

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

ULTRAVISION TECHNOLOGIES, LLC,	)	
	)	
Plaintiff,	)	
	)	
v.	)	Case No. 2:18-cv-00150-JRG
	)	
NEC DISPLAY SOLUTIONS, LTD., NEC	)	<b>JURY TRIAL DEMANDED</b>
CORPORATION, NEC DISPLAY	)	
SOLUTIONS EUROPE GMBH, AND	)	
S[QUADRAT] GMBH,	)	
	)	
Defendants.	)	
	)	

**FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Ultravision Technologies, LLC (“Ultravision”) for its Complaint against defendants NEC Display Solutions, Ltd., NEC Corporation, NEC Display Solutions Europe GmbH, and S[quadrat] GmbH (collectively, “Defendants”) alleges as follows:

**THE PARTIES**

1. Ultravision is a limited liability company organized and existing under the laws of the State of Delaware and is registered to do business in Texas. Ultravision has its principal place of business at 4542 McEwen Road, Dallas, Texas 75244.

2. Upon information and belief, defendant NEC Display Solutions, Ltd. (“NEC Japan”) is a corporation organized and existing under the laws of Japan, with a principal place of business located at Mita Kokusai Building, 4-28, Mita 1-chome, Minato-ku, Tokyo 108-0073 Japan.

3. Upon information and belief, defendant NEC Corporation (“NEC Corp.”) is a corporation organized and existing under the laws of Japan, with a principal place of business located at 7-1, Shiba 5-chome Minato-ku, Tokyo 108-8001, Japan.

4. Upon information and belief, defendant NEC Display Solutions Europe GmbH (“NEC Europe”) is a corporation organized and existing under the laws of Germany, with a principal place of business located at Landshuter Allee 12-14, München, Germany, D-80637.

5. Upon information and belief, defendant S[quadrat] GmbH is a corporation organized and existing under the laws of Germany that is a wholly owned subsidiary of NEC Europe, with a principal place of business located at In der Alting 4, 90596, Schwanstetten, Germany.

### **JURISDICTION**

6. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. § 1 *et seq.* This Court has jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

7. This Court has personal jurisdiction over Defendants. Upon information and belief, Defendants regularly conduct business and have committed acts of patent infringement and/or have induced acts of patent infringement by others in this judicial district and/or have contributed to patent infringement by others in this judicial district, the state of Texas, and elsewhere in the United States. The Court’s exercise of jurisdiction over each Defendant would not offend traditional notions of fair play and substantial justice because each Defendant has established minimum contacts with the forum with respect to both general and specific personal jurisdiction.

8. Upon information and belief, Defendants transact substantial business in the state of Texas and this judicial district. Defendants have committed acts of infringement in this District, by among other things, offering to sell and selling products that infringe the asserted patents, including the accused devices as alleged herein, as well as providing service and support to their customers in this District. Defendants have made, used, offered for sale or sold LED

displays in Putnam, Texas, or imported LED display panels into the United States to Putnam, Texas. Upon information and belief, each of the Defendants, directly or indirectly, participates in the stream of commerce that results in products, including the accused products, being made, used, offered for sale, and/or sold in the state of Texas and/or imported into the United States to the state of Texas, including at retail stores such as Cabela's<sup>1</sup> and restaurants such as Dave & Buster's<sup>2</sup>.

9. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1391 because, among other things, each of the Defendants is a foreign entity not resident in the United States, and thus venue may be laid in any judicial district pursuant to 28 U.S.C. § 1391(c)(3).

10. Defendants are subject to this Court's jurisdiction pursuant to due process and/or the Texas Long Arm Statute due at least to their substantial business in the state of Texas and this judicial district, including (a) at least part of their past 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.

### **PATENTS-IN-SUIT**

11. On March 13, 2018, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 9,916,782 (the "'782 Patent") entitled "Modular Display Panel." A true and correct copy of the '782 Patent is available at <http://pdfpiw.uspto.gov/.piw?docid=9916782>.

12. On May 2, 2017, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 9,642,272 (the "'272 Patent") entitled "Method for Modular Multi-Panel Display Wherein Each Display is Sealed to be Waterproof and Includes Array of Display Elements

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<sup>1</sup> See <https://www.necdisplay.com/success-stories/cabela%E2%80%99s/105>.

<sup>2</sup> See <https://www.necdisplay.com/success-stories/dave-and-busters/142>.

Arranged to Form Display Panel Surface.” A true and correct copy of the ’272 Patent is available at <https://pdfpiw.uspto.gov/.piw?docid=9642272>.

13. On June 5, 2018, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 9,990,869 (the “’869 Patent”) entitled “Modular Display Panel.” A true and correct copy of the ’869 Patent is available at <https://pdfpiw.uspto.gov/.piw?docid=9990869>.

14. On May 22, 2018, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 9,978,294 (the “’294 Patent”) entitled “Modular Display Panel.” A true and correct copy of the ’294 Patent is available at <https://pdfpiw.uspto.gov/.piw?docid=9978294>.

15. On May 29, 2018, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 9,984,603 (the “’603 Patent”) entitled “Modular Display Panel.” A true and correct copy of the ’603 Patent is available at <https://pdfpiw.uspto.gov/.piw?docid=9984603>.

16. On December 8, 2015, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 9,207,904 (the “’904 Patent”) entitled “Multi-Panel Display with Hot Swappable Display Panels and Methods of Servicing Thereof.” A true and correct copy of the ’904 Patent is available at <https://pdfpiw.uspto.gov/.piw?docid=9207904>.

17. On June 2, 2015, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 9,047,791 (the “’791 Patent”) entitled “Sign Construction with Sectional Sign Assemblies and Installation Kit and Method of Using Same.” A true and correct copy of the ’791 Patent is available at <https://pdfpiw.uspto.gov/.piw?docid=9047791>.

18. On May 30, 2017, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 9,666,105 (the “’105 Patent”) entitled “Sign Construction with Modular Wire Harness Arrangements and Methods of Using Same for Backside to Frontside Power and Data

Distribution Schemes.” A true and correct copy of the ’105 Patent is available at <https://pdfpiw.uspto.gov/.piw?PageNum=0&docid=09666105>.

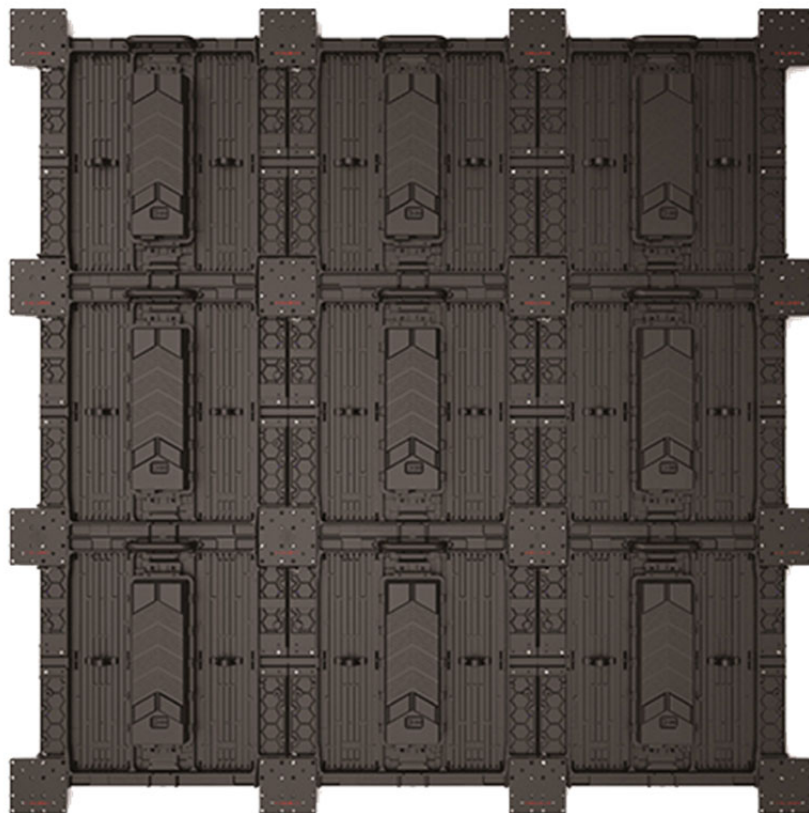
19. Ultravision is the sole and exclusive owner of all right, title and interest in and to the ’782 Patent, the ’272 Patent, the ’869 Patent, the ’294 Patent, the ’603 Patent, the ’904 Patent, the ’791 Patent, and the ’105 Patent (collectively, the “Patents-in-Suit”), and holds the exclusive right to take all actions necessary to enforce its rights to the Patents-in-Suit, including the filing of this patent infringement action. Ultravision also has the right to recover all damages for past, present, and future infringement of the Patents-in-Suit and to seek injunctive relief as appropriate under the law.

20. Ultravision has at all times complied with the marking provisions of 35 U.S.C. § 287 with respect to the Patents-in-Suit. Ultravision references its patents on its website, <http://www.ultravisioninternational.com>, and also references its patents and its website in the product packaging for its products.

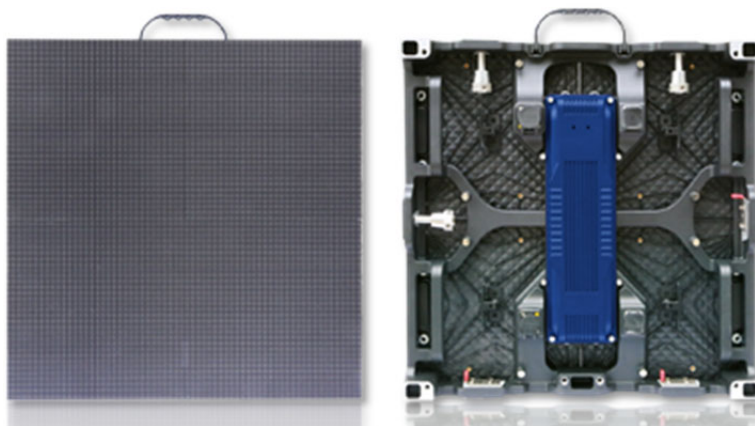
### **DEFENDANTS’ PRODUCTS**

21. Upon information and belief, Defendants make, use, offer to sell, or sell within the United States or import into the United States LED displays, such as Defendants’ dvLED Series, Q-Series, and F-Series products.

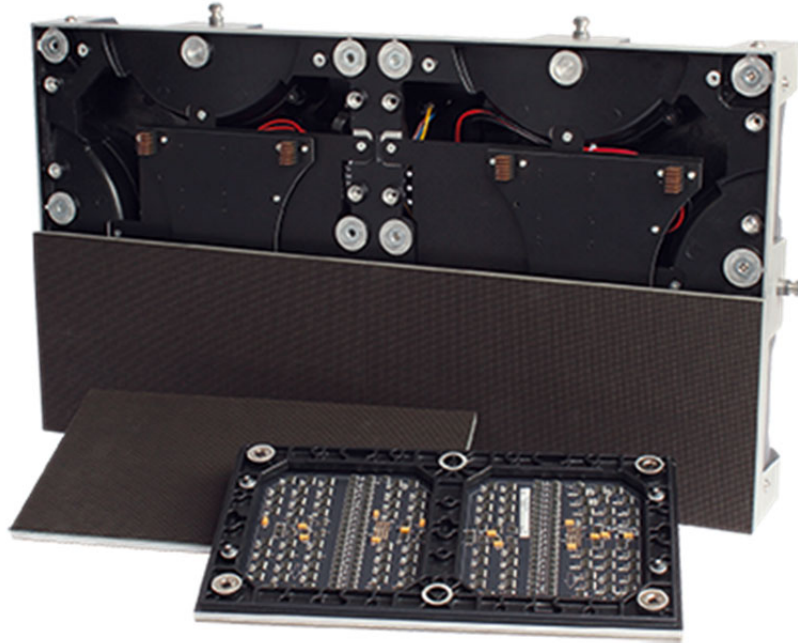
22. An image of Defendants’ dvLED Series product is shown below:



23. An image of Defendants' Q-Series product is shown below:



24. An image of Defendants' F-Series product is shown below:



**COUNT I**  
**(Infringement of the '782 Patent)**

25. Paragraphs 1 through 24 are incorporated by reference as if fully set forth herein.

26. Ultravision has not licensed or otherwise authorized Defendants to make, use, offer to sell, or sell within the United States or import into the United States any products that embody the inventions of the '782 Patent.

27. Defendants have directly infringed and continue to directly infringe the '782 Patent, including at least claim 1, either literally or under the doctrine of equivalents, without authority and in violation of 35 U.S.C. § 271, by making, using, offering to sell, and/or selling within the United States and/or importing into the United States products that satisfy each and every limitation of one or more claims of the '782 Patent. Such products include LED displays, such as Defendants' dvLED Series product.

28. Upon information and belief, the dvLED Series product is a modular display panel comprising a shell comprising a first thermally conductive material, wherein the sidewalls of the shell comprise plastic.

29. Upon information and belief, the dvLED Series product comprises a printed circuit board disposed in the shell, and a plurality of LEDs attached to a first side of the printed circuit board.

30. Upon information and belief, the dvLED Series product comprises a driver circuit disposed in the shell and coupled to the plurality of LEDs from a second side of the printed circuit board.

31. Upon information and belief, the dvLED Series product comprises a power supply unit for powering the LEDs, with the printed circuit board disposed between the power supply unit and the LEDs.

32. Upon information and belief, the dvLED Series product comprises a second thermally conductive material disposed between the power supply unit and an outer back side of the panel.

33. Upon information and belief, the dvLED Series product comprises a protective structure disposed over the first side of the printed circuit board.

34. Upon information and belief, the dvLED Series product is sealed to be waterproof.

35. Upon information and belief, the dvLED Series product infringes at least claim 1 of the '782 Patent.

36. Defendants have indirectly infringed and continue to indirectly infringe one or more claims of the '782 Patent by knowingly and intentionally inducing others, including customers, installers, and end-users, to directly infringe, either literally or under the doctrine of equivalents, by making, using, offering to sell, and/or selling within the United States and/or



importing into the United States products that include infringing technology, including the dvLED Series.

37. One or more Defendants knowingly and intentionally induces infringement of the '782 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to make, use, offer to sell, and/or sell within the United States and/or import into the United States products, including but not limited to the dvLED Series product. Upon information and belief, with knowledge and intent, or with willful blindness, one or more of the Defendants is encouraging and facilitating infringement by others. For example, upon information and belief, one or more of the Defendants sells or otherwise provides products, including but not limited to the dvLED Series product, to other Defendants, to distributors, to sign installers, or to U.S.-based sales entities such as NEC Display Solutions of America, Inc. knowing that these entities intend to make, use, offer to sell, and/or sell the products within the United States and/or import the products into the United States.

38. At least as of March 27, 2018 — *i.e.*, the date of the filing of a Complaint by Ultravision with the U.S. International Trade Commission — Defendants, with knowledge that these products, or the use thereof, infringe the '782 Patent, knowingly and intentionally induced, and continue to knowingly and intentionally induce, direct infringement of the '782 Patent by supplying these products to end users for use in an infringing manner.

39. Defendants have induced and continue to induce infringement by others, including customers, installers, and end users, with the intent to cause infringing acts by others or, in the alternative, with the belief that there was a high probability that others, including end users, infringe the '782 Patent, but while remaining willfully blind to the infringement.

40. Ultravision has suffered damages as a result of Defendants' direct and indirect infringement of the '782 Patent in an amount to be proved at trial.

41. Ultravision has suffered and will continue to suffer irreparable harm as a result of Defendants' infringement of the '782 Patent for which there is no adequate remedy at law unless Defendants' infringement is enjoined by this Court.

**COUNT II**  
**(Infringement of the '272 Patent)**

42. Paragraphs 1 through 24 are incorporated by reference as if fully set forth herein.

43. Ultravision has not licensed or otherwise authorized Defendants to make, use, offer to sell, or sell within the United States or import into the United States any products that embody the inventions of the '272 Patent.

44. Defendants have indirectly infringed and continue to indirectly infringe one or more claims of the '272 Patent, including at least claim 1, by knowingly and intentionally inducing others, including customers, installers, and end-users, to directly infringe, either literally or under the doctrine of equivalents, by making, using, offering to sell, and/or selling within the United States and/or importing into the United States products that include infringing technology, including LED displays, such as Defendants' dvLED Series product, assembled at multiple locations.

45. Upon information and belief, the dvLED Series product allows a direct infringer, such as a sign installer, to assemble a mechanical support structure, and detachably mount a plurality of display panels to the mechanical support structure at a first location to form sub-assemblies.

46. Upon information and belief, the dvLED Series product comprises an array of display elements containing rows and columns that are sealed to be waterproof.

47. Upon information and belief, the dvLED Series product comprises a display driver, a housing, a receiver circuit, and a power supply.

48. Upon information and belief, the dvLED Series product allows a direct infringer, such as a sign installer, to move the sub-assemblies to a second location and build a multi-panel display system at that second location.

49. Upon information and belief, detachably mounting sub-assemblies of the dvLED Series product at a first location and building the sub-assemblies into a multi-panel display at a second location infringes at least claim 1 of the '272 Patent.

50. One or more Defendants knowingly and intentionally induces infringement of the '272 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to make, use, offer to sell, and/or sell within the United States and/or import into the United States products, including but not limited to the dvLED Series product. Upon information and belief, with knowledge and intent, or with willful blindness, one or more of the Defendants is encouraging and facilitating infringement by others. For example, upon information and belief, one or more of the Defendants sells or otherwise provides products, including but not limited to the dvLED Series product, to other Defendants, to distributors, to sign installers, or to U.S.-based sales entities such as NEC Display Solutions of America, Inc. knowing that these entities intend to make, use, offer to sell, and/or sell the products within the United States and/or import the products into the United States.

51. At least as of the filing date of this Complaint, Defendants, with knowledge that these products, or the use thereof, infringe the '272 Patent, knowingly and intentionally induced, and continue to knowingly and intentionally induce, direct infringement of the '272 Patent by

detachably mounting sub-assemblies at a first location and building the sub-assemblies into a multi-panel display at a second location.

52. Defendants have induced and continue to induce infringement by others, including customers, installers, and end users, with the intent to cause infringing acts by others or, in the alternative, with the belief that there was a high probability that others, including end users, infringe the '272 Patent, but while remaining willfully blind to the infringement.

53. Ultravision has suffered damages as a result of Defendants' direct and indirect infringement of the '272 Patent in an amount to be proved at trial.

54. Ultravision has suffered and will continue to suffer irreparable harm as a result of Defendants' infringement of the '272 Patent for which there is no adequate remedy at law unless Defendants' infringement is enjoined by this Court.

**COUNT III**  
**(Infringement of the '869 Patent)**

55. Paragraphs 1 through 24 are incorporated by reference as if fully set forth herein.

56. Ultravision has not licensed or otherwise authorized Defendants to make, use, offer to sell, or sell within the United States or import into the United States any products that embody the inventions of the '869 Patent.

57. Defendants have directly infringed and continue to directly infringe the '869 Patent, including at least claim 19, either literally or under the doctrine of equivalents, without authority and in violation of 35 U.S.C. § 271, by making, using, offering to sell, and/or selling within the United States and/or importing into the United States products that satisfy each and every limitation of one or more claims of the '869 Patent. Such products include LED displays, such as Defendants' Q-Series product.

58. Upon information and belief, the Q-Series product is a modular display panel comprising a plastic casing that is part of an outer surface of the modular display panel.

59. Upon information and belief, the Q-Series product comprises a printed circuit board attached to the casing, with LEDs on the front side of the printed circuit board and a circuit for controlling the plurality of the LEDs on the back side of the printed circuit board.

60. Upon information and belief, the Q-Series product comprises a power supply unit for powering the LEDs, with the printed circuit board disposed between the power supply unit and the LEDs.

61. Upon information and belief, the Q-series product comprises a thermally conductive material to extract heat disposed proximate to the power supply.

62. Upon information and belief, the Q-Series product comprises a potting compound overlying the printed circuit board.

63. Upon information and belief, the Q-Series product comprises a power supply mounted outside the plastic casing.

64. Upon information and belief, the Q-Series product is sealed to be waterproof.

65. Upon information and belief, the Q-Series product infringes at least claim 19 of the '869 Patent.

66. Defendants have indirectly infringed and continue to indirectly infringe one or more claims of the '869 Patent by knowingly and intentionally inducing others, including customers, installers, and end-users, to directly infringe, either literally or under the doctrine of equivalents, by making, using, offering to sell, and/or selling within the United States and/or importing into the United States products that include infringing technology, including LED displays, including the Q-Series, and display boards comprising multiple LED displays.

67. One or more Defendants knowingly and intentionally induces infringement of the '869 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to make, use, offer to sell, and/or sell within the United States and/or import into the United States products, including but not limited to the Q-Series product. Upon information and belief, with knowledge and intent, or with willful blindness, one or more of the Defendants is encouraging and facilitating infringement by others. For example, upon information and belief, one or more of the Defendants sells or otherwise provides products, including but not limited to the Q-Series product, to other Defendants, to distributors, to sign installers, or to U.S.-based sales entities such as NEC Display Solutions of America, Inc. knowing that these entities intend to make, use, offer to sell, and/or sell the products within the United States and/or import the products into the United States.

68. At least as of the date of the filing of this Complaint, Defendants, with knowledge that these products, or the use thereof, infringe the '869 Patent, knowingly and intentionally induced, and continue to knowingly and intentionally induce, direct infringement of the '869 Patent by supplying these products to end users for use in an infringing manner.

69. Defendants have induced and continue to induce infringement by others, including customers, installers, and end users, with the intent to cause infringing acts by others or, in the alternative, with the belief that there was a high probability that others, including end users, infringe the '869 Patent, but while remaining willfully blind to the infringement.

70. Ultravision has suffered damages as a result of Defendants' direct and indirect infringement of the '869 Patent in an amount to be proved at trial.

71. Ultravision has suffered and will continue to suffer irreparable harm as a result of Defendants' infringement of the '869 Patent for which there is no adequate remedy at law unless Defendants' infringement is enjoined by this Court.

**COUNT IV**  
**(Infringement of the '294 Patent)**

72. Paragraphs 1 through 24 are incorporated by reference as if fully set forth herein.

73. Ultravision has not licensed or otherwise authorized Defendants to make, use, offer to sell, or sell within the United States or import into the United States any products that embody the inventions of the '294 Patent.

74. Defendants have directly infringed and continue to directly infringe the '294 Patent, including at least claim 22, either literally or under the doctrine of equivalents, without authority and in violation of 35 U.S.C. § 271, by making, using, offering to sell, and/or selling within the United States and/or importing into the United States products that satisfy each and every limitation of one or more claims of the '294 Patent. Such products include LED displays, such as Defendants' Q-Series product.

75. Upon information and belief, the Q-Series product is a modular display panel comprising a plastic casing comprising the outer surface of the modular display panel, the casing including a recess.

76. Upon information and belief, the Q-Series product comprises a printed circuit board disposed in the recess of the plastic casing.

77. Upon information and belief, the Q-Series product comprises a plurality of LEDs arranged as pixels, wherein the pixels are arranged in a rectangular array comprising at least fifty pixels.

78. Upon information and belief, the Q-Series product comprises a sealing compound disposed over the front side of the printed circuit board.

79. Upon information and belief, the Q-Series product comprises a framework of louvers disposed over the front side of the printed circuit board.

80. Upon information and belief, the Q-Series product includes a circuit for controlling the plurality of LEDs on the back side of the printed circuit board.

81. Upon information and belief, the Q-Series product comprises a power supply mounted over the outer surface of the modular display panel which receives AC power and outputs DC power to the plurality of LEDs.

82. Upon information and belief, the Q-Series product is sealed to be waterproof without the use of a protective waterproof enclosure.

83. Upon information and belief, the Q-Series product infringes at least claim 22 of the '294 Patent.

84. Defendants have indirectly infringed and continue to indirectly infringe one or more claims of the '294 Patent by knowingly and intentionally inducing others, including customers, installers, and end-users, to directly infringe, either literally or under the doctrine of equivalents, by making, using, offering to sell, and/or selling within the United States and/or importing into the United States products that include infringing technology, including LED displays, including the Q-Series, and display boards comprising multiple modular LED displays.

85. One or more Defendants knowingly and intentionally induces infringement of the '294 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to make, use, offer to sell, and/or sell within the United States and/or import into the United States products, including but not limited to the Q-Series product. Upon information and belief, with knowledge



and intent, or with willful blindness, one or more of the Defendants is encouraging and facilitating infringement by others. For example, upon information and belief, one or more of the Defendants sells or otherwise provides products, including but not limited to the Q-Series product, to other Defendants, to distributors, to sign installers, or to U.S.-based sales entities such as NEC Display Solutions of America, Inc. knowing that these entities intend to make, use, offer to sell, and/or sell the products within the United States and/or import the products into the United States.

86. At least as of the date of the filing of this Complaint, Defendants, with knowledge that these products, or the use thereof, infringe the '294 Patent, knowingly and intentionally induced, and continue to knowingly and intentionally induce, direct infringement of the '294 Patent by supplying these products to end users for use in an infringing manner.

87. Defendants have induced and continue to induce infringement by others, including customers, installers, and end users, with the intent to cause infringing acts by others or, in the alternative, with the belief that there was a high probability that others, including end users, infringe the '294 Patent, but while remaining willfully blind to the infringement.

88. Ultravision has suffered damages as a result of Defendants' direct and indirect infringement of the '294 Patent in an amount to be proved at trial.

89. Ultravision has suffered and will continue to suffer irreparable harm as a result of Defendants' infringement of the '294 Patent for which there is no adequate remedy at law unless Defendants' infringement is enjoined by this Court.

**COUNT V**  
**(Infringement of the '603 Patent)**

90. Paragraphs 1 through 24 are incorporated by reference as if fully set forth herein.

91. Ultravision has not licensed or otherwise authorized Defendants to make, use, offer to sell, or sell within the United States or import into the United States any products that embody the inventions of the '603 Patent.

92. Defendants have directly infringed and continue to directly infringe the '603 Patent, including at least claim 1, either literally or under the doctrine of equivalents, without authority and in violation of 35 U.S.C. § 271, by making, using, offering to sell, and/or selling within the United States and/or importing into the United States products that satisfy each and every limitation of one or more claims of the '603 Patent. Such products include LED displays, such as Defendants' Q-Series product.

93. Upon information and belief, the Q-Series product is a modular display panel comprising a printed circuit board disposed inside a casing made of a thermally conductive material.

94. Upon information and belief, the casing of the Q-Series product comprises an outer back surface of the panel, and the sidewalls of the casing comprise plastic.

95. Upon information and belief, the Q-Series product comprises a driver circuit disposed in the casing on the back side of the printed circuit board.

96. Upon information and belief, the Q-Series product comprises a plurality of LEDs.

97. Upon information and belief, the Q-Series product comprises a power supply mounted over the outer surface of the modular display panel which receives AC power and outputs DC power to the plurality of LEDs.

98. Upon information and belief, the Q-Series product comprises a heat conducting structure between the power supply and the back surface of the casing.

99. Upon information and belief, the Q-Series product is sealed to be waterproof without the use of a protective waterproof enclosure.

100. Upon information and belief, the Q-Series product infringes at least claim 1 of the '603 Patent.

101. Defendants have indirectly infringed and continue to indirectly infringe one or more claims of the '603 Patent by knowingly and intentionally inducing others, including customers, installers, and end-users, to directly infringe, either literally or under the doctrine of equivalents, by making, using, offering to sell, and/or selling within the United States and/or importing into the United States products that include infringing technology, including LED displays, including the Q-Series, and display boards comprising multiple LED displays.

102. One or more Defendants knowingly and intentionally induces infringement of the '603 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to make, use, offer to sell, and/or sell within the United States and/or import into the United States products, including but not limited to the Q-Series product. Upon information and belief, with knowledge and intent, or with willful blindness, one or more of the Defendants is encouraging and facilitating infringement by others. For example, upon information and belief, one or more of the Defendants sells or otherwise provides products, including but not limited to the Q-Series product, to other Defendants, to distributors, to sign installers, or to U.S.-based sales entities such as NEC Display Solutions of America, Inc. knowing that these entities intend to make, use, offer to sell, and/or sell the products within the United States and/or import the products into the United States.

103. At least as of the filing date of this Complaint, Defendants, with knowledge that these products, or the use thereof, infringe the '603 Patent, knowingly and intentionally induced,

and continue to knowingly and intentionally induce, direct infringement of the '603 Patent by supplying these products to end users for use in an infringing manner.

104. Defendants have induced and continue to induce infringement by others, including customers, installers, and end users, with the intent to cause infringing acts by others or, in the alternative, with the belief that there was a high probability that others, including end users, infringe the '603 Patent, but while remaining willfully blind to the infringement.

105. Ultravision has suffered damages as a result of Defendants' direct and indirect infringement of the '603 Patent in an amount to be proved at trial.

106. Ultravision has suffered and will continue to suffer irreparable harm as a result of Defendants' infringement of the '603 Patent for which there is no adequate remedy at law unless Defendants' infringement is enjoined by this Court.

**COUNT VI**  
**(Infringement of the '904 Patent)**

107. Paragraphs 1 through 24 are incorporated by reference as if fully set forth herein.

108. Ultravision has not licensed or otherwise authorized Defendants to make, use, offer to sell, or sell within the United States or import into the United States any products that embody the inventions of the '904 Patent.

109. Defendants have directly infringed and continue to directly infringe the '904 Patent, including at least claim 1, either literally or under the doctrine of equivalents, without authority and in violation of 35 U.S.C. § 271, by making, using, offering to sell, and/or selling within the United States and/or importing into the United States products that satisfy each and every limitation of one or more claims of the '904 Patent. Such products include LED displays, such as Defendants' F-Series product.

110. Upon information and belief, the F-Series product provides access to a multi-panel display where each display panel is mounted onto a mechanical support structure.

111. Upon information and belief, the F-Series product identifies a defective panel from the plurality of display panels, including by receiving a signal from an adjacent panel indicating the defect.

112. Upon information and belief, the F-Series product allows for the disconnection and hot swapping of the defective panel without the need to power down the multi-panel display.

113. Upon information and belief, the F-Series product allows for the attachment of a replacement display and the connection of power to the replacement display panel.

114. Upon information and belief, the F-Series product infringes at least claim 1 of the '904 Patent.

115. Defendants have indirectly infringed and continue to indirectly infringe one or more claims of the '904 Patent by knowingly and intentionally inducing others, including customers, installers, and end-users, to directly infringe, either literally or under the doctrine of equivalents, by making, using, offering to sell, and/or selling within the United States and/or importing into the United States products that include infringing technology, including LED displays, including the Q-Series, and display boards comprising multiple LED displays.

116. One or more Defendants knowingly and intentionally induces infringement of the '904 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to make, use, offer to sell, and/or sell within the United States and/or import into the United States products, including but not limited to the F-Series product. Upon information and belief, with knowledge and intent, or with willful blindness, one or more of the Defendants is encouraging and facilitating infringement by others. For example, upon information and belief, one or more of the

Defendants sells or otherwise provides products, including but not limited to the F-Series product, to other Defendants, to distributors, to sign installers, or to U.S.-based sales entities such as NEC Display Solutions of America, Inc. knowing that these entities intend to make, use, offer to sell, and/or sell the products within the United States and/or import the products into the United States.

117. At least as of the filing date of this Complaint, Defendants, with knowledge that these products, or the use thereof, infringe the '904 Patent, knowingly and intentionally induced, and continue to knowingly and intentionally induce, direct infringement of the '904 Patent by supplying these products to end users for use in an infringing manner.

118. Defendants have induced and continue to induce infringement by others, including customers, installers, and end users, with the intent to cause infringing acts by others or, in the alternative, with the belief that there was a high probability that others, including end users, infringe the '904 Patent, but while remaining willfully blind to the infringement.

119. Ultravision has suffered damages as a result of Defendants' direct and indirect infringement of the '904 Patent in an amount to be proved at trial.

120. Ultravision has suffered and will continue to suffer irreparable harm as a result of Defendants' infringement of the '904 Patent for which there is no adequate remedy at law unless Defendants' infringement is enjoined by this Court.

**COUNT VII**  
**(Infringement of the '791 Patent)**

121. Paragraphs 1 through 24 are incorporated by reference as if fully set forth herein.

122. Ultravision has not licensed or otherwise authorized Defendants to make, use, offer to sell, or sell within the United States or import into the United States any products that embody the inventions of the '791 Patent.

123. Defendants have directly infringed and continue to directly infringe the '791 Patent, including at least claim 16, either literally or under the doctrine of equivalents, without authority and in violation of 35 U.S.C. § 271, by making, using, offering to sell, and/or selling within the United States and/or importing into the United States products that satisfy each and every limitation of one or more claims of the '791 Patent. Such products include LED displays, such as Defendants' indoor and outdoor Q-Series product.

124. Upon information and belief, the indoor Q-Series product comprises a plurality of display modules.

125. Upon information and belief, the indoor Q-Series product comprises a plurality of sign sections each having a front-facing portion and a rear-facing portion, with the front-facing portion receiving display modules and the rear-facing portion for mounting to a surface of an existing signage mounting structure.

126. Upon information and belief, the indoor Q-Series product comprises a plurality of power routing systems, with each power routing system having a power input to the power supply box and a plurality of power extensions which couple the power source to one of the display modules.

127. Upon information and belief, the indoor Q-Series product infringes at least claim 16 of the '791 Patent.

128. Defendants have indirectly infringed and continue to indirectly infringe one or more claims of the '791 Patent by knowingly and intentionally inducing others, including customers, installers, and end-users, to directly infringe, either literally or under the doctrine of equivalents, by making, using, offering to sell, and/or selling within the United States and/or

importing into the United States products that include infringing technology, including LED displays, including the Q-Series, and display boards comprising multiple LED displays.

129. One or more Defendants knowingly and intentionally induces infringement of the '791 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to make, use, offer to sell, and/or sell within the United States and/or import into the United States products, including but not limited to the Q-Series product. Upon information and belief, with knowledge and intent, or with willful blindness, one or more of the Defendants is encouraging and facilitating infringement by others. For example, upon information and belief, one or more of the Defendants sells or otherwise provides products, including but not limited to the indoor Q-Series product, to other Defendants, to distributors, to sign installers, or to U.S.-based sales entities such as NEC Display Solutions of America, Inc. knowing that these entities intend to make, use, offer to sell, and/or sell the products within the United States and/or import the products into the United States.

130. At least as of the date of the filing of this Complaint, Defendants, with knowledge that these products, or the use thereof, infringe the '791 Patent, knowingly and intentionally induced, and continue to knowingly and intentionally induce, direct infringement of the '791 Patent by supplying these products to end users for use in an infringing manner.

131. Defendants have induced and continue to induce infringement by others, including customers, installers, and end users, with the intent to cause infringing acts by others or, in the alternative, with the belief that there was a high probability that others, including end users, infringe the '791 Patent, but while remaining willfully blind to the infringement.

132. Ultravision has suffered damages as a result of Defendants' direct and indirect infringement of the '791 Patent in an amount to be proved at trial.



133. Ultravision has suffered and will continue to suffer irreparable harm as a result of Defendants' infringement of the '791 Patent for which there is no adequate remedy at law unless Defendants' infringement is enjoined by this Court.

**COUNT VIII**  
**(Infringement of the '105 Patent)**

134. Paragraphs 1 through 24 are incorporated by reference as if fully set forth herein.

135. Ultravision has not licensed or otherwise authorized Defendants to make, use, offer to sell, or sell within the United States or import into the United States any products that embody the inventions of the '791 Patent.

136. Defendants have directly infringed and continue to directly infringe the '105 Patent, including at least claim 15, either literally or under the doctrine of equivalents, without authority and in violation of 35 U.S.C. § 271, by making, using, offering to sell, and/or selling within the United States and/or importing into the United States products that satisfy each and every limitation of one or more claims of the '105 Patent. Such products include LED displays, such as Defendants' outdoor dvLED Series product.

137. Upon information and belief, the outdoor dvLED Series product comprises a structural frame that defines a plurality of structural bay members that support a plurality of weatherized display modules.

138. Upon information and belief, the outdoor dvLED Series product uses a preformed wiring harness for distributing low voltage power within the bay members, and facilitates providing separate power branches for distributing power among the weatherized display modules, including between adjacent columns of weatherized display modules attached to the structural bay members.

139. Upon information and belief, the outdoor dvLED Series product includes at least one structural bay locator node, such as an alignment pin, to facilitate providing a low voltage power branch to at least an individual one of the weatherized display modules located within the structural bay members.

140. Upon information and belief, the indoor Q-Series product infringes at least claim 15 of the '791 Patent.

141. Defendants have indirectly infringed and continue to indirectly infringe one or more claims of the '105 Patent by knowingly and intentionally inducing others, including customers, installers, and end-users, to directly infringe, either literally or under the doctrine of equivalents, by making, using, offering to sell, and/or selling within the United States and/or importing into the United States products that include infringing technology, including LED displays, including the dvLED Series, and display boards comprising multiple LED displays.

142. One or more Defendants knowingly and intentionally induces infringement of the '105 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to make, use, offer to sell, and/or sell within the United States and/or import into the United States products, including but not limited to the dvLED Series product. Upon information and belief, with knowledge and intent, or with willful blindness, one or more of the Defendants is encouraging and facilitating infringement by others. For example, upon information and belief, one or more of the Defendants sells or otherwise provides products, including but not limited to the dvLED Series product, to other Defendants, to distributors, to sign installers, or to U.S.-based sales entities such as NEC Display Solutions of America, Inc. knowing that these entities intend to make, use, offer to sell, and/or sell the products within the United States and/or import the products into the United States.

143. At least as of the date of the filing of this Complaint, Defendants, with knowledge that these products, or the use thereof, infringe the '105 Patent, knowingly and intentionally induced, and continue to knowingly and intentionally induce, direct infringement of the '105 Patent by supplying these products to end users for use in an infringing manner.

144. Defendants have induced and continue to induce infringement by others, including customers, installers, and end users, with the intent to cause infringing acts by others or, in the alternative, with the belief that there was a high probability that others, including end users, infringe the '105 Patent, but while remaining willfully blind to the infringement

145. Ultravision has suffered damages as a result of Defendants' direct and indirect infringement of the '105 Patent in an amount to be proved at trial.

146. Ultravision has suffered and will continue to suffer irreparable harm as a result of Defendants' infringement of the '105 Patent for which there is no adequate remedy at law unless Defendants' infringement is enjoined by this Court.

#### **DEMAND FOR JURY TRIAL**

Ultravision hereby demands a jury for all issues so triable.

#### **PRAYER FOR RELIEF**

WHEREFORE, Ultravision prays for relief against Defendants as follows:

- a. Entry of judgment declaring that Defendants have directly and/or indirectly infringed one or more claims of each of the Patents-in-Suit;
- b. An order pursuant to 35 U.S.C. § 283 permanently enjoining Defendants, their officers, agents, servants, employees, attorneys, instrumentalities, and those persons in privity, active concert, or participation with it from further acts of direct and/or indirect infringement of

the Patents-in-Suit including the making, use, offering for sale, and selling within the United States and importing into the United States of any infringing products;

c. A full accounting for and an award of damages to Ultravision for Defendants' infringement of the Patents-in-Suit, but in no event less than a reasonable royalty, including enhanced damages pursuant to 35 U.S.C. § 284, together with pre- and post-judgment interest; and

d. Entry of judgment declaring that this case is exceptional and awarding Ultravision its costs and reasonable attorney fees under 35 U.S.C. § 285; and

e. Such other and further relief as the Court deems just and proper.

Dated: May 14, 2019

Respectfully submitted,

*/s/ Alfred R. Fabricant*

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