical solutions disclosed and claimed in the '005 patent set forth in the passages quoted above.

54. The claims of the '005 patent, including claim 1, claim more than an abstract idea of recording, transmitting, and playing back data, including fast forwarding and fast reversing. This is evidenced, for example, by the language of claim 1 and the discussion of the technical solutions disclosed and claimed in the '005 patent set forth in the passages quoted above.

55. The claims of the '005 patent, including claim 1, do not merely claim a way to fast forward and fast reverse. This is evidenced, for example, by the language of claim 1 (which includes additional recitations) and the discussion of the technical solutions disclosed and claimed in the '005 patent set forth in the passages quoted above.

56. The claims of the '005 patent, including claim 1, do not merely claim decoding a picture for trick mode playback, updating a portion of the picture's information, and repeating these two steps with the required data for subsequent pictures. This is evidenced, for example, by the language of claim 1, which includes additional recitations.

57. The specification of the '005 patent does not state that the claimed inventions can be performed merely using generic computer components or that none of the components are specially programmed or implemented in an unconventional manner. This is evidenced, for example, by the passages of the '005 patent quoted above. *See, e.g.*, '005 patent at 2:65-67, 3:30-32.

COUNT I – INFRINGEMENT OF THE '528 PATENT

58. Plaintiff realleges and incorporates by reference the allegations set forth above, as if set forth verbatim herein.

59. Defendant has made, used, sold, offered for sale, and/or imported products and/or services that incorporated one or more of the inventions claimed in the '528 patent.

60. For example, Defendant has infringed at least claims 1 and 5 of the '528 patent, either literally or under the doctrine of equivalents, in connection with Defendant's ADT Pulse, as detailed in the preliminary claim chart attached hereto as Exhibit E and incorporated herein by reference.

61. Defendant's infringing activities have been without authority or license under the '528 patent.

62. Plaintiff has been damaged by Defendant's infringement of the '528 patent, and Plaintiff is entitled to recover damages for Defendant's infringement, which damages cannot be less than a reasonable royalty.

COUNT II – INFRINGEMENT OF THE '005 PATENT

63. Plaintiff realleges and incorporates by reference the allegations set forth above, as if set forth verbatim herein.

64. Defendant has made, used, sold, offered for sale, and/or imported products and/or services that incorporated one or more of the inventions claimed in the '005 patent, and continues to do so.

65. For example, Defendant has infringed at least claim 1 of the '005 patent, either literally or under the doctrine of equivalents, in connection with Defendant's ADT Pulse, as detailed in the preliminary claim chart attached hereto as Exhibit F and incorporated herein by reference.

66. Defendant's infringing activities have been without authority or license under the '005 patent.

67. Plaintiff has been damaged by Defendant's infringement of the '005 patent, and Plaintiff is entitled to recover damages for Defendant's infringement, which damages cannot be less than a reasonable royalty.

JURY DEMAND

Plaintiff demands a trial by jury of all issues so triable.

PRAYER FOR RELIEF

Plaintiff respectfully requests that the Court find in its favor and against Defendant, and that the Court grant Plaintiff the following relief:

- A. Entry of judgment that Defendant has infringed one or more claims of the '528 patent and the '005 patent,
- B. Damages in an amount to be determined at trial for Defendant's infringement, which amount cannot be less than a reasonable royalty,
- C. Pre-judgment and post-judgment interest on the damages assessed, and
- D. That the Court declare this to be an exceptional case and award Plaintiff its reasonable attorneys' fees and expenses in accordance with 35 U.S.C. § 285, and
- E. Such other and further relief, both at law and in equity, to which Plaintiff may be entitled and which the Court deems just and proper.

This 31st day of August, 2022.

/s/ Cortney S. Alexander

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