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

Defendant.	Jury Trial Demanded
ROKU, INC.,	
V.	NO. 6:23-cv-667
Plaintiff,	CIVIL ACTION
Districted	
COMMUNICATION ADVANCES LLC,	

## **COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Communication Advances 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 2150 S. Central Expy Ste 200, McKinney, TX 75070.
- 2. Defendant Roku, Inc. ("Defendant") is a corporation organized under the laws of the State of Delaware. Defendant has a regular and established place of business in this district at 9606 N. Mopac Expressway, Suite 400, Austin, TX 78759. Defendant may be served with process through its registered agent, Corporation Service Company, 251 Little Falls Drive, Wilmington, DE 19808.

# **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 the State of Texas. Defendant also has a regular and established place of business in the State of Texas and within 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, including through the use, sale and/or offer for sale of infringing products and/or services throughout the State of Texas and this judicial district.
- 5. Venue is proper in this Court pursuant to 28 U.S.C. § 1400(b) on the grounds that 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. 8,259,818

- 6. Plaintiff is the owner by assignment of all right, title, and interest in and to United States Patent No. 8,259,818, entitled "Deblocking Apparatus and Associated Method" ("the '818 patent"), including the right to sue for all past, present, and future infringement.
- 7. A true and correct copy of the '818 patent is attached hereto as Exhibit 1. The '818 patent is incorporated herein by reference.
- 8. The application that became the '818 patent was filed on October 21, 2009, and claims priority to a Taiwanese application filed July 20, 2009.
- 9. The '818 patent issued on September 4, 2012, after a full and fair examination by the USPTO.

- 10. The '818 patent is valid and enforceable and directed to eligible subject matter.
- 11. The elements recited in the asserted claim of the '818 patent were not well-understood, routine, or conventional when the application that became the '818 patent was filed.
- 12. Claim 9 of the '818 patent is directed to a technical solutions to technical problems involved in high-speed transmission of a video signal in a bandwidth-limited channel.

#### U.S. Patent No. 8,736,529

- 13. Plaintiff is the owner by assignment of all right, title, and interest in and to United States Patent No. 8,736,529, entitled "Method and Apparatus for Generating an Overdrive Signal for a Liquid Crystal Display" ("the '529 patent"), including the right to sue for all past, present, and future infringement.
- 14. A true and correct copy of the '529 patent is attached hereto as Exhibit 2. The '828 patent is incorporated herein by reference.
- 15. The application that became the '529 patent was filed on February 8, 2008, claiming priority to a provisional application filed March 21, 2007.
- 16. The '529 patent issued on May 27, 2014, after a full and fair examination by the USPTO.
  - 17. The '529 patent is valid and enforceable and directed to eligible subject matter.
- 18. The elements recited in the asserted claim of the '529 patent were not well-understood, routine, or conventional when the application that became the '529 patent was filed.
- 19. Claim 12 of the '529 patent is directed to a technical solution to technical problems encountered in video processing.

#### U.S. Patent No. 9,538,177

- 20. Plaintiff is the owner by assignment of all right, title, and interest in and to United States Patent No. 9,538,177, entitled "Apparatus and Method for Buffering Content Arrays Referenced for Performing Entropy Decoding Upon Multi-Tile Encoded Picture and Related Entropy Decoder" ("the '177 patent"), including the right to sue for all past, present, and future infringement.
- 21. A true and correct copy of the '177 patent is attached hereto as Exhibit 3. The '177 patent is incorporated herein by reference.
- 22. The application that became the '177 patent was filed as a PCT application on September 12, 2012, claiming priority to two provisional applications filed December 5, 2011, and October 31, 2011, respectively.
- 23. The '177 patent issued on January 3, 2017, after a full and fair examination by the USPTO.
  - 24. The '177 patent is valid and enforceable and directed to eligible subject matter.
- 25. The elements recited in the asserted claim of the '177 patent were not well-understood, routine, or conventional when the application that became the '177 patent was filed.
- 26. Claim 10 of the '177 patent is directed to technical solutions to technical problems encountered in video decoding.

#### U.S. Patent No. 8,284,839

27. Plaintiff is the owner by assignment of all right, title, and interest in and to United States Patent No. 8,284,839, entitled "Joint System for Frame Rate Conversion and Video Compression" ("the '839 patent"), including the right to sue for all past, present, and future infringement.

- 28. A true and correct copy of the '839 patent is attached hereto as Exhibit 4. The '839 patent is incorporated herein by reference.
  - 29. The application that became the '839 patent was filed on June 23, 2008.
- 30. The '839 patent issued on October 9, 2012, after a full and fair examination by the USPTO.
  - 31. The '839 patent is valid and enforceable and directed to eligible subject matter.
- 32. The elements recited in the asserted claim of the '839 patent were not well-understood, routine, or conventional when the application that became the '839 patent was filed.
- 33. Claim 14 of the '839 patent is directed to a technical solution to technical problems encountered in video processing.

#### U.S. Patent No. 8,494,058

- 34. Plaintiff is the owner by assignment of all right, title, and interest in and to United States Patent No. 8,494,058, entitled "Video/Image Processing Apparatus with Motion Estimation Sharing, and Related Method and Machine Readable Medium" ("the '058 patent"), including the right to sue for all past, present, and future infringement.
- 35. A true and correct copy of the '058 patent is attached hereto as Exhibit 5. The '058 patent is incorporated herein by reference.
- 36. The application that became the '058 patent was filed on September 9, 2012, and was a continuation-in-part of an application filed June 23, 2008.
- 37. The '058 patent issued on July 23, 2013, after a full and fair examination by the USPTO.
  - 38. The '058 patent is valid and enforceable and directed to eligible subject matter.

- 39. The elements recited in the asserted claim of the '058 patent was not well-understood, routine, or conventional when the application that became the '058 patent was filed.
- 40. Claim 11 of the '058 patent is directed to technical solutions to technical problems encountered in video processing.

## COUNT I – INFRINGEMENT OF U.S. PATENT NO. 8,259,818

- 41. Plaintiff realleges and incorporates by reference the allegations set forth above, as if set forth verbatim herein.
- 42. Plaintiff sent Defendant a letter on September 12, 2023, providing notice of its infringement of the '818 patent, which letter was received by Defendant prior to the filing of this lawsuit. *See* Exhibit 54.
- 43. Defendant has been and is now making, using, selling, offering for sale, and/or importing products and/or services that incorporate one or more of the inventions claimed in the '818 patent.
- 44. For example, Defendant infringes at least claim 9 of the '818 patent, either literally or under the doctrine of equivalents, in connection with Defendant's utilization of H.265 video compression, as detailed in the preliminary claim charts attached hereto as Exhibits 6-21 and incorporated herein by reference. Defendant's infringing products include at least the Roku Express 4K+, apparatuses running the Roku OS, the Roku Plus Series 4K TV 55R6A 5R, the Roku Plus Series 4K TV 65R6A 5R, the Roku Plus Series 4K TV 75R6A 5R, the Roku Select Series 4K TV 43RA5R, the Roku Select Series 4K TV 50RA5R, the Roku Select Series 4K TV 75RA5R, the Roku Select Series 4K TV 75RA5R, the Roku Select Series 4K TV 75RA5R, the Roku Streambar, the Roku Streambar Pro, the Roku Streaming Stick 4K, the Roku Streaming Stick 4K+, the Roku Ultra, and the Roku Ultra+.

- 45. To the extent a third party performs any step of claim 9 of the '818 patent in connection with the usage of Defendant's infringing products, Defendant conditions the third party's use of the functionality of Defendant's infringing products on the performance of that step as disclosed in Exhibits 6-21. For example, on information and belief, third parties, such as end users, cannot use the functionality of the infringing products as described in Exhibits 6-21 without performance of the steps recited in claim 9. By providing the infringing products, Defendant also controls the manner and/or timing of the functionality described in Exhibits 6-21. In other words, for a third party to utilize the functionality described in Exhibits 6-21, the steps of claim 9 must be performed in the manner described in Exhibits 6-21. Without performance of the steps as described in Exhibits 6-21, Defendant's functionality will not be available to third parties.
- 46. On information and belief, Defendant also directly infringes the '818 patent as set forth in Exhibits 6-21 at least during internal testing and usage.
- 47. Moreover, Defendant has been and is now inducing third-party manufacturers (e.g., TV manufacturers), end users, or others to directly infringe the '818 patent, including, for example, by distributing the Roku OS and by otherwise distributing the infringing products that utilize H.265 in a way known to infringe when used in their customary and intended manner as set forth in Exhibits 6-21.
- 48. Defendant's infringing activities are and have been without authority or license under the '818 patent.
- 49. Plaintiff has been damaged by Defendant's infringement of the '818 patent, and Plaintiff is entitled to recover damages for Defendant's infringement, which damages cannot be less than a reasonable royalty.

50. Moreover, because Defendant has continued its infringing conduct after receiving notice of its infringement of the '818 patent, its infringement after receiving notice has been willful.

## COUNT II – INFRINGEMENT OF U.S. PATENT NO. 8,736,529

- 51. Plaintiff realleges and incorporates by reference the allegations set forth above, as if set forth verbatim herein.
- 52. Plaintiff sent Defendant a letter on September 12, 2023, providing notice of its infringement of the '529 patent, which letter was received by Defendant prior to the filing of this lawsuit. *See* Exhibit 54.
- 53. Defendant has been and is now making, using, selling, offering for sale, and/or importing products and/or services that incorporate one or more of the inventions claimed in the '529 patent.
- 54. For example, Defendant infringes at least claim 12 of the '529 patent, either literally or under the doctrine of equivalents, in connection with Defendant's utilization of HDR10+, as detailed in the preliminary claim charts attached hereto as Exhibits 22-35 and incorporated herein by reference. Defendant's infringing products include at least the Roku Express 4K+, apparatuses running the Roku OS, the Roku Plus Series 4K TV 55R6A 5R, the Roku Plus Series 4K TV 75R6A 5R, the Roku Select Series 4K TV 43RA5R, the Roku Select Series 4K TV 50RA5R, the Roku Select Series 4K TV 55RA5R, the Roku Select Series 4K TV 75RA5R, the Roku Select Series 4K TV 75RA5R, the Roku Streaming Stick 4K, the Roku Streaming Stick 4K+, the Roku Ultra, and the Roku Ultra+.
- 55. To the extent a third party performs any step of claim 12 of the '529 patent in connection with the usage of Defendant's infringing products, Defendant conditions the third

party's use of the functionality of Defendant's infringing products on the performance of that step as disclosed in Exhibits 22-35. For example, on information and belief, third parties, such as end users, cannot use the functionality of the infringing products as described in Exhibits 22-35 without performance of the steps recited in claim 12. By providing the infringing products, Defendant also controls the manner and/or timing of the functionality described in Exhibits 22-35. In other words, for a third party to utilize the functionality described in Exhibits 22-35, the steps of claim 12 must be performed in the manner described in Exhibits 22-35. Without performance of the steps as described in Exhibits 22-35, Defendant's functionality will not be available to third parties.

- 56. On information and belief, Defendant also directly infringes the '529 patent as set forth in Exhibits 22-35 at least during internal testing and usage.
- 57. Moreover, Defendant has been and is now inducing third-party manufacturers (e.g., TV manufacturers), end users, or others to directly infringe the '529 patent, including, for example, by distributing the Roku OS and by otherwise distributing the infringing products that utilize HDR10+ in a way known to infringe when used in their customary and intended manner as set forth in Exhibits 22-35.
- 58. Defendant's infringing activities are and have been without authority or license under the '529 patent.
- 59. Plaintiff has been, and continues to be, damaged by Defendant's infringement of the '529 patent, and Plaintiff is entitled to recover damages for Defendant's infringement, which damages cannot be less than a reasonable royalty.

60. Moreover, because Defendant has continued its infringing conduct after receiving notice of its infringement of the '529 patent, its infringement after receiving notice has been willful.

## COUNT III – INFRINGEMENT OF U.S. PATENT NO. 9,538,177

- 61. Plaintiff realleges and incorporates by reference the allegations set forth above, as if set forth verbatim herein.
- 62. Plaintiff sent Defendant a letter on September 12, 2023, providing notice of its infringement of the '177 patent, which letter was received by Defendant prior to the filing of this lawsuit. *See* Exhibit 54.
- 63. Defendant has been and is now making, using, selling, offering for sale, and/or importing products and/or services that incorporate one or more of the inventions claimed in the '177 patent.
- 64. For example, Defendant infringes at least claim 10 of the '177 patent, either literally or under the doctrine of equivalents, in connection with Defendant's utilization of H.265 video compression, as detailed in the preliminary claim charts attached hereto as Exhibits 36-51 and incorporated herein by reference. Defendant's infringing products include at least the Roku Express 4K+, apparatuses running the Roku OS, the Roku Plus Series 4K TV 55R6A 5R, the Roku Plus Series 4K TV 65R6A 5R, the Roku Plus Series 4K TV 75R6A 5R, the Roku Select Series 4K TV 43RA5R, the Roku Select Series 4K TV 50RA5R, the Roku Select Series 4K TV 75RA5R, the Roku Select Series 4K TV 75RA5R, the Roku Select Series 4K TV 75RA5R, the Roku Streambar, the Roku Streambar Pro, the Roku Streaming Stick 4K, the Roku Streaming Stick 4K+, the Roku Ultra, and the Roku Ultra+.

- 65. To the extent a third party performs any step of claim 10 of the '177 patent in connection with the usage of Defendant's infringing products, Defendant conditions the third party's use of the functionality of Defendant's infringing products on the performance of that step as disclosed in Exhibits 36-51. For example, on information and belief, third parties, such as end users, cannot use the functionality of the infringing products as described in Exhibits 36-51 without performance of the steps recited in claim 10. By providing the infringing products, Defendant also controls the manner and/or timing of the functionality described in Exhibits 36-51. In other words, for a third party to utilize the functionality described in Exhibits 36-51, the steps of claim 10 must be performed in the manner described in Exhibits 36-51. Without performance of the steps as described in Exhibits 36-51, Defendant's functionality will not be available to third parties.
- 66. On information and belief, Defendant also directly infringes the '177 patent as set forth in Exhibits 36-51 at least during internal testing and usage.
- 67. Moreover, Defendant has been and now is inducing third-party manufacturers (e.g., TV manufacturers), end users, or others to directly infringe the '177 patent, including, for example, by distributing the Roku OS and by otherwise distributing the infringing products that utilize H.265 video compression in a way known to infringe when used in their customary and intended manner as set forth in Exhibits 36-51.
- 68. Defendant's infringing activities are and have been without authority or license under the '177 patent.
- 69. Plaintiff has been, and continues to be, damaged by Defendant's infringement of the '177 patent, and Plaintiff is entitled to recover damages for Defendant's infringement, which damages cannot be less than a reasonable royalty.

70. Moreover, because Defendant has continued its infringing conduct after receiving notice of its infringement of the '177 patent, its infringement after receiving notice has been willful.

## COUNT IV – INFRINGEMENT OF U.S. PATENT NO. 8,284,839

- 71. Plaintiff realleges and incorporates by reference the allegations set forth above, as if set forth verbatim herein.
- 72. Plaintiff sent Defendant a letter on September 12, 2023, providing notice of its infringement of the '839 patent, which letter was received by Defendant prior to the filing of this lawsuit. *See* Exhibit 54.
- 73. Defendant has been and is now making, using, selling, offering for sale, and/or importing products and/or services that incorporate one or more of the inventions claimed in the '839 patent.
- 74. For example, Defendant infringes at least claim 14 of the '839 patent, either literally or under the doctrine of equivalents, in connection with Defendant's utilization of HEVC, as detailed in the preliminary claim chart attached hereto as Exhibit 52 and incorporated herein by reference. Defendant's infringing products include at least the Roku Plus Series 4K TVs.
- 75. To the extent a third party performs any step of claim 14 of the '839 patent in connection with the usage of Defendant's infringing products, Defendant conditions the third party's use of the functionality of Defendant's infringing products on the performance of that step as disclosed in Exhibit 52. For example, on information and belief, third parties, such as end users, cannot use the functionality of the infringing products as described in Exhibit 52 without performance of the steps recited in claim 14. By providing the infringing products, Defendant

also controls the manner and/or timing of the functionality described in Exhibit 52. In other words, for a third party to utilize the functionality described in Exhibit 52, the steps of claim 14 must be performed in the manner described in Exhibit 52. Without performance of the steps as described in Exhibit 52, Defendant's functionality will not be available to third parties.

- 76. On information and belief, Defendant also directly infringes the '839 patent as set forth in Exhibit 52 at least during internal testing and usage.
- 77. Moreover, Defendant has been and now is inducing third-party manufacturers (e.g., TV manufacturers), end users, or others to directly infringe the '839 patent, including, for example, by distributing the infringing products that utilize HEVC in a way known to infringe when used in their customary and intended manner as set forth in Exhibit 52.
- 78. Defendant's infringing activities are and have been without authority or license under the '839 patent.
- 79. Plaintiff has been, and continues to be, damaged by Defendant's infringement of the '839 patent, and Plaintiff is entitled to recover damages for Defendant's infringement, which damages cannot be less than a reasonable royalty.
- 80. Moreover, because Defendant has continued its infringing conduct after receiving notice of its infringement of the '839 patent, its infringement after receiving notice has been willful.

## COUNT V – INFRINGEMENT OF U.S. PATENT NO. 8,494,058

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

- 82. Plaintiff sent Defendant a letter on September 12, 2023, providing notice of its infringement of the '058 patent, which letter was received by Defendant prior to the filing of this lawsuit. *See* Exhibit 54.
- 83. Defendant has been and is now making, using, selling, offering for sale, and/or importing products and/or services that incorporate one or more of the inventions claimed in the '058 patent.
- 84. For example, Defendant infringes at least claim 11 of the '058 patent, either literally or under the doctrine of equivalents, in connection with Defendant's utilization of HEVC, as detailed in the preliminary claim chart attached hereto as Exhibit 53 and incorporated herein by reference. Defendant's infringing products include at least the Roku Plus Series 4K TVs.
- 85. To the extent a third party performs any step of claim 11 of the '058 patent in connection with the usage of Defendant's infringing products, Defendant conditions the third party's use of the functionality of Defendant's infringing products on the performance of that step as disclosed in Exhibit 53. For example, on information and belief, third parties, such as end users, cannot use the functionality of the infringing products as described in Exhibit 53 without performance of the steps recited in claim 11. By providing the infringing products, Defendant also controls the manner and/or timing of the functionality described in Exhibit 53. In other words, for a third party to utilize the functionality described in Exhibit 53, the steps of claim 11 must be performed in the manner described in Exhibit 53. Without performance of the steps as described in Exhibit 53, Defendant's functionality will not be available to third parties.
- 86. On information and belief, Defendant also directly infringes the '058 patent as set forth in Exhibit 53 at least during internal testing and usage.

- 87. Moreover, Defendant has been and now is inducing third-party manufacturers (e.g., TV manufacturers), end users, or others to directly infringe the '058 patent, including, for example, by distributing the infringing products that utilize HEVC in a way known to infringe when used in their customary and intended manner as set forth in Exhibit 53.
- 88. Defendant's infringing activities are and have been without authority or license under the '058 patent.
- 89. Plaintiff has been, and continues to be, damaged by Defendant's infringement of the '058 patent, and Plaintiff is entitled to recover damages for Defendant's infringement, which damages cannot be less than a reasonable royalty.
- 90. Moreover, because Defendant has continued its infringing conduct after receiving notice of its infringement of the '058 patent, its infringement after receiving notice has been willful.

## **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 the '818 patent,
- B. Entry of judgment that Defendant has infringed the '529 patent,
- C. Entry of judgment that Defendant has infringed the '177 patent,
- D. Entry of judgment that Defendant has infringed the '839 patent,
- E. Entry of judgment that Defendant has infringed the '058 patent,

F. Entry of judgment that Defendant's infringement that occurred after receiving

notice of infringement was willful,

G. Damages in an amount to be determined at trial for Defendant's infringement,

which amount cannot be less than a reasonable royalty, and an accounting of all

infringing acts, including but not limited to those acts not presented at trial, as

well as enhanced damages for Defendant's willful infringement after receiving

notice of its infringement,

H. Pre-judgment and post-judgment interest on the damages assessed, and

I. An award to Plaintiff of its reasonable attorneys' fees and expenses in accordance

with 35 U.S.C. § 285, and

J. 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 September, 2023.

/s/ Cortney S. Alexander

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