

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

ONSCREEN DYNAMICS, LLC,

Plaintiff,

v.

CARVANA, LLC,

Defendant.

CIVIL ACTION

NO. 2:24-cv-00248

**Jury Trial Demanded**

**COMPLAINT FOR PATENT INFRINGEMENT**

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

**THE PARTIES**

1. Plaintiff is a limited liability company organized under the laws of the State of Delaware with a place of business at 6000 Shepherd Mountain Cove, Suite 1604, Austin, TX 78730.

2. Upon information and belief, Carvana, LLC (“Defendant”) is a limited liability company organized and existing under the laws of Arizona. Upon information and belief, Defendant does business in Texas and in the Eastern District of Texas, directly or through intermediaries. Upon information and belief, Defendant has a regular and established place of business in this judicial district at least at 5252 Texas 121, Frisco, TX 75034.

**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. On information and belief, 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. On information and belief, Defendant has engaged in systematic and continuous business activities in this District, directly or through intermediaries. On information and belief, Defendant has committed acts of patent infringement in this Judicial District, the State of Texas, as well as elsewhere in the United States.

5. This Court also has personal jurisdiction over Defendant because: (i) Defendant maintains regular and systematic business contacts with the State of Texas and within this District; (ii) Defendant purposely, regularly, and continuously conducts business in the State of Texas and within this District; (iii) Defendant purposefully directs its activities at residents of the State of Texas; (iv) the causes of action set forth herein arise out of or relate to Defendant's activities in or toward the State of Texas; and (v) the exercise of jurisdiction over Defendant will not offend the traditional notions of fair play and substantial justice.

6. Defendant is subject to this Court's jurisdiction pursuant to due process and/or the Texas Long Arm Statute due at least to its substantial business in this State and Judicial District, including (a) at least part of its infringing activities; (b) regularly doing or soliciting business in Texas; and/or (c) engaging in persistent conduct and/or deriving substantial revenue from goods and services provided to customers in Texas.

7. Venue is proper in this District under 28 U.S.C. § 1400(b) because Defendant has a regular and established place of business in this Judicial District and has committed acts of infringement in this Judicial District.

### **FACTUAL BACKGROUND**

#### **U.S. Patent No. 9,395,917**

8. On July 19, 2016, U.S. Patent No. 9,395,917 (“the ’917 patent”), entitled “Electronic Display with a Virtual Bezel,” was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the ’917 patent is attached as Exhibit A.

9. Plaintiff is the assignee and owner of the right, title and interest in and to the ’917 patent, including the right to assert all causes of action arising under said patent and the right to any remedies for infringement.

10. The ’917 patent is valid and enforceable.

11. The ’917 patent includes 17 claims (’917 patent, Ex. A at 9:43-12:21.)

12. The ’917 patent describes methods and devices that incorporate a virtual bezel as part of the touchscreen display on an electronic device. (’917 patent, Ex. A at 1:53-55.) As the ’917 patent describes, “an electronic device is provided comprising a touchscreen display with at least two components, a primary touchscreen display area capable of processing a first set of touch-based inputs from a user of the electric device, and a secondary touchscreen display area which can be called a ‘virtual bezel,’ since it may be used to prevent any unintended touch of a user’s hand with the touchscreen display, avoiding an unexpected interaction.” (’917 patent, Ex. A at 2:6-15.)

13. The claimed inventions of the ’917 patent are directed to technical problems related to how to prevent unintended registering of touching of a touchscreen electronic display, and thereby avoid unintended actions. Those problems also included placing components and

controls, for example a camera, a speaker, or sensors, to avoid obstruction of the content on the touchscreen display. Those technical problems further included increasing display area while providing functionality of a physical bezel. *See, e.g.*, '917 patent at 1:21–59; *see also* Fig. 10.

14. In order to improve the possible touchscreen display area that could be available to the user for viewing display content and for interaction with the electronic device, the '917 describes devices and methods that use or provide a virtual bezel. For example, the '917 patent describes an electronic device with a touchscreen display comprising an active touchscreen region and a virtual bezel area. The active touchscreen region functions to process a first set of touch-based inputs from a user of the electronic device according to a first mode of operation, and the virtual bezel area functions to process a second set of touch-based inputs from a user of the electronic device according to a second mode of operation. ('917 patent, Ex. A at Abstract.)

15. The technological improvements described and claimed in the '917 patent were not conventional or generic at the time of their invention, but rather required novel and non-obvious solutions to problems and shortcomings in the art at the time. *See, e.g.*, '917 patent at 1:21-9:41. For example, claim 1 of the '917 patent is directed to a display screen having a virtual bezel area and an active touchscreen region, both of which display portions of content but have different modes of response to certain touch-based inputs.

16. The inventions claimed in the '917 patent cover more than just the performance of well-understood, routine or conventional activities known in the art. *See, e.g.*, '917 patent at 1:21-9:41. For example, claim 1 of the '917 patent is directed to a display screen having a virtual bezel area and an active touchscreen region, both of which display portions of content but have different modes of response to certain touch-based inputs.

17. The '917 patent describes technological solutions to technological problems. The written description of the '917 patent describes in technical detail subject matter in support of each of the elements of the claims, including a display screen having a virtual bezel area and an active touchscreen region, both of which display portions of content but have different modes of response to certain touch-based inputs.

18. Each of the claims of the '917 patent is directed to improvements described and illustrated in the specification. For example, claim 1 of the '917 patent is directed to a display screen having a virtual bezel area and an active touchscreen region, both of which display portions of content but have different modes of response to certain touch-based inputs.

19. The written description describes each of the elements such that persons of ordinary skill in the art understand what the claims and their elements cover and how the non-conventional and non-generic combination of claim elements differ markedly from, and improved upon, the art. *See, e.g.*, '917 patent at 1:21-9:41. For example, claim 1 of the '917 patent is directed to a display screen having a virtual bezel area and an active touchscreen region, both of which display portions of content but have different modes of response to certain touch-based inputs.

20. Technology leaders including Microsoft Technology Licensing LLC, Amazon Technologies, Inc., Samsung Electronics Co., Ltd., and the USPTO have cited the '917 patent as a reference over 20 times. *See* <https://patents.google.com/patent/US9395917B2/en>; 37 CFR 1.104, Nature of Examination (“the examiner must cite the best references at his or her command.”).

21. Viewed in light of the specification of the '917 patent, the claims are not directed to basic tools of scientific and technological work, nor are they directed to a fundamental economic

practice. *See, e.g.*, '917 patent at 1:21-12:21. For example, claim 1 of the '917 patent is directed to a display screen having a virtual bezel area and an active touchscreen region, both of which display portions of content but have different modes of response to certain touch-based inputs.

22. The claims of the '917 patent are not directed to the use of an abstract mathematical formula. *See, e.g.*, '917 patent at 1:21-12:21. For example, claim 1 of the '917 patent is directed to a display screen having a virtual bezel area and an active touchscreen region, both of which display portions of content but have different modes of response to certain touch-based inputs.

23. The claims of the '917 patent are not directed to the use of a general-purpose computer. *See, e.g.*, '917 patent at 1:21-12:21. For example, claim 1 of the '917 patent is directed to a display screen having a virtual bezel area and an active touchscreen region, both of which display portions of content but have different modes of response to certain touch-based inputs.

24. The claims of the '917 patent are not directed to implementation of a mathematical formula. *See, e.g.*, '917 patent at col. 1:21-12:21. For example, claim 1 of the '917 patent is directed to a display screen having a virtual bezel area and an active touchscreen region, both of which display portions of content but have different modes of response to certain touch-based inputs. Moreover, the cited prior art includes touch screen displays, yet the claims of the '917 patent were deemed novel and non-obvious, demonstrating (among other reasons) the non-conventionality of the technology described and claimed in the '917 patent.

25. The claims of the '917 patent are not directed to generalized steps to be performed on a computer using conventional activity. *See, e.g.*, '917 patent at 1:21-12:21. For example, claim 1 of the '917 patent is directed to a display screen having a virtual bezel area and an active

touchscreen region, both of which display portions of content but have different modes of response to certain touch-based inputs.

26. The claims of the '917 patent are not directed to a method of organizing human activity or to a fundamental economic practice long prevalent in our system of commerce. *See, e.g.,* '917 patent at 1:21-12:21. For example, claim 1 of the '917 patent is directed to a display screen having a virtual bezel area and an active touchscreen region, both of which display portions of content but have different modes of response to certain touch-based inputs.

27. The claims of the '917 patent do not take a well-known or established business method or process and apply it to, or using, a general-purpose computer. *See, e.g.,* '917 patent at 1:21-12:21. For example, claim 1 of the '917 patent is directed to a display screen having a virtual bezel area and an active touchscreen region, both of which display portions of content but have different modes of response to certain touch-based inputs.

28. The claims of the '917 patent do not preempt the field of their claimed inventions or preclude the use of other methods and systems because the claims recite specific elements that include more than the performance of well-understood, routine, and conventional activities previously known to the art. *See, e.g.,* '917 patent at 1:21-12:21. For example, claim 1 of the '917 patent is directed to a display screen having a virtual bezel area and an active touchscreen region, both of which display portions of content but have different modes of response to certain touch-based inputs.

**U.S. Patent No. 9,645,663**

29. On May 9, 2017, U.S. Patent No. 9,645,663 (“the '663 patent”), entitled “Electronic Display with a Virtual Bezel,” was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the '663 patent is attached as Exhibit B.

30. Plaintiff is the assignee and owner of the right, title and interest in and to the '663 patent, including the right to assert all causes of action arising under said patents and the right to any remedies for infringement.

31. The '663 patent is valid and enforceable.

32. The '663 patent includes 18 claims. ('663 patent, Ex. B. at 9:55-12:45.)

33. The '663 patent describes devices, systems, and methods for providing a touchscreen display having a virtual bezel for electronic devices. ('663 patent, Ex. B. at 1:15-20.) The '663 patent addresses technical problems related to how to prevent unintended registering of touching of a touchscreen electronic display, and thereby avoiding unintended actions. Those problem also included placing components and controls, for example a camera, a speaker, or sensors to avoid obstruction of the content on the touchscreen display. Those problems further included increasing display area while providing functionality of a physical bezel. *See, e.g.*, '663 patent at 1:21-59; *see also* Fig. 4.

34. The claimed elements and claimed combinations of the claims of the '663 patent were not well-understood, routine, and conventional to a skilled artisan in the relevant field.

35. Among the specific technology improvements to devices utilizing the virtual bezels, the '663 patent describes an active touchscreen region of the display screen having a first set of touch-based inputs from the user of the electronic device and a virtual bezel region along one or more edges of the display screen and adjacent to the active screen region, the virtual bezel region having a touchscreen layer with a second mode of response to a second set of touch-based inputs from the user of the electronic device. ('663 patent, Ex. B at 9:55-10:15.)

36. The claimed inventions of the '663 patent address technical problems related to how to prevent unintended registering of touching of a touchscreen electronic display, and



thereby avoiding unintended actions. Those problem also included placing components and controls, for example a camera, a speaker, or sensors to avoid obstruction of the content on the touchscreen display. Those problems further included increasing display area while providing functionality of a physical bezel. *See, e.g.*, '663 patent at 1:21-59.

37. The technological improvements described and claimed in the '663 patent were not conventional or generic at the time of their invention, but rather required novel and non-obvious solutions to problems and shortcomings in the art at the time. *See, e.g.*, '663 patent at 1:21-9:41. For example, claims 1 and 14 of the '663 patent are directed to a display screen having a virtual bezel region and an active touchscreen region, both of which display portions of content but have different modes of response to certain touch-based inputs. Moreover, the prior art includes touch screen displays, yet the claims of the '663 patent were deemed novel and non-obvious, demonstrating (among other reasons) the non-conventionality of the technology described and claimed in the '663 patent.

38. The inventions claimed in the '663 patent cover more than just the performance of well-understood, routine, or conventional activities known in the art. *See, e.g.*, '663 patent at 1:21-9:41. For example, claim 1 of the '663 patent is directed to a display screen having a virtual bezel region and an active touchscreen region, both of which display portions of content but have different modes of response to certain touch-based inputs.

39. The '663 patent claims inventions that are directed to technological solutions to technological problems. The written description of the '663 patent describes in technical detail subject matter in support of each of the elements of the claims, including a display screen having a virtual bezel region and an active touchscreen region, both of which display portions of content but have different modes of response to certain touch-based inputs.

40. The written description describes the elements of the claims such that persons of ordinary skill in the art understand what the claims cover and how the non-conventional and non-generic combination of claim elements differ markedly from and improved upon the art. *See, e.g.,* '663 patent at 1:21-9:41.

41. Technology leaders including Microsoft Technology Licensing LLC, Amazon Technologies, Inc., Samsung Electronics Co., Ltd., and the USPTO have cited the '663 patent family over 20 times. *See* <https://patents.google.com/patent/US9645663B2/en>; 37 CFR 1.104, Nature of Examination (“the examiner must cite the best references at his or her command.”).

42. Viewed in light of the specification of the '663 patent, the claims are not directed to basic tools of scientific and technological work, nor are they directed to a fundamental economic practice. *See, e.g.,* '663 patent at 1:21-12:44. For example, claim 1 of the '663 patent is directed to a display screen having a virtual bezel region and an active touchscreen region, both of which display portions of content but have different modes of response to certain touch-based inputs.

43. The claims of the '663 patent are not directed to the use of an abstract mathematical formula. *See, e.g.,* '663 patent at 1:21-12:44. For example, claim 1 of the '663 patent is directed to a display screen having a virtual bezel region and an active touchscreen region, both of which display portions of content but have different modes of response to certain touch-based inputs.

44. The claims of the '663 patent are not directed to the use of a general-purpose computer. *See, e.g.,* '663 patent at 1:21-12:44. For example, claim 1 of the '663 patent is directed to a display screen having a virtual bezel region and an active touchscreen region, both of which display portions of content but have different modes of response to certain touch-based inputs.

45. The claims of the '663 patent are not directed to implementation of a mathematical formula. *See, e.g.,* '663 patent at 1:21-12:44. For example, claim 1 of the '663 patent is directed

to a display screen having a virtual bezel region and an active touchscreen region, both of which display portions of content but have different modes of response to certain touch-based inputs.

46. The claims of the '663 patent are not directed to generalized steps to be performed on a computer using conventional activity. *See, e.g.*, '663 patent at 1:21-12:44. For example, claim 1 of the '663 patent is directed to a display screen having a virtual bezel region and an active touchscreen region, both of which display portions of content but have different modes of response to certain touch-based inputs.

47. The claims of the '663 patent are not directed to a method of organizing human activity or to a fundamental economic practice long prevalent in our system of commerce. *See, e.g.*, '663 patent at 1:21-12:44. For example, claim 1 of the '663 patent is directed to a display screen having a virtual bezel region and an active touchscreen region, both of which display portions of content but have different modes of response to certain touch-based inputs.

48. The claims of the '663 patent do not take a well-known or established business method or process and apply it to, or using, a general-purpose computer. *See, e.g.*, '663 patent at 1:21-12:44. For example, claim 1 of the '663 patent is directed to a display screen having a virtual bezel region and an active touchscreen region, both of which display portions of content but have different modes of response to certain touch-based inputs.

49. The claims of the '663 patent do not preempt the field of their inventions or preclude the use of other methods and systems because the claims recite specific elements that include more than the performance of well-understood, routine, and conventional activities previously known to the art. *See, e.g.*, '663 patent at 1:21-12:44. For example, claim 1 of the '663 patent is directed to a display screen having a virtual bezel region and an active touchscreen region,

both of which display portions of content but have different modes of response to certain touch-based inputs.

50. The claims of the '663 patent capture the improvements described and illustrated in the specification. For example, claim 1 of the '663 patent is directed to a display screen having a virtual bezel region and an active touchscreen region, both of which display portions of content but have different modes of response to certain touch-based inputs.

**COUNT I – INFRINGEMENT OF U.S. PATENT NO. 9,395,917**

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

52. Defendant directly infringes one or more claims of the '917 patent, including claims 1, 2, 4, 7, and 9. Defendant has infringed and continues to infringe the '917 patent by making, using, selling, offering for sale, and/or importing unlicensed products, including unlicensed vehicles that include electronic devices with touchscreens providing claimed features, such as the capabilities detailed in the preliminary claim charts attached hereto as Exhibit C, Exhibit D, Exhibit E, Exhibit F, Exhibit G, and Exhibit H (which are incorporated herein by reference). The accused instrumentalities identified in Exhibit C, Exhibit D, Exhibit E, Exhibit F, Exhibit G, and Exhibit H are examples that were identified based on publicly available information. Plaintiff reserves the right to identify additional infringing activities, products, and services, including, for example, on the basis of information obtained during discovery and as Defendant sells and/or offers additional types of infringing vehicles through the end of trial.

53. Plaintiff has been harmed by Defendant's infringing activities regarding the '917 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 U.S. PATENT NO. 9,645,663**

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

55. Defendant directly infringes one or more claims of the '663 patent, including claims 1, 2, 3, 6, 8, 9, and 11. Defendant has infringed and continues to infringe the '663 patent by making, using, selling, offering for sale, and/or importing unlicensed products including unlicensed vehicles that include electronic devices with touchscreens providing the claimed features, such as the capabilities detailed in the preliminary claim charts attached hereto as Exhibit I, Exhibit J, Exhibit K, Exhibit L, Exhibit M, and Exhibit N (which are incorporated herein by reference). The accused instrumentalities identified in Exhibit I, Exhibit J, Exhibit K, Exhibit L, Exhibit M, and Exhibit N are examples that were identified based on publicly available information. Plaintiff reserves the right to identify additional infringing activities, products, and services, including, for example, on the basis of information obtained during discovery and as Defendant sells and/or offers additional types of infringing vehicles through the end of trial.

56. Plaintiff has been harmed by Defendant's infringing activities regarding the '663 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 '917 patent,
- B. Entry of judgment that Defendant has infringed one or more claims of the '663 patent,
- C. Damages in an amount to be determined at trial for Defendant's infringement, including any continuing or future infringement through the date such judgment is entered, 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,
- D. Pre-judgment and post-judgment interest on the damages assessed, and
- E. That the Court award Plaintiff its reasonable attorneys' fees and expenses in accordance with 35 U.S.C. § 285, and
- F. 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 16th day of April, 2024.

/s/ Cortney S. Alexander

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