IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF TENNESSEE
NASHVILLE DIVISION

MicroPairing Technologies LLC, Plaintiff, v. Nissan North America, Inc., Defendant.	Civil Action No. 3:21-cv-00633 District Judge Eli J. Richardson Magistrate Judge Alistair Newbern JURY DEMAND

FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff MicroPairing Technologies LLC files this First Amended Complaint against Nissan North America, Inc. for infringement of U.S. Patent Nos. 7,178,049 (the '049 patent"), 8,020,028 ("the '028 patent), 8,006,117 ("the '117 patent"), and 7,793,136 ("the '136 patent"). The '049 patent, '028 patent, '117 patent, and '136 patent are referred to collectively as the "patents-in-suit."

THE PARTIES

1. Plaintiff MicroPairing Technologies LLC ("MicroPairing") is a Texas limited liability company located in Plano, Texas.

2. Defendant Nissan North America, Inc. ("Nissan") is a California corporation with its principal place of business at 1 Nissan Way, M.S. A-5-C, Franklin, Tennessee 37067. Nissan may be served with process through its registered agent, Corporation Service Company, at 2908 Poston Avenue, Nashville, Tennessee 37203.

JURISDICTION AND VENUE

3. This action arises under the patent laws of the United States, 35 U.S.C. § 101, *et seq.* This Court's jurisdiction over this action is proper under the above statutes, including 35 U.S.C. § 271, *et seq.*, 28 U.S.C. § 1331 (federal question jurisdiction), and 28 U.S.C. § 1338 (jurisdiction over patent actions).

4. This Court has personal jurisdiction over Nissan in accordance with due process and/or the Tennessee Long Arm Statute because, among other things, Nissan's principal place of business is located in Tennessee and Nissan does business in Tennessee.

5. Further, this Court has personal jurisdiction over Nissan because it has engaged, and continues to engage, in continuous, systematic, and substantial activities within this state, including the substantial marketing and sale of products and services within this state and this District. Indeed, this Court has personal jurisdiction over Nissan because it has committed acts giving rise to MicroPairing's claims for patent infringement within and directed to this District, has derived substantial revenue from its goods and services provided to individuals in this state and this District, and maintains a regular and established place of business in this District, which is also its principal place of business.

6. Relative to patent infringement, Nissan has committed and continues to commit acts in violation of 35 U.S.C. § 271, and has made, used, marketed, distributed, offered for sale, and/or sold infringing products and services in this state, including in this District, and otherwise engaged in infringing conduct within and directed at, or from, this District. Such infringing products and services, namely Nissan vehicles with infotainment systems and/or that operate on the AUTOSAR platform, have been and continue to be distributed to, offered for sale, sold, and used in this District and the infringing conduct has caused, and continues to cause, injury to

MicroPairing, including injury suffered within this District. These are purposeful acts and transactions in this state and this District such that Nissan reasonably should know and expect that it can be haled into this Court.

7. Venue is proper in this District under 28 U.S.C. §§ 1391 and 1400(b) because a substantial part of the events or omissions giving rise to the MicroPairing claims occurred in this District. This includes extensive commission of acts of infringement in this District. Nissan also has a regular and established place of business in this District in the form of, at least, its principal place of business in Franklin, Tennessee. Indeed, Nissan conducts business in this District, including making and servicing infringing vehicles for, and offering to sell, selling, and distributing infringing vehicles and related services to, Nissan customers in this District.

THE PATENTS-IN-SUIT

8. The ’049 patent is entitled, “Method for Multi-Tasking Multiple Java Virtual Machines in a Secure Environment.” The ’049 patent lawfully issued on February 13, 2007 and stems from U.S. Patent Application No. 10/132,886, which was filed on April 24, 2002. A copy of the ’049 patent is attached hereto as Ex. 1.

9. The ’028 patent is entitled, “Application Management System for Mobile Devices.” The ’028 patent lawfully issued on September 13, 2011 and stems from U.S. Patent Application No. 10/132,886, which was filed on April 24, 2002. A copy of the ’028 patent is attached hereto as Ex. 2.

10. The ’117 patent is entitled, “Method for Multi-Tasking Multiple Java Virtual Machines in a Secure Environment.” The ’117 patent lawfully issued on August 23, 2011 and stems from U.S. Patent Application No. 10/132,886, which was filed on April 24, 2002. A copy of the ’117 patent is attached hereto as Ex. 3.

11. The ’136 patent is entitled, “Application Management System with Configurable Software Applications.” The ’136 patent lawfully issued on September 7, 2010 and stems from U.S. Patent Application No. 10/132,886, which was filed on April 24, 2002. A copy of the ’136 patent is attached hereto as Ex. 4.

12. MicroPairing is the owner of the patents-in-suit with all substantial rights, including the exclusive right to enforce, sue, and recover damages for past and future infringements.

13. MicroPairing’s claims do not have damages limited by 35 U.S.C. § 287. MicroPairing is only seeking damages for: (1) infringement of method claims of the ’049 and ’028 patents; and (2) infringement of claims of the ’136 and ’117 patents accruing upon and after notice of infringement to Nissan.

14. The claims of the patents-in-suit are directed to patent eligible subject matter under 35 U.S.C. § 101. They are not directed to an abstract idea, and the technologies covered by the claims comprise vehicle systems and/or consist of ordered combinations of features and functions that, at the time of invention, were not, alone or in combination, well-understood, routine, or conventional.

15. The specifications of the patents-in-suit disclose shortcomings in the prior art and then explain, in detail, the technical way the claimed inventions resolve or overcome those shortcomings. For example, the specification of the ’049 patent also discloses shortcomings in the prior art and then explains, in detail, the technical way the claimed inventions resolve or overcome those shortcomings. For example, the specification of the ’049 patent discusses that:

> A java application stack includes a Java layer 5 for running any one of multiple different applications. In one example, the applications are related to different vehicle operations such as Infrared (IR) and radar sensor control and monitoring, vehicle brake control, vehicle audio and video control, environmental control,

> driver assistance control, etc. A Java Virtual Machine (JVM) layer 16 provides the hardware independent platform for running the Java applications 5. A Jini layer 12 provides some limited security for the Java applications that run on different machines. However, the Jini layer 12 does not provide the necessary reconfiguration and security management necessary for a distributed real-time multiprocessor system.

Ex. 1 at 2:22-35. To resolve this issue, the '049 patent proposes:

> A Secure Real-time Executive (SRE) 14 provides an extension to the JVM 16 and allows Java to run on different processors for real-time applications. The SRE 20 manages messaging, security, critical data, file I/O multiprocessor task control and watchdog tasks in the Java environment as described below. The JVM 16, Jini 12 and SRE 14 can all be implemented in the same JVM 10.

Id. at 2:36-42.

16. The '049 patent describes how this invention would apply to motor vehicles:

> The SRE 14 runs below the JVMs 10 in each processor and control tasks, messaging, security, etc. For example, the Java application 26 controls vehicle braking according to the sensor data collected by the sensor fusion Java application 32. The SRE 14 in one example prevents unauthorized data from being loaded into the processor 16 that runs brake control application 26. The SRE 14 also prevents other Java applications that are allowed to be loaded into processor 16 from disrupting critical braking operations, or taking priority over the braking operations, performed by Java application 26.
>
> For example, the SRE 14 may prevent noncritical vehicle applications, such as audio control, from being loaded onto processor 16. In another example, noncritical operations, such as security control application 28, are allowed to be loaded onto processor 16. However, the SRE 14 assigns the security messages low priority values that will only be processed when there are no braking tasks in application 26 that require processing by processor 16.

Id. at 2:57-3:8.

17. Solutions to the problems outlined by the '049 patent are embodied, for example, in claim 29:

> A method for configuring real-time vehicle applications in a distributed multi-processor system operating in a vehicle, comprising:
>
> identifying vehicle applications running on different processors in the multiprocessor system;

> operating a task manager that obtains different data and state information associated with the different vehicle applications;
>
> operating a configuration manager that notifies the task manager upon detecting a failure running one of the identified vehicle applications in the multiprocessor system;
>
> using the task manager for automatically identifying another processor in the multiprocessor system for running the identified vehicle application and redirecting the vehicle application associated with the detected failure to the other identified processor in the vehicle;
>
> using the configuration manager to redirect the data and state information to the other identified processor in the vehicle after detecting the failure; and
>
> initiating the identified application in the identified other processor.

Id. at claim 29.

18. The specifications of the '028 patent and '117 patent also disclose shortcomings in the prior art and then explain, in detail, the technical way the claimed inventions resolve or overcome those shortcomings. For example, the specification of the '028 patent (which closely mirrors the '117 patent specification) discusses that Java and Jini work together to "extend[] the Java application environment from a single virtual machine to a network of machines. The Java application environment provides a good computing platform for distributed computing because both code and data can move from machine to machine. The Jini infrastructure provides mechanisms for devices, services, and users to join and detach from a network. Jini systems are more dynamic than is currently possible in networked groups where configuring a network is a centralized function done by hand." Ex. 2 at 1:38-50.

19. However,

> [T]he Java/Jini approach is not without its disadvantages. Both Java and Jini are free, open source applications. The Java application environment is not designed for controlling messaging between different machines. For example, the Java application is not concerned about the protocols between different

> hardware platforms. Jini has some built-in security that allows code to be downloaded and run from different machines in confidence. However, this limited security is insufficient for environments where it is necessary to further restrict code sharing or operation sharing among selected devices in a secure embedded system.

Id. at 1:51-61.

20. The specifications of the ’028 patent and ’117 patent thus describe an embodiment of the invention that solves the problem posed by the patents, as follows:

> A Secure Real-time Executive (SRE) 14 provides an extension to the JVM 16 and allows Java to run on different processors for real-time applications. The SRE 20 manages messaging, security, critical data, file I/0 multiprocessor task control and watchdog tasks in the Java environment as described below. The JVM 16, Jini 12 and SRE 14 can all be implemented in the same JVM 10, However, for explanation purposes, the JVM 10 and the SRE 14 will be shown as separate elements.

Id. at 2:39-47.

21. The patents also describe how this invention would apply to motor vehicles:

> The SRE 14 runs below the JVMs 10 in each processor and control tasks, messaging, security, etc. For example, the Java application 26 controls vehicle braking according to the sensor data collected by the sensor fusion Java application 32. The SRE 14 in one example prevents unauthorized data from being loaded into the processor 16 that runs brake control application 26. The SRE 14 also prevents other Java applications that are allowed to be loaded into processor 16 from disrupting critical braking operations, or taking priority over the braking operations, performed by Java application 26.
>
> For example, the SRE 14 may prevent noncritical vehicle applications, such as audio control, from being loaded onto processor 16. In another example, noncritical operations, such as security control application 28, are allowed to be loaded onto processor 16. However, the SRE 14 assigns the security messages low priority values that will only be processed when there are no braking tasks in application 26 that require processing by processor 16.

Id. at 2:60-3:10.

22. Solutions to the problems outlined by the ’028 patent are embodied, for example, in claim 18:

> A method for reconfiguring applications in a multiprocessor, comprising:

operating a wireless device manager in at least one processor in the multiprocessor system, the wireless device manager configured to:

a. monitor for wireless signals from a new device not currently coupled to the multiprocessor system, wherein the new device runs a first software application that processes a first type of data; and

b. wirelessly connect the new device to the multiprocessor system;

operating a configuration manager in one of the multiple processors in the multiprocessor system, the configuration manager configured to:

c. monitor operations of the multiple processors in the multiprocessor system;

d. identify data codes in the wireless signals from the new device and use the data codes to identify the first type of data processed by the first software application running on the new device;

e. responsive to identifying the data codes from the new device, select a second software application from among multiple different software applications stored within memory in the multiprocessor system, wherein the second software application is associated with the first type of data processed by the new device and is not currently loaded into one of the multiple processors in the multiprocessor system;

f. download a copy of the second software application selected from the memory to one of the multiple processors in the multiprocessor system;

g. reconfigure one of the multiple processors in the multiprocessor system to run the second software application downloaded from the memory and take over control and operation of the new device; and

h. process data from the new device with the second software application operating in and controlled by the particular one of the multiple processors in the multiprocessor system; and

i. operating a security manager configured to determine authority to access at least some of the new devices, software applications or data used in the multiprocessor system.

Id. at claim 18.

23. Solutions to the problems outlined by the ’117 patent are embodied, for example, in claim 1:

A computer system, comprising:

a memory;

a real-time operating system;

a user interface;

one or more processors in a processing system, wherein the processing system is configured to:

operate a transceiver,

detect a new device within communication range of the transceiver,

detect a protocol used by the new device,

communicate with the new device in response to the detected protocol conforming with a protocol used by the processing system;

an application management system configured to:

identify data parameters that include at least one of data codes, data type and device ID associated with the new device,

verify the new device data parameters as at least one of authorized or unauthorized; and

responsive to verifying the data parameters as authorized, connect to the new device, dynamically configure an application to process the data types and launch the application in the processing system, wherein the application in response to launching is configured to take over control and operation of the new device including:

initiating transfer of data from the new device to the operating system; and

initiate processing of the data received from the new device.

Ex. 3 at claim 1.

24. The specification of the ’136 patent also discloses shortcomings in the prior art and then explains, in detail, the technical way the claimed inventions resolve or overcome those shortcomings. The specification of the ’136 patent discusses Java virtual machines (JVMs),

which make "it possible for Java application programs to be built that can run on any platform without having to be rewritten or recompiled by the programmer for each separate platform." Ex. 4 at 1:27-34. The specification also describes the Jini system, which "extends the Java application environment from a single virtual machine to a network of machines. . . . The Jini infrastructure provides mechanisms for devices, services, and users to join and detach from a network. Jini systems are more dynamic than is currently possible in networked groups where configuring a network is a centralized function done by hand." *Id*. at 1:34-47.

25. "However, the Java/Jini approach is not without its disadvantages. Both Java and Jini are free, open source applications. The Java application environment is not designed for controlling messaging between different machines." *Id*. at 1:48-51. "For example, the Java application is not concerned about the protocols between different hardware platforms. Jini has some built-in security that allows code to be downloaded and run from different machines in confidence. However, this limited security is insufficient for environments where it is necessary to further restrict code sharing or operation sharing among selected devices in a secure embedded system." *Id*. at 1:51-58.

26. To solve these problems, the '136 patent proposes a "Secure Real-time Executive (SRE) 14 [which] provides an extension to the JVM 16 and allows Java to run on different processors for real-time applications. The SRE 20 manages messaging, security, critical data, file I/O multiprocessor task control and watchdog tasks in the Java environment as described below." *Id*. at 2:35-40. "For example, the SRE 14 may prevent noncritical vehicle applications, such as audio control, from being loaded onto processor 16." *Id.* at 2:66-3:1.

27. The advantages of the invention of the '136 patent are taught as follows:

> The SRE 14 allows any variety of real-time, mission critical, nonreal-time and nonmission critical Java applications to be loaded onto the multiprocessor system

15. The SRE 14 then automatically manages the different types of applications and messages to ensure that the critical vehicle applications are not corrupted and processed with the necessary priority. The SRE 14 is secure software that cannot be manipulated by other Java applications.

The SRE 14 provides priority preemption on a message scale across the entire system 15 and priority preemption on a task scale across the entire system 15. So the SRE 14 controls how the JVMs 10 talk to each other and controls how the JVMs 10 are started or initiated to perform tasks. The SRE 14 allows programmers to write applications using Java in a safe and secure real time environment. Thus, viruses can be prevented by SRE 14 from infiltrating the system 15.

Id. at 3:7-22.

28. An important aspect of the invention of the '136 patent is the message manager:

The message manager 50 determines the priority of sent and received messages. If the data transmitted and received by the sensor fusion thread 76 is higher priority than other data transmitted and received on the processor 84, then the sensor fusion data will be given priority over the other data. The task manager 58 controls the priority that the sensor fusion thread 76 is giving by processor 84. If the sensor fusion thread 76 has higher priority than, for example, an audio application that is also being run by processor 84, then the sensor fusion thread 76 will be performed before the audio application.

Id. at 4:60-5:3.

29. Solutions to the problems outlined by the '136 patent are embodied in, for example, claim 31:

An apparatus, comprising:

a multiprocessor system configured to:

identify a new device that is not currently coupled to the multiprocessor system;

detect a communication protocol used by the new device and connect the new device to the multiprocessor system when signaling from the new device conforms to a communication protocol used in the multiprocessor system;

configure the new device into the multiprocessor system when a data protocol operated by the new device conforms with a data protocol used in the multiprocessor system;

display an image representing the new device on a graphical interface;

identify data codes in the signaling from the new device identifying an application running on the new device, a data type used on the new device, and a security level associated with data stored in the new device;

use the identified security level to prevent unauthorized data from being loaded into the multiprocessor system;

identify a stored application in memory in the multiprocessor system that uses the same data type used on the new device and download the stored application from memory into a processor in the multiprocessor system;

display an image on the graphical user interface representing the stored application loaded into the processor in the multiprocessor system; and

use the stored application to direct data exchanged with the portable device to a selectable output or a selectable input identified on the graphical interface.

Id. at claim 31.

30. In essence, the patents-in-suit relate to novel and non-obvious inventions in the field of in-vehicle device connectivity, specifically infotainment systems and the AUTOSAR platform in cars and trucks.

COUNT I
INFRINGEMENT OF U.S. PATENT NO. 7,178,049

31. MicroPairing repeats and realleges each allegation above as if fully set forth herein.

32. This cause of action arises under the patent laws of the United States, and in particular, 35 U.S.C. §§ 271, *et seq.*

33. MicroPairing is the owner of the ’049 patent with all substantial rights to the ’049 patent including the exclusive right to enforce, sue, and recover damages for past and future infringements.

34. The ’049 patent is valid and enforceable and was duly issued in full compliance with Title 35 of the United States Code.

35. Attached hereto as Ex. 5, and incorporated herein by reference, is a claim chart detailing how Nissan infringes the ’049 patent.

Direct Infringement (35 U.S.C. § 271(a))

36. Nissan has directly infringed and continues to directly infringe one or more claims of the ’049 patent in this District and elsewhere in Tennessee and the United States.

37. To this end, Nissan has infringed and continues to infringe, either by itself or via an agent, at least claims 29 – 31 of the ’049 patent by, among other things, developing and implementing in Nissan vehicles software systematizing the AUTOSAR platform. Through its development and implementation of such software, Nissan directs and controls the Nissan vehicles’ performance of the steps of the claimed methods, as Nissan provides software that is not accessible to end users and automatically performs the steps of the claimed methods through normal operation of the vehicles with the implemented software without action by users.

38. Further, Nissan conditions receipt of various benefits upon performance of the patented methods (e.g., by providing users and passengers with redundant and/or fault tolerant safety and control systems to provide improved vehicle safety and reliability through the implementation of the AUTOSAR platform, as well as by providing manufacturer warranties conditioned upon operation of the vehicle without modification of the software).

39. 90. In addition, by implementing in Nissan vehicles software systematizing the AUTOSAR platform in a manner in which the end user does not control performance of one or more steps of the claimed methods, Nissan establishes and controls the manner and/or timing of the performance of such method steps. Indeed, Nissan publicly indicates that the software in its vehicles (including the software implementing the AUTOSAR platform) is owned and controlled by Nissan. See, e.g.,

https://www.nissanusa.com/content/dam/Nissan/us/connect/privacy-security/nissanconnect-terms-conditions.pdf.

40. In addition, at least for Nissan vehicles that Nissan leases to end users, on information and belief Nissan retains title to and ownership and control over such Nissan vehicles.

41. As discussed above, Nissan does more than merely sell a product with software that performs the claimed methods. Rather, Nissan exercises control over the equipment and software that performs the methods claimed in at least claims 29 – 31 of the '049 patent.

42. In addition or in the alternative, Nissan has infringed and continues to infringe, either by itself or via an agent, at least claims 29 – 31 of the '049 patent by, among other things, testing and using Nissan vehicles that operate on the AUTOSAR platform. For example, on information and belief, Nissan, either by itself or via an agent, conducts testing on and/or uses Nissan vehicles that operate on the AUTOSAR platform as part of its research and development, manufacturing, and/or quality control processes. Further, on information and belief, Nissan, either by itself or via an agent, conducts testing on and/or uses Nissan vehicles that operate on the AUTOSAR platform in connection with public demonstrations, automotive shows, trade shows, and dealership test drives with customers.

Indirect Infringement (Inducement – 35 U.S.C. § 271(b))

43. In addition and/or in the alternative to its direct infringement, Nissan has indirectly infringed and continues to indirectly infringe one or more claims of the '049 patent by inducing direct infringement by its Nissan vehicle customers and end users.

44. Nissan has knowledge of the '049 patent, its infringements, and the infringements of its customers and end users based, at least, on its receipt of notice of independent notice of

infringement from MicroPairing (complete with claim charts) served via Federal Express and/or service of the original Complaint and this First Amended Complaint in this action.

45. Despite having knowledge that use of the Nissan vehicles that operate on the AUTOSAR platform infringe the '049 patent (which knowledge of infringement Nissan obtained at least through the claim charts included with the independent notice, as well as the charts included with MicroPairing's original Complaint and this First Amended Complaint), Nissan has specifically intended, and continues to specifically intend, for persons who acquire and use such vehicles, including Nissan's customers and end users, to use the vehicles in a way that results in infringement of the '049 patent, including at least claims 29 – 31. Nissan's ongoing actions represent a specific intent to induce infringement of at least claims 29 – 31 of the '049 patent. Nissan knew or should have known that its actions have induced, and continue to induce, such infringements.

46. Nissan specifically intends to induce infringement of the '049 patent by instructing and encouraging its customers and end users to use their Nissan vehicles in a manner that infringes the '049 patent. For example, Nissan provides owners and other users with a 2021 NissanConnect Owner's Manual (https://www.nissanusa.com/content/dam/Nissan/us/manuals-and-guides/shared/2021/2021-nissan-connect3-navigation-manual.pdf), which includes instructions on how to use the infotainment system and vehicle safety features that implicate the AUTOSAR platform in a way that results in infringement of the '049 patent. Nissan also provides in its vehicles computer programs (i.e., instructions) that cause performance of claimed methods.

47. In the alternative to actual knowledge, Nissan was (and continues to be) willfully blind to the fact that use of the Nissan vehicles that operate on the AUTOSAR platform infringe

the ’049 patent. Nissan was put on notice that use of Nissan vehicles infringe the ’049 patent through the independent notice and claim charts MicroPairing served pre-suit, as well as through the charts included with MicroPairing’s original Complaint and this First Amended Complaint. By receiving such notice of infringement, Nissan obtained a subjective belief that there is a high probability that use of the Nissan vehicles that operate on the AUTOSAR platform infringe the ’049 patent. Despite being put on notice of infringement and provided with claim charts illustrating infringement, Nissan has not taken any actions to avoid the conduct alleged to infringe, has not responded to MicroPairing’s notice letter to offer any assertion as to why Nissan vehicles that operate on the AUTOSAR platform do not infringe the ’049 patent, and has not sought to remedy its infringements by offering to take a license. Nissan’s failure to act reflects (i) deliberate actions to avoid learning that the use of Nissan vehicles that operate on the AUTOSAR platform infringe the ’049 patent and, more generally, (ii) a policy of not earnestly reviewing the intellectual property of others.

Damages

48. Nissan is liable for its infringements of the ’049 patent pursuant to 35 U.S.C. § 271.

49. MicroPairing has been damaged as a result of Nissan’s infringing conduct described in this Count. Nissan is, thus, liable to MicroPairing in an amount that adequately compensates it for Nissan’s infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT II
INFRINGEMENT OF U.S. PATENT NO. 8,020,028

50. MicroPairing repeats and realleges each allegation above as if fully set forth herein.

51. This cause of action arises under the patent laws of the United States, and in particular, 35 U.S.C. §§ 271, *et seq.*

52. MicroPairing is the owner of the ’028 patent with all substantial rights to the ’028 patent including the exclusive right to enforce, sue, and recover damages for past and future infringements.

53. The ’028 patent is valid and enforceable and was duly issued in full compliance with Title 35 of the United States Code.

54. Attached hereto as Ex. 6, and incorporated herein by reference, is a claim chart detailing how Nissan infringes the ’028 patent.

Direct Infringement (35 U.S.C. § 271(a))

55. Nissan has directly infringed and continues to directly infringe one or more claims of the ’028 patent in this District and elsewhere in Tennessee and the United States.

56. To this end, Nissan has infringed and continues to infringe, either by itself or via an agent, at least claim 18 of the ’028 patent by, among other things, developing and implementing infotainment systems and associated software in Nissan vehicles. Through its development and implementation of such infotainment systems, Nissan directs and controls the Nissan vehicles’ performance of the steps of the claimed methods, as Nissan provides software that is not accessible to end users and automatically performs the steps of the claimed methods through normal operation of the vehicles with the implemented infotainment system and associated software without action by users.

57. Further, Nissan conditions receipt of various benefits upon performance of the patented methods (e.g., by providing users and passengers with seamless integration of key infotainment system functionality consistent with consumer expectations through the

implementation of the implementation of the infotainment systems and associated software, as well as by providing manufacturer warranties conditioned upon operation of the vehicle without modification of the infotainment system or software).

58. In addition, by implementing in Nissan vehicles infotainment systems in a manner in which the end user does not control performance of one or more steps of the claimed methods, Nissan establishes and controls the manner and/or timing of the performance of such method steps. Indeed, Nissan publicly indicates that the software in its vehicles is owned and controlled by Nissan. See, e.g., https://www.nissanusa.com/content/dam/Nissan/us/connect/privacy-security/nissanconnect-terms-conditions.pdf.

59. In addition, at least for Nissan vehicles that Nissan leases to end users, on information and belief Nissan retains title to and ownership and control over such Nissan vehicles.

60. As discussed above, Nissan does more than merely sell a product with software that performs the claimed methods. Rather, Nissan exercises control over the equipment and software that performs the method claimed in at least claim 18 of the ’028 patent.

61. In addition or in the alternative, Nissan has infringed and continues to infringe, either by itself or via an agent, at least claim 18 of the ’028 patent by, among other things, testing and using Nissan vehicles with infotainment systems. For example, on information and belief, Nissan, either by itself or via an agent, conducts testing on and/or uses Nissan vehicles with infotainment systems as part of its research and development, manufacturing, and/or quality control processes. Further, on information and belief, Nissan, either by itself or via an agent, conducts testing on and/or uses Nissan vehicles with infotainment systems in connection with

public demonstrations, automotive shows, trade shows, and dealership test drives with customers.

Indirect Infringement (Inducement – 35 U.S.C. § 271(b))

62. In addition and/or in the alternative to its direct infringement, Nissan has indirectly infringed and continues to indirectly infringe one or more claims of the ’028 patent by inducing direct infringement by its Nissan vehicle customers and end users.

63. Nissan has knowledge of the ’028 patent, its infringements, and the infringements of its customers and end users based, at least, on its receipt of independent notice of infringement from MicroPairing (complete with claim charts) served via Federal Express and/or its receipt of service of this original Complaint and this First Amended Complaint in this action.

64. Despite having knowledge that use of Nissan vehicles with infotainment systems infringes the ’028 patent (which knowledge of infringement Nissan obtained at least through the claim charts included with the independent notice, as well as the charts included with MicroPairing’s original Complaint and this First Amended Complaint), Nissan has specifically intended, and continues to specifically intend, for persons who acquire and use such vehicles, including Nissan’s customers and end users, to use the vehicles in a way that results in infringement of the ’028 patent, including at least claim 18. Nissan’s ongoing actions represent a specific intent to induce infringement of at least claim 18 of the ’028 patent. Nissan knew or should have known that its actions have induced, and continue to induce, such infringements.

65. Nissan specifically intends to induce infringement of the ’028 patent by instructing and encouraging its customers and end users to use their Nissan vehicles in a manner that infringes the ’028 patent. For example, Nissan provides owners and other users with a 2021 NissanConnect Owner’s Manual (https://www.nissanusa.com/content/dam/Nissan/us/manuals-

and-guides/shared/2021/2021-nissan-connect3-navigation-manual.pdf), which includes instructions on how to use the infotainment system in a way that results in infringement of the '028 patent. Nissan also provides in its vehicles computer programs (i.e., instructions) that cause performance of claimed methods.

66. In the alternative to actual knowledge, Nissan was (and continues to be) willfully blind to the fact that use of the Nissan vehicles with infotainment systems infringe the '028 patent. Nissan was put on notice that use of Nissan vehicles infringe the '028 patent through the independent notice and claim charts served on Nissan pre-suit and the claim charts included with MicroPairing's original Complaint and this First Amended Complaint. By receiving such notice of infringement, Nissan obtained a subjective belief that there is a high probability that use of the Nissan vehicles with infotainment systems infringe the '028 patent. Despite being put on notice of infringement and provided with claim charts illustrating infringement, Nissan has not taken any actions to avoid the conduct alleged to infringe, has not responded to MicroPairing's complaint or claim charts to offer any assertion as to why Nissan vehicles with infotainment systems do not infringe the '028 patent, and has not sought to remedy its infringements by offering to take a license. Nissan's failure to act reflects (i) deliberate actions to avoid learning that the use of Nissan vehicles with infotainment systems infringe the '028 patent and, more generally, (ii) a policy of not earnestly reviewing the intellectual property of others.

Damages

67. Nissan is liable for its infringements of the '028 patent pursuant to 35 U.S.C. § 271.

68. MicroPairing has been damaged as a result of Nissan's infringing conduct described in this Count. Nissan is, thus, liable to MicroPairing in an amount that adequately

compensates it for Nissan's infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT III
INFRINGEMENT OF U.S. PATENT NO. 8,006,117

69. MicroPairing repeats and realleges each allegation above as if fully set forth herein.

70. This cause of action arises under the patent laws of the United States, and in particular, 35 U.S.C. §§ 271, *et seq.*

71. MicroPairing is the owner of the '117 patent with all substantial rights to the '117 patent including the exclusive right to enforce, sue, and recover damages for past and future infringements.

72. The '117 patent is valid and enforceable and was duly issued in full compliance with Title 35 of the United States Code.

73. Attached hereto as Ex. 7, and incorporated herein by reference, is a claim chart detailing how Nissan infringes the '117 patent.

Direct Infringement (35 U.S.C. § 271(a))

74. Nissan has directly infringed and continues to directly infringe one or more claims of the '117 patent in this District and elsewhere in Tennessee and the United States.

75. To this end, Nissan has infringed and continues to infringe, either by itself or via an agent, at least claim 1 of the '117 patent by, among other things, making, having made, offering to sell, selling, testing and/or using Nissan vehicles with infotainment systems.

Damages

76. Nissan is liable for its infringements of the '117 patent pursuant to 35 U.S.C. § 271.

77. MicroPairing has been damaged as a result of Nissan's infringing conduct described in this Count. Nissan is, thus, liable to MicroPairing in an amount that adequately compensates it for Nissan's infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT IV
INFRINGEMENT OF U.S. PATENT NO. 7,793,136

78. MicroPairing repeats and realleges each allegation above as if fully set forth herein.

79. This cause of action arises under the patent laws of the United States, and in particular, 35 U.S.C. §§ 271, *et seq.*

80. MicroPairing is the owner of the '136 patent with all substantial rights to the '136 patent including the exclusive right to enforce, sue, and recover damages for past and future infringements.

81. The '136 patent is valid and enforceable and was duly issued in full compliance with Title 35 of the United States Code.

82. Attached hereto as Ex. 8, and incorporated herein by reference, is a claim chart detailing how Nissan infringes the '136 patent.

Direct Infringement (35 U.S.C. § 271(a))

83. Nissan has directly infringed and continues to directly infringe one or more claims of the '136 patent in this District and elsewhere in Tennessee and the United States.

84. To this end, Nissan has infringed and continues to infringe, either by itself or via an agent, at least claims 1 and 31 of the '136 patent by, among other things, making, having made, offering to sell, selling, testing and/or using Nissan vehicles with infotainment systems.

Indirect Infringement (Inducement – 35 U.S.C. § 271(b))

85. Nissan has also indirectly infringed and continues to indirectly infringe one or more claims of the '136 patent by inducing direct infringement by its Nissan vehicle customers and end users.

86. Nissan has knowledge of the '136 patent, Nissan's infringements, and the infringements of Nissan's customers and end users based, at least, on its receipt of independent notice of infringement from MicroPairing (complete with claim charts) served via Federal Express and/or its receipt of service of the original Complaint and this First Amended Complaint in this action.

87. Despite having knowledge that use of the Nissan vehicles with infotainment systems infringe the '136 patent (which knowledge of infringement Nissan obtained at least through the independent notice and claim charts that MicroPairing served, as well as through the charts included with MicroPairing's original Complaint and this First Amended Complaint), Nissan has specifically intended, and continues to specifically intend, for persons who acquire and use such vehicles, including Nissan's customers and end users, to use the vehicles in a way that results in infringement of the '136 patent, including at least claims 1 and 31. Nissan's ongoing actions represent a specific intent to induce infringement of at least claims 1 and 31 of the '136 patent. Nissan knew or should have known that its actions have induced, and continue to induce, such infringements.

88. Nissan specifically intends to induce infringement of the '136 patent by instructing and encouraging its customers and end users to use Nissan vehicles in a manner that infringes the '136 patent. For example, Nissan provides Nissan vehicle owners and other users with user guides and other instructional materials on how to use infotainment systems in a way

that results in infringement of the '136 patent. See, e.g., 2021 NissanConnect Owner's Manual (https://www.nissanusa.com/content/dam/Nissan/us/manuals-and-guides/shared/2021/2021-nissan-connect3-navigation-manual.pdf), which includes instructions on how to use the infotainment system in a way that results in infringement of the '136 patent. Nissan also provides in its vehicles' computer programs (i.e., instructions) that cause performance of claimed methods.

89. In the alternative to actual knowledge, Nissan was (and continues to be) willfully blind to the fact that use of the Nissan vehicles with infotainment systems infringe the '136 patent. Nissan was put on notice that use of Nissan vehicles infringe the '136 patent through the independent notice and claim charts MicroPairing served pre-suit , as well as through the charts included with MicroPairing's original Complaint and this First Amended Complaint. By receiving such notice of infringement, Nissan obtained a subjective belief that there is a high probability that use of the Nissan vehicles with infotainment systems infringe the '136 patent. Despite being put on notice of infringement and provided with claim charts illustrating infringement, Nissan has not taken any actions to avoid the conduct alleged to infringe, has not responded to MicroPairing's notice letter or claim charts to offer any assertion as to why Nissan vehicles with infotainment systems do not infringe the '136 patent, and has not sought to remedy its infringements by offering to take a license. Nissan's failure to act reflects (i) deliberate actions to avoid learning that the use of Nissan vehicles with infotainment systems infringe the '136 patent and, more generally, (ii) a policy of not earnestly reviewing the intellectual property of others.

Damages

90. Nissan is liable for its infringements of the '136 patent pursuant to 35 U.S.C. § 271.

91. MicroPairing has been damaged as a result of Nissan's infringing conduct described in this Count. Nissan is, thus, liable to MicroPairing in an amount that adequately compensates it for Nissan's infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

DEMAND FOR A JURY TRIAL

MicroPairing demands a trial by jury on all issues triable of right by jury pursuant to Rule 38 of the Federal Rules of Civil Procedure.

PRAYER FOR RELIEF

MicroPairing respectfully requests that this Court enter judgment in its favor and grant the following relief:

(i) Judgment and Order that Nissan has directly infringed one or more claims of each of the patents-in-suit;

(ii) Judgment and Order that Nissan has induced infringement of one or more claims of the '049 patent, '028 patent, and '136 patent;

(iii) Judgment and Order that Nissan must pay MicroPairing past and future damages under 35 U.S.C. § 284, including supplemental damages arising from any continuing, post-verdict infringement for the time between trial and entry of the final judgment, together with an accounting, as needed, as provided under 35 U.S.C. § 284;

(iv) Judgment and Order that Nissan must pay MicroPairing reasonable ongoing

royalties on a go-forward basis after Final Judgment;

(v) Judgment and Order that Nissan must pay MicroPairing pre-judgment and post-judgment interest on the damages award;

(vi) Judgment and Order that Nissan must pay MicroPairing's costs;

(vii) Judgment and Order that the Court find this case exceptional under the provisions of 35 U.S.C. § 285; and

(viii) Such other and further relief as the Court may deem just and proper.s

Dated: December 1, 2021

Respectfully submitted,

/s/ Edward R. Nelson III
EDWARD R. NELSON III
STATE BAR NO. 00797142
BRIAN P. HERMANN
STATE BAR NO. 24083174
NELSON BUMGARDNER CONROY PC
3131 West 7th Street, Suite 300
Fort Worth, Texas 76107
817.377.9111 (telephone)
ed@nelbum.com
brian@nelbum.com

RYAN P. GRIFFIN
STATE BAR NO. 24053687
NELSON BUMGARDNER CONROY PC
2727 N. Harwood Street, Suite 250
Dallas, Texas 75201
817.377.9111 (telephone)
ryan@nelbum.com

TIMOTHY E. GROCHOCINSKI
ILLINOIS BAR NO. 6295055
C. AUSTIN GINNINGS
NEW YORK BAR NO. 4986691
NELSON BUMGARDNER CONROY PC
15020 S. Ravinia Avenue, Suite 29
Orland Park, Illinois 60462
708.675.1974 (telephone)
tim@nelbum.com

austin@nelbum.com

Van R. Irion (TN BPR#024519)
Law Office Of Van R. Irion
800 S. Gay St., Ste. 700
Knoxville, TN 37929
van@irionlaw.com
(865) 766-4040

COUNSEL FOR PLAINTIFF MICROPAIRING TECHNOLOGIES LLC

CERTIFICATE OF SERVICE

I hereby certify that the following counsel of record, who have consented to electronic service, are being served with copies of the FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT via the Court's CM/ECF system on December 1, 2021:

John S. Hicks
Daphne Bugelli
Baker, Donelson, Bearman, Caldwell & Berkowitz, PC
1600 West End Avenue, Suite 2000
Nashville, Tennessee 37203
jhicks@bakerdonelson.com
dbugelli@bakerdonelson.com

Patrick A. Lujin
Mary J. Peal
SHOOK HARDY & BACON LLP
2555 Grand Blvd.
Kansas City, Missouri 64108
plujin@shb.com
mpeal@shb.com

Attorneys for Defendant Nissan North America, Inc.

/s/ Edward R. Nelson III