

Paper No. _____

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SDI TECHNOLOGIES, INC.,

Petitioner

v.

BOSE CORPORATION,

Patent Owner

Patent No. 8,364,295

Filing Date: December 7, 2006

Issue Date: January 29, 2013

Title: Interactive Sound Reproducing

Inter Partes Review No. [UNASSIGNED]

PETITION FOR INTER PARTES REVIEW
UNDER 35 U.S.C. §§ 311-319 AND 37 C.F.R. § 42.100 *et. seq.*

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I. INTRODUCTION

On July 25, 2013, SDI Technologies, Inc. (“SDI”) filed a Petition for *Inter Partes* Review of claims 1-21, 24, 27, 29-47, 50, 63, 64, 68-70, 73, 74, 77, and 78 of United States Patent No. 8,364,295 (the “’295 Patent”), now styled *SDI Technologies, Inc. v. Bose Corporation*, Case No. IPR2012-00465 (the “465 IPR”).

The Board’s Decision on Institution of *Inter Partes* Review granted SDI’s Petition with respect to each of claims 1-21, 24, 27, 29-47, 50, 63, 64, 68-70, 73, 74, 77, and 78, citing four grounds.

The first two grounds were obviousness over the “SMS” and “Nomad” references, the “Looney” reference being added for certain claims; the second two were obviousness over the “WinAmp” and “IRMan Web Pages” and “Altec Lansing Manual” references, the “Looney” reference being added for certain claims.

Patent Owner Bose Corporation (“Bose”) has now accused SDI of infringing additional claims of the ’682 Patent, directed a feature in which the speaker is also “configured to respond to signals received from the computer.” These claims—25, 26, 51, 52, 53, 55-59, 60-62, 75, and 76—can be grouped as follows:

Dependent Claim 25, 26, 51, and 52: Claims 25 and 26 depend from independent claim 1 (which is a subject of the 465 IPR), adding that “the sound reproduction device is *configured to respond to signals received from the*

computer” and that the signals “are transmitted via a signal path of the connector.” Claims 51 and 52 similarly depend from independent claim 27 (which is a subject of the 465 IPR), adding the same features.

Claim 53 and Its Dependents: Independent claim 53 tracks independent claim 27 (which, again, is a subject of the 465 IPR), except that it removes the requirement that the computer “has a plurality of user functions” and adds that the connector is also configured to “*receive signals from the computer.*” Dependent claims 55 to 58 and 75 generally correspond to claims depending from claims 1 or 27 that are already subjects of the 465 IPR.

Claim 59 and Its Dependents: Independent claim 59 also tracks independent claim 27, except that it adds that the computer is configured to provide music from a plurality of sources (a feature taken from claim 1) and adds that the connector is also configured to “*receive signals from the computer.*” Dependent claims 60 to 62 and 76 generally correspond to claims depending from claim 27 that are also subjects of the 465 IPR.

This Petition challenges these additional claims of the ’295 patent, all of which add to subject matter already being treated in the 465 IPR that the speaker receives signals from the computer. As discussed in more detail below, this feature is *explicitly* described in the Altec Lansing Manual, rendering the additional claims invalid based on the second combination cited in the 465 Decision (WinAmp/

IRMan/Altec Lansing). These claims are also invalid in light of the first combination (SMS/Nomad/Looney), as it would have been obvious to one of skill in the art at the time of the invention to have the speaker respond to signals from the computer such as, for example, in determining whether the computer was on prior to attempting to communicate with it, a common feature of electronic communication protocols, in order to, for example, avoid futile communicates with a device that is not present or not turned on.

II. NOTICE OF LEAD AND BACKUP COUNSEL

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III. NOTICE OF EACH REAL-PARTY-IN-INTEREST

The real-party-in-interest is SDI Technologies, Inc.

IV. NOTICE OF RELATED MATTERS

As noted above, claims 1-21, 24, 27, 29-47, 50, 63, 64, 68-70, 73, 74, 77, and 78 of the '295 Patent are the subject of instituted IPR2013-00465. SDI is today filing a motion to join this proceeding with the 465 IPR.

The '295 patent has been asserted in the following action: *Bose Corporation v. SDI Technologies, Inc.* (D. Mass. Case No. 13-cv-10277-WGY), filed on February 13, 2013 and still pending.

The immediate parent of the '295 patent, U.S. Patent No. 7,277,765 (the "'765 patent"), was asserted in *Bose Corporation v. SDI Technologies, Inc., et al.* (D. Mass. Case No. 09-cv-11439), which resulted in a grant of summary judgment of non-infringement of all asserted claims, which is pending on appeal.

The parent '765 patent is also the subject of *Inter Partes* Reexamination No. 95/001,260, in which all claims stand rejected. The Board affirmed the Examiner's rejections and also added a new ground of rejection. The patent owner reopened prosecution, the Examiner entered the new ground of rejection in addition to the others, and the appeal is again before the Board. In addition, the parent '765 patent was the subject of *Inter Partes* Reexamination Request No. 95/001,332, which presented some of the art presented in this petition. That request was denied, however, because all of the claims of the '765 patent were rejected at the time the '332 reexamination request was filed.

A continuation of the '295 patent, U.S. Patent 8,401,682 (the "'682 patent"), is the subject of IPR2013-00350.

V. NOTICE OF SERVICE INFORMATION

Please address all correspondence to the lead counsel at the address shown above. Petitioner also consents to electronic service by email at

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VI. GROUNDS FOR STANDING

Petitioner hereby certifies that the patent for which review is sought is available for *inter partes* review and that the petitioner is not barred or estopped from requesting an *inter partes* review challenging the patent claims on the grounds identified in the petition.

VII. STATEMENT OF PRECISE RELIEF REQUESTED

The Petitioner respectfully requests that claims 25, 26, 51, 52, 53, 55-59, 60-62, 75, and 76 of U.S. Patent No. 8,364,295 (Ex. 1001) be canceled based on the following grounds of invalidity, explained in detail (including relevant claim constructions) in the following sections.

VIII. THRESHOLD REQUIREMENT FOR REVIEW

A petition for *Inter Partes* Review must demonstrate “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). This Petition meets the threshold. Each of the elements of the subject claims of the ’295 patent are taught as explained below in the proposed rejections, with an appropriate motivation to combine where the proposed rejection is under 35 U.S.C. § 103(a).

IX. STATEMENT OF REASONS FOR RELIEF REQUESTED

A. Technical Introduction to the '295 Patent

The '295 patent (Exhibit 1001) is directed to “an audio system attachable to a computer” that includes a powered speaker. One embodiment of the system of the '295 patent is illustrated schematically in Figure 1, with the computer being the large box (20) on the right, and the sound reproduction device (the speaker) being the large box (10) on the left.

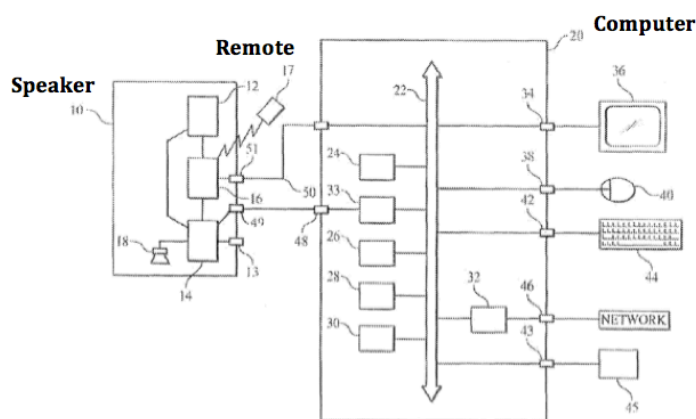
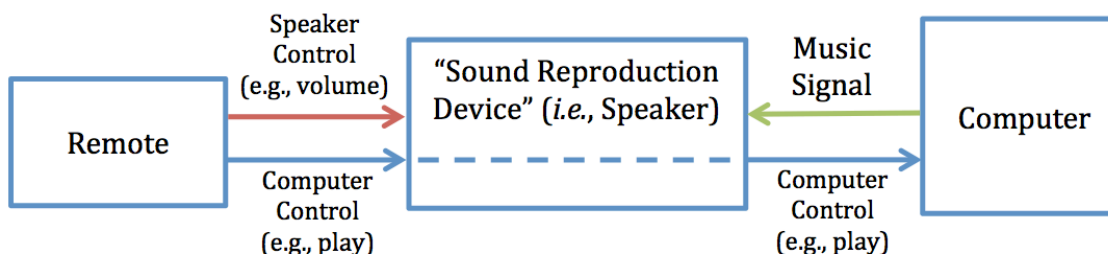


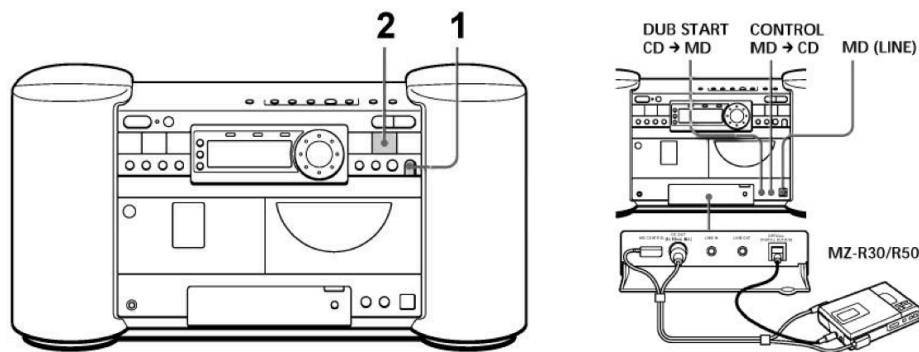
FIG. 1

The independent claims are generally directed to the capability of the remote (item 17 in the patent) to control both the speaker (item 10) directly and the computer (item 20) indirectly through an IR receiver that is located in the speaker. This is illustrated schematically below.

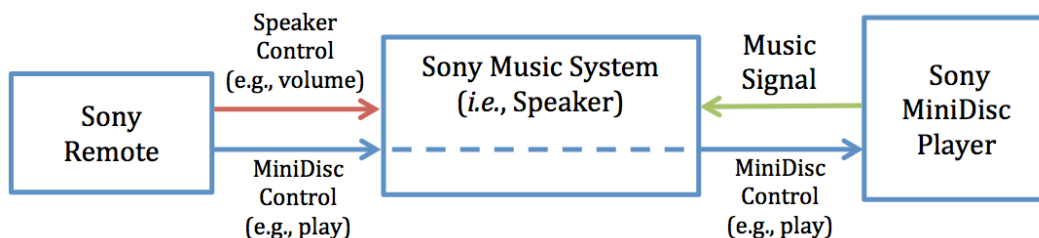


B. Prior Art: The Sony Music System

The prior art Sony Music System Manual (Ex. 1002), which bears a 1998 Copyright date, describes a portable music player that included a remote control. The manual is prior art under 35 U.S.C. § 102(b). The system could be connected to a Sony MiniDisc player, in which case the remote control supplied with the boom box would control the Music System directly (*e.g.*, the volume) and would also control the MiniDisc player through the Music System, as in the system of the '295 patent. (*See* Exhibit 1002, at 41-44.) The Sony Music System (below, left) is shown on page 4 of the manual, and the connection to the MiniDisc player (below, right) is illustrated on page 41:

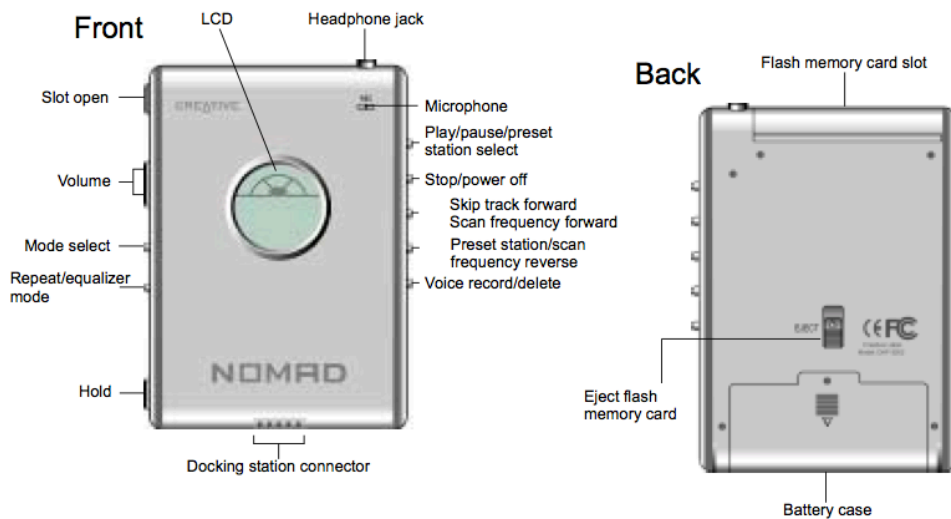


A schematic illustration of the Sony Music System, which is virtually identical to that for the patented system on the preceding page, is provided below.



C. Prior Art: Creative Labs Nomad/Samsung Yepp MP3 Player

The Creative Labs Nomad MP3 Player Manual (Ex. 1005¹), which bears a June 1999 date, describes a portable MP3 player, in a form factor that resembled the Sony MiniDisc player, that played music from any one of a number of sources, including internal memory, removable memory cards, music downloaded to the memory or the memory cards from the internet, and a built-in FM radio. The manual is prior art under 35 U.S.C. § 102(b). The device is also described in an August 19, 1999 PCWorld article (Exhibit 1006).



The Creative Nomad device was also released in 1999 as the Samsung Yepp YP-D40, as shown in the April 1999 issue of Popular Science magazine (Exhibit 1007) and an April 29, 1999 Samsung Press Release (Exhibit 1008), which

¹ In light of the Motion for Joinder, and in order to avoid confusion, Petitioner has omitted exhibit numbers 1003, 1004, 1013, 1014, and 1015, so that the rest of the exhibits common to the 465 IPR retain the same numbering as in the 465 IPR.

describes it as a “digital audio device that allows the user to download music files from the Internet or other on-line services” that included an FM tuner. The magazine and press release are prior art under 35 U.S.C. § 102(b).

D. Prior Art: WinAmp 1.5, the IRMan, and the Altec Lansing ADA310 Remote Controlled Speakers

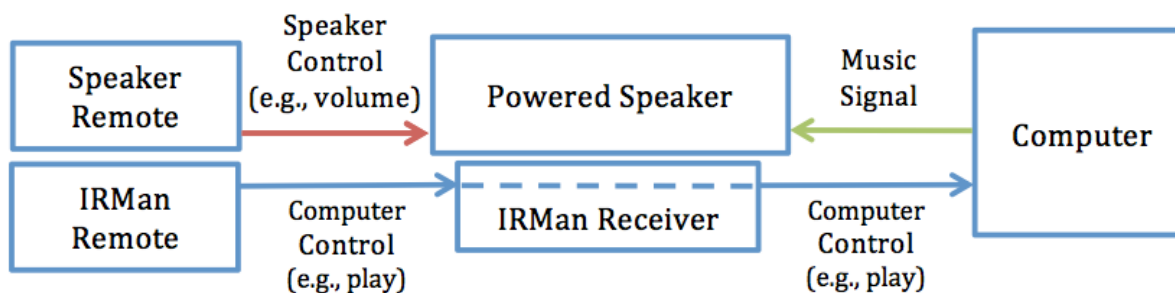
WinAmp, described on pages 65-93 of Guy Hart-Davis and Rhonda Holmes, *MP3!* (Sybex Inc. 1999) (excerpted as Ex. 1009), was a widely-used computer software package for playing MP3s. According to the records on the U.S. Copyright Office, the *MP3!* book was published on September 10, 1999 (*see* Exhibit 1016), making it prior art under 35 U.S.C. § 102(b). *MP3!* describes how WinAmp would play locally stored music files, as well as music streamed from internet radio stations.

The IRMan, described in the web pages of its manufacturer, Evation, captured by archive.org on June 8, 1999 (Ex. 1010), was a system that included a remote control unit and an IR receiver that connected to a computer. The purpose of the system was to allow the remote control to control software running on the computer, including MP3 software and, in particular, WinAmp. The June 8, 1999 web pages are prior art under 35 U.S.C. § 102(b).²

² The IRMan web pages are available in the Internet Archive at web.archive.org/web/19990508121919/http://www.evation.com/irman/index.html, where the number sequence “19990508” in the URL establishes a prior art date no later than May 8, 1999, 1998. *See* MPEP § 2128; *e.g.*, *Ex Parte Molander*, Appeal 2008-

The Altec Lansing ADA310 speaker system, described in a 1998 Manual (Exhibit 1011) and an October 17, 1997 Business Wire article (Exhibit 1012) was a set of powered computer speakers that included a remote control for controlling the operation of the speakers and were configured to accept audio in either digital or analog format. The Manual and Article are prior art under 35 U.S.C. § 102(b).

The combination of WinAmp, the IRMan, and the Altec Lansing speakers would have provided the same functionality as the system of the '295 patent, except that there would be two remotes (one for the speaker and one for the IRMan), and the IRMan signal would not pass through the speaker:



Thus, the primary difference between this combination and the claimed invention is that the invention combines the remotes of the IRMan and ADA310 speaker and places the IRMan receiver in the speaker. The functionality is the same.

Of particular relevance to this Petition, the 1998 Manual explains that “[c]omputers that are USB (universal serial bus) equipped can control all speaker

2589, Application 09/845,537, pp. 9-12 (B.P.A.I. March 17, 2009); *Ex Parte Shaouy*, Appeal 2007-0987, Application 09/810,992 (B.P.A.I. May 24, 1997).

functions from the desktop.” (Ex. 1011, at 3.) This is done with software that runs on the computer and includes a graphic user interface. (*Id.*) In addition, the speaker does not have a power switch but, instead, “[w]hen audio is received . . . the speaker turns on automatically.” (Ex. 1011, at 4.) Thus, the speaker was configured to respond to signals received from the computer.

E. Prior Art: European Patent Application No. 0 929 170

European Patent Application No. 0 929 170 (the “EP ’170 Application,” Exhibit 1018), titled “Methods, systems and apparatus for providing device status information within a communication network,” was published on July 14, 1999, making it prior art under 35 U.S.C. 102(b). The application describes a home audio/visual network in which TVs, PCs, and other devices can be coupled together. Paragraph 42 of the application explains that “[w]ithin a communications network where devices can communicate and control other devices, it is important that devices and associated software objects be aware of the current status of devices in the network to provide effective communication, control and reporting functions.”

F. Prosecution History of the ’295 Patent

The continuation application for the ’295 patent was filed December 7, 2006 with one claim and assigned Serial Number 11/608,034. The one claim was rejected as anticipated on June 12, 2008. On October 15, 2008, the applicant

canceled claim 1 and added new claims 44-67. On January 15, 2009, in response to a restriction requirement, the applicant elected claims 44-57, 59-61, and 64. On April 17, 2009, the examiner finally rejected those claims and anticipated by the same reference that had anticipated claim 1.

The applicant then filed an RCE, canceling all of the claims and presenting new claims 68-130, filed a supplemental response adding claim 131, and filed another supplemental response adding claim 132. On March 22, 2010, the examiner rejected claims 68-132 on double patenting grounds in light of the parent '765 patent. On August 17, 2010, the applicant interviewed the case and then, on August 23, 2010, the applicant filed a terminal disclaimer, canceled claims 69-71, 77, and 99-132, added new claims 133-142, and amended claim 68, the only independent claim. On February 28, 2011, the examiner issued a Notice of Allowance and the applicant paid the issue fee on March 4, 2011. On March 30, 2011, the Office mailed an Issue Notification.

On April 15, 2011, the applicant filed a petition to withdraw from issue, which was granted. On September 23, 2011, the applicant cancelled the claims that had been allowed, and submitted new claims 143-218, along with new prior art. On February 2, 2012, the applicant interviewed the case again. On February 29, 2012, the applicant filed a preliminary amendment, amending various claims and adding claims 219-225. On June 1, 2012, the applicant filed another

preliminary amendment, adding claim 226. On December 21, 2012, the examiner issued a Notice of Allowance, stating that the claims were allowable for “the same reasoning as set forth by the applicants/remarks of amendments filed 08/23/2010 and 02/29/2012,” which merely paraphrased the claims. The applicant paid the issue fee the day and the patent issued on January 29, 2013.

G. Construction of the Claims

The claim terms are presumed to take on their broadest reasonable construction, except as described below.

In the decision instituting the 465 IPR, the Board construed the following terms that are relevant to this Petition, and SDI believes those terms should be afforded the same construction in this proceeding.

Term	Construction
“computer”	“any machine capable of receiving input, processing, storing, and outputting data”
“computer that is configured to provide audio information from any one of a plurality of sources, including digital music files stored on the computer and a network accessible by the computer”	Only requires a computer configured to provide audio information from either one or more of digital music files stored on a computer, or one or more of different networks accessible by a computer, but, it does not preclude providing the information from both types of sources.

Additionally, the Board construed “network” and “audio information from the network via the computer,” but neither is material to the grounds upon which the Board instituted the 465 IPR, or the grounds presented here.

X. CLAIM-BY-CLAIM EXPLANATION OF GROUNDS FOR INVALIDITY

A. Ground I

Claims 25, 26, 51, 52, 53, 55-59, 60-62, 75, and 76 are invalid under 35 U.S.C. § 103 in view of the combination of *MP3!* book, describing WinAmp (Ex. 1009), the IRMan Web Pages (Ex. 1010), and the Altec Lansing Manual (Ex. 1011) (or the Altec Lansing Press Release (Ex. 1012), describing the same device). It would have been obvious to make this combination because IRMan device was intended to control the WinAmp MP3 player software running on a computer, and the Altec Lansing speakers were designed to play computer audio. This same combination forms the basis for Grounds 3 and 4 of the instituted 465 IPR.

The additional element addressed in this Petition—the speaker responding to signals from the computer—is *explicit* in the Altec Lansing Manual, which states that “[c]omputers that are USB (universal serial bus) equipped can control all speaker functions from the desktop.” (Ex. 1011, at 3.) The computer is controlling the speaker by transmitting electrical signals to which the speaker responds. In addition, the reference explains that “[w]hen audio is received . . . the speaker turns on automatically.” (Ex. 1011, at 4.) Again, the computer is transmitting electrical signals (music signals, in this case) to which the computer responds.

This combination is detailed in the following claim charts. Bold borders denote claims that are the subject of only this Petition, as opposed to claims that

are part of the 465 IPR but are also included below because they are parents of dependent claims addressed in this Petition.

'295 Patent	WinAmp Plus IRMan Plus Altec Lansing ADA310 Speakers
1. An audio system configured to connect to a separate computer that is configured to provide audio information from any one of a plurality of sources, including digital music files stored on the computer and a network accessible by the computer, the audio system comprising:	The combination is a powered speaker system (the ADA310) intended to connect to a personal computer, and a personal computer running WinAmp software that provided audio information from any one of a plurality of sources, including stored digital music files and the internet. (<i>See MP3!</i>, Ex. 1009, at 72-74 (describing how to play tracks and Internet streams); ADA310 Manual, Ex. 1011.) The claim broadly recites that the computer provides information from a “network,” not a “computer network.” The preamble does not require that the computer provide audio information from multiple sources, only that it be configured to provide audio information from any one source, including digital music files stored on the computer. Additionally, while the claim language apparently requires that the audio system be “configured to connect” to a certain type of computer, the description of the computer itself does not limit the claimed structure.
(A) a sound reproduction device comprising:	The ADA310 speaker was a sound reproduction device. (<i>See ADA310 Manual</i>, Ex. 1011.)

a housing;	The speaker had a housing. (<i>See</i> ADA310 Manual, Ex. 1011.)
one or more speakers located at least partially within the housing;	There were one or more speakers located within the housing. (<i>See</i> ADA310 Manual, Ex. 1011.)
an amplifier located within the housing for powering the one or more speakers;	The speakers had amplifiers located within the housing, 10W in the small speakers and 24W in the subwoofer. (<i>See</i> ADA Manual, Ex. 1011, at 7 (5W per driver in the satellites).)
control circuitry located within the housing; and	Both the ADA310 and the IRMan provided control circuitry for receiving IR signals, as described below. (<i>See</i> ADA310 Manual, Ex. 1011, at 6 (IR receiver); IRMan Web Page, Ex. 1010, at 1 (“Irman can receive the infrared signals transmitted by all sorts of remotes. It converts these signals to computer commands understood by software in your PC.”).) It would have been obvious to use the control circuitry in the ADA310 housing to control both the speaker and the computer (<i>i.e.</i>, to combine to IR receivers of the speaker and the IRMan), in order to, for example, reduce clutter and duplication. (<i>See</i> Lippman Decl., Exhibit 1017, ¶ 39-41.)
a connector located at least partially within the housing that is configured to provide a physical and electrical connection exclusively between the sound reproduction device and the computer,	The speaker had a connector (connections for the speaker audio) that would have been at least partially within the housing, providing a physical and electrical connection exclusively between the speaker and the computer. (<i>See</i> ADA310 Manual, Ex. 1011, 4-5.)

wherein the connection includes one or more signal paths configured to (i) receive audio information from the computer corresponding to the digital music files stored on the computer and audio information from the network via the computer, and (ii) transmit to the computer signals for controlling the computer; and	It would have been obvious to combine the functionality of the two IR receivers, as described above. In that case, the connection in the speaker would include signal paths configured to (i) receive audio from the computer corresponding to the digital music files stored on the computer and audio from the network via the computer (audio to the speaker), and (ii) transmit to the computer, signals for controlling the computer (IRMan control signals). The claim does not require that the connection actually provide audio information corresponding to the digital music files and audio information from the network, only that it be “configured to receive” such information were it to be provided.
(B) a remote control device configured to transmit signals representing at least a first type of command from a user and a second type of command from a user to the sound reproduction device,	The speaker remote and the IRMan remote were configured to transmit signals representing first and second types of commands from a user, as described below.

wherein the first type of command is a command to control a user function of the sound reproduction device and the second type of command is a command to control a user function of the computer,	The first type of command (<i>i.e.</i>, from the speaker remote) would control a user function of the sound reproduction device (<i>e.g.</i>, volume) and the second (<i>i.e.</i>, from the IRMan remote) would control a user function of the MP3 player software running on the computer (<i>e.g.</i>, stop or play). (<i>See</i> ADA310 Manual, Ex. 1011, at 7 (showing the remote); IRMan Web Page, Ex. 1010, at 1 (“Imagine controlling Winamp with a normal remote to choose exactly the song you want.”).)
wherein the control circuitry is configured to receive the signals from the remote control and, in response to receiving such signals: (i) control the user function of the sound reproduction device when the user issues a command of the first type, and (ii) transmit to the computer, via a signal path of the connector, a signal for controlling the user function of the computer when the user issues a command of the second type.	The control circuitry would receive the signals from the remote and (i) control the user function of the sound reproduction device if the command was of the first type (<i>i.e.</i>, from the speaker remote), and (ii) transmitted to the computer, via a signal path of the connector, a signal for controlling the user function of the computer if the user issued a command of the second type (<i>i.e.</i>, from the IRMan remote). (<i>See</i> ADA310 Manual, Ex. 1011, at 7 (showing the remote and describing its operation); IRMan Web Page, Ex. 1010, at 1 (“Imagine controlling Winamp with a normal remote to choose exactly the song you want.”).)

25. The audio system of claim 1 wherein the sound reproduction device is configured to respond to signals received from the computer.	The speakers were configured to respond to signals received from the computer. “Computers that are USB (universal serial bus) equipped can control all speaker functions from the desktop.” (ADA310 Manual, Ex. 1011, at 3.) This is done with software that runs on the computer, using a graphic user interface. (<i>Id.</i>) The control necessarily would be accomplished by electrical signals to which the speaker would respond. In addition, the ADA310 speaker did not have a power switch but, instead, “[w]hen audio is received . . . the speaker turns on automatically.” (<i>Id.</i>, at 4.) Thus, the speaker also responded to music signals from the computer.
26. The audio system of claim 25 wherein signals to the computer and signals from the computer to the sound reproduction device are transmitted via a signal path of the connector.	The signals to the computer and signals from the computer to the sound reproduction system are transmitted via a signal path of the connector.
27. An audio system configured to connect to a separate computer that has a plurality of user functions, a subset of the user functions relating to control of audio information, the audio system comprising:	The combination includes an audio system configured to connect to a personal computer that had a plurality of user functions, not all of which related to control of audio information. The computer could be turned on/off or run other types of software.
(A) a sound reproduction device comprising:	The ADA310 speaker was a sound reproduction device. (<i>See</i> ADA310 Manual, Ex. 1011.)

a housing;	The speaker had a housing. (<i>See</i> ADA310 Manual, Ex. 1011.)
one or more speakers located at least partially within the housing;	There were one or more speakers located within the housing. (<i>See</i> ADA310 Manual, Ex. 1011.)
an amplifier located within the housing for powering the one or more speakers;	The speakers had amplifiers located within the housing, 10W in the small speakers and 24W in the subwoofer. (<i>See</i> ADA Manual, Ex. 1011, at 7 (5W per driver in the satellites).)
control circuitry located within the housing;	Both the ADA310 and the IRMan provided control circuitry, as described below. (<i>See</i> ADA310 Manual, Ex. 1011, at 6 (IR receiver); IRMan Web Page, Ex. 1010, at 1 (“Irman can receive the infrared signals transmitted by all sorts of remotes. It converts these signals to computer commands understood by software in your PC.”).) It would have been obvious to use the control circuitry in the ADA310 housing to control both the speaker and the computer (<i>i.e.</i>, to combine to IR receivers of the speaker and the IRMan), in order to, for example, reduce clutter and duplication. (<i>See</i> Lippman Decl., Exhibit 1017, ¶ 39-41.)
and a connector located at least partially within the housing that is configured to provide a physical and electrical connection exclusively between the sound reproduction device and the computer,	The speaker had a connector (connections for the speaker audio) that would have been at least partially within the housing, providing a physical and electrical connection exclusively between the speaker and the computer. (<i>See</i> ADA310 Manual, Ex. 1011, 4-5.)

wherein the connection includes one or more signal paths configured to (i) receive audio information from the computer, and (ii) transmit to the computer signals for controlling the computer; and	It would have been obvious to combine the functionality of the two IR receivers, as described above. In that case, the connection in the speaker would include signal paths configured to (i) receive audio from the computer corresponding to the digital music files stored on the computer and audio from the network via the computer (audio to the speaker), and (ii) transmit to the computer, signals for controlling the computer (IRMan control signals).
(B) a remote control device configured to transmit signals representing at least a first type of command from a user and a second type of command from a user to the sound reproduction device,	The speaker remote and the IRMan remote were configured to transmit signals representing first and second types of commands from a user.
wherein the first type of command is a command to control user function of the sound reproduction device and the second type of command is a command to control a user function of the computer relating to control of audio information,	The first type of command (<i>i.e.</i>, from the speaker remote) would control a user function of the sound reproduction device (<i>e.g.</i>, volume) and the second (<i>i.e.</i>, from the IRMan remote) controlled a user function of the MP3 player software running on the computer (<i>e.g.</i>, stop or play). (<i>See</i> ADA310 Manual, Ex. 1011, at 7 (showing the remote); IRMan Web Page, Ex. 1010, at 1 (“Imagine controlling Winamp with a normal remote to choose exactly the song you want.”).)

wherein the control circuitry is configured to receive the signals from the remote control and, in response to receiving such signals: (i) control the user function of the sound reproduction device when the user issues a command of the first type, and (ii) transmit to the computer, via a signal path of the connector, a signal for controlling the user function of the computer when the user issues a command of the second type.	The control circuitry would receive the signals from the remote and (i) control the user function of the sound reproduction device if the command was of the first type (<i>i.e.</i>, from the speaker remote), and (ii) transmitted to the computer, via a signal path of the connector, a signal for controlling the user function of the computer if the user issued a command of the second type (<i>i.e.</i>, from the IRMan remote). (<i>See</i> ADA310 Manual, Ex. 1011 at 7 (showing the remote and describing its operation); IRMan Web Page, Ex. 1010, at 1 (“Imagine controlling Winamp with a normal remote to choose exactly the song you want.”).)
51. The audio system of claim 27, wherein the sound reproduction device is configured to respond to signals received from the computer.	The speakers were configured to respond to signals received from the computer. “Computers that are USB (universal serial bus) equipped can control all speaker functions from the desktop.” (ADA310 Manual, Ex. 1011, at 3.) This is done with software that runs on the computer, using a graphic user interface. (<i>Id.</i>) The control necessarily would be accomplished by electrical signals to which the speaker would respond. In addition, the speaker did not have a power switch but, instead, “[w]hen audio is received . . . the speaker turns on automatically.” (ADA310 Manual, Ex. 11011, at 4.) Thus, the speaker also responded to music signals from the computer.

52. The audio system of claim 51, wherein signals to the computer and signals from the computer to the sound reproduction device are transmitted via a signal path of the connector.	The signals to the computer and signals from the computer to the sound reproduction system are transmitted via a signal path of the connector.
53. An audio system configured to connect to a separate computer, the audio system comprising:	The combination is a powered speaker system (the ADA310) intended to connect to a personal computer, and a personal computer running WinAmp software that provided audio information from any one of a plurality of sources, including stored digital music files and the internet. (<i>See MP3!</i> , Ex. 1009, at 72-74 (describing how to play tracks and Internet streams); ADA310 Manual, Ex. 1011.)
(A) a sound reproduction device comprising:	The ADA310 speaker was a sound reproduction device. (<i>See</i> ADA310 Manual, Ex. 1011.)
a housing;	The speaker had a housing. (<i>See</i> ADA310 Manual, Ex. 1011.)
one or more speakers located at least partially within the housing;	There were one or more speakers located within the housing of at least the ADA310 to reproduced the processed audio signals, <i>e.g.</i> , to play audio.
an amplifier located within the housing for powering the one or more speakers;	The speakers had amplifiers that process audio signals located within the housing, 10W in the small speakers and 24W in the subwoofer. (<i>See</i> ADA Manual, Ex. 1011, at 7 (5W per driver in the satellites).)

control circuitry located within the housing; and	Both the ADA310 and the IRMan provided control circuitry to receive IR signals, as described below. (<i>See</i> ADA310 Manual, at 6 (IR receiver); IRMan Web Page, Ex. 1010, at 1 (“IRMan can receive the infrared signals transmitted by all sorts of remotes. It converts these signals to computer commands understood by software in your PC.”).) It would have been obvious to use the control circuitry in the ADA310 housing to control both the speaker and the computer, in order to, for example, reduce clutter and duplication. (<i>See</i> Lippman Decl., Exhibit 1017, ¶ 39-41.)
a connector located at least partially within the housing that is configured to provide a physical and electrical connection exclusively between the sound reproduction device and the computer,	The speaker necessarily had a connector (connections for the speaker audio) providing a physical and electrical connection exclusively between the speaker and the computer.

wherein the connection includes one or more signal paths configured to (i) receive audio information from the computer, (ii) transmit to the computer signals for controlling the computer, and (iii) receive signals from the computer; and

It would have been obvious to combine the functionality of the two IR receivers, as described above. In that case, the connection in the speaker would include signal paths configured to (i) receive audio from the computer corresponding to the digital music files stored on the computer and audio from the network via the computer (audio to the speaker), and (ii) transmit to the computer, signals for controlling the computer (IRMan control signals).

The speakers were also configured to receive signals from the computer.

“Computers that are USB (universal serial bus) equipped can control all speaker functions from the desktop.” (ADA310 Manual, Ex. 1011, at 3.) This is done with software that runs on the computer, using a graphic user interface. (*Id.*) The control necessarily would be accomplished by electrical signals to which the speaker would respond.

In addition, the ADA310 speaker did not have a power switch but, instead, “[w]hen audio is received . . . the speaker turns on automatically.” (*Id.*, at 4.) Thus, the speaker also responded to music signals from the computer.

(B) a remote control device configured to transmit signals representing at least a first type of command from a user and a second type of command from a user to the sound reproduction device, wherein the first type of command is a command to control a user function of the sound reproduction device and the second type of command is a command to control a user function of the computer,	The speaker remote and the IRMan remote were configured to transmit signals representing first and second types of commands from a user to control circuitry, where the first type would be a command to control a user function of the sound reproduction device and the second type would be a command to control a user function of the computer.
wherein the control circuitry is configured to receive the signals from the remote control and, in response to receiving such signals: (i) control the user function of the sound reproduction device when the user issues a command of the first type, and (ii) transmit to the computer, via a signal path of the connector, a signal for controlling the user function of the computer when the user issues a command of the second type.	The control circuitry would receive the signals from the remote and (i) control the user function of the sound reproduction device if the command was of the first type (<i>i.e.</i>, from the speaker remote), and (ii) transmitted to the computer, via a signal path of the connector, a signal for controlling the user function of the computer if the user issued a command of the second type (<i>i.e.</i>, from the IRMan remote). (<i>See</i> ADA310 Manual, at 7 (showing the remote and describing its operation); IRMan Web Page, Ex. 1010, at 1 (“Imagine controlling Winamp with a normal remote to choose exactly the song you want.”).)

55. The audio system of claim 53, wherein the connection includes (i) an audio signal path configured to receive the audio information from the computer and (ii) a separate signal path configured to transmit to the computer signals for controlling the computer.	This is the same as claim 24, which is a subject of the 465 IPR. The connection would have included (i) an audio signal path configured to receive the audio information from the computer (the music from the computer) and (ii) a separate signal path configured to transmit to the computer the signals for controlling the computer (the IRMan control signals).
56. The audio system of claim 53, wherein the audio information is in digital form.	This is the same as claim 18, which is a subject of the 465 IPR. The ADA310 speakers were configured to receive audio information in either analog or digital form. (<i>See</i> ADA Manual, Ex. 1011, at 4-5 (describing the analog and digital connections); 6 (“The ADA310W has two basic modes of operation: Analog and digital.”).)
57. The audio system of claim 53, wherein the audio information is in analog form.	This is the same as claim 19, which is a subject of the 465 IPR. The ADA310 speakers were configured to receive audio information in either analog or digital form. (<i>See</i> ADA Manual, Ex. 1011, at 4-5 (describing the analog and digital connections); 6 (“The ADA310W has two basic modes of operation: Analog and digital.”).)
58. The audio system of claim 53, wherein the audio information comprises digital music files stored on the computer.	The audio information comprised digital music files stored on the computer.

59. An audio system configured to connect to a separate computer that has a plurality of user functions, a subset of the user functions relating to control of audio information, and is configured to provide audio information from any one of a plurality of sources, including digital music files stored on the computer and a network accessible by the computer, the audio system comprising:	The combination is a powered speaker system (the ADA310) intended to connect to a personal computer, which has a plurality of user functions a subset of which relate to the control of audio information, and a personal computer running WinAmp software that provided audio information from any one of a plurality of sources, including stored digital music files and the internet. (<i>See MP3!</i>, Ex. 1009, at 72-74 (describing how to play tracks and Internet streams); ADA310 Manual, Ex. 1011.) The preamble does not require that the computer provide audio information from multiple sources, only that it be configured to provide audio information from any one source, including digital music files stored on the computer.
(A) a sound reproduction device comprising:	The ADA310 speaker was a sound reproduction device. (<i>See</i> ADA310 Manual, Ex. 1011.)
a housing;	The speaker had a housing. (<i>See</i> ADA310 Manual, Ex. 1011.)
one or more speakers located at least partially within the housing;	There were one or more speakers located within the housing of at least the ADA310 to reproduced the processed audio signals, <i>e.g.</i> , to play audio.
an amplifier located within the housing for powering the one or more speakers;	The speakers had amplifiers that process audio signals located within the housing, 10W in the small speakers and 24W in the subwoofer. (<i>See</i> ADA Manual, Ex. 1011, at 7 (5W per driver in the satellites).)

control circuitry located within the housing; and	Both the ADA310 and the IRMan provided control circuitry to receive IR signals, as described below. (<i>See</i> ADA310 Manual, at 6 (IR receiver); IRMan Web Page, Ex. 1010, at 1 (“IRMan can receive the infrared signals transmitted by all sorts of remotes. It converts these signals to computer commands understood by software in your PC.”).) It would have been obvious to use the control circuitry in the ADA310 housing to control both the speaker and the computer, in order to, for example, reduce clutter and duplication. (<i>See</i> Lippman Decl., Exhibit 1017, ¶ 39-41.)
a connector located at least partially within the housing that is configured to provide a physical and electrical connection exclusively between the sound reproduction device and the computer,	The speaker necessarily had a connector (connections for the speaker audio) providing a physical and electrical connection exclusively between the speaker and the computer.

wherein the connection includes one or more signal paths configured to (i) receive audio information from the computer corresponding to the digital music files stored on the computer and audio information from the network via the computer, (ii) transmit to the computer signals for controlling the computer, and (iii) receive signals from the computer; and

It would have been obvious to combine the functionality of the two IR receivers, as described above. In that case, the connection in the speaker would include signal paths configured to (i) receive audio from the computer corresponding to the digital music files stored on the computer and audio from the network via the computer (audio to the speaker), and (ii) transmit to the computer, signals for controlling the computer (IRMan control signals).

The speakers were also configured to receive signals from the computer.

“Computers that are USB (universal serial bus) equipped can control all speaker functions from the desktop.” (ADA310 Manual, Ex. 1011, at 3.) This is done with software that runs on the computer, using a graphic user interface. (*Id.*) The control necessarily would be accomplished by electrical signals to which the speaker would respond.

In addition, the ADA310 speaker did not have a power switch but, instead, “[w]hen audio is received . . . the speaker turns on automatically.” (*Id.*, at 4.) Thus, the speaker also responded to music signals from the computer.

(B) a remote control device configured to transmit signals representing at least a first type of command from a user and a second type of command from a user to the sound reproduction device, wherein the first type of command is a command to control a user function of the sound reproduction device and the second type of command is a command to control a user function of the computer,	The speaker remote and the IRMan remote were configured to transmit signals representing first and second types of commands from a user to control circuitry, where the first type would be a command to control a user function of the sound reproduction device and the second type would be a command to control a user function of the computer.
wherein the control circuitry is configured to receive the signals from the remote control and, in response to receiving such signals: (i) control the user function of the sound reproduction device when the user issues a command of the first type, and (ii) transmit to the computer, via a signal path of the connector, a signal for controlling the user function of the computer when the user issues a command of the second type.	The control circuitry would receive the signals from the remote and (i) control the user function of the sound reproduction device if the command was of the first type (<i>i.e.</i>, from the speaker remote), and (ii) transmitted to the computer, via a signal path of the connector, a signal for controlling the user function of the computer if the user issued a command of the second type (<i>i.e.</i>, from the IRMan remote). (<i>See</i> ADA310 Manual, at 7 (showing the remote and describing its operation); IRMan Web Page, Ex. 1010, at 1 (“Imagine controlling Winamp with a normal remote to choose exactly the song you want.”).)

60. The audio system of claim 59, wherein the connection includes (i) an audio signal path configured to receive the audio information from the computer and from the network via the computer and (ii) a separate signal path configured to transmit to the computer signals for controlling the computer.	This is the same as claim 24, which is a subject of the 465 IPR. The connection would have included (i) an audio signal path configured to receive the audio information from the computer (the music from the computer) and (ii) a separate signal path configured to transmit to the computer the signals for controlling the computer (the IRMan control signals).
61. The audio system of claim 59, wherein the audio information is in digital form.	This is the same as claim 18, which is a subject of the 465 IPR. The ADA310 speakers were configured to receive audio information in either analog or digital form. (<i>See</i> ADA Manual, Ex. 1011, at 4-5 (describing the analog and digital connections); 6 (“The ADA310W has two basic modes of operation: Analog and digital.”).)
62. The audio system of claim 59, wherein the audio information is in analog form.	This is the same as claim 19, which is a subject of the 465 IPR. The ADA310 speakers were configured to receive audio information in either analog or digital form. (<i>See</i> ADA Manual, Ex. 1011, at 4-5 (describing the analog and digital connections); 6 (“The ADA310W has two basic modes of operation: Analog and digital.”).)

75. The audio system of claim 53, wherein the sound reproduction device further comprises a digital to analog converter configured to convert digital audio information from the computer to analog representations of the audio information for reproduction by the sound reproduction device.	This is the same as claim 77, which is a subject of the 465 IPR. The ADA310 speakers were configured to receive audio information in digital form, meaning that they necessarily included a D/A converter. (<i>See</i> ADA310 Manual, Ex. 1011, at 4-5 (describing the analog and digital connections); 6 (“The ADA310W has two basic modes of operation: Analog and digital.”).)
76. The audio system of claim 59, wherein the sound reproduction device further comprises a digital to analog converter configured to convert digital audio information from the computer to analog representations of the audio information for reproduction by the sound reproduction device.	This is the same as claim 77, which is a subject of the 465 IPR. The ADA310 speakers were configured to receive audio information in digital form, meaning that they necessarily included a D/A converter. (<i>See</i> ADA310 Manual, Ex. 1011, at 4-5 (describing the analog and digital connections); 6 (“The ADA310W has two basic modes of operation: Analog and digital.”).)

B. Ground II

Claims 25, 26, 51, 52, 53, 55-59, 60-62, 75, and 76 are invalid under 35 U.S.C. § 103 over the Sony Music System Manual (Ex. 1002) in view of the Creative Nomad Manual (Ex. 1005) (or the Nomad Review (Ex. 1006), the Yepp Article (Ex. 1007), or the Samsung Yepp Press Release (Ex. 1008), all describing the same device), in further view of European Patent Application No. 0 929 170 (Exhibit 1018), or common sense.

The Sony Music System/Nomad combination forms the basis for Grounds 1 and 2 of the instituted 465 IPR. The additional element addressed in these claims—the speaker responding to signals from the computer—is described in the specification as follows:

If sound reproduction device 10 is in the “off” state, and is turned “on” either by pressing the “on” or “power” button or a button or indicator performing an equivalent function, or by pressing the corresponding button on remote control device 17, *control electronics circuitry 16 detects whether computer 20 is connected, and if connected, in the “on” or “off” state.*

(See Ex. 1001, at 5:66-6:4; 1:63-2:5.) In other words, the speaker checks to see if the computer is connected and powered. It would have been obvious to employ such a step in a system like that of the ’682 patent because commands issued to a device that is not present, or not powered, would not be executed. It would have been desirable (or even necessary) to *not* try to communicate with a device that is not there, or not capable of communicating.

This type of arrangement, in which one device checks the status of another before trying to communicate with it, was common in computer and electronics protocols at the time of the invention. One example of that is the home audio/visual initiative (HAVI) architecture described in EP 0 929 170 A2 (Exhibit 1018), which allows one device to check the status of another. (See, e.g., Abstract (“Devices of the network are informed of the current status of the network after a local bus reset caused when a device (e.g. 20) is inserted into the network or when

a device is removed from the network.”); *id.* ¶¶ 0010-12 (“Devices can be removed from or inserted into the network while the network is otherwise operable (*e.g.*, hot modifications are allowed). Therefore, it is important that devices be informed of the current status of other devices on the network following a bus reset. The present invention provides a mechanism whereby devices of the network are informed of the current status of the network after a local bus reset which is caused when a device is inserted into the network (including power on) or when a device is removed from the network (including power down).”; “The high level program . . . generates a list of devices added to the network after the bus reset and a list of devices removed from the network after the bus reset. This information is then forwarded to all devices on the network that previously specified certain call back information regarding current device status.”), 0047 (“Within this bus configuration 10b, peer-to-peer device communication is supported. For example, as shown in Figure 1C, any device (having appropriate capabilities), *e.g.*, device 12, can send or receive communication packets from any other device in the HAVI network. In the example of Figure 1C, the set-top-box (*e.g.*, an IRD) can receive messages from or generate messages to any of the other devices 14-24 of the exemplary HAVI network.”); 0078, 0084-85.)

The HAVI architecture is more sophisticated than what would be required in a 1-to-1 system like that of the ’682 patent. The salient point, however, is that EP

'170 describes a “communication architecture integrating consumer electronic devices (‘a consumers electronics network’)” in which “devices can communicate with each other and control one another,” and explains that “[w]ithin a communications network where devices can communicate and control other devices, *it is important that devices . . . be aware of the current status of devices in the network to provide effective communication, control and reporting functions.*” (*Id.*, ¶ 42 (emphasis added).) The EP '170 reference, as a whole, clearly teaches that it would have been desirable for one device to be aware of the status of another device with which it may want to communicate.

Moreover, this concept is nothing more than common sense, as there is no reason to issue commands to a device that is not present or powered, and the obvious way to avoid doing that its to check whether the other device is available before communicating. This is analogous to a person placing a phone call waiting for other party to say “hello”—providing a “signal”—before starting to talk. If the other party is not home, and the line just rings, the party placing the call does not try to communicate.

In a 1-to-1 arrangement like that of the '682 patent, status checking would be performed by way of direct communication—the passing of electrical signals between the devices. In light of, for example, EP '170, it would have been obvious to modify the Sony/Nomad combination to implement status checking, whereby

the Sony Music System would check that the Nomad was present and/or on before trying to communicate with it. When the Nomad was on, the Sony Music System would respond to signals from the Nomad confirming that it was on/present.

While the Patent Owner may argue that the *exact system* of EP '170 would not be implemented in the Sony/Nomad combination, that is beside the point. The reference teaches that it would be desirable to perform the status checking.

Implementation of such checking is *necessarily* within the abilities of a person of ordinary skill in the art, because the '682 patent does not bother to explain how it is accomplished. If such work is beyond one of ordinary skill in the art, the '682 patent lacks sufficient written description.

This combination is detailed in the following claim charts. Bold borders denote claims that are the subject of only this Petition, as opposed to claims that are part of the 465 IPR but are also included below because they are parents of dependent claims addressed in this Petition.

'295 Patent	Sony Music System (“SMS”) Plus the Nomad/Yepp (“Nomad”)
1. An audio system configured to connect to a separate computer that is configured to provide audio information from any one of a plurality of sources, including digital music files stored on the computer and a network accessible by the computer, the audio system comprising:	SMS: Discloses an audio system configured to connect to a separate device (<i>i.e.</i>, a MiniDisc player) that provided audio information. The MiniDisc meets Bose’s definition of “computer.” Nomad: Discloses a computer configured to provide audio information from any one of a plurality of sources, including digital music files stored in internal memory, digital music files stored on removable flash cards, digital music files downloaded from a network (the Internet) when connected to a personal computer, and music from the terrestrial FM radio network. (<i>See, e.g.</i>, Nomad Manual, Ex. 1004, at 6-7 (flash card storage and downloading), 13-14 (radio).) Notably, the preamble does not require that the computer provide audio information from multiple sources, only that it be configured to provide audio information from any one source, including digital music files stored on the computer.
(A) a sound reproduction device comprising:	SMS: Discloses a sound reproduction device, <i>i.e.</i> , a music player.
a housing;	SMS: The drawings of the device in the manual show a housing.
one or more speakers located at least partially within the housing;	SMS: One or more speakers were necessarily located within the housing, to play the audio.

an amplifier located within the housing for powering the one or more speakers;	SMS: Necessarily had an amplifier located within the housing for powering the speakers, to play the audio.
control circuitry located within the housing; and	SMS: Had control circuitry within the housing, as described below.
a connector located at least partially within the housing that is configured to provide a physical and electrical connection exclusively between the sound reproduction device and the computer,	SMS: Had a connector at least partially within the housing that provided a physical and electrical connection exclusively between the SMS and the Sony MiniDisc. (<i>See SMS Manual, Ex. 1001, at 41 (showing the connection to the MiniDisc).</i>) Nomad: It would have been obvious to use a separate, portable Nomad as a music source instead of the separate, portable MiniDisc player to, for example, have access to more music that the greater storage capacity would provide. (<i>See Lippman Decl., Ex. 1017, ¶ 25-27.</i>)

wherein the connection includes one or more signal paths configured to (i) receive audio information from the computer corresponding to the digital music files stored on the computer and audio information from the network via the computer, and (ii) transmit to the computer signals for controlling the computer; and	SMS: The connection included signal paths configured to (i) receive audio from the MiniDisc and to (ii) transmit to the MiniDisc, signals for controlling the MiniDisc, when the MiniDisc was attached and being controlled by the remote. (<i>See SMS Manual, Ex. 1001, at 41-43 (showing the connection to the MiniDisc and explaining how the SMS remote may control the MiniDisc, including with its remote, using the MD CONTROL output).</i>) Nomad: Provided audio information from digital music files stored in internal memory, digital music files stored on removable flash cards, digital music files downloaded from a network (the Internet) when connected to a personal computer, and music from the terrestrial FM radio network. (<i>See, e.g., Nomad Manual, Ex. 1004, at 6-7 (flash cards and downloading), 13-14 (radio).</i>) The claim does not require that the connection actually provide audio information corresponding to the digital music files and audio information from the network, only that it be “configured to receive” such information were it to be provided.
(B) a remote control device configured to transmit signals representing at least a first type of command from a user and a second type of command from a user to the sound reproduction device,	SMS: Had a remote control configured to transmit signals representing first and second types of commands from a user, as described below.

wherein the first type of command is a command to control a user function of the sound reproduction device and the second type of command is a command to control a user function of the computer,	SMS: The first type of command controlled a user function of the sound reproduction device (<i>e.g.</i>, volume) and the second controlled a user function of the MiniDisc (<i>e.g.</i>, stop or play). (<i>See SMS Manual, Ex. 1001, at 14 (showing the remote with volume control buttons to control the SMS volume); 42-43 (explaining how the SMS may control the MiniDisc, including with its remote, using the MD CONTROL output).</i>)
wherein the control circuitry is configured to receive the signals from the remote control and, in response to receiving such signals: (i) control the user function of the sound reproduction device when the user issues a command of the first type, and (ii) transmit to the computer, via a signal path of the connector, a signal for controlling the user function of the computer when the user issues a command of the second type.	SMS: The control circuitry in the SMS received the signals from the remote and (i) controlled the user function of the SMS if the command was of the first type, and (ii) transmitted to the MiniDisc, via a signal path of the connector, a signal for controlling the user function of the MiniDisc if the user issued a command of the second type. (<i>See SMS Manual, Ex. 1001, at 14 (showing the remote with volume control buttons to control the SMS volume); 41-43 (showing the connection and explaining how the SMS may control the MiniDisc, including with its remote, using the MD CONTROL output).</i>)

25. The audio system of claim 1 wherein the sound reproduction device is configured to respond to signals received from the computer.	As discussed above, it would have been obvious to have the SMS respond to signals from the Nomad, such as would happen were the SMS to check the status of the Nomad before trying to communicate with it, as is common in computer and electronics communications protocols, such as HAVI. (See Exhibit 1018, ¶ 42.) In a 1-to-1 arrangement like that of the '682 patent, status checking would be performed by way of direct communication—the passing of electrical signals between the devices. When the Nomad was on, the SMS would be responding to signals it produced. Additionally, common sense compels checking that the device to which communications are being directed is available.
26. The audio system of claim 25 wherein signals to the computer and signals from the computer to the sound reproduction device are transmitted via a signal path of the connector.	The signals to the computer and signals from the computer to the sound reproduction system are transmitted via a signal path of the connector.

27. An audio system configured to connect to a separate computer that has a plurality of user functions, a subset of the user functions relating to control of audio information, the audio system comprising:	SMS: Discloses an audio system configured to connect to a separate device (<i>i.e.</i>, a MiniDisc player) that provided audio information. Nomad: Discloses a separate “computer” that had a plurality of user functions, where not all of the functions related to the control of audio information. For example, the device included power on/off functionality. (<i>See Nomad Manual, Ex. 1004, at 3 (power off).</i>)
(A) a sound reproduction device comprising:	SMS: Was a sound reproduction device, <i>i.e.</i> , a music player.
a housing;	SMS: The drawings of the device in the manual show a housing.
one or more speakers located at least partially within the housing;	SMS: One or more speakers were located within the housing, to play the audio.
an amplifier located within the housing for powering the one or more speakers;	SMS: Had an amplifier located within the housing for powering the speakers, to play the audio.
control circuitry located within the housing;	SMS: Had control circuitry within the housing for receiving the signals from the remote, as described below.

and a connector located at least partially within the housing that is configured to provide a physical and electrical connection exclusively between the sound reproduction device and the computer,	SMS: Had a connector at least partially within the housing that provided a physical and electrical connection exclusively between the SMS and the Sony MiniDisc. (<i>See SMS Manual, Ex. 1001, at 41 (showing the connection to the MiniDisc).</i>) Nomad: It would have been obvious to use a separate, portable Nomad as a music source instead of the separate, portable MiniDisc player, to, for example, have access to more music that the greater storage capacity would provide. (<i>See Lippman Decl., ¶ 25-27.</i>)
wherein the connection includes one or more signal paths configured to (i) receive audio information from the computer, and (ii) transmit to the computer signals for controlling the computer; and	SMS: The connection included signal paths configured to (i) receive audio from the MiniDisc and to (ii) transmit to the MiniDisc, signals for controlling the MiniDisc, when the MiniDisc was attached and being controlled by the remote. (<i>See SMS Manual, Ex. 1001, at 41-43 (showing the connection to the MiniDisc and explaining how the SMS remote may control the MiniDisc, including with its remote, using the MD CONTROL output).</i>)
(B) a remote control device configured to transmit signals representing at least a first type of command from a user and a second type of command from a user to the sound reproduction device,	SMS: Had a remote control configured to transmit signals representing first and second types of commands from a user, as described below.

wherein the first type of command is a command to control user function of the sound reproduction device and the second type of command is a command to control a user function of the computer relating to control of audio information,	SMS: The first type of command controlled a user function of the sound reproduction device (<i>e.g.</i>, volume) and the second controlled a user function of the MiniDisc (<i>e.g.</i>, stop or play). (<i>See SMS Manual, Ex. 1001, at 14 (showing the remote with volume control buttons to control the SMS volume); 42-43 (explaining how the SMS may control the MiniDisc, including with its remote, using the MD CONTROL output).</i>)
wherein the control circuitry is configured to receive the signals from the remote control and, in response to receiving such signals: (i) control the user function of the sound reproduction device when the user issues a command of the first type, and (ii) transmit to the computer, via a signal path of the connector, a signal for controlling the user function of the computer when the user issues a command of the second type.	SMS: The control circuitry received the signals from the remote and (i) controlled the user function of the sound reproduction device if the command was of the first type, and (ii) transmitted to the MiniDisc, via a signal path of the connector, a signal for controlling the user function of the computer if the user issued a command of the second type. (<i>See SMS Manual, Ex. 1001, at 14 (showing remote with volume control buttons to control the SMS volume); 41-43 (showing the connection and explaining how the SMS may control the MiniDisc, including with its remote, using the MD CONTROL output).</i>)

51. The audio system of claim 27, wherein the sound reproduction device is configured to respond to signals received from the computer.	As discussed above, it would have been obvious to have the SMS respond to signals from the Nomad, such as would happen were the SMS to check the status of the Nomad before trying to communicate with it, as is common in computer and electronics communications protocols, such as HAVI. (See Exhibit 1018, ¶ 42.) In a 1-to-1 arrangement like that of the '682 patent, status checking would be performed by way of direct communication—the passing of electrical signals between the devices. When the Nomad was on, the SMS would be responding to signals it produced. Additionally, common sense compels checking that the device to which communications are being directed is available.
52. The audio system of claim 51, wherein signals to the computer and signals from the computer to the sound reproduction device are transmitted via a signal path of the connector.	The signals to the computer and signals from the computer to the sound reproduction system are transmitted via a signal path of the connector.
53. An audio system configured to connect to a separate computer, the audio system comprising:	SMS: Discloses an audio system configured to connect to a separate device (<i>i.e.</i> , a MiniDisc player) that provided audio information.
(A) a sound reproduction device comprising:	SMS: Was a sound reproduction device, <i>i.e.</i> , a music player.
a housing;	SMS: The drawings of the device show a housing.

one or more speakers located at least partially within the housing;	SMS: Had one or more speakers in the housing to reproduce the processed audio signals, <i>e.g.</i> , play the audio.
an amplifier located within the housing for powering the one or more speakers;	SMS: Necessarily had an amplifier located within the housing for powering the speakers, to play the audio.
control circuitry located within the housing; and	SMS: Had control circuitry within the housing, as described below.
a connector located at least partially within the housing that is configured to provide a physical and electrical connection exclusively between the sound reproduction device and the computer,	SMS: Had a connector at least partially within the housing that provided a physical and electrical connection exclusively between the SMS and the Sony MiniDisc. (<i>See SMS Manual, Ex. 1001, at 41 (showing the connection to the MiniDisc).</i>) Nomad: It would have been obvious to use a separate, portable Nomad as a music source instead of the separate, portable MiniDisc player to, for example, have access to more music that the greater storage capacity would provide. (<i>See Lippman Decl., ¶ 25-27.</i>)

wherein the connection includes one or more signal paths configured to (i) receive audio information from the computer, (ii) transmit to the computer signals for controlling the computer, and (iii) receive signals from the computer; and

SMS: The connection included signal paths configured to (i) receive audio from the MiniDisc and to (ii) transmit to the MiniDisc, signals for controlling the MiniDisc, when the MiniDisc was attached and being controlled by the remote. (*See SMS Manual, Ex. 1002, at 41-43 (showing the connection to the MiniDisc and explaining how the SMS remote may control the MiniDisc, including with its remote, using the MD CONTROL output).*)

As discussed above, it would have been obvious to have the SMS receive signals from the Nomad, such as would happen were the SMS to check the status of the Nomad before trying to communicate with it, as is common in computer and electronics communications protocols, such as HAVI. (*See Exhibit 1018, ¶ 42.*) In a 1-to-1 arrangement like that of the '682 patent, status checking would be performed by way of direct communication—the passing of electrical signals between the devices. When the Nomad was on, the SMS would be responding to signals it produced.

Additionally, common sense compels checking that the device to which communications are being directed is available.

(B) a remote control device configured to transmit signals representing at least a first type of command from a user and a second type of command from a user to the sound reproduction device, wherein the first type of command is a command to control a user function of the sound reproduction device and the second type of command is a command to control a user function of the computer,	SMS: Had a remote control configured to transmit signals representing first and second types of commands from a user, as described below, where the first type would be a command to control a user function of the sound reproduction device and the second type would be a command to control a user function of the computer.
wherein the control circuitry is configured to receive the signals from the remote control and, in response to receiving such signals: (i) control the user function of the sound reproduction device when the user issues a command of the first type, and (ii) transmit to the computer, via a signal path of the connector, a signal for controlling the user function of the computer when the user issues a command of the second type.	SMS: The control circuitry received the signals from the remote and (i) controlled the user function of the sound reproduction device if the command was of the first type, and (ii) transmitted to the MiniDisc, via a signal path of the connector, a signal for controlling the user function of the computer if the user issued a command of the second type. (<i>See SMS Manual, Ex. 1002, at 14 (showing remote with SMS volume); 41-43 (showing the connection and explaining how the SMS may control the MiniDisc, including with its remote, using the MD CONTROL output).</i>)
55. The audio system of claim 53, wherein the connection includes (i) an audio signal path configured to receive the audio information from the computer and (ii) a separate signal path configured to transmit to the computer signals for controlling the computer.	This is the same as claim 24, which is a subject of the 465 IPR. The connection would have included (i) an audio signal path configured to receive the audio information from the computer (the music from the computer) and (ii) a separate signal path configured to transmit to the computer the signals for controlling the computer (the IRMan control signals).

56. The audio system of claim 53, wherein the audio information is in digital form.	This is the same as claim 18, which is a subject of the 465 IPR. SMS: The MiniDisc output music in analog form (<i>see</i> SMS Manual, Ex. 1001, at 41(connection to headphone remote jack on MiniDisc)), but it would have been obvious to output in digital form, so as to, for example, allow the use of a better digital-to-analog converter. (<i>See</i> Lippman Decl., ¶ 29.)
57. The audio system of claim 53, wherein the audio information is in analog form.	This is the same as claim 19, which is a subject of the 465 IPR. SMS: The MiniDisc player output music in analog form. (<i>See</i> SMS Manual, Ex. 1001, at 41(connection to headphone remote jack on MiniDisc.)
58. The audio system of claim 53, wherein the audio information comprises digital music files stored on the computer.	The audio information comprised digital music files stored on the computer.

59. An audio system configured to connect to a separate computer that has a plurality of user functions, a subset of the user functions relating to control of audio information, and is configured to provide audio information from any one of a plurality of sources, including digital music files stored on the computer and a network accessible by the computer, the audio system comprising:	SMS: Discloses an audio system configured to connect to a separate device (<i>i.e.</i>, a MiniDisc player) that provided audio information. Nomad: Discloses a separate “computer” that had digital music files and a plurality of user functions, where not all of the functions related to the control of audio information. For example, the device included power on/off functionality. (<i>See Nomad Manual, Ex. 1004, at 3 (power off).</i>) The preamble does not require that the computer provide audio information from multiple sources, only that it be configured to provide audio information from any one source, including digital music files stored on the computer.
(A) a sound reproduction device comprising:	SMS: Was a sound reproduction device, <i>i.e.</i> , a music player.
a housing;	SMS: The drawings of the device in the manual show a housing.
one or more speakers located at least partially within the housing;	SMS: One or more speakers were located within the housing, to play the audio.
an amplifier located within the housing for powering the one or more speakers;	SMS: Had an amplifier located within the housing for powering the speakers, to play the audio.
control circuitry located within the housing; and	SMS: Had control circuitry within the housing for receiving the signals from the remote, as described below.

a connector located at least partially within the housing that is configured to provide a physical and electrical connection exclusively between the sound reproduction device and the computer,

SMS: Had a connector at least partially within the housing that provided a physical and electrical connection exclusively between the SMS and the Sony MiniDisc. (*See SMS Manual, Ex. 1001, at 41 (showing the connection to the MiniDisc).*)

Nomad: It would have been obvious to use a separate, portable Nomad as a music source instead of the separate, portable MiniDisc player, to, for example, have access to more music that the greater storage capacity would provide. (*See Lippman Decl., ¶ 25-27.*)

wherein the connection includes one or more signal paths configured to (i) receive audio information from the computer corresponding to the digital music files stored on the computer and audio information from the network via the computer, (ii) transmit to the computer signals for controlling the computer, and (iii) receive signals from the computer; and

SMS: The connection included signal paths configured to (i) receive audio from the MiniDisc and to (ii) transmit to the MiniDisc, signals for controlling the MiniDisc, when the MiniDisc was attached and being controlled by the remote. (*See SMS Manual, Ex. 1002, at 41-43 (showing the connection to the MiniDisc and explaining how the SMS remote may control the MiniDisc, including with its remote, using the MD CONTROL output).*)

As discussed above, it would have been obvious to have the SMS receive signals from the Nomad, such as would happen were the SMS to check the status of the Nomad before trying to communicate with it, as is common in computer and electronics communications protocols, such as HAVI. (*See Exhibit 1018, ¶ 42.*) In a 1-to-1 arrangement like that of the '682 patent, status checking would be performed by way of direct communication—the passing of electrical signals between the devices. When the Nomad was on, the SMS would be responding to signals it produced.

Additionally, common sense compels checking that the device to which communications are being directed is available.

(B) a remote control device configured to transmit signals representing at least a first type of command from a user and a second type of command from a user to the sound reproduction device, wherein the first type of command is a command to control a user function of the sound reproduction device and the second type of command is a command to control a user function of the computer,	SMS: Had a remote control configured to transmit signals representing first and second types of commands from a user, as described below, where the first type would be a command to control a user function of the sound reproduction device and the second type would be a command to control a user function of the computer.
wherein the control circuitry is configured to receive the signals from the remote control and, in response to receiving such signals: (i) control the user function of the sound reproduction device when the user issues a command of the first type, and (ii) transmit to the computer, via a signal path of the connector, a signal for controlling the user function of the computer when the user issues a command of the second type.	SMS: The control circuitry received the signals from the remote and (i) controlled the user function of the sound reproduction device if the command was of the first type, and (ii) transmitted to the MiniDisc, via a signal path of the connector, a signal for controlling the user function of the computer if the user issued a command of the second type. (<i>See SMS Manual, Ex. 1002, at 14 (showing remote with SMS volume); 41-43 (showing the connection and explaining how the SMS may control the MiniDisc, including with its remote, using the MD CONTROL output).</i>)
60. The audio system of claim 59, wherein the connection includes (i) an audio signal path configured to receive the audio information from the computer and from the network via the computer and (ii) a separate signal path configured to transmit to the computer signals for controlling the computer.	This is the same as claim 24, which is a subject of the 465 IPR. The connection would have included (i) an audio signal path configured to receive the audio information from the computer (the music from the computer) and (ii) a separate signal path configured to transmit to the computer the signals for controlling the computer (the IRMan control signals).

61. The audio system of claim 59, wherein the audio information is in digital form.	This is the same as claim 18, which is a subject of the 465 IPR. SMS: The MiniDisc output music in analog form (<i>see</i> SMS Manual, Ex. 1001, at 41(connection to headphone remote jack on MiniDisc)), but it would have been obvious to output in digital form, so as to, for example, allow the use of a better digital-to-analog converter. (<i>See</i> Lippman Decl., ¶ 29.)
62. The audio system of claim 59, wherein the audio information is in analog form.	This is the same as claim 19, which is a subject of the 465 IPR. SMS: The MiniDisc player output music in analog form. (<i>See</i> SMS Manual, Ex. 1001, at 41(connection to headphone remote jack on MiniDisc.)
75. The audio system of claim 53, wherein the sound reproduction device further comprises a digital to analog converter configured to convert digital audio information from the computer to analog representations of the audio information for reproduction by the sound reproduction device.	This is the same as claims 73 and 74, which are subjects of the 465 IPR. SMS: As discussed above, it would have been obvious to configure the MiniDisc/Nomad to output music in digital format, to allow the use of a better digital-to-analog converter. It would have been obvious to include such a converter within the much larger SMS, so as to avoid the need for a separate housing for the D/A converter. (<i>See</i> Lippman Decl., Exhibit 1017, ¶ 29.)

76. The audio system of claim 59, wherein the sound reproduction device further comprises a digital to analog converter configured to convert digital audio information from the computer to analog representations of the audio information for reproduction by the sound reproduction device.

This is the same as claims 73 and 74, which are subjects of the 465 IPR.

SMS: As discussed above, it would have been obvious to configure the MiniDisc/Nomad to output music in digital format, to allow the use of a better digital-to-analog converter. It would have been obvious to include such a converter within the much larger SMS, so as to avoid the need for a separate housing for the D/A converter. (See Lippman Decl., Exhibit 1017, ¶ 29.)

XI. CONCLUSION

For the foregoing reasons, the Petitioner respectfully requests that claims 25, 26, 51, 52, 53, 55-59, 60-62, 75, and 76 of U.S. Patent No. 8,364,295 (Ex. 1001) be canceled.

Respectfully submitted,

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CERTIFICATION OF SERVICE

The undersigned hereby certifies that the foregoing REQUEST FOR *INTER PARTES* REVIEW, EXHIBITS 1001 through 1018, PETITIONER'S POWER OF ATTORNEY, PETITIONER'S EXHIBIT LIST, and PETITIONER'S MOTION FOR JOINDER were served electronically, by prior agreement, on counsel for patent owner Bose Corporation, on January 13, 2014, in their entirety:

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