

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SONY GROUP CORPORATION, SONY CORPORATION, SONY
CORPORATION OF AMERICA, AND SONY ELECTRONICS, INC.,
Petitioner,

v.

INMUSIC BRANDS, INC.
Patent Owner.

IPR2023-00294
U.S. Patent 7,567,498

**PATENT OWNER'S PRELIMINARY RESPONSE
UNDER 37 C.F.R. 42.107**

Mail Stop: Patent Board

Patent Trial and Appeal Board
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

TABLE OF CONTENTS

TABLE OF EXHIBITS	iii
I. INTRODUCTION	1
II. THE BOARD LACKS STATUTORY AUTHORITY TO INSTITUTE AN IPR ON THE CHALLENGED CLAIMS.....	1
III. THE BOARD SHOULD EXERCISE ITS DISCRETION TO DENY INSTITUTION UNDER 35 U.S.C. § 314(a).....	3
IV. SONY FAILED TO CARRY ITS BURDEN TO SHOW ANY OF THE CHALLENGED CLAIMS ARE OBVIOUS	9
A. The '498 Patent	10
B. Sony Has Failed to Show that Any Claims Were Obvious Over Cortellesi	11
1. Background of Cortellesi	12
2. Cortellesi Does Not Disclose or Render Obvious the Limitations of the Challenged Claims.	15
C. Sony Has Failed to Show that Spencer and Cohen Render Obvious Any of the Claims of the '498 Patent.	21
1. Background of Spencer and Cohen	22
2. Spencer and Cohen Do Not Disclose or Render Obvious the Limitations of the Challenged Claims.	23
V. CONCLUSION.....	30
CERTIFICATE OF SERVICE	31
CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITATION.....	31

TABLE OF EXHIBITS

Exhibit No.	Description
2001	Order and Opinion Granting Defendant’s Motion to Dismiss, <i>inMusic Brands, Inc. v. Sony Corporation of America</i> , Case 1:22-cv-06602-AKH (S.D.N.Y. Mar. 13, 2023).
2002	Dan Bagatell, <i>Fed. Cir. Patent Decisions in 2022: An Empirical Review</i> , Law360 (Jan. 9, 2023), available at https://www.law360.com/articles/1562614/fed-circ-patent-decisions-in-2022-an-empirical-review (last accessed April 25, 2023).

Patent 7,567,498

I. INTRODUCTION

Patent Owner, inMusic Brands, Inc. (“inMusic”), submits the following Preliminary Response to the Petition for *Inter Partes* Review (“IPR”) of Claims 1–6 of U.S. Patent 7,567,498 (“the ’498 Patent”) filed by Petitioners Sony Group Corporation, Sony Corporation, Sony Corporation of America, and Sony Electronics, Inc. (collectively, “Sony”). *See* 37 C.F.R. § 42.107. The Petition should be rejected, and the Board should refuse to institute IPR for at least the below reasons.

II. THE BOARD LACKS STATUTORY AUTHORITY TO INSTITUTE AN IPR ON THE CHALLENGED CLAIMS

As noted in the Petition, the ’498 Patent was asserted against Sony in the United States District Court for the Southern District of New York. *See* Paper 2 at 74; *see also* Case No. 1:22-cv-06602-AKH (S.D.N.Y.). After Sony filed the Petition, however, the district court granted Sony’s motion to dismiss, invalidating each claim of the ’498 Patent under 35 U.S.C. § 101, and entered final judgment. *See* Exhibit 2001. Under these circumstances, the Board has found that it lacks statutory authority to institute an IPR. *See Volvo Penta of the Americas, LLC v. Brunswick Corp.*, IPR2022-01368, Paper 12, at *9-13 (PTAB Feb. 8, 2023). Accordingly, the Board should deny institution here.

Under 35 U.S.C. § 311(b), a petitioner in an IPR “may request to cancel as unpatentable 1 or more claims of a patent.” Because the phrase “to ‘cancel’ carries

Patent 7,567,498

the ordinary meaning to ‘annul or destroy,’” Section 311(b) “presupposes that which is being ‘cancelled’ is already in effect.” *Uniloc 2017 LLC v. Hulu, LLC*, 966 F.3d 1295, 1304 (Fed. Cir. 2020). Review under § 311, therefore, “is confined to the review of *existing* patent claims.” *Id.* (emphasis added). Thus, as the Board found in *Volvo Penta*, “claims of a patent that have been finally adjudicated to be invalid by a district court prior to the Board’s decision on institution of an IPR cannot subsequently be ‘cancel[ed] as unpatentable’ under § 311(b), as they no longer exist in the patent for which the *inter partes* review is being sought.” *Volvo Penta*, IPR2022-01368, Paper 12 at 10.

It is irrelevant, as the Board in *Volvo Penta* explained, whether the district court decision invalidating the patent claims is under appeal to the Federal Circuit. *See id.* at 10-11. “The law is well settled that the pendency of an appeal has no effect on the finality or binding effect of a trial court’s holding,” and that rule is equally “applicable to holdings of patent invalidity as well.” *Pharmacia & Upjohn Co. v. Mylan Pharma., Inc.*, 170 F.3d 1373, 1381 (Fed. Cir. 1999) (quoting *SSIH Equip. S.A. v. U.S. Int’l Trade Comm’n*, 718 F.2d 365, 370 (Fed. Cir. 1983)); *see also Uniloc USA Inc. v. Motorola Mobility LLC*, 52 F.4th 1340, 1347-48 (Fed. Cir. 2022) (explaining that collateral estoppel of invalidity can be invoked even when the preclusive judgment is under appeal).

Patent 7,567,498

Here, the Southern District of New York found every claim of the '498 Patent invalid as ineligible under § 101. *See* Exhibit 2001. “[B]ecause the district court’s § 101 invalidity ruling is a final judgment on the merits,” the claims of the '498 Patent “no longer exist[] as [] claim[s] that can be canceled under § 311(b).” *Volvo Penta*, IPR2022-01368, Paper 12 at 11. Because the Board lacks statutory authority to institute, the Petition here should be denied and no IPR instituted.

III. THE BOARD SHOULD EXERCISE ITS DISCRETION TO DENY INSTITUTION UNDER 35 U.S.C. § 314(a)

In several cases, the Board has issued decisions on whether to institute where the challenged claims have been found ineligible in district court. In those cases, however, the Board did not consider whether it had the statutory authority to institute, since that argument was not raised by the parties. Instead, these cases have centered around whether to discretionarily deny the petitions. *See, e.g., AviaGames, Inc. v. Skillz Platform Inc.*, IPR2022-00530, Paper 12 (PTAB Aug. 9, 2022). Because there is no statutory authority to institute in the present proceeding, the Board need not reach this issue. But to the extent the Board finds otherwise, then it should invoke its discretion under 35 U.S.C. § 314(a), and deny institution.

Several panels have questioned whether the factors set forth in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential), apply to the situation present here, where the challenged patent claims have already been found invalid. *See, e.g., AviaGames*, IPR2022-00530, Paper 12 at 10; *see also*

Patent 7,567,498

Volvo Penta, IPR2022-01368, Paper 12 at 13-14. The Director, however, recently condoned use of the *Fintiv* factors when reviewing *AviaGames v. Skillz Platform*. See IPR2022-00530, Paper 14 (PTAB Mar. 2, 2023) (Vidal, Director). In the *AviaGames* proceeding, the Board had “considered the factors set forth in [*Fintiv*] and exercised its discretion to deny institution under § 314(a) ‘largely because the claims of the challenged patent have been determined to be invalid [by the district court]’” and in “the interests of efficiency and integrity of the system.” *Id.* at 2 (Vidal, Director). The Director, however, ordered Director Review and remanded because the panel had not considered the “compelling merits standard.” *Id.* at 4-5. In doing so, the Director ordered that “[i]f the Board finds the record does not rise to this high standard, the Board will exercise discretion to deny institution” (*id.* at 5), which then occurred on remand. See *AviaGames*, IPR2022-00530, Paper 15.

Here, just as in *AviaGames*, the *Fintiv* factors weigh heavily in favor of denying institution. The Board, therefore, should deny institution because the Petition does not meet the very high, “compelling merits” standard:

Fintiv Factor 1 (“*whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted*”): The district court action will not and cannot be stayed, as it has already reached a final judgment. By definition, an IPR in this proceeding cannot reach final resolution before final resolution by the district court. Factor 1, therefore, weighs in support of denying institution. See

Patent 7,567,498

AviaGames, IPR2022-00530, Paper 12 at 12 (finding factor 1, “if weighed, to favor denial of institution”).

Fintiv Factor 2 (“*proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision*”): The Southern District of New York has already reached a final judgment, and, therefore, there will be no trial date. The Board’s statutory deadline for a final written decision would not be for over a year after the district court action has already reached a final result. Indeed, in *Music projects* that, in case of institution, the statutory deadline would be some time around July 27, 2024, over 16 months after the district court’s invalidity determination. Contrary to Sony’s assertion, the Board cannot and will not reach a decision on the merits prior to the trial court. *See* Paper 2 at 75. Factor 2 thus weighs heavily in support of denying institution. *See AviaGames*, IPR2022-00530, Paper 12 at 12-13 (finding factor 2 “weighs heavily in favor of denying institution”).

Fintiv Factor 3 (“*investment in the parallel proceeding by the court and the parties*”): Contrary to Sony’s assertions, the district court action is not in its infancy. *See* Paper 2 at 75. The district court “has issued substantive orders related to the patent at issue in the petition.” *AviaGames*, IPR2022-00530, Paper 12 at 13. Indeed, it has already reached a final judgment, after having decided the validity of

Patent 7,567,498

the '498 Patent on the merits. Factor 3, therefore, weighs in support of denying institution. *See id.* (“finding that factor 3 “weighs in favor of denying institution”).

Fintiv Factor 4 (“*overlap between issues raised in the petition and in the parallel proceeding*”): Contrary to its assertions, Sony did raise issues of invalidity before the district court, specifically eligibility under 35 U.S.C. § 101. *See* Exhibit 2001. The Board, therefore, should not decide the additional grounds of invalidity presented in this Petition, particularly considering the overall weakness of the additional grounds. Moreover, Sony never filed a *Sotera* stipulation, and thus reserved the ability to raise in the district court the very same grounds of invalidity raised here. *See* USPTO Memorandum, Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation (“Guidance Memo”) at 7-8 (June 21, 2022) (discussing *Sotera* stipulations). As such, Factor 4 weighs in support of denying institution. *See AviaGames*, IPR2022-00530, Paper 12 at 14.

Fintiv Factor 5 (“*whether the petitioner and the defendant in the parallel proceeding are the same party*”): Petitioner Sony Corporation of America is party to both this proceeding and the district court action. The other Petitioners are related corporate entities. Similarly, inMusic is a party to both this proceeding and the district court action. Factor 5, therefore, heavily weighs in support of denying institution.

Fintiv Factor 6 (“*other circumstances that impact the Board’s exercise of discretion, including the merits*”): The grounds of invalidity raised in this Petition, as described below, are exceptionally weak. The merits of the Petition in no way are compelling. According to the Guidance Memo, “[c]ompelling, meritorious challenges are those in which the evidence, if unrebutted in trial, would plainly lead to a conclusion that one or more claims are unpatentable by a preponderance of the evidence.” Guidance Memo at 4. As described below in Section IV, the Petition does not even meet the standard for institution, let alone the higher, “compelling merits” standard. Factor 6, therefore, heavily weighs in support of denying institution.

* * *

As every single *Fintiv* factor weighs against institution and the merits are not compelling, the Board should invoke its discretion under 35 U.S.C. § 314(a) and reject the Petition in this proceeding. Several panels of the Board have reached differing conclusions under similar circumstances involving patents found ineligible under § 101. In addition to the *AviaGames* proceeding, the Board discretionarily denied institution in *Snap Inc. v. Blackberry Ltd.*, IPR2020-00392, Paper 8 (PTAB July 13, 2020). Yet, it reached the opposite conclusion in *Wyze Labs, Inc. v. Sensormatic Elecs., LLC*, IPR2020-01486, Paper 14 at 6-20 (PTAB Apr. 6, 2021), and *Stripe, Inc. v. Boom! Payments, Inc.*, CBM2020-00002, Paper

Patent 7,567,498

22 at 6-10 (PTAB May 19, 2020). But given the recent treatment of the *AviaGames* decision on Director Review, the Board should adopt the approach reached there, and deny institution.

Moreover, the full histories of *Wyze* and *Stripe* confirm that institution should be denied here. Indeed, those proceedings provide a cautionary tale, as they resulted only in a substantial waste of this Board's and the parties' resources. In *Wyze*, the Board issued a 46-page institution decision, and the parties proceeded with trial for over five months. And then the Board terminated the IPR because the district court's § 101 finding was affirmed by the Federal Circuit. *See* IPR2020-01486, Paper 31. Similarly, in *Stripe*, the Board again issued a 46-page institution decision, and the IPR proceeded for almost 10 months, all the way through the oral argument stage. And then, after all of that work by the parties and Board, the Federal Circuit affirmed the § 101 finding and the Board terminated. *See* CBM2020-00002, Paper 49.

inMusic is appealing the Southern District of New York's finding of invalidity under 35 U.S.C. § 101, because it believes the case law was applied incorrectly there, and further that § 101 in general has been misapplied in recent years by the Federal Circuit. This, however, is no different from the *Volvo Penta* case, which is currently on appeal yet was denied institution. Moreover, the Federal Circuit statistically does not reverse district court findings of ineligibility

Patent 7,567,498

too often. *See, e.g.*, Exhibit 2002 at 11 (discussing that in 2021, the Federal Circuit found the challenged claims in 39 out of 41 cases ineligible). Thus, for the sake of “efficiency and preventing the waste of resources of the Board and the parties,” institution is not warranted here. *AviaGames*, IPR2022-00530, Paper 12 at 15. The Board should use its discretion under 35 U.S.C. § 314(a) and deny institution.

IV. SONY FAILED TO CARRY ITS BURDEN TO SHOW ANY OF THE CHALLENGED CLAIMS ARE OBVIOUS

Sony raises two main alternative grounds of invalidity on the merits: (1) that Claims 1-2 and 4-6 of the '498 Patent are obvious over **Cortellesi** (Ex. 1004) in Ground 1, and (2) that Claims 1-2 and 4-6 are obvious over **Spencer** (Ex. 1005) in view of **Cohen** (Ex. 1006) in Ground 3. In both grounds, however, Sony mistakes or misrepresents what the references disclose, and fails to establish a likelihood of success that the prior art invalidates any of the challenged claims.

In Ground 2 and 4, Sony adds **Georges** (Ex. 1013) to build on Grounds 1 and 3 in arguing that Claim 3 is invalid. Georges is used only for the additional limitation of Claim 3 and is not used to correct any defects in the grounds with respect to the independent claim and its limitations. As such, Grounds 2 and 4 do not change that Sony fails to establish a likelihood of success as to independent Claim 1 or any claim of the '498 Patent. Institution, therefore, should be denied.

A. The '498 Patent

The '498 Patent is entitled “Phonographic turntable with built-in audio to USB or firewire device.” As described in the Abstract and depicted in Figure 1, the specification of the '498 Patent is generally directed to a “turntable which includes an **internal analog to digital converter [gold]** and a **controller [blue]** for a standard digital format.” Ex. 1001 at Abstract & Fig. 1. “This allows a jack for a standard digital format to be incorporated into the turntable, so that digital signals are generated to be received by the soundcard of an **external computer or similar piece of digital equipment**” [pink]. *Id.*

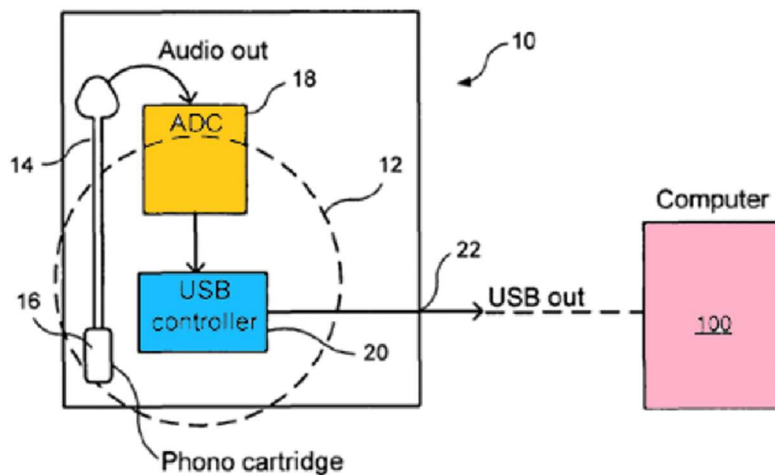


FIG. 1

Claim 1 of the '498 Patent recites:

1. A turntable including:
 - a rotatable platter;
 - a tonearm for receiving a phono cartridge for generating an analog audio signal representative of an audio recording;
 - an analog to digital converter for receiving an analog audio signal from the phono cartridge; and

a controller responsive to said analog to digital converter for generating an output digital audio signal of music or speech representative of an audio recording from an output of said analog to digital converter, representative of said analog audio signal;
wherein said analog to digital converter and said controller are included within said turntable; and
wherein said output digital audio signal is output from said turntable and uses standard computer protocol.

Ex. 1001. Claims 2 and 3 both depend from Claim 1 and recite, respectively, “wherein said output digital audio signal” uses “universal serial bus (USB protocol)” and “firewire (IEEE-1394) protocol.” *Id.*

Claims 4 also depends from Claim 1 and recites that the turntable includes “a jack for outputting said output digital audio signal.” *Id.* Claim 5, depending from Claim 1, further recites that the rotatable platter is “configured and arranged to receive a record with an audio recording thereon.” *Id.* And Claim 6, depending from Claim 5, recites that the tonearm is “configured and arranged to engage a phono cartridge against a record with an audio recording thereon, the record being supported by said rotatable platter.” *Id.*

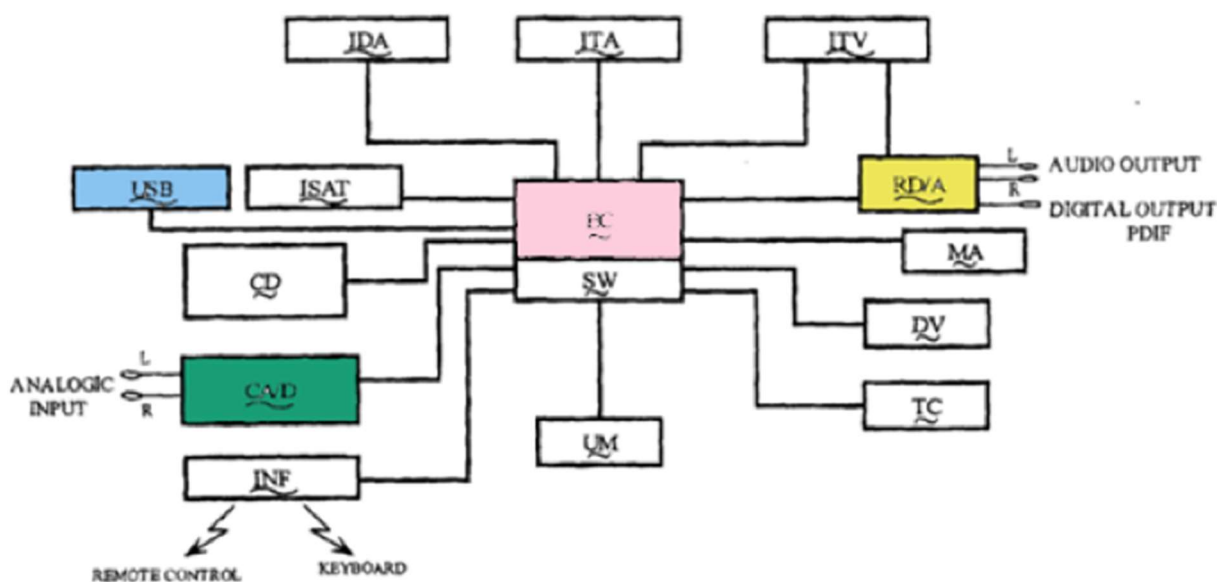
B. Sony Has Failed to Show that Any Claims Were Obvious Over Cortellesi

In Ground 1, Sony argues that Claims 1-2 and 4-6 were obvious over Cortellesi. Sony, however, misstates and mischaracterizes the teachings of Cortellesi. The reference does not render obvious any claim of the '498 Patent, and thus Sony has failed to establish a reasonable likelihood of success.

1. Background of Cortellesi

Cortellesi is directed to an “apparatus for disk jockeys [DJs] to store, handle and play pieces of music in succession,” including “means for receiving and storing the desired pieces of music in digital form, means for the digital/analogue conversion of the selected pieces of music to play/listen to them, and means for allowing the disk jockey to change manually the rhythm of the pieces of music to be played in real time.” Ex. 1004 at Abstract. With the apparatus, a DJ can play music “without the need of having the original music supports or records,” since it can “record pieces of music” from external sources such as (a) “live” music “through microphone or preamplified line connection,” as well as (b) recorded music “from standard playing units, such as compact disk players, tape recorders, and record players.” *Id.* at 1:18-23, 1:30-34.

The detailed description of Cortellesi describes several “preferred embodiments of the invention.” *Id.* at 1:47-52. One embodiment is illustrated by Figure 1, which is “a first block diagram of the storing, playing apparatus.” *Id.* at 1:54-55.



In the embodiment of Figure 1, (a) “EC” (pink) is the “central processing unit”; (b) “CA/D” (green) is a “digital/analogue converter ... for storing directly from audio analogue sources (vinyl records, tapes, radio, live)”; (c) “UM” is a “storage unit” including for “digital data for the music reproduction”; (d) “RD/A” (yellow) is a “playing unit” that decodes digital music data “from digital to analogue form so as to provide at its output stereo audio signals ... and digital signals in S/PDIF standard”; (e) “DV” is a “display”; (f) “TC” is a “control keyboard,” and (g) “MA” are “knobs.” *Id.* at 2:25-3:23.¹

¹ Fig. 1 includes additional abbreviations and acronyms, which are either not relevant for this Preliminary Response (*e.g.*, IDA, ITV, ITA) or that are self-explanatory (*e.g.*, CD and USB (blue)).

Another embodiment is depicted in Figure 2 of Cortellesi. The diagram of Figure 2 is different from Figure 1 “by the presence of a virtual disk VD” (orange), and “sensor of magnetic flux SD” (blue). *Id.* at 4:27-32, 4:40-46. Several other differences are noticeable in the figure too, including, for example, the absence of “USB” and an “Infrared interface INF,” as well as other elements. *See id.* at 4:14-17 (describing “Infrared interface INF”).

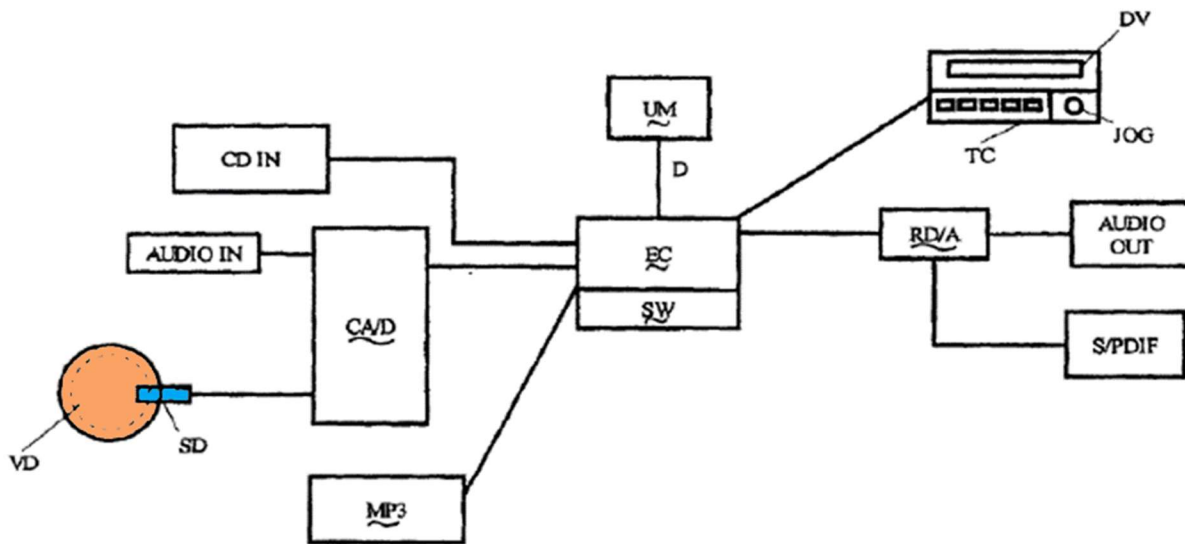


FIG. 2

The virtual disk, shown in more detail in Figure 3, “is placed on the turntable of a common record player and handled as a common long playing record (L.P.), however, without using any pick-up arm,” and instead using a “directional sensor of magnetic flux SD.” *Id.* at 4:40-46. The “sensor SD” (*see* Figure 4) detects information such as “the position of the disk” and “its speed of rotation,” which is then used to control the playback of digital music, “so that a perfect

synchronization with the manual operations of the disk jockey on said virtual disk VD is carried out.” *Id.* at 4:47-5:3. That is, the virtual disk is not used to play music from the turntable; it is not a standard LP and so there is no analog audio signal to extract from it. Instead, the virtual disk is used as a control mechanism for digital music.

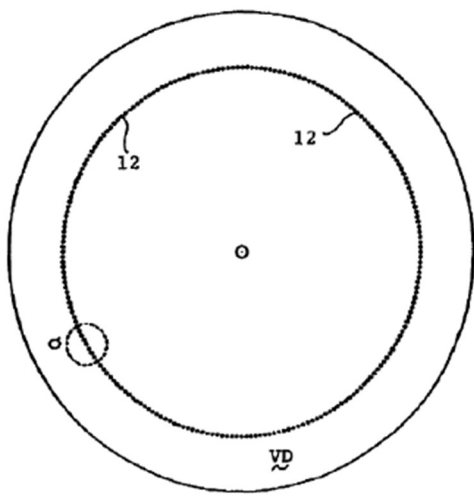


FIG. 3

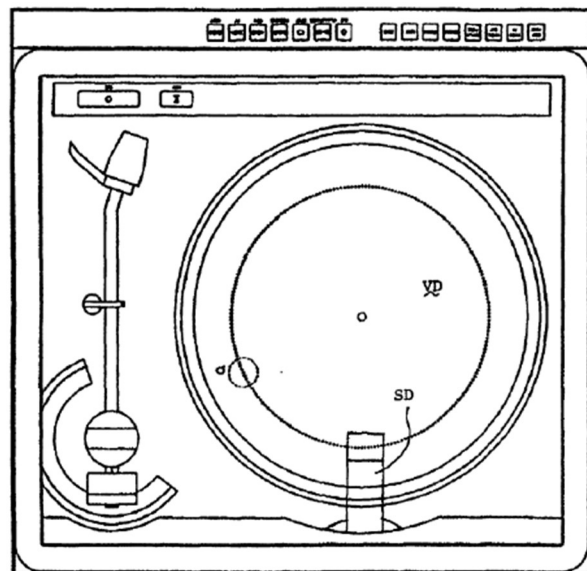


FIG. 4

2. Cortellesi Does Not Disclose or Render Obvious the Limitations of the Challenged Claims.

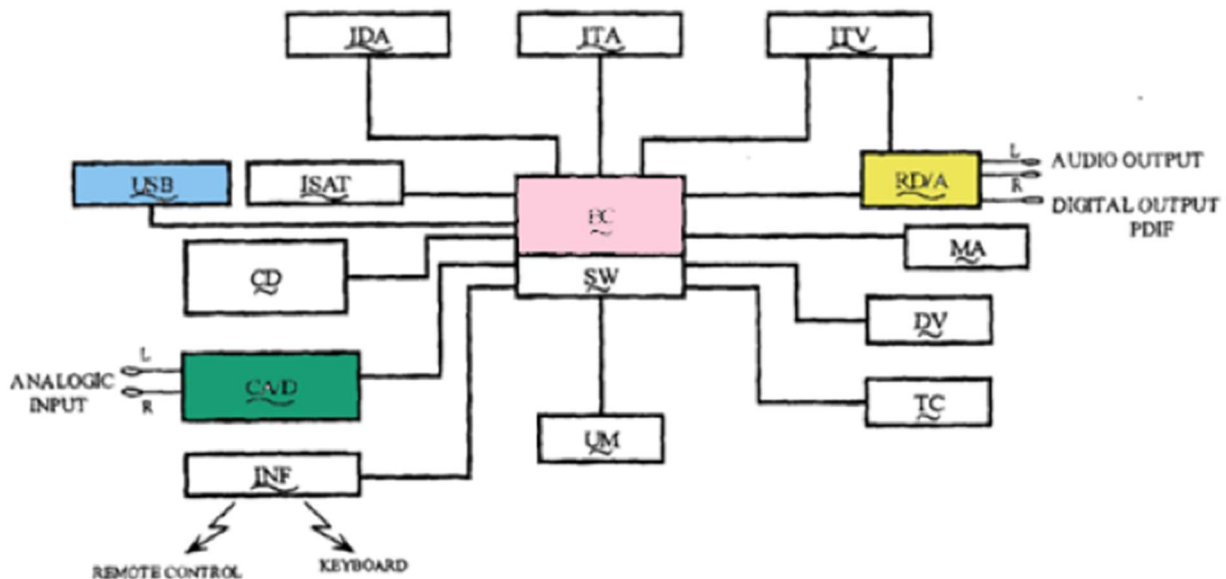
Claim 1 recites “an analog to digital converter for receiving an analog audio signal from the phono cartridge” and “a controller responsive to said analog to digital converter for generating an output digital audio signal of music or speech representative of an audio recording from an output of said analog to digital

Patent 7,567,498

converter, representative of said analog audio signal,” wherein “said output digital audio signal is output from said turntable and uses standard computer protocol.”

Ex. 1001 at 2:64-3:7. Cortellesi, however, does not disclose or render obvious these limitations. As such, Ground 1 in the Petition fails.

Sony argues that Cortellesi “teaches an **analog to digital converter** for receiving an analog audio signal from the phono cartridge.” Paper 2 at 40 (emphasis modified). Specifically, Sony references the “digital/analogue converter CA/D” (green), which is shown below in Figure 1. *See id.* (quoting Ex. 1004, 2:22-36, which describes Figure 1); *see also id.* at 42. Sony argues it would have been obvious from Cortellesi that this CA/D would have received an analog audio signal from the phono cartridge of the turntable (shown in Figure 4) playing a standard LP. *See id.* at 40.



Sony then asserts that the “central processing unit EC” (pink) is the recited *controller* of Claim 1. Paper 2 at 41. But Cortellesi does not disclose the central processing unit EC “generating an output digital audio signal of music or speech representative of an audio recording from an output of said analog to digital converter,” as recited by Claim 1, nor is this obvious in view of Cortellesi. As cited by Sony in the Petition, Cortellesi only discloses the EC “processing and delivering data.” *Id.* (quoting Ex. 1004, 2:25-33). But processing and delivering data is not the same as “generating an output digital audio signal.”

Instead, Cortellesi explicitly discloses a “playing unit, RD/A” (yellow) that “receives data from the central processing unit EC and decodes the same from digital to analogue form so as to provide at its output stereo audio signals to right and left channels and digital signals in S/PDIF standard.” Ex. 1004 at 2:50-54; *see also id.* at 6:10-14 (again describing the “playing unit”). That is, it is the “playing unit, RD/A” that generates, from the raw data, an output digital audio signal that can be played – either analog stereo signals or S/PDIF audio signals.

The central processing unit EC is not a *controller* as recited in the claims. As such, Sony’s Petition fails to establish with a reasonable likelihood that any of the claims are invalid over Cortellesi. Moreover, the “playing unit” of Cortellesi cannot be used to invalidate the challenged claims, and Sony does not assert otherwise in the Petition. Claim 1 recites “wherein said output digital audio signal

Patent 7,567,498

is output from said turntable and uses standard computer protocol,” with Claims 2 and 3 clarifying that the protocol is USB and firewire, respectively. The “playing unit, RD/A” outputs *analog* stereo audio signals, which are not a “digital audio signal.” Ex. 1004 at 2:50-54.

The “playing unit, RD/A” further outputs “digital signals in S/PDIF standard,” but as described by the ’498 Patent, this is not a “standard computer protocol,” as recited in the challenged claims. *See* Ex. 1001 at 1:35-38 (“The SPDIF (Sony/Phillips Digital Interface) has been built into some turntables in order to provide a digital output. However, this is not a standard protocol such as USB (universal serial bus) or firewire (IEEE 1394).”). Further, Sony does not attempt to rely on S/PDIF—relying instead only on USB as the digital audio signal that is “output from said turntable” and that “uses standard computer protocol.” *See* Paper 2 at 46. Moreover, Cortellesi does not teach the “playing unit, RD/A” outputting music via USB. As clearly shown above in Figure 1, the playing unit, RD/A outputs only via stereo and via S/PDIF and not “USB” (blue).

Moreover, regardless of whether the central processing unit EC is considered to be a “controller,” as recited in Claim 1, there is no disclosure anywhere in Cortellesi of the “output digital audio signal” being “output from said turntable” using a “standard computer protocol,” as recited in Claim 1. *See* Ex. 1001 at 3:6-7. That is, Cortellesi does not disclose an “output digital audio signal” being output

via USB (or other standard computer protocol), despite Sony's allegations to the contrary. *See* Paper 2 at 46. Indeed, there are only three references to "USB" in Cortellesi—(1) once in the specification, (2) once in the claims themselves; and (3) once in the figures. In none of those places does Cortellesi describe digital audio being outputted via USB.

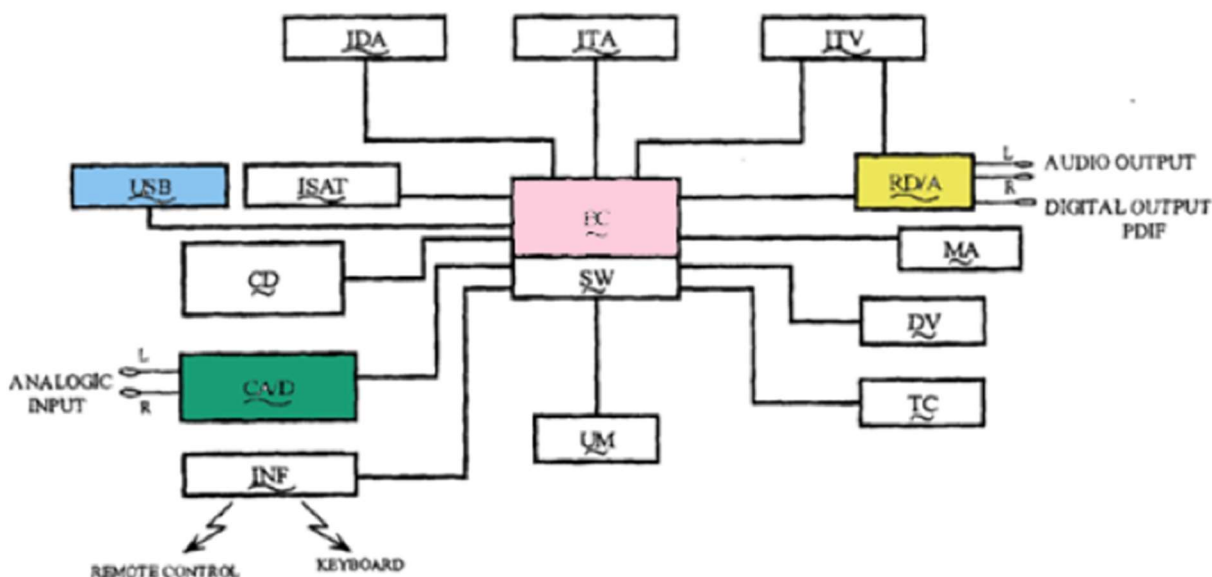
First, in the specification, Cortellesi states: "The apparatus is further provided with several interfaces to the outside such as: ... USB-interface that allows the apparatus to be directly connected to a personal computer for digital data processing/transmitting by software programs that improve the quality of the recorded pieces of music (removal of ground noise/interferences, digital mixing)." Ex. 1004 at 3:44-45 & 4:8-13. Here, no reference is made to audio being outputted via USB. Instead, the specification refers to USB being used for data processing/transmitting to improve the quality of the music. It does not disclose audio signals being transmitted via USB, as the specification instead discloses that occurring via left and right analog stereo cables and/or via S/PDIF. *See id.* at Figure 1.

Second, Claim 11 of Cortellesi similarly explains that the "apparatus" is "provided with an USB interface for the direct connection to a personal computer that processes/transmits digital data by software so as to improve the quality of the recorded pieces of music (removal of ground noise/interferences, digital mixing)."

Patent 7,567,498

Id. at 7:29-36. Claim 11 simply recites the disclosure in the specification, discussed above, and provides no teachings beyond that. The claims do not disclose digital audio signals being outputted via USB.

Third, Figure 1, shown again for convenience, discloses “USB” (blue). As discussed above, there is no disclosure in the figure, or in the specification describing this figure, of digital audio signals being outputted via USB. Instead, the “playing unit, RD/A” (yellow) is on the entirely opposite side of Figure 1. And it is from this playing unit that audio signals are output, either via analog stereo signals or digital S/PDIF signals. USB is only used for digital data processing/transmitting via software programs as described above.



Accordingly, Cortellesi does not disclose or render obvious having “a controller responsive to said analog to digital converter for generating an output

Patent 7,567,498

digital audio signal of music or speech representative of an audio recording from an output of said analog to digital converter, representative of said analog audio signal ... wherein said output digital audio signal is output from said turntable and uses standard computer protocol” (Claim 1) such as “USB” (Claim 2) or “firewire” (Claim 3). Nor does *Georges* in Ground 2 change this analysis. There, Sony argues it would have been obvious in light of *Georges* to switch from outputting digital audio signals via USB to firewire. *See* Paper 2 at 51. As *Cortellesi* does not actually disclose outputting digital audio signals via USB, this argument fails and the combination does not render obvious Claim 3 (or any other claim) of the ’498 Patent. As such, Sony has not shown with a “reasonable likelihood” that *Cortellesi* renders obvious any claim of the ’498 Patent.

C. Sony Has Failed to Show that Spencer and Cohen Render Obvious Any of the Claims of the ’498 Patent.

In Ground 3, Sony argues that Claims 1-2 and 4-6 were obvious over *Spencer* in view of *Cohen*. Sony, however, misstates and mischaracterizes the teachings of these references. The combination of these references does not render obvious any claims of the ’498 Patent. Sony, therefore, has failed to establish a reasonable likelihood of success.

1. Background of Spencer and Cohen

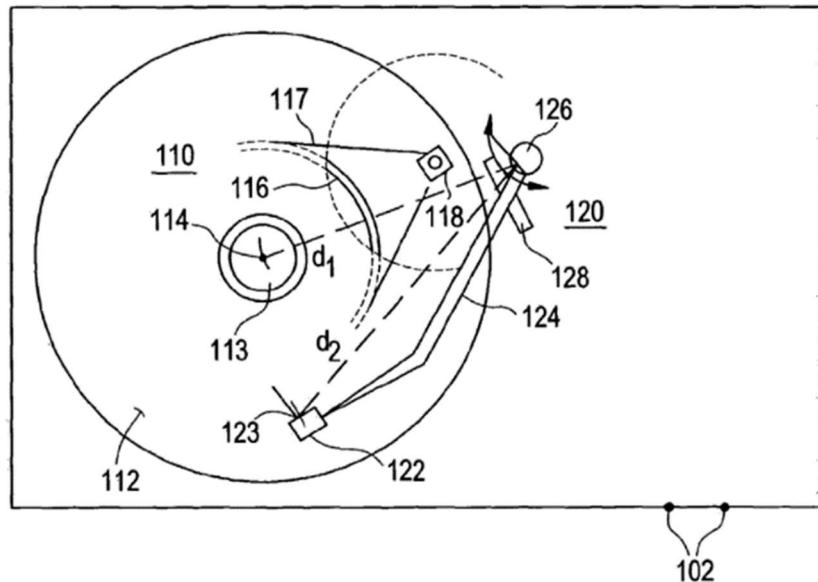
Spencer discloses a way of synchronizing a physical record (LP) with digital music. It “relates to a system and method for detecting a location on a surface selected by a user and manipulating a digital source based on information relative to the detected

location.” Ex. 1005 ¶ 2.

Spencer discloses a turntable (or record player) in Figure 2, which is referred to throughout the reference

as “controller unit 100.” *Id.* ¶ 28. Spencer in some ways is similar to the virtual disk of Cortellesi in that its turntable is used as a controller to synchronize or control digital audio playing from a separate source, such as a computer. *See also id.* ¶¶ 7-13.

Cohen similarly discloses a “turntable assembly” that accepts a “record” with “MIDI timing signals encoded therein.” Ex. 1006 at Abstract. Cohen converts the signal from the record into a digital format using an analog-to-digital converter, and extracts the MIDI “timing signal so as to generate an output MIDI timing code,” which is used for “controlling the playback of an external audio signal.” *Id.*



Cohen is not directed to play music or audio signals from the LP (or record) itself, as the record is a special one with MIDI timing codes instead of music or other recorded audio.

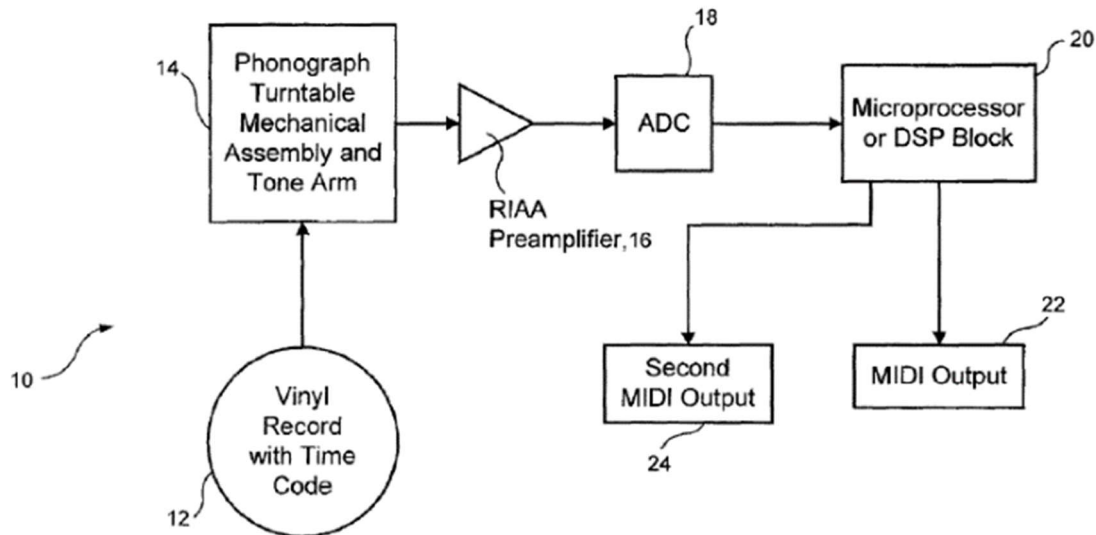


FIG. 1

2. Spencer and Cohen Do Not Disclose or Render Obvious the Limitations of the Challenged Claims.

As discussed above, Claim 1 recites a “tonearm for receiving a phono cartridge” that “generat[es] an analog audio signal representative of an audio recording.” Ex. 1001 at 2:62-63. In Claim 1, that analog audio signal is received by the “analog to digital converter.” *Id.* at 2:64-65. Claim 1 further recites a “controller” that generates “an output digital audio signal of music or speech representative of an audio recording from an output of said analog to digital converter, representative of said analog audio signal” and that “output digital audio

Patent 7,567,498

signal is output from said turntable and uses standard computer protocol.” *Id.* at 2:66-3:7. In Claim 1, therefore, the “output digital audio signal” must be a digitized version of the analog audio signal representative of an audio recording (*e.g.*, from a record that the phono cartridge “reads”).

Spencer does not disclose digitized audio representative of an audio recording being output over USB, as asserted and relied upon by Sony in its Petition. *See, e.g.*, Paper 2 at 54-55 (quoting Ex. 1005 ¶ 30). The term “USB” appears only twice in Spencer. One of those references, in ¶ 57, speaks as to a USB port in “data processor unit 200.” *See* Ex. 1005 ¶ 57. Data processor 200, however, is not a turntable/record player. As discussed above, “controller unit 100” is the record player and the only thing that Sony relies upon as being the turntable/record player in its Petition. *See* Paper 2 at 54. The data processor 200 is a computer that can communicate with the turntable. Paragraph 57 states: “In one aspect of the present invention, the input and output ports include digital video outputs, monitor outputs, digital audio outputs, network communications connection (*e.g.*, modem, DSL, T1, *etc.*), one or more SCSI or USB ports, or the like to communicate with one or more controller units.” Nothing in this paragraph discloses that audio signals are communicated over USB. Paragraph 57, which Sony never cites to in its Petition, is therefore not relevant.

The only other reference to “USB” within Spencer is in ¶ 30, which is the sole paragraph to which Sony cites in support of its USB argument. In this paragraph, Spencer states “output ports 102 on the controller unit 100, e.g., a turntable unit, may be coupled to corresponding SCSI, USB, or other suitable type port 202 on the data processor unit 200 to communicate digitized audio signals and information useful in determining an intratrack needle position from the controlling unit 100 to the data processor unit 200.” Sony highlights that the paragraph states “digitized audio signals” are communicated via USB, and it ends its analysis there. *See* Paper 2 at 54-55. Sony, however, misreads ¶ 30 of Spencer.

Sony mischaracterizes that what is communicated over USB in ¶ 30 of Spencer are “signals and information” that are “*useful in determining an intratrack needle position.*” Ex. 1005 ¶ 30 (emphasis added). Indeed, at one point, Sony uses ellipses to completely omit this portion of the sentence. *See* Paper 2 at 59 (quoting ¶ 30 as “output ports 102 on the controller unit 100, e.g., a turntable unit, may be coupled to corresponding SCSI, USB, or other suitable type port 202 on the data processor unit 200 to communicate digitized audio signals...to the data processor unit 200” (ellipses in original)).

Paragraph 30 does not disclose audio signals representative of an audio recording being transmitted over USB to the data processor unit 200. Instead, in Spencer, the USB transmits information that is used to determine the position of

the turntable's needle. This, of course, makes sense when considering that the entire point of Spencer is to “detect[] a location on a surface [of a LP record] selected by a user and manipulating a digital source based on information relative to the detected location.” Ex. 1005 ¶ 2. That is, Spencer is directed to synchronizing an LP record with digital music on a computer.

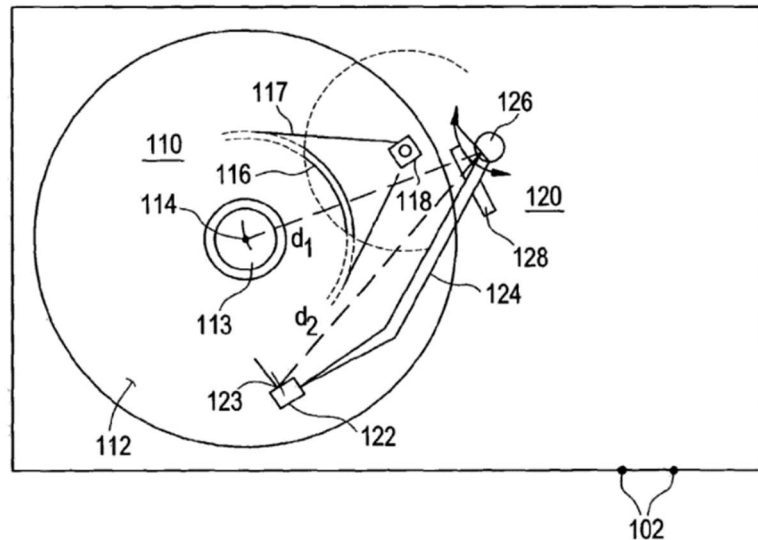
Spencer is not directed to recording music from a turntable to a computer, or playing music through the computer. In Spencer, the turntable plays music from an LP record in the traditional manner. *See id.* ¶ 30 (explaining that “external output device 430 such as a speaker” plays audio transmitted to it from “[a]nalog audio output port 104”). The computer or “data processor 200” plays digital audio, and the invention of Spencer is in synchronizing the two such that the turntable can be used to control the digital music. This is confirmed throughout Spencer's specification, which describes the invention of Spencer in detail. Sony, however, latches onto a portion of one sentence in a single paragraph—which supports Sony's position only when clauses within that single sentence are ignored.

That the signals transmitted from Spencer's controller unit 100 to the data processor unit 200 are representative of positioning information (and not audio recorded on the LP) is shown throughout the specification. For example, ¶ 39 of Spencer describes that “[t]one arm assembly signals, i.e., signals indicating the position of the tone arm 124 relative to the tone arm encoder 128 for indicating the

position of the stylus 123 on an analog record and signals indicating when the tone arm 124 is at rest, may be communicated from the tone arm encoder 128 to the data processor unit 200 via

the output ports 102.” Ex.

1005. Spencer further describes that “[t]he tone arm assembly signals may then be used by the data processor unit 200 to enable



tracking of a stylus’ progression through the groove of an existing record,” and “to locate the point where the stylus initially contacts the record (i.e., drop point).” *Id.*

¶ 39. In this way, “a portion of an analog audio signal may be associated with a distance the stylus 123 has traveled from its rest position....” *Id.* Spencer also describes in detail “scanner assemblies,” which scan and detect information on the record itself (such as from a “bar code” or “magnetic strip”). *See id.* ¶¶ 40-55.

It is these positioning information signals that are communicated via “USB” port 102—signals used to indicate what portion of the LP record is currently being played, so that digital audio can then be synchronized with the record. There is no disclosure in Spencer of audio from an LP record being digitized and then played back through a computer or other digital source. There is no disclosure in Spencer

Patent 7,567,498

of digital audio being transmitted from the controller unit 100 to the data processor unit 200—let alone via USB. Yet, Sony pulls one sentence out of context from one paragraph of Spencer, and attempts to assert otherwise. Based on Sony’s assertions in the Petition, it has failed to establish that Spencer discloses “a controller ... for generating an output digital audio signal of music or speech representative of an audio recording ... representative of [a] analog audio signal” that was “generat[ed]” by a “phono cartridge,” wherein the “output digital audio signal is output from said turntable and uses standard computer protocol,” as recited in independent Claim 1. *See* Ex. 1001 at 2:60-3:7.

Nor does Sony’s combination of Cohen with Spencer save Sony’s Petition. Sony only uses Cohen for its disclosure of an analog to digital converter (“ADC”). *See, e.g.*, Paper 2 at 57. Sony does not use Cohen to fill in any gaps in Spencer regarding Spencer’s failure to disclose digital audio signals representative of an audio recording being transmitted via USB (as incorrectly asserted by Sony). The arguments in the Petition regarding Cohen assume, albeit incorrectly, that Spencer already discloses transmittal of digital audio signals via USB. *See, e.g., id.* at 57 (“A POSITA looking to produce the digitized audio output taught by Spencer would have....”); *see also id.* at 59.

Regardless, Sony cannot use Cohen to fill in the defects in Spencer. Like Spencer, Cohen is also used for synchronization purposes (*i.e.*, to use a turntable to

Patent 7,567,498

control the playback of digital music outside of the turntable). *See* Ex. 1006 at Abstract. Indeed, in Cohen, the turntable does not even “read” or play an audio recording using its phono cartridge. Instead, in Cohen, the “record includes MIDI timing signals encoded therein.” *Id.* The phono cartridge of Cohen reads these timing codes, which are used “for controlling the playback of an external audio signal.” *Id.* In Cohen, digital audio signals representative of an audio recording are not transmitted from a turntable to other device.

As with Sony’s Cortellesi arguments, the addition of Georges in Ground 4 also does not change the analysis. There, Sony argues it would have been obvious in light of Georges to switch from outputting digital audio signals via USB to firewire. *See* Paper 2 at 72. As neither Spencer nor Cohen actually disclose outputting digital audio signals via USB, this argument fails and the combination does not render obvious Claim 3 (or any claims) of the ’498 Patent. As such, Sony has failed to establish with a reasonable likelihood of success that any of the claimed inventions would be obvious.

* * *

Thus, for all the above reasons, Sony failed to “demonstrate[] that there is a reasonable likelihood that at least one of the claims challenged in the petition is unpatentable.” 37 C.F.R. § 42.108(c). Moreover, Sony has not set forth a “[c]ompelling, meritorious challenge” that “plainly lead[s] to a conclusion that one

Patent 7,567,498

or more claims are unpatentable by a preponderance of the evidence.” Guidance Memo at 4. As such, institution should be denied.

V. CONCLUSION

For any and all of the above-mentioned reasons, the Board should reject Sony’s Petition. It should deny institution of *inter partes* review of the ’498 Patent.

Respectfully submitted,

THOMPSON COBURN LLP

By /Anthony F. Blum/
Alan H. Norman, Reg. No. 32,285
Anthony F. Blum, Reg. No. 64,703
David B. Jenkins, Reg. No. 46,805
One US Bank Plaza
St. Louis, Missouri 63101
314-552-6000
FAX 314-552-7000
anorman@thompsoncoburn.com

*Attorneys for Patent Owner in Music Brands,
Inc.*

CERTIFICATE OF SERVICE

Under 37 C.F.R. §§ 42.6(e), the undersigned certifies that, on April 27, 2023, a complete and entire copy of this Preliminary Response was served via e-mail at:

Matthew A. Smith
Smith Baluch LLP
1100 Alma St., Ste. 109
Menlo Park, CA 94025
smith@smithbaluch.com

Andrew S. Baluch
Smith Baluch LLP
700 Pennsylvania Ave. SE, 2nd Floor
Washington, DC 20003
baluch@smithbaluch.com

/Anthony F. Blum/
Anthony F. Blum (Reg. No. 64,703)

**CERTIFICATE OF COMPLIANCE
WITH TYPE-VOLUME LIMITATION**

Pursuant to 37 C.F.R. §§ 42.24 *et seq.*, the undersigned certifies that this Preliminary Response complies with the 14,000-word type-volume limitation. According to the word count in Microsoft Word for Microsoft 365, after excluding the parts of the Preliminary Response exempted, the Preliminary Response contains 6,244 words.

/Anthony F. Blum/
Anthony F. Blum (Reg. No. 64,703)