

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

DIGIMEDIA TECH, LLC,

Plaintiff,

v.

XIAOMI CORPORATION, XIAOMI H.K.
LTD., XIAOMI COMMUNICATIONS CO.,
LTD., AND XIAOMI INC.,

Defendant.

CIVIL ACTION

NO. 2:23-cv-110

Jury Trial Demanded

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff DigiMedia Tech, LLC (“Plaintiff”) files this Complaint for Patent Infringement and states as follows:

THE PARTIES

1. Plaintiff is a limited liability company organized and existing under the laws of the State of Georgia, having its principal office at 44 Milton Ave., Suite 254, Alpharetta, GA 30009.
2. On information and belief, Defendant Xiaomi Corporation is a corporation organized and existing under the laws of the Cayman Islands, with a place of business at Maples Corporate Services Limited, P.O. Box 309, Umland House, Grand Cayman, KY1-1104, Cayman Islands. On information and belief, Xiaomi Corporation makes and sells smartphones in the world and the United States. On information and belief, Xiaomi Corporation does business in Texas and in the Eastern District of Texas, directly or through its subsidiaries.
3. On information and belief, Defendant Xiaomi Communications Co., Ltd. is a corporation organized and existing under the laws of the People’s Republic of China, with its

principal place of business at Xiaomi Office Building, 68 Qinghe Middle Street, Haidian District, Beijing, China 100085. On information and belief, Xiaomi Communications makes and sells smartphones in the world and the United States. On information and belief, Xiaomi Communications does business in Texas and in the Eastern District of Texas, directly or through its subsidiaries.

4. On information and belief, Xiaomi H.K. Ltd. is a corporation organized and existing under the laws of Hong Kong, with its principal place of business at Unit 806, Tower 2 8/F, Cheung Sha Wan Plaza, 833 Cheung Sha Wan Road, Kowloon City, Hong Kong. Xiaomi H.K. makes and sells smartphones in the world and the United States. On information and belief, Xiaomi H.K. does business in Texas and in the Eastern District of Texas, directly or through its subsidiaries.

5. On information and belief, Xiaomi Inc. is a corporation organized under the laws of the People's Republic of China, with its principal place of business at Xiaomi Office Building, 68 Qinghe Middle Street, Haidian District, Beijing, China 100085. Xiaomi Inc. makes and sells smartphones in the world and the United States. On information and belief, Xiaomi Inc. does business in Texas and in the Eastern District of Texas, directly or through its subsidiaries.

JURISDICTION AND VENUE

6. 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.

7. This Court has personal jurisdiction over Defendants consistent with the requirements of the Due Process Clause of the United States Constitution and the Texas Long Arm Statute. On information and belief, Defendants have sufficient minimum contacts with the

forum because Defendants transact substantial business in the State of Texas and in this Judicial District. Further, Defendants have, directly or through subsidiaries or intermediaries, committed acts of patent infringement in the State of Texas and in this Judicial District as alleged in this Complaint. Moreover, on information and belief, Defendants have purposefully and voluntarily placed their products into the stream of commerce with the expectation that they will be purchased and used by customers located in the State of Texas. On information and belief, Defendants' customers in the State of Texas have used Defendants' infringing products.

8. Venue is proper in this Court as to Defendants pursuant to 28 U.S.C. § 1391(c) on the grounds that Defendants are foreign corporations.

FACTUAL BACKGROUND

The '532 Patent

9. Plaintiff is the owner by assignment of all right, title, and interest in and to United States Patent No. 6,473,532, entitled "Method and Apparatus for Visual Lossless Image Syntactic Encoding" ("the '532 patent"), including the right to sue for all past, present, and future infringement, which assignment was duly recorded in the USPTO.

10. A true and correct copy of the '532 patent is attached hereto as Exhibit A. The '532 patent is incorporated herein by reference.

11. The application that became the '532 patent was filed on March 14, 2000.

12. The '532 patent issued on October 29, 2002, after a full and fair examination by the USPTO.

13. The '532 patent is and is legally presumed to be valid, enforceable, and directed to patent-eligible subject matter.

14. The elements recited in the asserted claims of the '532 patent were not well-understood, routine, or conventional when the application that became the '532 patent was filed.

15. The claims of the '532 patent are directed to technical solutions to the technical problem of providing a visually lossless video compression method and apparatus. One of the reasons this is important is for storing video in a compressed format, where the compression does not reduce the quality of the video in a visually detectable manner. Since recording video programs onto Blu-ray disks must balance the competing features of both high quality video and limited or practical video file sizes, the problem calls for technical solutions. The '532 patent discloses and claims such technical solutions.

16. For example, the '532 patent recognized that video encoding can compress the source video input in a manner that is visually lossless. The '532 patent discloses and claims a number of techniques that include defining visual perception thresholds and classifying picture elements into subclasses using the visual perception thresholds. The picture elements can be transformed according to the subclass. Consequently, the technology in the '532 patent enables both visually lossless encoding and efficient compression of recorded video.

17. Specifically, asserted claim 12 of the '532 patent, which depends from independent claim 6, claims the following:

6. A method of visual lossless encoding of frames of a video signal, the method comprising steps of:

spatially and temporally separating and analyzing details of said frames;

estimating parameters of said details;

defining a visual perception threshold for each of said details in accordance with said estimated detail parameters;

classifying said frame picture details into subclasses in accordance with said visual perception thresholds and said detail parameters; and

transforming each said frame detail in accordance with its associate subclass.

12. The method according to claim 6, wherein said step of transforming

includes the step of filtering each subclass with an associated two dimensional low pass filter.

18. The sequence of steps set forth in asserted claim 12 of the '532 patent provides a technical solution to the technical problem of providing a visually lossless video compression method.

19. The claimed sequence of steps set forth in asserted claim 12 constitutes patent-eligible subject matter, is not directed to an abstract idea, law of nature, or natural phenomenon, and contains one or more inventive concepts for accomplishing the competing goals of video compression and visually lossless video encoding.

20. This claimed sequence was not well-understood, routine, or conventional at the time of the invention.

21. The significance of the inventiveness of the '532 patent is illustrated by the fact that it or a family member has been cited in 33 other patent applications, including the following patents and published patent applications: US20020063719A1; US20030202705A1; US6744818B2; US20040131117A1; US20050270265A1; US20060001658A1; US20060020906A1; US20060017773A1; US20060188168A1; US20060236893A1; US20060250525A1; US20080129875A1; US7580031B2; US7583260B2; US20100100346A1; US7714831B2; US7742108B2; US7786988B2; USRE42148E1; US7903902B2; US9659544B2; US6735339B1; BRPI0303901B1; US7636488B2; KR100697516B1; US8780957B2; AR052601A1; US8755446B2; US8879856B2; US8948260B2; US9131164B2; TWI376644B; and US9842410B2.

The '287 Patent

22. Plaintiff is the owner by assignment of all right, title, and interest in and to United States Patent No. 6,606,287 entitled "Method and Apparatus for Compression Rate Selection"

(“the ’287 patent”), including the right to sue for all past, present, and future infringement, which assignment was duly recorded in the USPTO.

23. A true and correct copy of the ’287 patent is attached hereto as Exhibit B. The ’287 patent is incorporated herein by reference.

24. The application that became the ’287 patent was filed on November 29, 2000.

25. The ’287 patent issued on August 12, 2003, after a full and fair examination by the USPTO.

26. The ’287 patent is and is legally presumed to be valid, enforceable, and directed to patent-eligible subject matter.

27. The elements recited in the asserted claims of the ’287 patent were not well-understood, routine, or conventional when the application that became the ’287 patent was filed.

28. The claims of the ’287 patent are directed to technical solutions to the technical problem of video compression rate selection, for example, in the field of home electronic entertainment with multiple types of media devices, including cellular phones. One of the reasons this is important is the rate selection for video compression should reduce the stored file size or bandwidth requirements while maintaining high quality for the video. The media devices can operate in a networked manner and share the compressed video over the network. Higher video compression rates reduce network bandwidth or file storage requirements, but also reduce video quality. The selection of an optimal or preferred video compression rate that maintains sufficient quality for sharing video over the network calls for technical solutions. The ’287 patent discloses and claims such technical solutions. For example, the ’287 patent recognized that multiple data items can be associated with the video input, and a maximum compression rate can be determined from the data items. The video can be compressed at the maximum compression

rate and stored. The media device can operate as client in a client/server architecture for storing the compressed video. This approach overcomes problems for video compression rates that result in either larger file sizes than necessary or unacceptable video quality. Consequently, the technology in the '287 patent enables networked media devices such as cellular phones to compress video at sufficient quality for storing in a network with bandwidth and storage limitations.

29. The sequence of steps set forth in the asserted claims of the '287 patent provide a technical solution to the technical problem of determining a video compression rate for media devices to store video in a communications network.

30. Specifically, asserted claim 1 of the '287 patent claims:

1. A method for recording a media signal comprising:

generating one or more data items wherein said data items are associated with said media signal;

determining a maximum compression rate from said data items wherein recording said media signal compressed at said maximum compression rate does not result in an unacceptable loss of quality of said media signal;

compressing said media signal at said maximum rate into a compressed media signal; and

storing said compressed media signal, wherein said step of determining is performed at a client in a client/server architecture.

31. The claimed sequence of steps set forth in the '287 patent constitutes patent-eligible subject matter, is not directed to an abstract idea, law of nature, or natural phenomenon, and contains one or more inventive concepts for accomplishing the goal of accurate and automated information exchange.

32. This claimed sequence was not well-understood, routine, or conventional at the time of the invention.

33. The significance of the inventiveness of the '287 patent is illustrated by the fact that it or a family member has been cited in 13 other patent applications, including the following patents and published patent applications: US20030204519A1; US20050117475A1; US20060095657A1; US20060112138A1; US20110145447A1; US9570103B2; US8867904B2; US7295753B2; WO2004021695A1; US7474832B2; WO2004107756A1; US7508609B2; and JP2008154132A.

The '476 Patent

34. Plaintiff is the owner by assignment of all right, title, and interest in and to United States Patent No. 7,715,476, entitled "System, Method and Article of Manufacture for Tracking a Head of a Camera-Generated Image of a Person" ("the '476 patent"), including the right to sue for all past, present, and future infringement, which assignment was duly recorded in the USPTO.

35. A true and correct copy of the '476 patent is attached hereto as Exhibit C. The '476 patent is incorporated herein by reference.

36. The application that became the '476 patent was filed on April 21, 2005.

37. The '476 patent claims priority to an application filed on July 30, 1999.

38. The '476 patent issued on May 11, 2010, after a full and fair examination by the USPTO.

39. The '476 patent is and is legally presumed to be valid, enforceable and directed to patent-eligible subject matter.

40. The elements recited in the asserted claims of the '476 patent were not well-understood, routine, or conventional when the application that became the '476 patent was filed.

41. The claims of the '476 patent are directed to technical solutions to the technical problem of how to identify a head in an image. One of various reasons this is important is to assist in focusing a digital camera. Since many camera users are not trained in how to properly focus a camera, and because many photographs are candid shots of moving subjects, the problem calls for technical solutions. The '476 patent discloses and claims such technical solutions. For example, the '476 patent recognized that while a number of different techniques could be used to identify a head portion of a subject in an image, no single technique is foolproof. Thus, the '476 patent discloses applying at least two techniques to identify a head portion and basing the detection of heads on the results of the two techniques. This approach overcomes a problem that any particular technique may be fooled by or rendered inapplicable by particular circumstances (e.g., lighting conditions, orientation of the subject to the camera, etc.).

42. For example, asserted claim 13 (which depends from and incorporates the elements of claim 1) of the '476 patent claims:

1. A method performed by a computer for processing images to identify a head portion of a subject in the images comprising:

obtaining images of a subject;

generating, by the computer, a first confidence value representing a confidence that a first process has identified a location of a head portion of the subject in the images;

generating, by the computer, a second confidence value representing a confidence that a second, different process has identified the location of the head portion of the subject in the images; and

identifying, by the computer, the location of the head portion of the subject in the images based at least in part on the first confidence value and the second confidence value.

13. A method as recited in claim 1, wherein the first process includes identifying a point of separation between the head portion and a torso portion.

43. The sequence of steps set forth in asserted claim 13 of the '476 patent provides a technical solution to the technical problem of head portion focus.

44. The claimed sequence of steps set forth in the '476 patent constitutes patent-eligible subject matter, is not directed to an abstract idea, law of nature, or natural phenomenon, and contains one or more inventive concepts for focusing a digital camera.

45. This claimed sequence was not well-understood, routine, or conventional at the time of the invention.

46. The significance of the inventiveness of the '476 patent is illustrated by the fact that it or a family member has been cited in 157 other patent applications, including the following patents and published patent applications: JP4157234B2; US8711217B2; US8564661B2; US9892606B2; US20050162515A1; US7020305B2; US20020085738A1; US7424175B2; US8457401B2; US20020171742A1; US6870945B2; US8300042B2; US7259747B2; US8035612B2; US6968085B2; US20030107650A1; US7710391B2; US7161579B2; US8947347B2; US7623115B2; US8797260B2; US7102615B2; US7646372B2; US7883415B2; US7760248B2; US7803050B2; US8570378B2; US9393487B2; US8686939B2; US7854655B2; US9474968B2; US8313380B2; US8139793B2; US7627139B2; US8233642B2; US7850526B2; US8160269B2; US9174119B2; US7918733B2; US9682319B2; US7134080B2; JP4240957B2; JP4318465B2; WO2004055776A1; US9177387B2; US7505862B2; US8072470B2; US8498452B2; US8593542B2; US7565030B2; US7440593B1; US8989453B2; US8155397B2; US8330831B2; US7574016B2; US9692964B2; US8948468B2; US9129381B2; US8896725B2; US7792970B2; US7269292B2; US8494286B2; US7471846B2; US7844076B2; US7620218B2; US8682097B2; US20070223732A1; US9573056B2; US8287373B2; US7874917B2; US8323106B2; US10279254B2; WO2005041579A2; CN1902930B;

US7663689B2; US8345918B2; GB2414615A; US8547401B2; US8320641B2; US7386150B2;
US8503800B2; US7315631B1; US9128519B1; JP4654773B2; US8081822B1; US7796780B2;
US8098277B1; US20070133940A1; US8265392B2; US8265349B2; US8150155B2;
KR100660725B1; US20110014981A1; AT497218T; WO2008017051A2; US7403643B2;
US7916897B2; US8310656B2; US8781151B2; USRE48417E1; AU2006252252B2;
US8055067B2; US8300890B1; WO2008104549A2; WO2008107002A1; US20080232696A1;
US20080252596A1; JP2008282085A; US7916971B2; US8702430B2; US8221290B2;
US8360904B2; KR100904846B1; WO2009035705A1; US8159682B2; US8542907B2;
WO2009094646A2; CN103258184B; US8340379B2; US8259163B2; US8368753B2;
US7855737B2; US8595218B2; US20090312629A1; JP5547730B2; US8961313B2;
US11464578B2; US8690776B2; US8641621B2; US8554307B2; US8527657B2;
US8342963B2; US8393964B2; US8142288B2; US8379917B2; US8787663B2; US9582707B2;
US9100574B2; US8670816B2; JP6222795B2; US10314559B2; US10347100B2;
US9901406B2; US10188467B2; US10853625B2; US10551913B2; WO2016181469A1;
JP6566028B2; US9949700B2; US9675319B1; US10278778B2; US11259879B2;
US10469590B2; US11484365B2; US11037316B2; US11205274B2; and JP6973258B2.

47. These public documents and their related prosecution histories are incorporated herein by reference and provide concrete proof that the invention claimed and disclosed in the '476 patent was not well-understood, routine, or conventional at the time of the invention.

COUNT I – INFRINGEMENT OF THE '532 PATENT

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

49. Defendants have made, used, sold, offered for sale, and/or imported products that incorporate one or more of the inventions claimed in the '532 patent.

50. For example, Defendants have infringed at least claim 12 of the '532 patent, either literally or under the doctrine of equivalents, directly or indirectly, in connection with Defendants' smartphones that record video using H.264, including without limitation the Xiaomi Mi A3 and similar products, as detailed in the preliminary claim chart attached hereto as Exhibit D and incorporated herein by reference.

51. Defendants' infringing activities have been without authority or license under the '532 patent.

52. Plaintiff has been damaged by Defendants' infringement of the '532 patent, and Plaintiff is entitled to recover damages for Defendants' infringement, which damages cannot be less than a reasonable royalty.

COUNT II – INFRINGEMENT OF THE '287 PATENT

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

54. Defendants have made, used, sold, offered for sale, and/or imported products that incorporate one or more of the inventions claimed in the '287 patent.

55. Defendants have directly infringed one or more claims of the '287 patent.

56. For example, Defendants have infringed at least claim 1 of the '287 patent, either literally or under the doctrine of equivalents, in connection with Defendants' smartphones that provide video recording with H.265/HEVC, including without limitation the Xiaomi Redmi 9A and similar products, as detailed in the preliminary claim chart attached hereto as Exhibit E and incorporated herein by reference.

57. Defendants' infringing activities have been without authority or license under the '287 patent.

58. Plaintiff has been damaged by Defendants' infringement of the '287 patent, and Plaintiff is entitled to recover damages for Defendants' infringement, which damages cannot be less than a reasonable royalty.

COUNT III – INFRINGEMENT OF THE '476 PATENT

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

60. Defendants have made, used, sold, offered for sale, and/or imported products that incorporate one or more of the inventions claimed in the '476 patent.

61. Defendants have directly infringed one or more claims of the '476 patent.

62. For example, Defendants have infringed at least claim 13 of the '476 patent, either literally or under the doctrine of equivalents, in connection with Defendants' Xiaomi 12 and similar products, as detailed in the preliminary claim chart attached hereto as Exhibit F and incorporated herein by reference.

63. Defendants' infringing activities have been without authority or license under the '476 patent.

64. Plaintiff has been damaged by Defendants' infringement of the '476 patent, and Plaintiff is entitled to recover damages for Defendants' 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 Defendants, and that the Court grant Plaintiff the following relief:

- A. Entry of judgment that Defendants have infringed one or more claims of the '532 patent,
- B. Entry of judgment that Defendants have infringed one or more claims of the '287 patent,
- C. Entry of judgment that Defendants have infringed one or more claims of the '476 patent,
- D. Damages in an amount to be determined at trial for Defendants' infringement, which amount cannot be less than a reasonable royalty,
- E. A determination that this case is exceptional, and an award of enhanced damages and attorney's fees,
- F. All costs of this action,
- G. Pre-judgment and post-judgment interest on the damages assessed, and
- H. 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 13th day of March, 2023.

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