

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AMERICAN HONDA MOTOR CO., INC.,
Petitioner,

v.

BLITZSAFE TEXAS, LLC,
Patent Owner.

Case IPR2016-01472
Patent 7,489,786 B2

Before JAMESON LEE, MIRIAM L. QUINN, and KERRY BEGLEY,
Administrative Patent Judges.

LEE, *Administrative Patent Judge.*

DECISION

Denying Institution of *Inter Partes* Review
37 C.F.R. § 42.108

I. INTRODUCTION

A. Background

On July 21, 2016, Petitioner filed a Petition (Paper 1, “Pet.”) to institute *inter partes* review of claims 1, 5–8, 10, 14, 57, 60–62, 64, and 65 of U.S. Patent No. 7,489,786 B2 (Ex. 1001, “the ’786 patent”). On November 15, 2016, Patent Owner filed a Preliminary Response (Paper 6, “Prelim. Resp.”).

To institute an *inter partes* review, we must determine that the information presented in the Petition shows “that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). Having considered both the Petition and the Preliminary Response, we determine that Petitioner has not demonstrated a reasonable likelihood that it would prevail in establishing the unpatentability of any of claims 1, 5–8, 10, 14, 57, 60–62, 64, and 65. We do not institute an *inter partes* review of any claim of the ’786 patent.

B. Related Matters

Petitioner indicates that the ’786 patent was asserted by Patent Owner against Petitioner in *Blitzsafe Texas, LLC v. Honda Motor Co., Ltd. et al.*, No. 2:15-cv-1274 (E.D. Tex.). Pet. 2. The parties indicate that the ’786 patent is the subject of four other actions in the Eastern District of Texas. Pet. 58–59; Paper 3, 1. The parties further indicate that the ’786 patent is the subject of two concluded matters in the District of New Jersey. Pet. 59; Paper 3, 2. The ’786 patent also is the subject patent in these *inter partes* review proceedings: IPR2016-00421, IPR2016-00422, IPR2016-01448, and IPR2016-01477. U.S. Patent No. 8,155,342 B2 is a

related patent, and that related patent is involved in IPR2016-00118, IPR2016-00418, IPR2016-00419, IPR2016-01445, IPR2016-01449, IPR2016-01473, IPR2016-01476, IPR2016-01533, IPR2016-01557, and IPR2016-01560.

C. The '786 Patent

The '786 patent is titled "Audio Device Integration System."

Ex. 1001, (54). The Abstract portion of the Specification explains:

[O]ne or more after-market audio devices, such as a CD player, CD changer, MP3 player, satellite receiver, DAB receiver, or the like, is integrated for use with an existing OEM or after-market car stereo system, wherein control commands can be issued at the car stereo and responsive data from the audio device can be displayed on the stereo.

Id. at Abstr.

In the Background of the Invention portion of the Specification, a problem with which the '786 patent is concerned is described as follows:

A particular problem with integrating after-market audio systems with existing car stereos is that signals generated by the car stereo is in a proprietary format, and is not capable of being processed by the after-market system. Additionally, signals generated by the after-market system are also in a proprietary format that is not recognizable by the car stereo. Thus, in order to integrate after-market systems with car stereos, it is necessary to convert signals between such systems.

Id. at 1:36–44. In the Summary of the Invention portion of the Specification, it is stated:

The commands generated at the control panel [of a car stereo] are received by the present invention and converted into a format recognizable by the after-market audio device. The formatted commands are executed by the audio device, and audio therefrom is channeled to the car stereo. Information from the audio device is received by the present invention, converted into a format

recognizable by the car stereo, and forwarded to the car stereo for display thereby.

Ex. 1001, 2:35–42.

The '786 patent describes:

Control commands generated at the car stereo are received, processed, converted into a format recognizable by the audio device, and dispatched to the audio device for execution. Information from the audio device, including track, disc, song, station, time, and other information, is received, processed, converted into a format recognizable by the car stereo, and dispatched to the car stereo for display thereon.

Id. Additional auxiliary sources also may be integrated together, and “a user can select between the [audio] device or the one or more auxiliary input sources by issuing selection commands through the car stereo.” *Id.*

Figures 2A–2C are reproduced below:

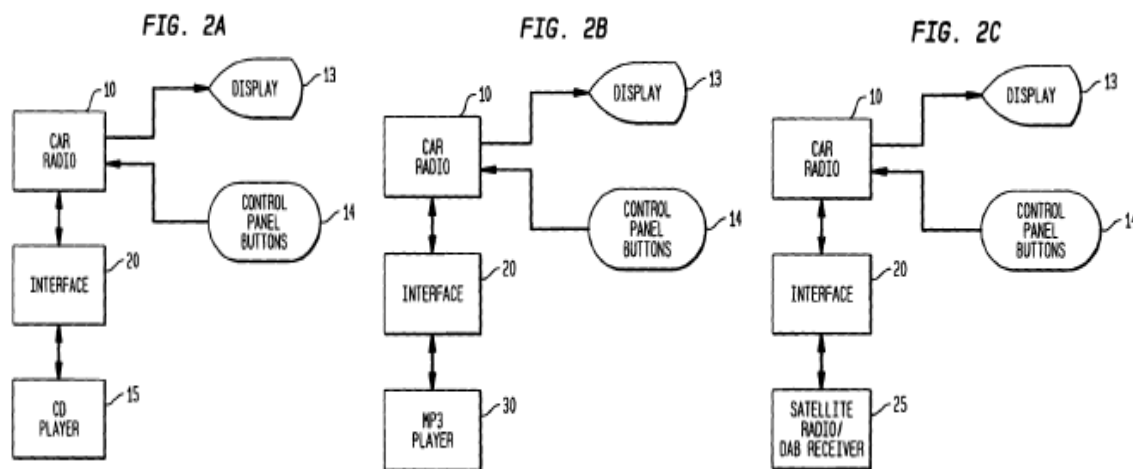


Figure 2A illustrates an embodiment integrating a CD player with the car stereo; Figure 2B illustrates an embodiment integrating a MP3 player with a car stereo; and Figure 2C illustrates an embodiment integrating a satellite or DAB receiver with a car stereo. *Id.* at 3:14–23. A more versatile embodiment is shown in Figure 1:

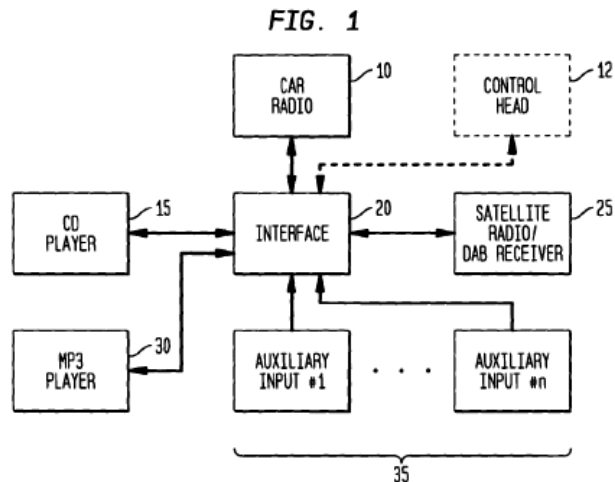


Figure 1 illustrates an embodiment integrating a CD player, a MP3 player, and a satellite radio or DAB receiver, and a number of auxiliary input sources with a car stereo. Ex. 1001, 3:12–13. As shown in the above figures, central to the '786 patent is an “interface” positioned between the car stereo and the audio device(s) and auxiliary input(s) being integrated.

With specific regard to Figure 2B, the '786 patent describes:

The interface 20 allows data and audio signals to be exchanged between the MP3 player 30 and the car radio 10, and processes and formats signals accordingly so that instructions and data from the radio 10 are processable by the MP3 player 30, and vice versa. Operational commands, such as track selection, pause, play, stop, fast forward, rewind, and other commands, are entered via the control panel buttons 14 of car radio 10, processed by the interface 20, and formatted for execution by the MP3 player 30. Data from the MP3 player, such as track, time, and song information, is received by the interface 20, processed thereby, and sent to the radio 10 for display on display 13. Audio from MP3 player 30 is selectively forwarded by the interface 20 to the radio 10 for playing.

Id. at 6:11–24. Similar description is provided with respect to Figures 2A and 2C. *Id.* at 5:49–55, 6:35–43.

Of all of the challenged claims, claims 1 and 57 are the only independent claims. Claim 1 is directed to a system that connects an after-market audio device as well as one or more auxiliary input sources to a car stereo. Claim 1 recites a first connector electrically connectable to a car stereo, a second connector electrically connectable to an after-market device, and a third connector electrically connectable to one or more auxiliary input sources. Ex. 1001, 21:33–38. Claim 1 also recites an interface connected between the first and second electrical connectors, and that the interface includes a microcontroller pre-programmed to execute:

- a first pre-programmed code portion for remotely controlling the after-market audio device using the car stereo by receiving a control command from the car stereo through said first connector in a format incompatible with the after-market audio device, processing the received control command into a formatted command compatible with the after-market audio device, and transmitting the formatted command to the after-market audio device through said second connector for execution by the after-market audio device;
- a second pre-programmed code portion for receiving data from the after-market audio device through said second connector in a format incompatible with the car stereo, processing the received data into formatted data compatible with the car stereo, and transmitting the formatted data to the car stereo through said first connector for display by the car stereo; and
- a third pre-programmed code portion for switching to one or more auxiliary input sources connected to said third electrical connector.

Id. at 21:44–64.

Claim 57 is directed to a system including an interface that connects a portable MP3 player to a car stereo. Unlike claim 1, claim 57 does not require the additional connection of the car stereo to one or more auxiliary

input sources. Claim 57 also does not require conversion of data from a format incompatible with the car stereo to a format compatible with the car stereo. But claim 57 requires the generation, within the interface, of a device presence signal that is transmitted to the car stereo to maintain the car stereo in an operational state. Claim 57 is reproduced below:

57. An audio device integration system comprising:
- a first electrical connector connectable to a car stereo;
 - a second electrical connector connectable to a portable MP3 player external to the car stereo
 - an interface connected between said first and second electrical connectors for transmitting audio from a portable MP3 player to a car stereo, said interface including a microcontroller in electrical communication with said first and second electrical connectors,
- said microcontroller pre-programmed to execute:
- a first pre-programmed code portion for generating a device presence signal and transmitting the signal to the car stereo to maintain the car stereo in an operational state; and
 - a second pre-programmed code portion for remotely controlling the MP3 player using the car stereo by receiving a control command from the car stereo through said first electrical connector in a format incompatible with the MP3 player, processing the control command into a formatted control command compatible with the MP3 player, and transmitting the formatted control command to the MP3 player through said second electrical connector for execution by the MP3 player.

Ex. 1001, 26:13–37.

D. Evidence Relied Upon

Petitioner relies on the following references:

Reference		Date	Exhibit
Bhogal	U.S. Patent No. 6,629,197 B1	Sept. 30, 2001, filed Nov. 3, 2000	Ex. 1004
Berry	U.S. Patent No. 6,559,773 B1	May 6, 2003, filed Dec. 21, 1999	Ex. 1005
Onishi	Japanese Patent Application Publication 2001-128280 ¹	May 11, 2001	Ex. 1006
Ohmura	U.S. Patent Application Publication 2001/0028717 A1	Oct. 11, 2001	Ex. 1008
Okagaki	EPO Patent Application Publication EP 0 953 486 A2	Nov. 3, 1999	Ex. 1009
Owens	U.S. Patent Application Publication 2002/0084910 A1	July 4, 2002	Ex. 1010
JP '954 ²	Japanese Utility Model Application Publication H7-6954	Jan. 31, 1995	Ex. 1011
Knobl	U.S. Patent Application Publication 2001/0025376 A1	Sept. 27, 2001	Ex. 1013

Petitioner also relies on the Declaration of James T. Geier. Ex. 1014.

¹ All citations to specific content of Onishi refers to its English translation (Ex. 1007).

² All citations to specific content of JP'954 refer to its English translation (Ex. 1012).

E. The Asserted Grounds

Petitioner asserts the following grounds of unpatentability:

Claim(s) Challenged	Basis	References
57, 60, 61, 64, and 65	§ 103(a)	Bhogal, Berry, and Onishi
62	§ 103(a)	Bhogal, Berry, Onishi, and Ohmura
64 and 65	§ 103(a)	Bhogal, Berry, Onishi, and Okagaki
1, 6, 7, 10, and 14	§ 103(a)	Bhogal, Onishi, and Owens
5	§ 103(a)	Bhogal, Onishi, Owens, and Berry
8	§ 103(a)	Bhogal, Onishi, Owens, and Ohmura
10	§ 103(a)	Bhogal, Onishi, Owens, and Knobl
1, 6, 7, 10, 14, 57, 60, and 61	§ 103(a)	JP '954, Onishi, and Owens
5	§ 103(a)	JP '954, Onishi, Owens, and Berry
8 and 62	§ 103(a)	JP '954, Onishi, Owens, and Ohmura
64 and 65	§ 103(a)	JP '954, Onishi, Owens, and Okagaki

II. ANALYSIS

The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) objective evidence of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). One seeking to establish obviousness based on more than one reference also

must articulate sufficient reasoning with rational underpinning to combine teachings. *See KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 418 (2007).

With regard to the level of ordinary skill in the art, we determine that no express finding is necessary, on this record, and that the level of ordinary skill in the art is reflected by the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001); *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995); *In re Oelrich*, 579 F.2d 86, 91 (CCPA 1978).

A. Claim Construction

In an *inter partes* review, claim terms in an unexpired patent are interpreted according to their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2142–46 (2016). Consistent with that standard, claim terms also are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). There are, however, two exceptions to that rule: “1) when a patentee sets out a definition and acts as his own lexicographer,” and “2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution.” *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012).

If an inventor acts as his or her own lexicographer, the definition must be set forth in the specification with reasonable clarity, deliberateness, and precision. *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1249 (Fed. Cir. 1998). It is improper to add into a claim an extraneous limitation, i.e., one that is added wholly apart from any need for the addition. *See, e.g., Hogan AB v. Dresser Indus., Inc.*, 9 F.3d 948, 950 (Fed. Cir.

1993); *E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 1433 (Fed. Cir. 1988). Although it is improper to read a limitation from the specification into the claims, *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993), claims still must be read in view of the specification of which they are a part. *Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1347 (Fed. Cir. 2004).

Only terms which are in controversy need to be construed, and only to the extent necessary to resolve the controversy. *See Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1361 (Fed. Cir. 2011); *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

1. “portable”

Independent claim 57 recites a portable MP3 player. It may be that the term requires no express construction, and simply would be understood by one with ordinary skill in the art. We note that even the '786 patent itself and Bhogal, both using the term “portable” in their written description, do not provide a definition therefor. Nevertheless, an express construction is helpful to this proceeding. We construe “portable,” in the context of the '786 patent, as meaning *capable of being carried by a user*.³

2. “interface”

Each of independent claims 1 and 57 recites an “interface.” Claims 1 and 57 each require the interface to be connected between a first electrical

³ This is the same construction provided by the Board in IPR2015-00421 when instituting trial in that proceeding. Both Petitioner and Patent Owner have urged that that construction be adopted in this proceeding. Pet. 9; Prelim. Resp. 3.

connector and a second electrical connector, where the first connector is connectable to a car stereo and the second connector is connectable to an after-market audio device (claim 1), or a portable MP3 player (claim 57).

Also, claim 57 recites that the interface is “for transmitting audio from a portable MP3 player to a car stereo”; and claim 1 recites that the interface is “for channeling audio signals to the car stereo from the after-market audio device.” With regard to an “interface,” the Specification states: “Thus, as can be readily appreciated, the interface 20 of the present invention allows for the integration of a multitude of devices and inputs with an OEM or after-market car radio or stereo.” Ex. 1001, 5:33–36. “As mentioned earlier, the interface 20 of the present invention allows for a plurality of disparate audio devices to be integrated with an existing car radio for use therewith.”

Id. at 6:4–7.

Data from the MP3 player, such as track, time, and song information, is received by the interface 20, processed thereby, and sent to the radio 10 for displaying on display 13. Audio from the MP3 player 30 is selectively forwarded by the interface 20 to the radio 10 for playing.

Id. at 6:19–24. Thus, the Specification refers to the interface receiving information from an audio device and forwarding information to the car stereo, and to the interface allowing integration of a plurality of disparate audio devices with a car radio.

During prosecution, the Applicants of the ’786 patent distinguished U.S. Patent 6,993,615 B2 (“Falcon”)⁴ in part by arguing that the reference

⁴ Falcon discloses a portable computing device connectable to a car stereo through an interface configurable within the portable computing device. Ex. 3001, Abstr.

failed to disclose an interface connected between a car stereo system and an external audio source. Ex. 1002, 267. Specifically, in distinguishing the invention from Falcon, Applicants stated: “[Falcon’s graphical user interface] is an entirely different concept than the interface of the present invention, which includes a physical interface device connected between a car stereo system and an external audio source (e.g., a plurality of auxiliary input sources).” *Id.*

Construing the term “interface” in light of the Specification, other language in the claims, as well as the prosecution history of the ’786 patent, we determine that—*interface is a physical unit that connects one device to another and that has a functional and structural identity separate from that of both connected devices.*⁵

In the specific context of claim 1, the connected devices are the car stereo and an after-market device. In the specific context of claim 57, the connected devices are the car stereo and a portable device. Each of claims 1 and 57 further requires the interface to include a microcontroller.

3. “device presence signal”

Claim 57 requires within the interface a microcontroller having a first pre-programmed code portion “for generating a *device presence signal* and transmitting the signal to the car stereo to maintain the car stereo in an operational state.” (Emphasis added). Claim 6 depends from claim 1 and further recites: “wherein said interface generates a device presence signal

⁵ This is the same construction provided by the Board in IPR2015-00421 when instituting trial in that proceeding. Both Petitioner and Patent Owner have urged that that construction be adopted in this proceeding. Pet. 9, Prelim. Resp. 3.

for maintaining the car stereo in a state responsive to processed data and audio signals.” A description of “device presence signal” is contained in the Specification in the discussion of an embodiment that is for connecting a CD player to the car stereo:

Beginning in step 110, a signal is generated by the present invention indicating that a CD player/changer is present, and the signal is continuously transmitted to the car stereo. Importantly, this signal prevents the car stereo from shutting off, entering a sleep mode, or otherwise being unresponsive to signals and/or data from an external source.

Ex. 1001, 12:29–35. All other disclosed embodiments, whether they are for connecting an MP3 player or an auxiliary device to the car stereo, refer back to the above-quoted description of the device presence signal. *Id.* at 13:15–18, 13:62–65, 14:48–51, 15:35–38, 16:12–15, 16:57–60.

We construe “device presence signal,” as *a signal indicating that an audio device, other than the car stereo, is connected to the interface.*⁶

B. Alleged Obviousness of Claims 1, 5–8, 10, 14, 57, 60–62, 64, and 65 over Prior Art Including Bhogal

Seven of Petitioner’s eleven alleged grounds of unpatentability rely in part on Bhogal. Because these seven grounds share a common deficiency with respect to Petitioner’s application of Bhogal to meet a limitation regarding the “interface” recited in independent claims 1 and 57,⁷ we group them for discussion purposes. We determine that Petitioner has not shown a

⁶ This is essentially the same construction as that provided by the Board in IPR2015-00421 when instituting trial in that proceeding. Both Petitioner and Patent Owner have urged that that construction be adopted in this proceeding. Pet. 9, Prelim. Resp. 3.

⁷ Claims 5–8, 10, and 14 depend, directly or indirectly, from claim 1, and claims 60–62, 64, and 65 depend, directly or indirectly, from claim 57.

reasonable likelihood that it would prevail in establishing unpatentability of any claim on the basis of any alleged ground of patentability relying in part on Bhogal.

1. Bhogal

Bhogal is titled “Method and System for Storing Digital Audio Data and Emulating Multiple CD-Changer Units.” Ex. 1004, (54). With regard to a problem that it addresses, Bhogal describes:

Typically, CD-changer units and car stereo units are designed so that they are compatible only if they are made by the same manufacturer. In other words, CD-changers and car stereos usually have a proprietary interface, and no industry standard currently exists for interfacing different makes of CD-changers and car stereos.

Id. at 4:57–62. To solve that problem, Bhogal provides a digital audio unit that is capable of emulating the operation of multiple CD-changers. *Id.* at 3:10–13. Regarding which one of many CD-changers to emulate, Bhogal describes:

In one case, the digital audio unit can detect a control signal [from a car stereo] for a CD-changer unit and then automatically select the type of CD-changer unit to be emulated based on the detected control signal. In a second case, the digital audio unit can receive a user selection for selecting a type of CD-changer unit to be emulated. *The softcopy digital audio files stored within the digital audio unit are thereby accessed through the controls and commands for a CD-changer unit.*

Ex. 1004, 3:13–20 (emphasis added). Bhogal describes that by emulating the operations of multiple types of CD-changer units, a single digital audio unit can be inserted in many different digital audio systems, “thereby extending the functionality of a digital audio system to include storage of

softcopy digital audio files that may be accessed through controls and commands for a CD-changer unit.” *Id.* at Abstr.

Figure 2 of Bhogal is reproduced below:

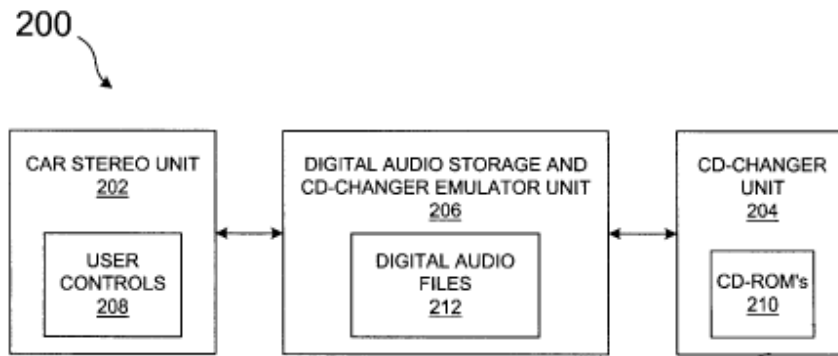


FIG. 2

Figure 2 illustrates an embodiment of Bhogal’s audio system. *Id.* at 3:31–33. Emulator 206 is connected between car stereo 202 and actual CD-changer 204. *Id.* at 5:11–16. Emulator 206 contains digital audio files 212, organized as virtual CD-ROMs, that may be accessed by a user through the car stereo. *Id.* at 5:39–42. Bhogal describes that, in one embodiment, “the emulator unit may be positioned in an independent *docking station* that accepts portable electronics, possibly in a standard manner such that the docking station also accepts other types of MP3 players.” *Id.* at 5:61–64 (emphasis added). When the emulator is not in the docking station, the car stereo and the actual CD-exchanger may operate together. *Id.* at 5:65–67.

Bhogal describes that, in a preferred embodiment, emulator 206 is a portable device. *Id.* at 6:18–21. Bhogal also describes that the emulator may connect to a personal computer in many different ways, including by use of “serial, Universal Serial Bus (USB), or parallel I/O connections, in a manner similar to that found on other types of commercially available

portable digital audio devices.” *Id.* at 6:32–40. Music files may be downloaded from any external source and stored within a digital audio file database within the emulator. *Id.* at 6:40–45. Bhogal thus provides access to softcopy digital audio files. In that regard, Bhogal states:

By recognizing the demand for softcopy digital audio files and the issue of backward compatibility, the present invention takes advantage of the interface between stereo units and CD-changer units to implement a methodology for providing access to softcopy digital files. The present invention emulates the CD-changer interface, which is usually a hardware interface for providing access to hardcopy digital audio files stored on CDs that are stored within the CD-changer, so that a stereo unit using the CD-changer interface can access softcopy digital audio files through its CD-changer interface.

Id. at 4:63–5:6. The softcopy digital audio files are organized as virtual CD-ROMs. *Id.* at 5:39–43. Additionally, the existing functionality of the actual CD-changer is not eliminated. In that connection, Bhogal states: “In addition, the present invention enables a CD-changer to ‘piggyback’ on a digital audio device containing the present invention so that the current jukebox functionality of storing and accessing CDs within a CD-changer is still available.” *Id.* at 5:6–10. In summary, Bhogal states:

By emulating the operations of multiple types of CD-changer units, the present invention enables a single digital audio device to be inserted in many different configurations of digital audio systems. The present invention thereby extends the functionality of a digital audio system to include storage of softcopy digital audio files that may be accessed through controls and commands for a CD-changer unit.

Id. at 9:65–10:5.

2. Independent Claims 1 and 57

For reasons discussed below, Petitioner has not shown a reasonable likelihood that it would prevail in establishing unpatentability of either claim 1 or claim 57 on any ground of obviousness relying in part on Bhogal.

- a) pre-programmed code portion for remotely controlling an audio device or MP3 player (claims 1 and 57)

Claim 1 requires a microcontroller within the interface to execute a pre-programmed code portion that is:

for remotely controlling the after-market audio device using the car stereo by receiving a control command from the car stereo through said first electrical connector in a format incompatible with the after-market audio device, processing the received control command into a formatted command compatible with the after-market device, and transmitting the formatted command to the after-market device through said second connector for execution by the after-market audio device.

Ex. 1001, 21:45–54. Claim 57 includes a similar limitation that differs from the above-quoted limitation of claim 1 by reciting a portable MP3 player instead of an after-market audio device. *Id.* at 22:28–37. Thus, claim 1 pertains to a car stereo remotely controlling an after-market audio device, and claim 57 pertains to a car stereo remotely controlling a portable MP3 player.

For this remote control aspect of claims 1 and 57, and aside from the specific requirement of a portable MP3 player of claim 57, Petitioner relies on Bhogal’s disclosure. Bhogal pertains to an actual CD-changer and an emulator unit that emulates CD-changers, as discussed above.

According to Petitioner, Bhogal discloses the above-noted limitation for remotely controlling the audio device that is connected to the interface.

Pet. 19. Petitioner's argument is as follows:

Bhogal explains that typically, car stereos are designed to communicate only with CD-changers made by the same manufacturer. Ex. 1004, at 4:57–62. The emulator unit in Bhogal contains a “CD-changer unit specification database 312” which “contains operational information about various models of CD-changer units and the manner in which emulator unit 302 can interface with a particular type of CD-changer unit.” *Id.* at 7:1–4, FIG. 3. A signal/command interpreter unit 314 inside the emulator unit monitors for signals and commands from the car stereo intended for the selected type of CD-changer. *Id.* at 7:12–24. For example, when a user of the car stereo presses controls on the car stereo for changing CDs or for obtaining information about CDs, the emulator unit captures the commands and “performs appropriate processing.” *Id.* at 8:21–26. In doing so, the emulator unit “operates in a particular manner that is compatible with the CD-changer to which the emulator unit is connected.” *Id.* at 7:7–11. *See* Geier Decl., Ex. 1014, ¶¶ 53–55.

Id.

The argument is unpersuasive. None of the cited disclosure and explanations, as presented by Petitioner, pertains to remotely controlling an audio device that is connected to Bhogal's emulator unit. The operations identified by Petitioner support the emulator unit's role as an emulator, where the emulator interprets commands from the car stereo intended for an actual CD-changer, and uses the interpreted commands to access audio data files within the emulator itself that are organized as virtual CD-ROMs.

The claim limitation requires receiving a control command from the car stereo in a format incompatible with the connected audio device, processing it into a formatted control command that is compatible with the audio device, and transmitting the formatted command to the audio device. Petitioner has not identified any disclosure in Bhogal that describes

transmitting such a converted command to the connected audio device to control the audio device remotely.

There is an operation mode of the emulator called “pass-thru mode” in which the emulator passes commands from the car stereo to the audio device that is connected. Ex. 1004, 7:36–46. However, as described in Bhogal, the “pass-thru mode” does not involve any conversion of a command from a format that is incompatible with the connected audio device to a format that is compatible with the connected audio device. *Id.* In Bhogal, the car stereo and the actual CD-changer already communicate with each other compatibly, without the need for an intermediate interface to do any conversion of signals. As discussed above, Bhogal describes that when the emulator is not in the docking station, the car stereo and the actual CD-exchanger may operate together. *Id.* at 5:65–67.

In addition, there is an operation mode of the emulator called “end-unit” mode, in which the emulator replaces the CD-changer entirely and itself emulates the presence of the CD-changer. *Id.* at 7:47–49. Nothing in that mode of operation involves conversion of any command to be sent to the CD-changer to control the CD-changer remotely.

There also is an operation mode of the emulator called “combination mode,” in which the emulator also reads tracks and track information from the actual CD-changer unit connected to it, “to create virtual CDs with tracks from both sources.” *Id.* at 8:4–20. Petitioner identifies no disclosure in Bhogal that any conversion is performed on car stereo commands that are incompatible with the actual CD-changer to make them compatible with the CD-changer, much less transmitting such converted commands to the CD-changer to effect remote control of the CD-changer by the car stereo.

As noted above, the car stereo and the actual CD-changer already communicate with each other compatibly without need for an intermediate interface to do any conversion. Petitioner's reference to Bhogal's "processing" alone is insufficient to persuade us that Bhogal discloses the required conversion.

The foregoing reason alone constitutes sufficient basis to conclude that Petitioner has not shown reasonable likelihood that it would prevail in establishing unpatentability of any challenged claim on any ground based in part on Bhogal. We discuss below an additional deficiency with respect to claim 1 and claims dependent thereon, and an additional deficiency with respect to claim 57 and claims dependent thereon.

- b) receiving, processing, transmitting data, and converting data from incompatible format to compatible format (claim 1)

Claim 1 further requires the microcontroller within the interface to have a pre-programmed code portion that is:

for receiving data from the after-market audio device through said second connector in a format incompatible with the car stereo, processing the received data into formatted data compatible with the car stereo, and transmitting the formatted data to the car stereo through said first connector for display by the car stereo.

Ex. 1001, 21:55–61. According to Petitioner, Bhogal discloses format conversion of the display data from the CD-changer unit for display on the car stereo. Pet. 22, 32. Specifically, Petitioner argues: "Because the car stereo [of Bhogal] is designed to communicate using proprietary formats, *see* [Ex. 1004,] 4:57–62, the emulator unit generates data 'in the necessary format' to be sent to the car stereo." Pet. 22. Petitioner's argument is unpersuasive.

Petitioner cites no disclosure in Bhogal to the effect that data from the actual CD-changer is originally incompatible with the car stereo and requires a conversion in format to be compatible with and thus understood by the car stereo. Petitioner also cites no disclosure in Bhogal to the effect that any such data conversion is performed by the emulator unit of Bhogal. Although there is a necessary format for data from the audio device to be understood by the car stereo, Petitioner identifies no disclosure in Bhogal that indicates the car stereo and the audio device do not already share the same format without involvement of the emulator.

As discussed above, Bhogal describes that when the emulator is not in the docking station, the car stereo and the actual CD-exchanger may operate together. Ex. 1004, 5:65–67. Also, although the emulator has a “pass-thru mode,” operation in the pass-thru mode does not involve any conversion of data from a format that is incompatible with the car stereo to a format that is compatible with the car stereo. *Id.* at 7:36–46. As noted above, in the context of Bhogal, the car stereo and the audio device already communicate with each other compatibly without need for an interface to do any conversion of signals.

- c) generating and transmitting a device presence signal (claim 57)

Claim 57 further requires the microcontroller within the interface to have a pre-programmed code portion that is “for generating a device presence signal and transmitting the signal to the car stereo to maintain the car stereo in an operational state.” Ex. 1001, 26:22–26. According to Petitioner, neither Bhogal nor Berry discloses this limitation regarding the generation and transmission of a device presence signal, but Onishi does. Pet. 19–21. Specifically, Petitioner explains as follows:

Onishi discloses an on-vehicle audio device 50 (a car stereo) that includes a source selector 63. Ex. 1007, at [0060], [0063], FIG. 5. Source selector 63 accepts audio signals input from the on-vehicle device's tuner and CD player, as well as audio signals received by the on-vehicle device's AUX input terminal 55. *Id.* at [0064], FIG. 5. A system controller 60 in the on-vehicle device controls which of these audio signals is selected by the source selector and output through speakers. *Id.* at [0065]. Onishi describes at least two methods for the system controller 60 to detect that an AUX device is present. In one method, the system controller recognizes display information DD received from the AUX device through AUX input terminal 55. *Id.* at [0082]. In another method, the AUX input terminal 55 contains a voltage detector. *Id.* at [0083]. Based on the voltage detection, the system controller 60 determines if an AUX device is present. *Id.* When the AUX device has been detected, “a control is performed” (*i.e.*, a device presence signal is sent) to the source selector 63 to select the AUX input as the audio source. *Id.* at [0084], FIG. 6 (S105). Consequently, analog audio signals from the MD player/recorder are output as sound from the vehicle speakers, *id.* at [0085], FIG. 6 (S106), and the car stereo is maintained in an operational state.

Id. at 19–20 (emphasis added).

Petitioner's explanation is misdirected and unpersuasive. The term “device presence signal” has been construed as *a signal indicating that an audio device, other than the car stereo, is connected to the interface*. The construction is the same as that urged by Petitioner. Pet. 9. Petitioner's above-quoted explanation does not support its assertion that Onishi discloses the generation of a device presence signal and transmitting that signal to the car stereo. Figure 5 of Onishi, as referenced by Petitioner, is reproduced below:

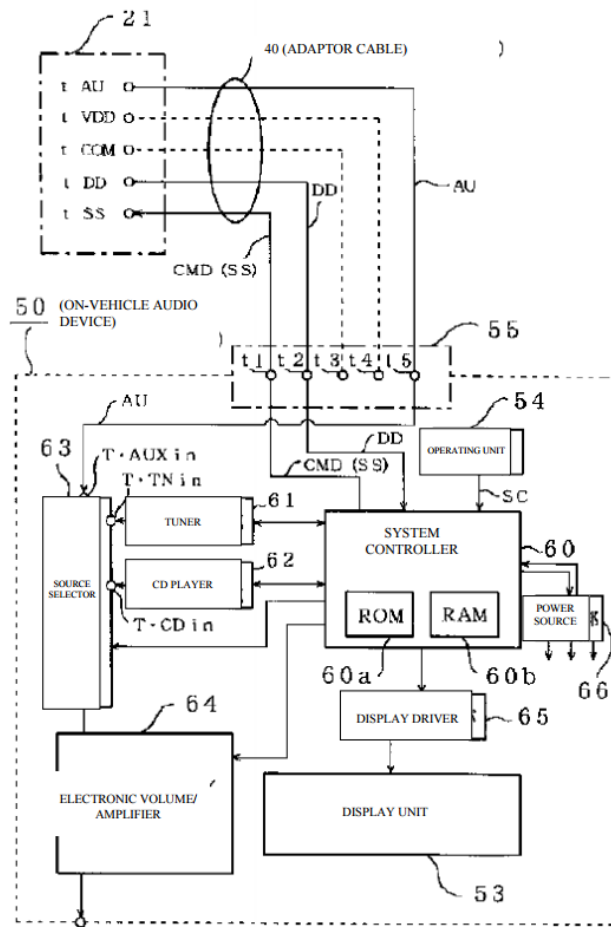


Figure 5 is a block diagram illustrating an internal configuration of an embodiment of the on-vehicle audio device of Onishi. Ex. 1007, 14.

As explained by Petitioner, the on-vehicle audio device, e.g., car stereo, detects the presence of an auxiliary device not by receiving a device presence signal, but by itself detecting the presence of an auxiliary device. Mere presence of data on an input line does not satisfy the requirements of a device presence signal as we have construed the term. For instance, the data could be received directly from an auxiliary device and not through an interface to which the auxiliary device is connected. According to claim 57, it is the microcontroller within the interface that has to generate the device presence signal and to transmit that device presence signal to the car stereo.

Also, what Petitioner identifies as a device presence signal actually is a control signal the on-vehicle audio device sends to an internal source selector, after it already has recognized that an auxiliary device is present, in order to select that auxiliary device as input. *Id.* ¶ 84.

Thus, Petitioner has not made a sufficient showing that Onishi discloses the generation of a device presence signal from outside of the car stereo and transmission of that signal to the car stereo. It follows, also, that Petitioner has not made a sufficient showing that Onishi's alleged teaching regarding the generation of a device presence signal and transmission of that signal to the car stereo, when applied to JP '954, results in satisfaction of claim 57's limitation directed to a device presence signal.

3. Dependent Claims 5–8, 10, 14, 60–62, 64, and 65

Each of claims 5–8, 10, 14, 60–62, 64, and 65 depends directly or indirectly from either claim 1 or 57. The deficiencies noted above with regard to claims 1 and 57 carry through to the claims depending therefrom. Accordingly, Petitioner has not shown a reasonable likelihood that it would prevail in establishing unpatentability of any of claims 5–8, 10, 14, 60–62, 64, and 65 on any alleged ground of obviousness relying in part on Bhogal.

C. Alleged Obviousness of Claims 1, 6, 7, 10, 14, 57,
60, and 61 as Obvious over JP '954, Onishi, and Owens

For reasons discussed below, we determine that Petitioner has not shown a reasonable likelihood that it would prevail in establishing unpatentability of any of claims 1, 6, 7, 10, 14, 57, 60, and 61 as obvious over JP'954, Onishi, and Owens.

1. JP '954

JP '954 is directed to solving the problem of equipment incompatibility, in the environment of automotive audio equipment, between a main unit made by one company and a CD changer made by another company. Ex. 1012, Abstr. Specifically, JP '954 describes the disadvantages associated with prior art systems as follows:

When installing an audio device in a vehicle on the occasion of a vehicle purchase, it is common for a so-called “basic” main unit to be installed. If one were to subsequently attempt to add a CD changer capable of automatically changing and playing a plurality of loaded CDs, prior to now it would have been necessary to purchase and install a model produced by the same manufacturer as the “basic” main unit, as the format of signals connecting the respective devices vary from manufacturer to manufacturer. Furthermore, if a user had installed both of these devices produced by the same manufacturer, and at a later point wished to upgrade the main unit to, for example, a model produced by company A, it would have been necessary for the same reason to also purchase a new CD changer made by company A.

Id. ¶ 2. JP '954 describes its objective as: “to make it possible to add a CD changer made by company B to a main unit made by company A, as well as to add a CD changer made by company A to a main unit made by company B.” *Id.* ¶ 3. JP '954 achieves that objective by providing an interface unit as noted below:

(PROBLEM) Provide an interface unit for automotive audio equipment that renders possible the addition of a CD changer made by company B to a main unit made by company A as well as the addition of a CD changer made by company A to a main unit made by company B.

Ex. 1012, Abstr. JP '954 summarizes its interface unit as follows:

(MEANS FOR SOLVING) The [interface] unit is constituted by splitting signals into three systems, namely a control system, audio system and power system, and providing a conversion circuit for each of these systems.

Id. Figure 1 of JP '954 is reproduced below:

(Fig. 1)

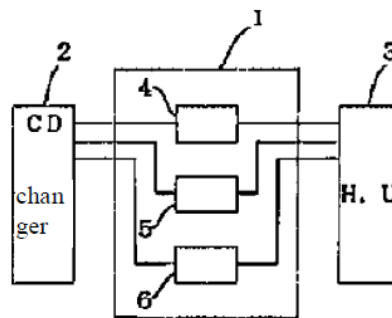


Figure 1 illustrates a block diagram of the structure of the audio system according to JP '954. *Id.* ¶ 6. Interface unit 1 “converts the format of the signal that links the CD changer 2 and the main unit 3, etc.” *Id.* Interface unit 1 links main unit 3 and CD changer 2, and is provided with control system conversion portion 4, audio system conversion portion 5, and power conversion portion 6. *Id.* at Abstr. Control conversion portion 4 is for the bus line, clock control signal, etc.; audio conversion portion 5 is for the audio signal; and power conversion portion 6 is for the power supply. *Id.* ¶ 6.

Figure 2 of JP '954 is reproduced below:

(Fig. 2)

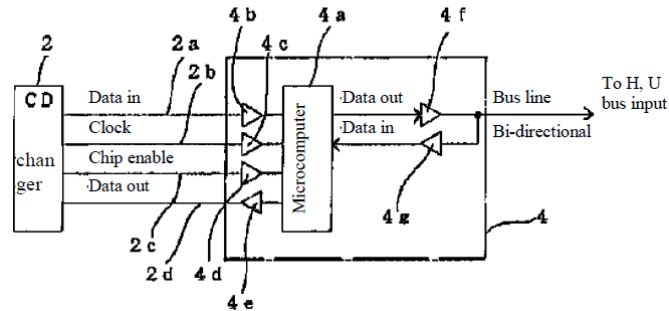


Figure 2 illustrates control system conversion portion 4. *Id.* ¶ 7.

Microcomputer 4a is provided to convert and unify different signal formats between the CD changer and the main unit. *Id.*

Figure 4 is reproduced below:

(Fig. 4)

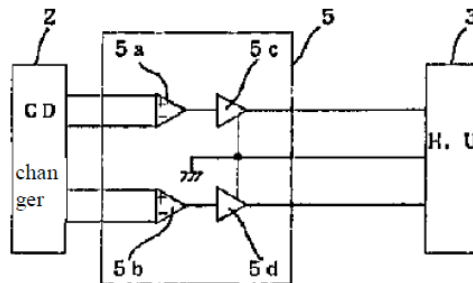


Figure 4 illustrates audio system conversion portion 5. *Id.* ¶ 11. It includes differential amplifiers 5a and 5b and amplifiers 5c and 5d. *Id.*

JP '954 states: “[a]lthough one embodiment example was described above, to expand the range of available inter-company format conversions, a switch can be provided on the microcomputer 4a to enable application to various models using a connection adapter between the CD changer and main unit. *Id.* ¶ 10.

2. Claims 57, 60, and 61

As noted above, claim 57 requires the microcontroller within the interface to have a pre-programmed code portion that is “for generating a device presence signal and transmitting the signal to the car stereo to maintain the car stereo in an operational state.” Ex. 1001, 26:22–26. According to Petitioner, Onishi discloses this limitation. Pet. 52–53. Specifically, Petitioner refers back to and incorporates its discussion of this limitation of claim 57 in the context of its assertion that claim 57 is unpatentable as obvious over Bhogal, Berry, and Onishi. *Id.* at 52.

For the same reasons discussed above, in the alleged obviousness of claim 57 over Bhogal, Berry, and Onishi, Petitioner has not made an adequate showing that Onishi discloses the generation of a device presence signal and transmitting that signal to the car stereo. The same deficiency carries through to claim 60 which depends from claim 57, and to claim 61 which depends from claim 60.

Accordingly, Petitioner has not shown a reasonable likelihood that it would prevail in establishing unpatentability of any of claims 57, 60, and 61 as obvious over JP ’954, Onishi, and Owens.

3. Claim 1

For reasons discussed below, Petitioner has not shown a reasonable likelihood that it would prevail in establishing unpatentability of claim 1 as obvious over JP ’954, Onishi, and Owens.

- a) receiving, processing, transmitting data, and converting data from incompatible format to compatible format

Claim 1 requires a microcontroller within the interface to execute a pre-programmed code portion that is:

for receiving data from the after-market audio device through said second connector in a format incompatible with the car stereo, processing the received data into formatted data compatible with the car stereo, and *transmitting the formatted data to the car stereo through said first connector for display by the car stereo.*

Ex. 1001, 21:55–61 (emphasis added). The same microcontroller also has to execute a pre-programmed code portion that is:

for remotely controlling the after-market audio device using the car stereo by receiving a control command from the car stereo through said first electrical connector in a format incompatible with the after-market audio device, processing the received control command into a formatted command compatible with the after-market device, and transmitting the formatted command to the after-market device through said second connector for execution by the after-market audio device.

Id. at 21:45–54.

Petitioner first accounts for the control command conversion or remote control limitation of claim 1, by referring to control system conversion 4 of JP '954. Pet. 44–45. In that regard, Figure 2 of JP '954 is again reproduced below:

(Fig. 2)

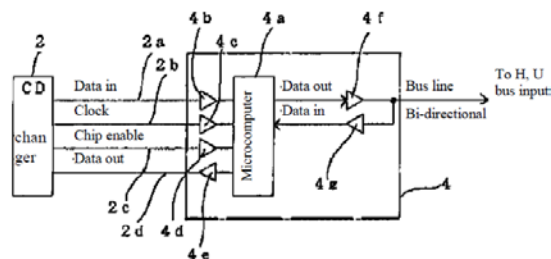


Figure 2 illustrates control system conversion portion 4. Ex. 1012 ¶ 7.

Petitioner explains:

The control signals converted by control conversion portion 4 include incoming signals from the main unit on “Data in” line

4g, which are converted and forwarded to the CD changer via “Data out” line 2c. *Id.* at FIG. 2; Geier Decl., Ex. 1004, at ¶¶ 133–34. The control conversion portion 4 also converts “operational status” data such as “PLAY, FWD, BWD, etc.” received from the CD changer via “Data in” line 2a and forward such data to the main unit via “Data out” line 4f. JP ’954, Ex. 1012, at (0008), (0009), FIG. 2. The ability of the interface unit to convert signal formats make it possible for a CD changer and a main unit made by different companies to communicate. *Id.* at (0005). *See also* Geier Decl., Ex. 1014, at ¶¶ 145–46.

Pet. 44–45.

Then, to satisfy the limitation about converting data and sending converted data for display in the car stereo, Petitioner cites to Onishi and interface unit 1 of JP ’954. Petitioner explains:

Onishi teaches that once the MD recorder/player is connected to the on-vehicle audio device, information from the MD recorder/player can be transmitted to and displayed by display unit 53 on the on-vehicle audio device (car stereo). Ex. 1007, at [0030], [0073]. This information reflects the track being played back, such as “track number,” “track name,” and “playback progress time.” *Id.* at [0086].

Pet. 45.

As shown by Onishi, it was a known technique to display on the car stereo information relating to an audio track being played, including information on the playback progress time, so that the user of the car stereo could be informed about status of playback. *See* Onishi, Ex. 1007, at [0030], [0073], [0086]; Geier Decl., Ex. 1014, ¶¶ 147–49. JP ’954 recognized the need to inform the car stereo of “operational status” data of the after-market device. *See* Ex. 1012, at (0009). It would have been obvious for a person of ordinary skill in the art at the time of the filing of the ’786 patent *to modify the interface unit of JP ’954 to include the feature of processing and forwarding operational data such as time and track information to the car stereo to display.* Geier Decl., Ex. 1014, ¶ 149. Such modification would have resulted in the

predictable improvement of allowing the interface unit to provide more information to the user. *Id.*

Id. at 45–46 (emphasis added).

Patent Owner responds and argues as follows:

Essentially Petitioner argues that because transmitting data from media players was known, it would have been obvious to implement it in JP '954. This argument is woefully short of a proper obviousness analysis. First, Petitioner does not address the analysis set forth by the Board [in IPR2016-00421 (Paper 13)], particularly that “conversion portion 4 in interface unit 1 is for communicating and converting control signals, not any data for display on a car stereo, such as song title and artist information.” Petitioner does not identify which microprocessor should include the pre-programmed code portion, particularly in light of the fact that conversion portion 4 is not meant for sending data, such as title and artist information, to the head unit.

PO Resp. 24–25.

We find the above-quoted arguments of Petitioner to be deficient and the above-quoted arguments of Patent Owner to be persuasive. Petitioner fails to make a sufficient distinction between interface unit 1 of JP '954 and control system conversion portion 4 within interface unit 1 of JP '954. Even assuming that, in light of Onishi, it would have been obvious to one with ordinary skill to send song and artist information back to the car stereo for display, Petitioner, in order to demonstrate that claim 1 would have been obvious, has to address *why* it would have been obvious to one with ordinary skill in the art to use control system conversion portion 4, and in particular microcomputer 4a within control system conversion portion 4, in JP '954 to perform that task. Interface unit 1 of JP '054 is not just control system conversion portion 4. Rather, it also includes audio

system conversion portion 5 and power conversion portion 6, as is shown in its Figure 1 reproduced below:

(Fig. 1)

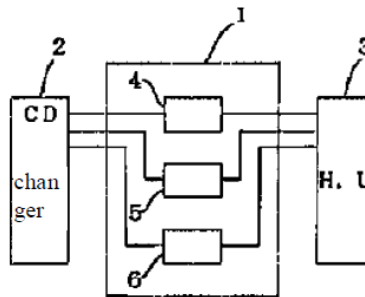


Figure 1 illustrates a block diagram of the structure of the audio system according to JP '954. Ex. 1012 ¶ 6.

Petitioner fails to account for why one with ordinary skill in the art would have modified control system conversion portion 4, specifically, and not something else, to add the functionality of sending song and artist information back to the car stereo for display. The omission is significant because we understand that control system conversion portion 4 of JP '954 relates to operational control and status of the CD-changer, and time and track information of songs do not reflect the operational status of the CD-changer but the content of the music being played or to be played. We recognize that microcomputer 4a sends back to the car stereo operational status of the CD-changer. But operational status data relate to operational control of the CD-changer, and are not information about songs and artists. Also, JP '954 does not describe that operational status data are for display at the car stereo. On this record, Petitioner has not provided reasoning with rational underpinning to support its conclusion that one with ordinary skill in the art would have selected microcomputer 4a in control system conversion

portion 4 of JP '954 to perform data conversion of song and artist information to send back to the car stereo for display.

b) switching to one or more auxiliary input sources

Claim 1 further requires the microcontroller within the interface to execute a pre-programmed code portion that is “for switching to one or more auxiliary input source connected to said third electrical connector.”

Petitioner acknowledges that neither JP '954 nor Onishi discloses this limitation but asserts that Owens does. Pet. 46. Petitioner states:

Owens discloses an auxiliary input source such as VCR 44, tuner 46, or game station 48, which is connectable to A/V source selector 40. Ex. 1010, at [0025], [0026], [0009], FIG. 7. Owens also discloses a microprocessor that performs switching to one or more auxiliary input sources as required in claim 1. *Id.* at [0034]; Geier Decl., Ex. 1014, ¶¶ 151–152.

Id. at 47. Figure 7 of Owens is reproduced below:

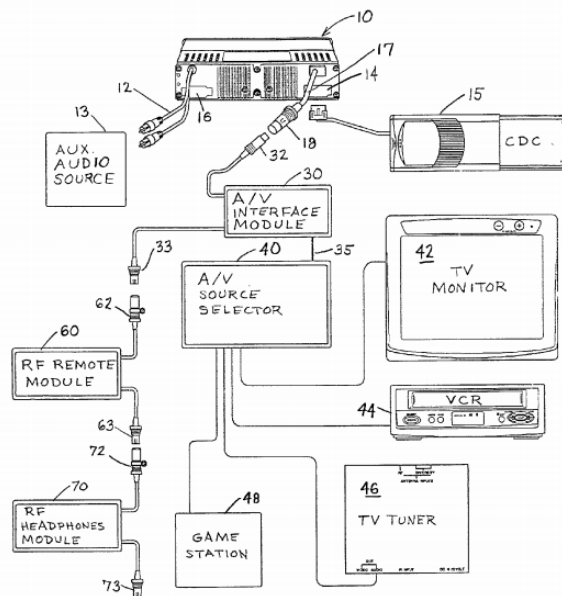


FIG. 1

Figure 7 of Owens illustrates a schematic diagram of an embodiment according to Owens. Ex. 1010, Fig. 7. Petitioner regards the A/V interface

module and A/V source selector in Owens as an interface between the car stereo and multiple audio or video devices. Pet. 48.

Petitioner argues:

As shown in Owens, it was well-known in the art to use devices like the A/V interface module and A/V source selector of Owens to provide an interface to serially connect **multiple** audio or video devices to a car stereo. Geier Decl., Ex. 1014, ¶¶ 154–57. Such a configuration would allow consumers to obtain a car stereo without a large initial investment and gradually buy and add additional modules to accommodate additional input sources. See Owens, Ex. 1009, at [0008]; Geier Decl., Ex. 1014, ¶ 157. As such, modifying the interface unit taught by JP '954, in view of Onishi, to permit one or more auxiliary audio or video sources, other than the after-market CD-changer unit, to be connected to a car stereo, and to configure the microprocessor inside JP '954's interface unit to be able to switch between (claim 1) and channel audio from (claim 14) those auxiliary sources, would have resulted in the predictable improvement of increasing the utility and versatility of the interface unit. *Id.* at ¶ 158.

Id. Petitioner's argument is unpersuasive.

It is not adequately explained by Petitioner why one with ordinary skill in the art would have chosen microcomputer 4a within control system conversion portion 4 of interface unit 1 within JP '954 to perform source switching. Petitioner's explanation is conclusory. The explanation also is without rational underpinning. For instance, microcomputer 4a in JP '954 does not itself perform all of the communication between the car stereo and the connected CD-changer. Some of the communication are conducted through audio system conversion portion 5. Ex. 1012, Abstr., Fig. 1. Also, in Owens, the processor that performs source selecting or switching is located within the car stereo. Ex. 1010 ¶¶ 33–34, Fig. 9. Petitioner does not explain why that location would have been moved to within control system

conversion portion 4 in JP '954, which is disposed in a link dedicated to a single audio or auxiliary device. For these reasons, Petitioner's stated rationale to combine teachings to arrive at the claim limitation pertaining to source switching is conclusory, illogical, and lacks a rational underpinning.

4. Claims 6, 7, 10, and 14

Claims 6, 7, 10, and 14 each depend, directly or indirectly, from claim 1, and thus incorporate all of the limitations of claim 1. The deficiencies discussed above in the context of claim 1 carry through to each of dependent claims 6, 7, 10, and 14. In addition, we note that claim 6 further recites: "wherein said interface generates a device presence signal for maintaining the car stereo in a state responsive to processed data and audio signals." Petitioner's arguments with regard to the limitation added by claim 6 are deficient for the same reasons discussed above, which explain why Petitioner's arguments are deficient with regard to the limitation in claim 57 that requires the microcontroller to execute a pre-programmed code portion "for generating a device presence signal and transmitting the signal to the car stereo to maintain the car stereo in an operational state."

Petitioner has not shown a reasonable likelihood that it would prevail in establishing unpatentability of any of claims 6, 7, 10, and 14 as obvious over JP '954, Onishi, and Owens.

D. Alleged Obviousness of Claim 5
over JP '954, Onishi, Owens, and Berry

Claim 5 depends from claim 1 and further recites: "wherein said interface further comprises a plug-and-play mode for automatically detecting device type of the after-market audio device connected to said second

electrical connector and integrating the after-market audio device based upon the device type.”

Petitioner’s addition of Berry does not cure the deficiencies discussed above in the context of the alleged ground of unpatentability of claim 1 over JP ’954, Onishi, and Owens. Accordingly, Petitioner has not shown a reasonable likelihood that it would prevail in establishing the unpatentability of claim 5 as obvious over JP ’954, Onishi, Owens, and Berry.

E. Alleged Obviousness of Claims 8 and 62
over JP ’954, Onishi, Owens, and Ohmura

Claim 8 depends directly from claim 1. Claim 62 depends indirectly from claim 57. Petitioner’s addition of Ohmura does not cure the deficiencies discussed above in the context of the alleged ground of unpatentability of claims 1 and 57 over JP ’954, Onishi, and Owens. Accordingly, Petitioner has not shown a reasonable likelihood that it would prevail in establishing the unpatentability of either claim 64 or claim 65 as obvious over JP ’954, Onishi, Owens, and Ohmura.

F. Alleged Obviousness of Claims 64 and 65
over JP ’954, Onishi, Owens, and Okagaki

Claim 64 depends from claim 57. Claim 65 depends from claim 64. Petitioner’s addition of Okagaki does not cure the deficiencies discussed above in the context of the alleged ground of unpatentability of claim 57 over JP ’954, Onishi, and Owens. Accordingly, Petitioner has not shown a reasonable likelihood that it would prevail in establishing the unpatentability of either claim 64 or claim 65 as obvious over JP ’954, Onishi, Owens, and Okagaki.

III. CONCLUSION

Petitioner has not demonstrated a reasonable likelihood that it would prevail in establishing the unpatentability of any of claims 57, 60, 61, 64, and 65 as obvious over Bhogal, Berry, and Onishi.

Petitioner has not demonstrated a reasonable likelihood that it would prevail in establishing the unpatentability of claim 62 as obvious over Bhogal, Berry, Onishi, and Ohmura.

Petitioner has not demonstrated a reasonable likelihood that it would prevail in establishing the unpatentability of either claim 64 or claim 65 as obvious over Bhogal, Berry, Onishi, and Okagaki.

Petitioner has not demonstrated a reasonable likelihood that it would prevail in establishing the unpatentability of any of claims 1, 6, 7, 10, and 14 as obvious over Bhogal, Onishi, and Owens.

Petitioner has not demonstrated a reasonable likelihood that it would prevail in establishing the unpatentability of claim 5 as obvious over Bhogal, Onishi, Owens, and Berry.

Petitioner has not demonstrated a reasonable likelihood that it would prevail in establishing the unpatentability of claim 8 as obvious over Bhogal, Onishi, Owens, and Ohmura.

Petitioner has not demonstrated a reasonable likelihood that it would prevail in establishing the unpatentability of claim 10 as obvious over Bhogal, Onishi, Owens, and Knobl.

Petitioner has not demonstrated a reasonable likelihood that it would prevail in establishing the unpatentability of claims 1, 6, 7, 10, 14, 57, 60, and 61 as obvious over JP '954, Onishi, and Owens.

Petitioner has not demonstrated a reasonable likelihood that it would prevail in establishing the unpatentability of claim 5 as obvious over JP '954, Onishi, Owens, and Berry.

Petitioner has not demonstrated a reasonable likelihood that it would prevail in establishing the unpatentability of claims 8 and 62 as obvious over JP '954, Onishi, Owens, and Ohmura.

Petitioner has not demonstrated a reasonable likelihood that it would prevail in establishing the unpatentability of claims 64 and 65 as obvious over JP '954, Onishi, Owens, and Okagaki.

IV. ORDER

It is

ORDERED that the Petition is *denied*, and no trial is instituted with respect to any claim of U.S. Patent No. 7,489,786 B2 on any alleged ground of unpatentability.

IPR2016-01472
Patent 7,489,786 B2

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