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

MicroPairing Technologies LLC, Plaintiff, v. Toyota Motor Manufacturing Texas, Inc., Defendant.	Civil Action No. 6:20-cv-1001 Jury Trial Demanded

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff MicroPairing Technologies LLC files this Complaint against Toyota Motor Manufacturing Texas, Inc. for infringement of U.S. Patent Nos. 6,629,033 ("the '033 patent"), 6,778,073 ("the '073 patent"), 7,793,136 ("the '136 patent"), 8,380,383 ("the '383 patent"), 8,953,816 ("the '816 patent"), 9,697,015 ("the '015 patent"), and 8,583,292 ("the '292 patent"). The '033 patent, '073 patent, '136 patent, '383 patent, '816 patent, '015 patent, and '292 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 Toyota Motor Manufacturing Texas, Inc. ("Toyota Texas") is a Texas corporation with a regular and established place of business at 1 Lone Star Pass, San Antonio, Texas 78624. Toyota may be served with process through its registered agent, CT Corporation System, 1999 Bryan Street, Suite 900, Dallas, Texas 75201.

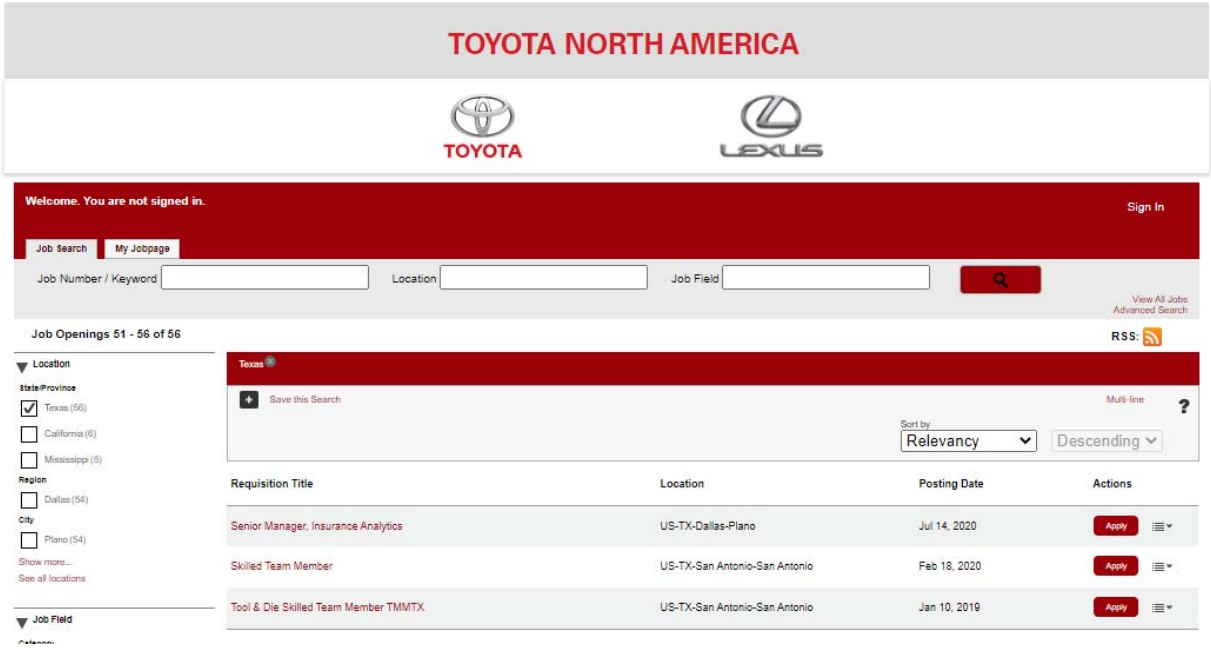
3. Toyota Texas employs approximately 2,600 workers at its San Antonio manufacturing facility, where it manufactures the Toyota Tundra and Toyota Tacoma pickup trucks. Toyota Texas states that the "San Antonio plant is also our first plant to integrate production facilities for many of our suppliers on the same grounds, and some under the same roof. It's truly state-of-the-art." *See* https://www.toyota.com/usa/operations/map.html#!/tmmtx. It also touts itself as "the home of the Toyota Tundra and Tacoma pickup trucks – built in the Southside of San Antonio!" On information and belief, each Toyota Tundra and Tacoma is manufactured with an infotainment system. Toyota Texas infringes one or more of the patents-in-suit whenever it makes, uses, sells, or offers to sell a Tundra or Tacoma with such a system.

JURISDICTION AND VENUE

4. 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).

5. This Court has personal jurisdiction over Toyota Texas in accordance with due process and/or the Texas Long Arm Statute because, among other things, Toyota Texas is a Texas corporation with a physical location in Texas.

6. This Court also has personal jurisdiction over Toyota Texas in accordance with due process and/or the Texas Long Arm Statute because Toyota Texas does business in this state by, among other things, "recruit[ing] Texas residents, directly or through an intermediary located in this state, for employment inside or outside this state." TEX. CIV. PRAC. & REM. CODE § 17.042(3):



See, *e.g.*, https://tmm.taleo.net/careersection/10020/jobsearch.ftl?lang=en#.

7. Further, this Court has personal jurisdiction over Toyota Texas 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 Toyota Texas 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, including its facilities in San Antonio, Texas.

8. Relative to patent infringement, Toyota Texas 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 Toyota Tundra and Tacoma vehicles with infotainment

systems, have been and continue to be distributed to, 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 Toyota Texas reasonably should know and expect that it can be haled into this Court because of such activities.

9. 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. Toyota Texas also has a regular and established place of business in this District in the form of, at least, its San Antonio-based manufacturing plant and related facilities. Indeed, Toyota Texas 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, Toyota Texas customers in this District.

THE PATENTS-IN-SUIT

10. The ’033 patent is entitled, “Open Communication System for Real-Time Multiprocessor Applications.” The ’033 patent lawfully issued on September 30, 2003 and stems from U.S. Patent Application No. 09/841,753, which was filed on April 24, 2001. A copy of the ’033 patent is attached hereto as Ex. 1.

11. The ’073 patent is entitled, “Method and Apparatus for Managing Audio Devices.” The ’073 patent lawfully issued on August 17, 2004 and stems from U.S. Patent Application No. 09/892,295, which was filed on June 26, 2001. A copy of the ’073 patent is attached hereto as Ex. 2.

12. 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. 11/616,650, which was filed on December 27, 2006. A copy of the ’136 patent is attached hereto as Ex. 3.

13. The ’383 patent is entitled, “Distributed vehicle control system.” The ’383 patent lawfully issued on February 19, 2013 and stems from U.S. Patent Application No. 13/447,793, which was filed on April 16, 2012. A copy of the ’383 patent is attached hereto as Ex. 4.

14. The ’816 patent is entitled, “Method and Apparatus to Dynamically Configure a Vehicle Audio System.” The ’816 patent lawfully issued on February 10, 2015 and stems from U.S. Patent Application No. 13/196,654, which was filed on August 2, 2011. A copy of the ’816 patent is attached hereto as Ex. 5.

15. The ’015 patent is entitled, “Vehicle Audio Application Management System Using Logic Circuitry.” The ’015 patent lawfully issued on July 4, 2017 and stems from U.S. Patent Application No. 13/253,284, which was filed on October 5, 2001. A copy of the ’015 patent is attached hereto as Ex. 6.

16. The ’292 patent is entitled, “System and method for restricting access to vehicle software systems.” The ’292 patent lawfully issued on November 12, 2013 and stems from U.S. Patent Application No. 12/775,991, which was filed on May 7, 2010. A copy of the ’292 patent is attached hereto as Ex. 7.

17. 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.

18. 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.

19. 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 '033 patent explains that while "[c]ars include many different electro-mechanical and electronic systems . . . the processors that control these different car systems do not talk to each other." Ex. 1 at 1:5-21. "This means that each one of these car systems has to provide a separate standalone operating system. . . . [and] [m]any of these different car processors may be underutilized since they are only used intermittently." *Id.* To solve this problem, the '033 patent discloses an invention where:

> multiple processors each run an Open Communication system that controls how data is transferred between processors ***based on data content*** as opposed to the links that connect the processors together. The open communication system enables data or messages to be effectively transferred and processed for real-time applications or other server based applications that may be running on the multiple processors in a secure environment regardless of processors, locations, or data links.

Id. at 1:54-64 (emphasis added).

20. Such a solution is embodied, for example, in claim 1 of the '033 patent:

> A method for communicating between different software applications in a same mobile vehicle, comprising:
>
> associating individual communication managers with individual software applications in the mobile vehicle;

> receiving messages at the different individual software applications in the mobile vehicle and generating messages from the different individual software applications in the mobile vehicle;
>
> passing the received messages through the individual communication managers associated with different individual software applications receiving the messages before ***processing the messages with the different software applications receiving the messages in the mobile vehicle*** and ***passing the generated messages through the individual communication managers associated with the different individual software applications before sending the generated messages to other software applications in the mobile vehicle***, the communication managers each independently ***attaching message labels to individual messages that individually identify different priority values for the individual messages***; and
>
> performing different real-time mobile vehicle applications in the mobile vehicle according to the message labels.

Id. at claim 1 (emphasis added). The differing priority values given to the respective message processed by given differing software applications thus allow all messages from all different systems to be processed according to ***data content*** based on the ***message priority***. This invention thus creates an "open communication system [that] enables data or messages to be effectively transferred and processed for real-time applications or other server based applications that may be running on the multiple processors in a secure environment ***regardless of processors, locations, or data links.***" *Id.* (emphasis added).

21. The specification of the '073 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 '073 patent explains that car audio systems had a number of issues, including that (1) "[a]ny other portable audio sources brought into the car cannot use the car speakers or amplifier system;" (2) "in-dash audio devices or portable audio devices brought into the car [] can disrupt the attention of the car driver;" and (3) "[o]ther types of audio devices, such as cellular telephones, are difficult to operate and hear while driving in a car." Ex. 2 at 1:5-28. To solve these problems, the '073 patent discloses the following invention:

> A vehicle audio system includes a wireless audio sensor configured to wirelessly detect different portable audio sources brought into the vehicle. Audio output devices are located in the vehicle for outputting audio signals from the different audio sources. A processor selectively connects the different audio sources to the different audio output devices.

Id. at 2:31-36.

22. The '073 patent specification goes on to describe an "audio manager 14 [that] detects and communicates with the different wireless audio sources using any one of a variety of wireless communication protocols, such as Bluetooth or IEEE 802.11." *Id.* at 2:39-42. This audio manager also "detect[s] different portable audio output devices and any audio output devices contained in the audio output device." *Id.* at 2:53-60. The audio manager further "displays the different audio output devices on GUI 30." *Id.* at 2:61-62. "The audio manager 14 in block 42 monitors the area around and inside the vehicle 12 for any audio sources or audio output devices that may be transmitting a wireless signal. Any detected audio sources or audio output devices are displayed on the GUI 30 in block 44. The data manager in block 46 then determines what applications are associated with the different audio sources." *Id.* at 3:25-36. To decide which applications to output to audio,

> The data manager 14 in block 50 identifies any priorities and security values associated with the identified audio applications. In block 52, the data manager 14 identifies requests to output different ones of the audio sources to different ones of the audio output devices. The selected audio application may have a higher priority than the audio application that is currently connected to the selected audio output device. If the priority of the requesting audio application is the same or higher than the currently connected audio application, then the audio manager 14 in block 56 replaces the audio application currently coupled to the audio output device with the selected audio application. If the requesting audio application has a lower priority than the audio application currently coupled to the audio output device, then the audio manager in block 54 will not connect the new audio application.

Id. at 3:25-36.

23. Solutions to the problems outlined in the '073 patent are, for example, embodied in claim 10:

> A vehicle audio system, comprising:
>
> a wireless audio sensor configured to wirelessly detect different audio sources brought into or next to a vehicle;
>
> wireless audio output devices for outputting audio data having assigned priority values; and
>
> a processor for selectively connecting the different audio sources to the audio output devices according to the assigned priority values for the audio data.

Id. at claim 10. The wireless audio sources are connected selectively to differing audio output devices according to the ***assigned priority values*** for the audio data. A wireless audio sensor detects the different sources brought into the vehicle, and a processor connects these sources to the output devices. This claim solves the issues of (1) other portable audio sources not being able to use the car speakers; (2) audio devices potentially distracting the driver; and (3) other types of audio devices being difficult to hear and operate while driving a car.

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. 3 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 1:48-58. "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.*

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 2:35-43. "For example, the SRE 14 may prevent noncritical vehicle applications, such as audio control, from being loaded onto processor 16." *Id.* at 2:66-3:6.

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 3:15-30.

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. The specification of the '383 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 '383 patent explains, for instance, that "[c]ars include many different electro-mechanical and electronic systems … the processors that control these different car systems do not talk to each other." Ex. 4 at 2:55-3:3. "This means that each one of these car systems has to provide a separate standalone operating system … [and] [m]any of these different car processors may be underutilized since they are only used intermittently." *Id*. To solve this problem, the '383 patent discloses an invention comprising:

> A multiprocessor system used in a car, home, or office environment includes multiple processors that run different real-time applications. A dynamic configuration system runs on the multiple processors and includes a device manager, configuration manager, and data manager. The device manager automatically detects and adds new devices to the multiprocessor system, and the configuration manager automatically reconfigures which processors run the real-time applications. The data manager identifies the type of data generated by the new devices and identifies which devices in the multiprocessor system are able to process the data.
>
> A communication system for a mobile vehicle, home, or office environment includes multiple processors. The multiple processors each run an Open Communication system that controls how data is transferred between processors based on data content as opposed to the links that connect the processors together. The open communication system enables data or messages to be effectively transferred and processed for real-time applications or other server based applications that may be running on the multiple processors in a secure environment regardless of processors, locations, or data links.

Id. at 4:13-34.

31. Such a solution is embodied, for example, in claim 1 of the '383 patent:

> A distributed vehicle control system, comprising:

> multiple processors in a distributed multi-processor system;
>
> a secure real-time executive (SRE) operating in the distributed multi-processor system, wherein the SRE operates on each processor independently and wherein each independently operating SRE comprises a message manager associated with an application running on each of the processors and configured to associate priority values with messages transmitted by the applications and to control the processing sequence of messages received by applications according to a predetermined priority scheme;
>
> a first processor in the distributed processing system running a first application, wherein the first processor receives a first message from the first application and associates a first priority value with the first message;
>
> a second processor in the distributed processing system running a second application, wherein the SRE running on the second processor receives a second message from the second application and associates a second priority value with the second message;
>
> a third processor in the distributed processing system running a third application, wherein the SRE running on the third processor receives the first message and associated first priority from the first processor and receives the second message and associated second priority from the second processor and responsive to receiving the priority associated messages, determines the sequence in which the third application handles the priority associated messages using the predetermined priority scheme.

Id. at claim 1.

32. The specification of the ’816 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 ’816 patent discusses how “[c]ars include many different electro-mechanical and electronic applications. . . . [But] [g]enerally the processors that control these different car systems do not talk to each other.” Ex. 5 at 1:17-32. “For example, separate processors and separate user interfaces are required for the car temperature control system and for the car audio system. Many of these different car processors may be underutilized since they are only used intermittently.” *Id.* And “[e]ven when multiple processors in the car do talk to

each other, they are usually so tightly coupled together that it is impossible to change any one of these processors without disrupting all of the systems that are linked together." *Id.* at 1:33-41. Furthermore, "[i]ntegration of new systems into a car is also limited. Car systems are designed and selected well before the car ever built. . . . Because after market devices cannot be integrated into car control and interface systems, it is often difficult for the driver to try and operate these after market devices." *Id.* at 1:42-49.

33. To solve these problems, the '816 patent teaches:

> A multiprocessor system used in a car, home, or office environment includes multiple processors that run different real-time applications. A dynamic configuration system runs on the multiple processors and includes a device manager, configuration manager, and data manager. The device manager automatically detects and adds new devices to the multiprocessor system, and the configuration manager automatically reconfigures which processors run the real-time applications. The data manager identifies the type of data generated by the new devices and identifies which devices in the multiprocessor system are able to process the data.

Id. at 1:65-2:8.

34. The specification of the '816 patent describes an embodiment of the invention as follows:

> FIGS. 5 and 6 show how a new device is added to the multiprocessor system 8. Each of the existing processors A, B, C, and D after power-up are configured to identify a set or subset of the processors in the multiprocessor system 8. A new device 72 is brought into the multiprocessor system 8 either via a hardwired link or a wireless link. For example, the device E may send out signals over any one or more of a 802.11 wireless link 67, Blue tooth wireless link 71 or send out signals over a hardwired Ethernet link 69. Depending on what communication protocol is used to send signals, one or more of the processors A, B, C or D using a similar communication protocol detect the processor E in block 74 (FIG. 6). All of the processors may be connected to the same fiber optic or packet switched network that is then used to communicate the information from processor E to the other processors.
>
> One of the device managers 46 in the multiprocessor system 8 checks the signals from processor E checks to determine if the signals are encrypted in a recognizable protocol in block 76. The device manager in the processor receiving the signals

> from processor E then checks for any data codes from the new device signals in block 76. The data codes identify data types used in one or more applications by processor E. A device ID for processor E is then determined from the output signals in block 80.
>
> If all these data parameters are verified, the device managers 46 in one or more of the processors A, B, C and D add the new processor E to their processor arrays in block 82. For example, processor A adds processor E to the processor array in memory 65. After being incorporated into the multiprocessor system 8, the processor E or the applications running on the processor E may be displayed on a graphical user interface in block 84.

Id. at 4:51-5:7.

35. Solutions to the problems outlined by the ’816 patent are embodied, for example, in claim 1:

> A method of operating a vehicle audio system having a wired audio source, a display, multiple speakers and a logic circuit configured to:
>
> sense the availability of a wireless audio device that is located within or proximate to the vehicle;
>
> identify a wireless audio device record from among a plurality of different wireless audio device records previously identified and stored in memory, wherein the wireless device record includes previously identified data codes from the wireless audio device and from a first software application running on the wireless audio device;
>
> responsive to identifying the data codes and first software application running on the wireless audio device from the stored record, download a copy of a second software application selected from the memory and process data from the wireless audio device with the second software application;
>
> provide a user with an option to direct sound from the wireless audio device through at least a first one of the speakers of the vehicle audio system or back to a speaker in the wireless audio device.

Id. at claim 1.

36. The specification of the ’015 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 '015 patent identifies the same problems as the '816 patent specification.

See Ex. 6 at 2:56-3:31.

37. To solve these problems, the '015 patent teaches:

> A multiprocessor system used in a car, home, or office environment includes multiple processors that run different real-time applications. A dynamic configuration system runs on the multiple processors and includes a device manager, configuration manager, and data manager. The device manager automatically detects and adds new devices to the multiprocessor system, and the configuration manager automatically reconfigures which processors run the real-time applications. The data manager identifies the type of data generated by the new devices and identifies which devices in the multiprocessor system are able to process the data.

Ex. 6 at 4:14-26.

38. The specification of the '015 patent describes an embodiment of the invention as follows:

> FIGS. 5 and 6 show how a new device is added to the multiprocessor system 6008. Each of the existing processors A, B, C, and D after power-up are configured to identify a set or subset of the processors in the multiprocessor system 6008. A new device 6072 is brought into the multiprocessor system 6008 either via a hardwired link or a wireless link. For example, the device E may send out signals over any one or more of a 802.11 wireless link 6067, Blue tooth wireless link 71 or send out signals over a hardwired Ethernet link 6069. Depending on what communication protocol is used to send signals, one or more of the processors A, B, C or D using a similar communication protocol detect the processor E in block 6074 (FIG. 6). All of the processors may be connected to the same fiber optic or packet switched network that is then used to communicate the information from processor E to the other processors.
>
> One of the device managers 6046 in the multiprocessor system 6008 checks the signals from processor E checks to determine if the signals are encrypted in a recognizable protocol in block 6076. The device manager in the processor receiving the signals from processor E then checks for any data codes from the new device signals in block 6076. The data codes identify data types used in one or more applications by processor E. A device ID for processor E is then determined from the output signals in block 6080.
>
> If all these data parameters are verified, the device managers 6046 in one or more of the processors A, B, C and D add the new processor E to their processor arrays in block 6082. For example, processor A adds processor E to the processor array in

> memory 6065. After being incorporated into the multiprocessor system 6008, the processor E or the applications running on the processor E may be displayed on a graphical user interface in block 6084.

Id. at 7:54-8:19.

39. Solutions to the problems outlined by the '015 patent are embodied, for example, in claim 6:

> A method of operating an audio system in a vehicle comprising:
>
> networking multiple processors together into a multiprocessor system, the multi-processor system which is configured to:
>
> operate a wireless transceiver;
>
> monitor for wireless signals from a new device not currently coupled to the multiprocessor network and moved into the vehicle, wherein the new device runs a first software application that processes a first type of data;
>
> sense the availability of a wireless audio device that is located within or proximate to the vehicle;
>
> wirelessly connect the new device to the multiprocessor system;
>
> identify a wireless audio device record from among a plurality of different wireless audio device records previously identified and stored in memory, wherein the wireless device record includes previously identified data codes from the wireless audio device and a first software application running on the wireless audio device; responsive to identifying the data codes and first software application running on the wireless audio device from the stored record, select from memory at least one of a copy of a second software application and software code elements to process data from the wireless audio device; and
>
> provide a vehicle occupant with an option to play sound from the wireless audio device through at least one of a first speaker of the vehicle audio system and a speaker in the wireless audio device.

Id. at claim 6.

40. The specification of the '292 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 '292 patent explains, for instance, that "[c]ars include

many different electro-mechanical and electronic systems … the processors that control these different car systems do not talk to each other." Ex. 7 at 1:13-20. "This means that each one of these car systems operate independently and do not talk to the other car systems. For example, separate processors and separate user interfaces are required for the car temperature control system and for the car audio system. Many of these different car processors may be underutilized since they are only used intermittently." *Id*. at 1:22-28 "Even when multiple processors in the car do talk to each other, they are usually so tightly coupled together that it is impossible to change any one of these processors without disrupting all of the systems that are linked together." *Id.* at 1:29-32. And "[i]ntegration of new systems into a car is also limited." *Id.* at 1:38. Indeed, "[b]ecause after market devices can not be integrated into car control and interface systems, it is often difficult for the driver to try and operate these after market devices…." *Id.* at 1:46-55.

41. To solve these problems, the '292 patent describes the invention as follows:

> A multiprocessor system used in a car, home, or office environment includes multiple processors that run different real-time applications. A dynamic configuration system runs on the multiple processors and includes a device manager, configuration manager, and data manager. The device manager automatically detects and adds new devices to the multiprocessor system, and the configuration manager automatically reconfigures which processors run the real-time applications. The data manager identifies the type of data generated by the new devices and identifies which devices in the multiprocessor system are able to process the data.

Id. at 1:61-2:4. More specifically, "The processors [] all include software that run a Dynamic Configuration (DC) system 10 that enables new processors or devices to be automatically added and removed from the car multiprocessor system 8. The DC system 10 also automatically reconfigures the applications running on different processors according to application failures and other system processing requirements." *Id.* at 2:36-42.

42. Solutions to the problems outlined by the '292 patent are embodied, for example, in claim 1:

> A system of multiple processors used in a vehicle, wherein one of the processors is configured to allow access to vehicle systems, comprising:
>
> a processor, wherein the processor is configured to operate in a distributed processing system, the processor further configured to:
>
> identify a new device that is not currently coupled to a vehicle processor;
>
> connect the new device to the vehicle processor when signaling from the new device conforms to a communication protocol used in the vehicle processor;
> configure the new device to operate with the vehicle processor;
>
> identify data codes in the signaling from the new device identifying at least one of an application running on the new device, a data type used on the new device, and a security attribute associated with at least one of device type, data stored in the new device and the application running on the new device;
>
> use the identified security attribute to prevent at least one of an unauthorized application and unauthorized data from being transferred and processed by the processor;
>
> identify a stored application in memory accessible by the processor, wherein the application processes the same data type used by the new device;
> responsive to identifying the stored application, download the stored application from memory into the processor;
>
> use the application to process data received from the new device; and
> select an appropriate human machine interface to output the data.

Id. at claim 1.

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

COUNT I
INFRINGEMENT OF U.S. PATENT NO. 6,629,033

44. MicroPairing incorporates paragraphs 1-10, 17-20, and 43 herein by reference.

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

46. MicroPairing is the owner of the ’033 patent with all substantial rights to the ’033 patent including the exclusive right to enforce, sue, and recover damages for past and future infringements.

47. The ’033 patent is valid and enforceable and was duly issued in full compliance with Title 35 of the United States Code.

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

48. Toyota Texas has directly infringed and continues to directly infringe one or more claims of the ’033 patent in this District and elsewhere in Texas and the United States.

49. To this end, Toyota Texas has infringed and continues to infringe, either by itself or via an agent, at least claims 13-16, 23, and 25 of the ’033 patent by, among other things, making, offering to sell, selling, testing and/or using Toyota Tundras and Toyota Tacomas with infotainment systems.

50. Attached hereto as Ex. 8, and incorporated herein by reference, is a claim chart detailing how Toyota Texas infringes the ’033 patent.

51. Toyota Texas is liable for its infringements of the ’033 patent pursuant to 35 U.S.C. § 271.

Damages

52. MicroPairing has been damaged as a result of Toyota Texas’ infringing conduct described in this Count. Toyota Texas is, thus, liable to MicroPairing in an amount that

adequately compensates it for Toyota Texas' 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. 6,778,073

53. MicroPairing incorporates paragraphs 1-9, 11, 17-18, 21-23, and 43 herein by reference.

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

55. MicroPairing is the owner of the '073 patent with all substantial rights to the '073 patent including the exclusive right to enforce, sue, and recover damages for past and future infringements.

56. The '073 patent is valid and enforceable and was duly issued in full compliance with Title 35 of the United States Code.

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

57. Toyota Texas has directly infringed and continues to directly infringe one or more claims of the '073 patent in this District and elsewhere in Texas and the United States.

58. To this end, Toyota Texas has infringed and continues to infringe, either by itself or via an agent, at least claims 10 and 19 of the '073 patent by, among other things, making, offering to sell, selling, testing and/or using Toyota Tundras and Toyota Tacomas with the Entune 3.0 infotainment system.

59. Attached hereto as Ex. 9, and incorporated herein by reference, is a claim chart detailing how Toyota Texas infringes the '073 patent.

Toyota Texas is liable for its infringements of the '073 patent pursuant to 35 U.S.C. § 271.

Damages

60. MicroPairing has been damaged as a result of Toyota Texas' infringing conduct described in this Count. Toyota Texas is, thus, liable to MicroPairing in an amount that adequately compensates it for Toyota Texas' 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. 7,793,136

61. MicroPairing incorporates paragraphs 1-9, 12, 17-18, 24-29, and 43 herein by reference.

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

63. 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.

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

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

65. Toyota Texas has directly infringed and continues to directly infringe one or more claims of the '136 patent in this District and elsewhere in Texas and the United States.

66. To this end, Toyota Texas has infringed and continues to infringe, either by itself or via an agent, at least claim 31 of the '136 patent by, among other things, making, offering to sell, selling, testing and/or using Toyota Tundras and Toyota Tacomas with the Entune 3.0 infotainment system.

67. Attached hereto as Ex. 10, and incorporated herein by reference, is a claim chart detailing how Toyota Texas infringes the '136 patent.

68. Toyota Texas is liable for its infringements of the '136 patent pursuant to 35 U.S.C. § 271.

Damages

69. MicroPairing has been damaged as a result of Toyota Texas' infringing conduct described in this Count. Toyota Texas is, thus, liable to MicroPairing in an amount that adequately compensates it for Toyota Texas' 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. 8,380,383

70. MicroPairing incorporates paragraphs 1-9, 13, 17-18, 30-31, and 43 herein by reference.

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

72. MicroPairing is the owner of the '383 patent with all substantial rights to the '383 patent including the exclusive right to enforce, sue, and recover damages for past and future infringements.

73. The '383 patent is valid and enforceable and was duly issued in full compliance with Title 35 of the United States Code.

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

74. Toyota Texas has directly infringed and continues to directly infringe one or more claims of the '383 patent in this District and elsewhere in Texas and the United States.

75. To this end, Toyota Texas has infringed and continues to infringe, either by itself or via an agent, at least claims 1-4 of the ’383 patent by, among other things, making, offering to sell, selling, testing and/or using Toyota Tundras and Toyota Tacomas with infotainment systems.

76. Attached hereto as Ex. 11, and incorporated herein by reference, is a claim chart detailing how Toyota Texas infringes the ’383 patent.

77. Toyota Texas is liable for its infringements of the ’383 patent pursuant to 35 U.S.C. § 271.

Damages

78. MicroPairing has been damaged as a result of Toyota Texas’ infringing conduct described in this Count. Toyota Texas is, thus, liable to MicroPairing in an amount that adequately compensates it for Toyota Texas’ 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 V
INFRINGEMENT OF U.S. PATENT NO. 8,953,816

79. MicroPairing incorporates paragraphs 1-9, 14, 17-18, 32-35, and 43 herein by reference.

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

81. MicroPairing is the owner of the ’816 patent with all substantial rights to the ’816 patent including the exclusive right to enforce, sue, and recover damages for past and future infringements.

82. The ’816 patent is valid and enforceable and was duly issued in full compliance with Title 35 of the United States Code.

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

83. Toyota Texas has directly infringed and continues to directly infringe one or more claims of the ’816 patent in this District and elsewhere in Texas and the United States.

84. To this end, Toyota Texas has infringed and continues to infringe, either by itself or via an agent, at least claims 17-23 of the ’816 patent by, among other things, making, offering to sell, selling, testing and/or using Toyota Tundras and Toyota Tacomas with the Entune 3.0 infotainment system.

85. Attached hereto as Ex. 12, and incorporated herein by reference, is a claim chart detailing how Toyota Texas infringes the ’816 patent.

86. Toyota Texas is liable for its infringements of the ’816 patent pursuant to 35 U.S.C. § 271.

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

87. Toyota Texas has also indirectly infringed and continues to indirectly infringe one or more claims of the ’816 patent by inducing direct infringement by its Toyota Tacoma and Tundra customers and end users.

88. Toyota Texas has knowledge of the ’816 patent, its infringements, and the infringements of its customers and end users based, at least, on its receipt of this Complaint.

89. Despite having knowledge (or being willfully blind to the fact) that use of the Toyota Tundra and/or Tacoma infringes the ’816 patent, Toyota Texas has specifically intended, and continues to specifically intend, for persons who acquire and/or use Tundras or Tacomas, including Toyota Texas’s customers and end users, to use their Tundras or Tacomas in a way that results in infringement of the ’816 patent, including at least claims 1-4, 6, and 10-16.

Indeed, Toyota Texas knew or should have known that its actions have induced, and continue to induce, such infringements.

90. Toyota Texas instructs and encourages customers and end users to use Toyota Tundras and/or Tacomas in a manner that infringes the '816 patent. For example, Toyota Texas provides users with a "Toyota 2020 Tundra Navigation and Multimedia System Owner's Manual" (https://www.toyota.com/t3Portal/document/omnav-s/OM0C027U/pdf/OM0C027U.pdf), which guides users with instructions on how to use the infotainment system in a way that results in infringement of the '816 patent.

Damages

91. MicroPairing has been damaged as a result of Toyota Texas' infringing conduct described in this Count. Toyota Texas is, thus, liable to MicroPairing in an amount that adequately compensates it for Toyota Texas' 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 VI
INFRINGEMENT OF U.S. PATENT NO. 9,697,015

92. MicroPairing incorporates paragraphs 1-9, 15, and 17-18, 36-39, and 43 herein by reference.

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

94. MicroPairing is the owner of the '015 patent with all substantial rights to the '015 patent including the exclusive right to enforce, sue, and recover damages for past and future infringements.

95. The '015 patent is valid and enforceable and was duly issued in full compliance with Title 35 of the United States Code.

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

96. Toyota Texas has directly infringed and continues to directly infringe one or more claims of the '015 patent in this District and elsewhere in Texas and the United States.

97. To this end, Toyota Texas has infringed and continues to infringe, either by itself or via an agent, at least claims 17 and 18 of the '015 patent by, among other things, making, offering to sell, selling, testing and/or using Toyota Tundras and Toyota Tacomas with the Entune 3.0 infotainment system.

98. Attached hereto as Ex. 13, and incorporated herein by reference, is a claim chart detailing how Toyota Texas infringes the '015 patent.

99. Toyota Texas is liable for its infringements of the '015 patent pursuant to 35 U.S.C. § 271.

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

100. Toyota Texas has also indirectly infringed and continues to indirectly infringe one or more claims of the '015 patent by inducing direct infringement by its Toyota Tacoma and Tundra customers and end users.

101. Toyota Texas has knowledge of the '015 patent, its infringements, and the infringements of its customers and end users based, at least, on its receipt of this Complaint.

102. Despite having knowledge (or being willfully blind to the fact) that use of the Toyota Tundra and/or Tacoma infringes the '015 patent, Toyota Texas has specifically intended, and continues to specifically intend, for persons who acquire and use Toyota Tundras or Tacomas, including Toyota Texas's customers and end users, to use the Tundras or Tacomas in a way that results in infringement of the '015 patent, including at least claims 1-11, 13-14, and 16.

Indeed, Toyota Texas knew or should have known that its actions have induced, and continue to induce, such infringements.

103. Toyota Texas instructs and encourages its customers and end users to use their Tundras or Tacomas in a manner that infringes the '015 patent. For example, Toyota Texas provides users with a "Toyota 2020 Tundra Navigation and Multimedia System Owner's Manual" (https://www.toyota.com/t3Portal/document/omnavs/OM0C027U/pdf/OM0C027U.pdf), which guides users with instructions on how to use the infotainment system in a way that results in infringement of the '015 patent.

Damages

104. MicroPairing has been damaged as a result of Toyota Texas' infringing conduct described in this Count. Toyota Texas is, thus, liable to MicroPairing in an amount that adequately compensates it for Toyota Texas' 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 VII
INFRINGEMENT OF U.S. PATENT NO. 8,583,292

105. MicroPairing incorporates paragraphs 1-9, 16-18, and 40-43 herein by reference.

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

107. MicroPairing is the owner of the '292 patent with all substantial rights to the '292 patent including the exclusive right to enforce, sue, and recover damages for past and future infringements.

108. The '292 patent is valid and enforceable and was duly issued in full compliance with Title 35 of the United States Code.

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

109. Toyota has directly infringed and continues to directly infringe one or more claims of the '292 patent in this District and elsewhere in Texas and the United States.

110. To this end, Toyota has infringed and continues to infringe, either by itself or via an agent, at least claims 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16 and 17 of the '292 patent by, among other things, making, offering to sell, selling, testing and/or using Toyota Tundras and Toyota Tacomas with the Entune 3.0 infotainment system.

111. Attached hereto as Ex. 14, and incorporated herein by reference, is a claim chart detailing how Toyota infringes the '292 patent.

112. Toyota is liable for its infringements of the '292 patent pursuant to 35 U.S.C. § 271.

Damages

113. MicroPairing has been damaged as a result of Toyota's infringing conduct described in this Count. Toyota is, thus, liable to MicroPairing in an amount that adequately compensates it for Toyota'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 Toyota Texas has directly infringed one or more claims of each of the patents-in-suit;

(ii) Judgment and Order that Toyota Texas has induced infringement of one or more claims of the ’816 patent and ’015 patent;

(iii) Judgment and Order that Toyota Texas 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 Toyota Texas must pay MicroPairing reasonable ongoing royalties on a go-forward basis after Final Judgment;

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

(vi) Judgment and Order that Toyota Texas 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.

Dated: October 28, 2020

Respectfully submitted,

/s/ Edward R. Nelson III

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