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UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

DIGIMARC CORPORATION

Plaintiff,

v.

U-NICA AMERICAS, INC., U-NICA SYSTEMS AG and U-NICA SOLUTIONS AG

Defendants.

Case No. 1:2019-cv-1113 DLC (SDA)

FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT

JURY TRIAL DEMANDED

Digimarc Corporation ("Digimarc") files this First Amended Complaint for Patent Infringement against U-NICA Americas, Inc., U-NICA Systems AG, and U-NICA Solutions AG (collectively the "U-NICA Defendants") and alleges as follows:

NATURE OF THE ACTION

- 1. This is an action for patent infringement that arises under the patent laws of the United States, Title 35 of the United States Code.
- 2. The U-NICA Defendants have infringed and continue to infringe United States Patent No. 9,718,296 ("the '296 Patent") and United States Patent No. 9,398,210 ("the '210 Patent"). The U-NICA Defendants have directly infringed the '296 Patent and the '210 Patent by using the scryptoTRACE app. The U-NICA Defendants have indirectly infringed the '296 Patent and the '210 Patent by inducing others to use the scryptoTRACE app to infringe the '296 Patent and the '210 Patent, and by contributing to that infringement.
- 3. Plaintiff's right to relief is asserted against the U-NICA Defendants jointly, severally, or in the alternative.
- 4. Questions of fact and law common to the U-NICA Defendants will arise in this action.

THE PARTIES

5. Digimarc is a corporation organized and existing under the laws of the State of Oregon with its principal place of business in Beaverton, Oregon. Digimarc is a pioneer in digital security technology for printed objects, including technology for authenticating products such as digital watermarking and image fingerprinting. Digimarc holds title to hundreds of patents in this field.

- 6. U-NICA Americas, Inc. is a corporation organized under the laws of the State of Florida and, on information and belief, has its principal place of business in New York, New York.
- 7. On information and belief, U-NICA Systems AG is a corporation given this name after the merger of prior companies named U-NICA Systems AG and U-NICA Technology AG, both of whom were named as defendants in the original complaint in this action. On information and belief, the newly named U-NICA Systems AG is a corporation organized under the laws of Switzerland. On information and belief, this newly formed U-NICA Systems AG has its principal place of business in Landquart, Switzerland. References to U-NICA Systems AG in this Amended Complaint are to this newly named company.
- 8. U-NICA Solutions AG is a corporation organized under the laws of Switzerland and, on information and belief, has its principal place of business in Landquart, Switzerland.
- 9. On information and belief, the U-NICA Defendants are alter egos of one another and agents for each other. Although structured as separate entities, the U-NICA Defendants lack wills of their own and operate under common direction.
- 10. On information and belief, the U-NICA Defendants have common executive leadership, a common board of directors, and common ownership.
- 11. The website, u-nica.com, describes the U-NICA Group as "a fully privately owned enterprise, owned by Swiss shareholders with industrial backgrounds." The website continues, "The U-NICA Holding AG, headquartered in Switzerland, holds several legal entities (the group)."
 - 12. The u-nica.com website also states:
 - "Since 2015, the Group is managed centrally across all legal entities."

- "U-NICA operates globally, with several locations in Switzerland, the United States and Asia."
- "U-NICA is present globally with its own sales force, service centres and market partners in the key regions US, ASIA and EMEA."
- 13. On information and belief, U-NICA Americas, U-NICA Systems and U-NICA Solutions are part of the U-NICA Group.
- 14. The infringing instrumentality in this case, the scryptoTRACE app, is published by U-NICA Systems and also provided and/or promoted by U-NICA Americas and U-NICA Solutions, all of whom act as agents for one another to publish, provide, promote and license the scryptoTRACE app, in this District and elsewhere in the United States.

JURISDICTION AND VENUE

- 15. This Court has federal question jurisdiction over this action under 28 U.S.C. §§ 1331 and 1338(a) because Digimarc seeks relief under the Patent Act, 35 U.S.C. § 271 *et seq.*, including remedies for infringement of patents owned by Digimarc.
- 16. This Court has personal jurisdiction over the U-NICA Defendants because, among other reasons, they have committed acts of patent infringement in this District and because U-NICA Americas, on information and belief, has its principal place of business in this District and is the alter ego of the other U-NICA Defendants.
- 17. Venue is proper in this District pursuant to 28 U.S.C. § 1400(b) and 28 U.S.C. 1391(c)(3) because, among other reasons, U-NICA Systems and U-NICA Solutions are not residents of the United States, and U-NICA Americas is infringing the '296 Patent and the '210 Patent in this District and maintains a regular and established place of business in this District.

DIGIMARC'S '296 PATENT

- 18. Digimarc is the assignee of the '296 Patent, which is titled, "Authenticating identification and security documents and other objects." Tony F. Rodriguez is Digimarc's Chief Technology Officer and the inventor of the '296 Patent.
- 19. Digimarc filed the application that became the '296 Patent on July 21, 2015, based on continuation non-provisional applications going back to November 8, 2005, and provisional applications going back to November 9, 2004. The U.S. Patent and Trademark Office duly and lawfully issued the '296 Patent on August 1, 2017. The '296 Patent is now, and has been at all times since its date of issue, valid and enforceable.
- 20. The '296 Patent relates to authenticating objects, including through comparing randomly or pseudo-randomly occurring features with expected features using a mobile imaging device, such as a smartphone.
 - 21. A copy of the '296 Patent is attached hereto as Exhibit 1.

DIGIMARC'S '210 PATENT

- 22. Digimarc is the assignee of the '210 Patent, which is titled, "Methods and systems for dealing with perspective distortion in connection with smartphone cameras." John Stach and Ravi Sharma are the inventors of the '210 Patent. Mr. Stach is a Director, Research and Development at Digimarc. Mr. Sharma is a Director, Engineering R&D at Digimarc.
- 23. Digimarc filed the application that became the '210 Patent on April 15, 2011, based on a provisional application filed February 24, 2011. The U.S. Patent and Trademark Office duly and lawfully issued the '210 Patent on July 19, 2016. The '210 Patent is now, and has been at all times since its date of issue, valid and enforceable.

- 24. The '210 Patent relates to methods for capturing print and other images with a smartphone camera with minimal perspective distortion.
 - 25. A copy of the '210 Patent is attached hereto as Exhibit 2.

THE INFRINGING SCRYPTOTRACE APP

- 26. The scryptoTRACE app is a product verification app for smartphones and tablets that is part of what the U-NICA Defendants call the "scryptoTRACE suite." The app enables users to check the authenticity of products or their packaging by scanning the products or packaging with a smartphone. The scryptoTRACE suite includes products or packaging with features that the scrytoTRACE app verifies. The features include randomly or pseudo-randomly occurring features. The app compares the randomly or pseudo-randomly occurring features with expected features to authenticate the product or packaging. The app includes a ball-in-circle user interface to help align a smartphone camera with respect to packaging or products.
- 27. The U-NICA Defendants provide the scryptoTRACE app in the United States and induce infringing use of the app in the United States. For example, the app is available from U-NICA Systems on both Apple App Store and Google Play. For example, U-NICA Solutions has promoted the scryptoTRACE app in the United States at a trade show, among other places. For example, U-NICA Americas is listed as the contact for the scryptoTRACE app in the Americas on scryptoTRACE app marketing materials.
- 28. The U-NICA Defendants also provide the scryptoTRACE app to businesses in the United States for use in white-labeled apps. The infringing scryptoTRACE app provided by the U-NICA Defendants is customized for these businesses, who rename the app to maintain consistent branding.

SCRYPTOTRACE APP USE INFRINGES THE '296 PATENT

- 29. Use of the scryptoTRACE app with a smartphone (or tablet) infringes at least claim 26 of the '296 Patent.
 - 30. Claim 26 of the '296 Patent covers:

A method comprising: obtaining captured image or video data associated with a physical object, the physical object comprising a plurality of randomly or pseudo-randomly placed features, the plurality of randomly or pseudo-randomly placed features comprising a plurality of lines, the plurality of lines comprising modulations forming a pattern used for authenticating the physical object, the modulations carried by line modulations or angle modulations; evaluating the captured image or video data to obtain actual characteristics of the plurality of randomly or pseudorandomly placed features, the actual characteristics of comprising spatial positioning information for the pattern used for authenticating the physical object; obtaining expected characteristics of the pattern used for authenticating the physical object; based at least on the expected characteristics and the actual characteristics, controlling display of user feedback on a display carried by a mobile device, the user feedback facilitating a determination of authenticity of the physical object.

- 31. The use of the scryptoTRACE app on a smartphone practices the method described by claim 26 of the '296 Patent.
- 32. The smartphone running the scryptoTRACE app "obtain[s] captured image or video data associated with a physical object," as recited by claim 26. For example, the smartphone photographs features printed on products or packaging.
- 33. The physical object that the smartphone running the scryptoTRACE app photographs includes "randomly or pseudo-randomly placed features," including "lines," as recited by claim 26. For example, the smartphone running the scryptoTRACE app photographs printed graphics with lines whose position has been randomly or pseudo-randomly modulated according to a random number encoded within the product or packaging.

- 34. The randomly or pseudo randomly placed lines have "modulations forming a pattern used for authenticating the physical object, the modulations carried by line modulations or angle modulations," as recited by claim 26. For example, the graphics encoded with random numbers have lines carried by line or angle modulations that form a pattern, and the scryptoTRACE app uses this pattern for authenticating the product or packaging.
- 35. The scryptoTRACE app "evaluat[es] the captured image or video data to obtain actual characteristics of the plurality of randomly or pseudo-randomly placed features, the actual characteristics of comprising spatial positioning information for the pattern used for authenticating the physical object," as recited by claim 26. For example, when the scryptoTRACE app evaluates the random number and related random and pseudo-randomly placed features in the photograph of the product or packaging, it obtains the actual characteristics of these features, including information about the location, shape, curve, and their mathematical representations. The scryptoTRACE app uses this information to authenticate the product or packaging.
- 36. The scryptoTRACE app also "obtain[s] expected characteristics of the pattern used for authenticating the physical object," as recited by claim 26. For example, the scryptoTRACE app obtains the expected characteristics of the areas of the product or packaging that it photographs where the unique markers encoded with a random number are placed.
- 37. The scryptoTRACE app "based at least on the expected characteristics and the actual characteristics, control[s] display of user feedback on a display carried by a mobile device, the user feedback facilitating a determination of authenticity of the physical object," as recited by claim 26. For example, the scryptoTRACE app evaluates the expected and actual characteristics of the product or packaging image that are encoded according to a random number, and, based

on that evaluation, provides an alert for the user on the smartphone screen about whether the product or packaging is authentic.

SCRYPTOTRACE APP USE INFRINGES THE '210 PATENT

- 38. Use of the scryptoTRACE app with a smartphone (or tablet) infringes at least claim 1 of the '210 Patent.
 - 39. Claim 1 of the '210 Patent covers:

A method of using a camera-equipped mobile telecommunications device, comprising: capturing first imagery of an object, when the device is at a first position relative to the object; capturing second imagery of the object, when the device is at a

second, different, position relative to the object;

by reference to the first and second imagery, determining pose data that characterizes at least part of a geometrical pose between the device and the object;

through use of said determined pose data, obtaining image data corresponding to the object with reduced perspective distortion, relative to at least one of the first or second captured imagery; and processing said obtained image data to derive identification data therefrom.

- 40. The use of the scryptoTRACE app on a smartphone practices the method described by claim 1 of the '210 Patent.
- 41. The smartphone running the scryptoTRACE app "captur[es] first imagery of an object, when the device is at a first position relative to the object," as recited by claim 1. For example, when running the scryptoTRACE app, the smartphone's camera captures imagery of product packaging when the camera is pointed at the product packaging.
- 42. The smartphone running the scryptoTRACE app "captur[es] second imagery of an object, when the device is at a second position relative to the object," as recited by claim 1. For example, when running the scryptoTRACE app, the smartphone's camera captures second

imagery of the product packaging when the smartphone camera is moved to point at the product packaging from a different perspective.

- 43. The smartphone running the scryptoTRACE app, "by reference to the first and second imagery, determin[es] pose data that characterizes at least part of a geometrical pose between the device and the object," as recited by claim 1. When running the scryptoTRACE app, the smartphone refers to the first and second imagery of the product packaging to determine pose data that characterizes at least a part of the geometric pose between the smartphone and the product packaging when, for example, the smartphone computes and displays a ball-in-circle user interface for each camera position that helps the user align the camera with respect to the product packaging.
- 44. The smartphone running the scryptoTRACE app, "through use of said determined pose data, obtain[s] image data corresponding to the object with reduced perspective distortion, relative to at least one of the first or second captured imagery," as recited by claim 1. For example, when running the scryptoTRACE app, the smartphone uses the determined pose data to prompt the user to align the ball in a circle of a ball-in-circle user interface and thereby adjust the smartphone such that it can obtain an image of the product packaging with reduced perspective distortion compared to at least one of the first and second captured imagery.
- 45. The smartphone running the scryptoTRACE app, "process[es] said obtained image data to derive identification data therefrom," as recited by claim 1. For example, when running the scryptoTRACE app, the smartphone processes the data from the image obtained of the product packaging to locate identifying marking used to verify whether the product packaging is authentic.

THE U-NICA DEFENDANTS' KNOWLEDGE OF THE ASSERTED PATENTS

- 46. The U-NICA Defendants have known of the '296 Patent and the '210 Patent since at least when U-NICA Americas and U-NICA Solutions received a December 18, 2017, letter from Digimarc informing them of the patents. The letter also describes how the scryptoTRACE app infringes the '296 Patent and how a related U-NICA app SynTrace, believed to use the same underlying technology as the scryptoTRACE, infringes the '210 Patent.
- 47. A second letter from Digimarc to counsel for the U-NICA Defendants, dated February 28, 2018, provided the U-NICA Defendants with additional knowledge of how the scryptoTRACE app infringes the '296 Patent and how the SynTrace app infringes the '210 Patent.
- 48. The U-NICA Defendants were notified of their infringement and continued to infringe thereafter, pursuant to 35 U.S.C. § 287(a). The requirements of 35 U.S.C. § 287(a) do not apply to at least the '210 Patent because it contains only method claims.

COUNT I – DIRECT INFRINGEMENT OF THE '296 PATENT

- 49. Digimarc repeats and realleges each and every allegation contained in paragraphs 1 through 48 above as though fully set forth herein.
- 50. The U-NICA Defendants have directly infringed and continue to directly infringe at least claim 26 of the '296 Patent under 35 U.S.C. § 271(a) in this District and throughout the United States by using the scryptoTRACE app in the manner detailed above in paragraphs 2, and 29-37.
- 51. The U-NICA Defendants have knowledge of the '296 Patent and know that the use of the scryptoTRACE app infringes at least claim 26 of the '296 Patent, as described above in paragraphs 46-48.

52. Despite their knowledge of the '296 Patent, the U-NICA Defendants have continued to directly infringe it. As such the U-NICA Defendants continue to willfully engage in acts of infringement of the '296 Patent, justifying an award to Digimarc of increased damages under 35 U.S.C. § 284, and attorneys' fees and costs incurred under 35 U.S.C. § 285.

COUNT II – INDUCING INFRINGEMENT OF THE '296 PATENT

- 53. Digimarc repeats and realleges each and every allegation contained in paragraphs 1 through 52 above as though fully set forth herein.
- 54. The U-NICA Defendants have induced and continue to induce end users of the scryptoTRACE app to directly infringe the '296 Patent under 35 U.S.C. § 271(b) in this District and throughout the United States in the manner detailed above in paragraphs 2, and 29-37.
- 55. U-NICA has knowledge of the '296 Patent and knows that the use of the scryptoTRACE app infringes at least claim 26 of the '296 Patent, as described above in paragraphs 46-48.
- 56. U-NICA has a specific intent to encourage the direct infringement of the '296 Patent by end users of the scryptoTRACE app. For example, the U-NICA Defendants publish app instructions and promotional material on how to use the app in a manner that infringes the '296 Patent.
- 57. Despite their knowledge of the '296 Patent, the U-NICA Defendants have continued to induce infringement of it. As such the U-NICA Defendants continue to willfully engage in acts of infringement of the '296 Patent, justifying an award to Digimarc of increased damages under 35 U.S.C. § 284, and attorneys' fees and costs incurred under 35 U.S.C. § 285.

COUNT III – CONTRIBUTORY INFRINGEMENT OF THE '296 PATENT

- 58. Digimarc repeats and realleges each and every allegation contained in paragraphs 1 through 57 above as though fully set forth herein.
- 59. The U-NICA Defendants have contributed to and continue to contribute to the direct infringement by end users of the '296 Patent with the scryptoTRACE app under 35 U.S.C. § 271(c) in this District and throughout the United States in the manner detailed above in paragraphs 2, and 29-37.
- 60. U-NICA has knowledge of the '296 Patent and knows that the use of the scryptoTRACE app infringes at least claim 26 of the '296 Patent, as described above in paragraphs 46-48.
- 61. On information and belief, the U-NICA Defendants import, offer to sell and sell the scryptoTRACE app. For example, the U-NICA Defendants license the scryptoTRACE app to businesses who white label the app.
- 62. The scryptoTRACE app is a component the use of which is a material part of the method covered by claim 26 of the '296 Patent, and the scryptoTRACE app is not a staple article or commodity of commerce suitable for substantial noninfringing use.
- 63. Despite their knowledge of the '296 Patent, the U-NICA Defendants have continued to contributorily infringe it. As such the U-NICA Defendants continue to willfully engage in acts of infringement of the '296 Patent, justifying an award to Digimarc of increased damages under 35 U.S.C. § 284, and attorneys' fees and costs incurred under 35 U.S.C. § 285.

COUNT IV – DIRECT INFRINGEMENT OF THE '210 PATENT

64. Digimarc repeats and realleges each and every allegation contained in paragraphs 1 through 63 above as though fully set forth herein.

- 65. The U-NICA Defendants have directly infringed and continue to directly infringe at least claim 1 of the '210 Patent under 35 U.S.C. § 271(a) in this District and throughout the United States by using the scryptoTRACE app in the manner detailed above in paragraphs 2, and 38-45.
- 66. The U-NICA Defendants have knowledge of the '210 Patent and know that the use of the scryptoTRACE app infringes at least claim 10f the '210 Patent, as described above in paragraphs 46-48.
- 67. Despite their knowledge of the '210 Patent, the U-NICA Defendants have continued to directly infringe it. As such the U-NICA Defendants continue to willfully engage in acts of infringement of the '210 Patent, justifying an award to Digimarc of increased damages under 35 U.S.C. § 284, and attorneys' fees and costs incurred under 35 U.S.C. § 285.

COUNT V – INDUCING INFRINGEMENT OF THE '210 PATENT

- 68. Digimarc repeats and realleges each and every allegation contained in paragraphs 1 through 67 above as though fully set forth herein.
- 69. The U-NICA Defendants have induced and continue to induce end users of the scryptoTRACE app to directly infringe the '210 Patent under 35 U.S.C. § 271(b) in this District and throughout the United States in the manner detailed above in paragraphs 2, and 38-45.
- 70. U-NICA has knowledge of the '210 Patent and knows that the use of the scryptoTRACE app infringes at least claim 1 of the '210 Patent, as described above in paragraphs 46-48.
- 71. U-NICA has a specific intent to encourage the direct infringement of the '210 Patent by end users of the scryptoTRACE app. For example, the U-NICA Defendants publish

app instructions and promotional material on how to use the app in a manner that infringes the '210 Patent.

72. Despite their knowledge of the '210 Patent, the U-NICA Defendants have continued to induce infringement of it. As such the U-NICA Defendants continue to willfully engage in acts of infringement of the '210 Patent, justifying an award to Digimarc of increased damages under 35 U.S.C. § 284, and attorneys' fees and costs incurred under 35 U.S.C. § 285.

COUNT VI – CONTRIBUTORY INFRINGEMENT OF THE '210 PATENT

- 73. Digimarc repeats and realleges each and every allegation contained in paragraphs 1 through 72 above as though fully set forth herein.
- 74. The U-NICA Defendants have contributed to and continue to contribute to the direct infringement by end users of the '210 Patent with the scryptoTRACE app under 35 U.S.C. § 271(c) in this District and throughout the United States in the manner detailed above in paragraphs 2, and 38-45.
- 75. U-NICA has knowledge of the '210 Patent and knows that the use of the scryptoTRACE app infringes at least claim of the '210 Patent, as described above in paragraphs 46-48.
- 76. On information and belief, the U-NICA Defendants import, offer to sell and sell the scryptoTRACE app. For example, the U-NICA Defendants license the scryptoTRACE app to businesses who white label the app.
- 77. The scryptoTRACE app is a component the use of which is a material part of the method covered by claim 1 of the '210 Patent, and the scryptoTRACE app is not a staple article or commodity of commerce suitable for substantial noninfringing use.

78. Despite their knowledge of the '210 Patent, the U-NICA Defendants have continued to contributorily infringe it. As such the U-NICA Defendants continue to willfully engage in acts of infringement of the '210 Patent, justifying an award to Digimarc of increased damages under 35 U.S.C. § 284, and attorneys' fees and costs incurred under 35 U.S.C. § 285.

PRAYER FOR RELIEF

WHEREFORE, Digimarc prays for judgment and relief as follows:

- a. The U-NICA Defendants are liable for direct, inducing and contributory infringement of the '296 Patent and the '210 Patent;
- b. An injunction against the U-NICA Defendants and their officers, employees, agents, servants, attorneys, instrumentalities, and/or those in privity with them, from infringing the '296 Patent and the '210 Patent, and for all further and proper injunctive relief pursuant to 35 U.S.C. § 283;
- c. An award to Digimarc of damages, not less than a reasonably royalty, as it shall prove against the U-NICA Defendants, that is adequate to fully compensate Digimarc for the U-NICA Defendants' infringement;
- d. The U-NICA Defendants' infringement of the '296 Patent and the '210 Patent is willful, and damages should increase three times the amount assessed, pursuant to 35 U.S.C. § 284;
- e. This case is exceptional within the meaning of 35 U.S.C. § 285 and an award to Digimarc its reasonable attorneys' fees and expenses;
 - f. An award to Digimarc of its taxable costs and disbursements;
 - g. An award to Digimarc of pre-judgment and post-judgment interest; and
 - h. Such other and further relief as the Court deems just and proper.

JURY DEMAND

Digimarc demands trial by jury on all issues so triable.

July 19, 2019 Respectfully submitted,

s/ Klaus H. Hamm

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