

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
Patent 7,567,498 B2

Record of Oral Argument
Held: April 25, 2024

Before DANIEL J. GALLIGAN, CHRISTA P. ZADO, and
IFTIKHAR AHMED, *Administrative Patent Judges*.

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P-R-O-C-E-E-D-I-N-G-S

12:00 p.m.

JUDGE ZADO: I was going to say good morning or good afternoon, everyone, depending on where you're located. As was mentioned, this is the hearing for IPR2023-00294. The Petitioner is Sony Group Corporation, et cetera, and the Patent Owner is inMusic Brands, Inc.

And before we begin, we will just go ahead and make the appearances for the parties. We'll begin with Petitioner.

MR. SMITH: Thank you, Your Honor. This is Matthew Smith for the Petitioners. And I believe Elizabeth Laughton is also on the line for Petitioners.

JUDGE ZADO: Thank you.

And now for Patent Owner?

MR. BLUM: Thank you, Your Honor. This is Anthony Blum for Patent Owner. In the room off-camera with me I also have Lead Counsel Alan Norman, Counsel David Jinkins.

And today happens to be Bring Your Child to Work Day. So we also have David Jinkins' son, William Jinkins, in the room. I believe that should be fine since everything here is public, but I just wanted to check with Your Honor.

And then also we have Craig Scott from Hinckley Allen on the line.

JUDGE ZADO: Okay. Thank you. Yes, this hearing is public. Nobody has requested for this to be confidential.

I'll just confirm that with Counsel for Petitioner. Is that correct?

MR. SMITH: That's correct.

1 JUDGE ZADO: Okay. Well, before we begin the hearing, I just want
2 to thank everyone for your flexibility in conducting this hearing via video-
3 conference.

4 Because it is via video-conference, one thing that we ask is that for the
5 benefit of Counsel but also for ease of creating a transcript record, we just
6 ask that you please identify yourself when you begin speaking with your
7 argument.

8 And of course, please do not speak over others while speaking. I
9 know sometimes there can be delays with this technology. So I know
10 sometimes unintentionally people begin speaking over each other. When
11 that does happen, please just be patient. Let's try to avoid that.

12 And then finally, if you could please just remember to mute your
13 microphones when you're not speaking, that also would be very much
14 appreciated and helpful.

15 We have 60 minutes total of oral argument time per side. So before
16 we begin, I will just ask Counsel for Petitioner how much time would you
17 like to reserve for rebuttal?

18 MR. SMITH: I think 25 minutes, Your Honor.

19 JUDGE ZADO: Okay. Do any of the parties have any questions
20 before we begin? All right, sounds like we don't.

21 So with that, you may begin whenever you're ready. This is Counsel
22 for Petitioner.

23 MR. SMITH: Yes. Thank you, Your Honor. This is, again, Matthew
24 Smith for the Petitioners. I will share my screen and initially am sharing

1 Petitioner's demonstrative slide number 2, which is the overview. And I will
2 generally follow this outline today.

3 I do want to talk about claim construction initially because I think if I
4 were in your position, I'd be wondering what's going on and what I have to
5 do. So hopefully, Mr. Blum and I can clear that up for you today.

6 We have three constructions that have been put forward during the
7 proceedings. The first was turntable. Petitioners put that forward. And we
8 did that simply because we had observed when reading the prior art that
9 there were really two different meanings of this. One could be the actual
10 part that rotates within a record player, i.e. the platter and the drive, and the
11 other could be the entire apparatus.

12 And we thought with the way the claim is written, having an AD
13 converter within the turntable, it would be problematic for the '498 Patent if
14 the turntable were just the drive. But it doesn't seem like this construction is
15 one that the Board needs to engage with because nobody is arguing that this
16 makes a difference for the prior art.

17 The second construction that was put forward by the Patent Owner is
18 of the word representative.

19 JUDGE ZADO: Counsel, I apologize. One thing I forgot to mention.
20 If you are speaking about a demonstrative, can you please just identify the
21 page number for the demonstrative?

22 MR. SMITH: Of course, Your Honor.

23 JUDGE ZADO: It just helps with the transcript record. Thank you.

24 MR. SMITH: Absolutely. You're correct. Thank you for stopping
25 me there. This is Petitioner's demonstrative slide number 9 that I'm looking

1 at and is projected on-screen right now. And this is relevant to the proposed
2 construction of representative.

3 We can see that in the original Patent Owner Response, inMusic
4 suggested that the term representative should be construed as reproducibly
5 indistinguishable to a listener, but in a different format from the original.
6 But in the sur-reply, inMusic says inMusic does not intend to graft any
7 particular fidelity or quality requirements onto the claim.

8 To me, reproducibly indistinguishable seems like a fidelity or quality
9 requirement. And if they're not intending to graft that into the claim, then it
10 doesn't seem like this needs to be a construction.

11 I think that this probably came from an argument that inMusic wanted
12 to make, which was possibly that the AD converters of the prior art couldn't
13 be proven to reproduce the analog into digital in a way where the listener
14 couldn't tell the difference, but they didn't make that argument ultimately.

15 And I don't think there's any issue that turns on this. So I think that
16 this one also is a construction the Board probably does not need to engage
17 with.

18 Moving on to Petitioner's demonstrative slide number 10, the third
19 claim construction that is on the table is that of controller, where inMusic
20 proposes that a controller should be construed as an electronic device which
21 receives a digital audio stream, renders it into a specific data format, and
22 manages the output of that formatted stream on a specific interface.

23 And I am actually not sure what the status of this construction is. I'm
24 going to pull up the Patent Owner's Sur-Reply.

25 Your Honor, can you see the sur-reply projected now?

1 JUDGE ZADO: No. I'm still seeing demonstrative number 10. If
2 you just direct us to a page of the sur-reply, we should be able to also pull it
3 up on our own.

4 MR. SMITH: I'm referring to the Patent Owner's Sur-Reply. It's at
5 numbered page 5, which is the 10th PDF page. It's the paragraph at the
6 bottom. And it bridges to the numbered page 6 or the 11th PDF page.

7 And in that paragraph, inMusic says first, in any event, the Board
8 need not fully construe controller to resolve the disputes here. So that
9 sounds like inMusic is saying you need to do part of the construction, but
10 maybe not all of the construction.

11 Then at the end of the paragraph, inMusic says, the Board should
12 reject Sony's arguments and confirm the patentability of the challenged
13 claims regardless of the claim construction. And the explanation there is
14 that the controller somehow does not generate the signal. So I don't know
15 what inMusic intends with this particular construction.

16 Going back to the Petitioner's oral hearing demonstratives, I will say
17 that I don't think the construction is appropriate. And I'm on demonstrative
18 slide number 12 of the Petitioner's slides.

19 And that's simply because the construction proposes to add a lot of
20 terminology into the concept of the controller, specifically digital data
21 stream, rendering into a specific format, managing the output, and managing
22 the output of a formatted stream on a specific interface.

23 This is something that patent owners in litigation, if it were attempted
24 by an accused infringer, would remind the court that embodiments of the

1 specification can't be read into the claim language, at least not without a
2 disclaimer or some sort of definition.

3 Here it's even worse because none of these proposed limitations are
4 actually found in the specification. They are coming, strictly speaking, from
5 the Patent Owner's expert's testimony.

6 I've represented patent owners. It would be nice as a patent owner if
7 you could amend the claims simply by having your expert testify as to what
8 the limitations in the claim should be, but that's not how it works. There is
9 an amendment process.

10 And if inMusic wanted these limitations, they should have proposed
11 an amendment. But I think any such amendment could have been
12 reasonably rejected under the written description doctrine because there
13 really isn't any disclosure to support this.

14 If I could direct the panel to the disclosure of the '498 Patent itself,
15 there isn't much relevant disclosure that could be applicable here, but I'm
16 looking at column 2. And there are two paragraphs in column 2 that are
17 relevant.

18 If the Board will recall, these two paragraphs are written in parallel.
19 So once you've read the first paragraph, you kind of know what the second
20 paragraph says, just with a different output format.

21 In column 2 of the '498 Patent, the controller is first mentioned around
22 line 21, where the patent says the output of the analog-to-digital converter 18
23 is digital and is received by the USB controller 20. Then it says both the
24 analog-to-digital converter and the USB controller are within the turntable.

1 And then it says this results in a USB signal being generated from the
2 turntable from a USB jack 22.

3 So they're essentially saying there's an AD controller, there's a USB
4 controller, and the fact of these two things being in the turntable results from
5 a USB signal at the outside of the turntable, without specifying how that
6 happens or any of the internals there.

7 The only thing you really have to go on here is the phrase USB
8 controller, but that's not the phrase that shows up in claim 1. The phrase is
9 just the word controller. USB doesn't show up in the claims until claim 2,
10 and that's just describing the protocol of the output signal. So there's really
11 not much to go on in the specification at all that would give the Patent
12 Owner a foothold to construe the claims in the manner that they're proposing
13 to construe the term controller.

14 So without a definition or a disclaimer or some reference to the
15 prosecution history disclaiming the claim term controller, I don't see how the
16 Board could construe controller to include the limitations that the Patent
17 Owner is proposing here.

18 Let me move on to ground 1, which is Cortellesi. And I'm going to go
19 to Petitioner slide 17, which shows the cover page of Cortellesi or at least
20 the top half of it.

21 Just to provide a quick overview of the reference and the way the
22 reference is used in the petition, Cortellesi, as the title indicates, is a portable
23 apparatus for storing, handling, and listening to pieces of music. And as
24 explained right in the abstract, the apparatus allows disc jockeys to store,
25 handle, and play pieces of music in succession.

1 It includes a means for receiving and storing the desired pieces of
2 music in digital form, means for the digital analog conversion of selected
3 pieces of music to play and listen to them, and means for allowing the disc
4 jockey to change manually the rhythm of pieces of music to be played in real
5 time.

6 And Cortellesi is addressing a problem that DJs had when they went
7 to venues. They wanted to use turntables. They wanted to play records
8 from their own collection. They wanted to be seen manipulating the records
9 on a turntable, scratching and the like.

10 But that necessitated DJs carrying their entire record collection, or at
11 least everything they could conceivably want to use at a presentation to the
12 venue, and this is the problem that Cortellesi is trying to address. It does
13 that in a couple of ways.

14 First, it allows DJs to play the records into the system where the
15 analog output of a record player, or any other device that's producing analog,
16 gets AD converted. That goes to a central processor called EC.

17 The central processor can digitally manipulate the music. It can store
18 it. It can produce an output that's played on a speaker or can output it to any
19 number of potential interfaces, including USB interface.

20 Now, the fact that a DJ can AD-convert and store the music that is on
21 his or her record collection means that the DJ now no longer has to lug
22 around the record collection to different venues, but that also creates a
23 problem for the DJ because the DJ wants to be seen manipulating the
24 turntables while they're doing the show. And so for that reason, Cortellesi is

1 also providing virtual discs, which allows the DJ to put on that sort of
2 traditional DJ show.

3 The ground in the petition -- and I'm on Petitioner slide 22 right now -
4 - is fairly straightforward. It argues that Cortellesi allows a DJ to play a
5 record into the system. It gets AD-converted, and that can get output
6 through the USB interface.

7 Cortellesi, of course, has a Figure 4 embodiment. Going back to
8 Petitioner's slide number 15, the Figure 4 embodiment shows a turntable.
9 One can look at Cortellesi Figure 4, but the description of Cortellesi's Figure
10 4 in Cortellesi is that Figure 4 is a top/plan view of a first embodiment of the
11 apparatus provided with a record player carrying the virtual disc provided
12 with a reading sensor.

13 What the petition proposed was that if Figure 4 is a first embodiment
14 of the apparatus, Figure 4 is the receiving, storing, and playing apparatus of
15 the Cortellesi invention. It would contain the AD converter and the CPU EC
16 for a number of reasons. First, because Figure 4 is saying it is a first
17 embodiment of, quote-unquote, the apparatus.

18 Going to Petitioner's slide 16, you can see Cortellesi's consistent
19 reference to the invention as the apparatus or the storing and playing
20 apparatus in Figure 1, in Figure 2, and the description of Figure 4.

21 Going to Petitioner's slide 18, you can see the description of Figure 4
22 at the top where it says it is a first embodiment of the apparatus. And then
23 down in the column, a description of what the apparatus of the invention
24 includes.

1 And this already suggests to a person of ordinary skill in the art that
2 the Figure 4 embodiment is not just a turntable. It is not just a virtual disc
3 player. It is actually the apparatus of the invention of Cortellesi, which
4 addresses the problems that Cortellesi wants to address.

5 Namely, you want to be able to record your records into digital form
6 so you can play them back later or output them. And you want to be able to
7 still use the virtual disc to put on a sort of DJ show and synchronize with
8 that.

9 JUDGE ZADO: Counselor, I just want to pause there and ask a
10 question because I just want to make sure I understand your position
11 correctly. It seems to me that the virtual disc and the ability to play the
12 virtual disc is really the -- I wouldn't say focus of Cortellesi.

13 I'm just trying to understand with the rationale -- well, so there are two
14 pieces of this. I'm sorry. I'm going to take a step back.

15 MR. SMITH: Of course.

16 JUDGE ZADO: I understand you have one argument that if we look
17 at Figure 4 of Cortellesi, an appropriate sort of understanding or
18 interpretation would be that that is showing that the turntable is part of the
19 apparatus that includes the digital to analog conversion, the EC, which is a
20 central processing unit that is being mapped to the claimed controller, and
21 that it also would have the standard computer protocol output.

22 But I think I'm hearing a second argument, which is if we do not agree
23 that Figure 4 of Cortellesi is showing the turntable as part of the apparatus
24 that includes these other components, that there is an obviousness argument

1 that a skilled artisan obviously -- that it would have been obvious for these
2 to be included or it would have been understood. Is that correct?

3 MR. SMITH: Yes, Your Honor. That's 100 percent correct. That's
4 the description on pages 31 and 32 of the petition. And there were a number
5 of --

6 JUDGE ZADO: Also --

7 MR. SMITH: Yes, Your Honor.

8 JUDGE ZADO: I'm sorry. I'm going to interrupt one more time. So
9 the argument that -- I'm just trying to understand. When you had just made a
10 comment about the virtual disc and the benefit as to why this would be
11 incorporated into the apparatus, I'm not sure which of the two theories that
12 applies to. The one where Figure 4 is the apparatus, or does that apply to the
13 it-would-have-been-obvious-to-do theory?

14 MR. SMITH: Yes. I understand your question, Your Honor. So the
15 description I just provided of Cortellesi was Cortellesi's motivation for
16 creating this invention. And I think that is relevant in a number of ways,
17 which will become apparent through the argumentation.

18 It's not the argument put forward in the petition as to the specific use
19 of Figure 4. Figure 4 does have a virtual disc player, so there's no real
20 reason to argue that Figure 4 includes the virtual disc and the virtual disc
21 player.

22 With the Figure 4 embodiment, it seems to me there are a couple of
23 things that are argued in the petition that are germane to the discussion as it
24 has developed with the Patent Owner over time. Actually, three things.

1 One is the question of, why do you play a common record on that
2 Figure 4 record player or apparatus of the invention? Two is, why does that
3 apparatus of Figure 4 have the internals of the apparatus of Cortellesi? And
4 three is, why is it obvious to output that from the CPU EC over a USB
5 interface?

6 So those are the three parts of the obviousness argument. And those
7 are made in the petition at pages 28 to 32, 40 to 45, and 46 to 48, which is a
8 good segue into what I was about to discuss, which is the overall structure of
9 the obviousness argument.

10 Judge Zado's question began with the discussion of the different
11 embodiments and how Figure 1, Figure 2, and Figure 4 are all characterized
12 as an apparatus. And I think that is 100 percent correct. In other words,
13 Cortellesi is describing Figure 4 as a first embodiment of the apparatus.

14 But the petition is also arguing that it is obvious in the Figure 4
15 embodiment to use the analog-to-digital converter and to use the CPU EC in
16 that particular turntable-style embodiment. And there's a few reasons for
17 that.

18 One is the description of Figure 4 itself and the use of the term
19 apparatus and how that is used throughout Cortellesi. So that alone suggests
20 to a person of ordinary skill to arrange things in that way, particularly
21 because the AD converter and the CPU EC are central and necessary to the
22 functioning of the intended objects of Cortellesi.

23 The second is you would want to do that in order to achieve the
24 advantages that Cortellesi says it gets from its apparatus. Cortellesi is

1 motivated by the desire to input records into a system so you don't have to
2 lug the records around.

3 By having the Figure 4 apparatus be, in fact, the apparatus and contain
4 the AD converter and the CPU EC, you obtain that advantage. You also
5 obtain the secondary advantage of being able to use the virtual disk.

6 And as described in the petition on pages 31 and 32, we give a
7 number of reasons why it would be obvious to also play common records
8 from the Cortellesi Figure 4 embodiment, because that's a piece of it as well.

9 Why would you take that and use it to play records? And there's a
10 number of reasons for that. One is simply that Cortellesi characterizes the
11 Figure 4 embodiment as a common record player.

12 The second is that the Figure 4 as shown has the hallmarks of a
13 common record player. That is, it has the platter. It has the tone arm. It has
14 the cartridge. It has everything you need to play a standard record and not
15 just use the virtual disk.

16 And there's no reason to have those components if the turntable is just
17 to use the virtual disk. Then you would just have the sensor SD. The third -
18 -

19 JUDGE ZADO: I have --

20 MR. SMITH: Yes, Your Honor.

21 JUDGE ZADO: -- I have an additional question. So claim 1 is an
22 apparatus claim. It's claiming a turntable.

23 And so it seems that if -- going back to Figure 4, for example, of
24 Cortellesi -- even if the, let's say, reason or rationale for having a device that

1 includes the turntable with the virtual disk to include the analog-to-digital
2 converter, the EC, and the output port that has a standard computer protocol.

3 If Petitioner were to show that there was a motivation or rationale to
4 include those components in the turntable based on, you would want your
5 virtual disk to be part of the same apparatus that has those other components,
6 because that turntable also happens to have the tone arm and the
7 phonocartidge -- we see that in Figure 4. Those components are included
8 on the turntable.

9 Then would you need to have a rationale to be able to play analog
10 music? Or would it be sufficient that there's a rationale to have the virtual
11 disk combined in the same apparatus with the turntable or apparatus with the
12 analog-to-digital converter, the EC, and the standard computer protocol
13 port?

14 MR. SMITH: Yes. I think under the hypothetical, which is that
15 everything is sort of given, you can see the components of the turntable. I
16 agree it is -- if you look at that as a person of ordinary skill in the art, that's a
17 turntable for playing records.

18 Probably the motivation at that point is just backup, but Cortellesi
19 doesn't specifically say take the Figure 4 turntable and play a record with
20 music on it. Cortellesi says it is a common record player.

21 I find it very obvious that you would use a common record player to
22 input records in the manner that Cortellesi is describing in the specification
23 in order to achieve the advantages of the specification, but I think you're
24 right.

1 If you start from the recognition of a person of ordinary skill in the art
2 that this is a normal turntable for playing normal records, the backup
3 motivation probably, strictly speaking, isn't necessary.

4 The one other thing that I did want to turn to was the argument about
5 the USB port specifically in the embodiment of Figure 4. And I'm turning to
6 Petitioner's demonstrative 21.

7 This is where we argue that overall, the person having ordinary skill
8 in the art -- excuse me. When I say this is where we argue, it's referring to
9 the petition at pages 47 to 48. What we argue here is that the person of
10 ordinary skill in the relevant time frame would perceive Cortellesi as a
11 system for inputting music from a variety of sources, including analog
12 sources.

13 That analog source is in Figure 4, simply the turntable, of course,
14 getting that into the CPU EC where it can be stored or processed in a number
15 of ways, and allowing that also to be output over the USB interface for the
16 reason provided in Cortellesi.

17 And that reason specifically is quoted in the petition. So that a user
18 could apply, quote, software programs that improve the quality of recorded
19 pieces of music, removal of ground noise, interference, and digital mixing.

20 If I advance two slides to Petitioner's slide number 23, you can see the
21 actual excerpted text from Cortellesi. This is at column 4, lines 8 to 13,
22 where it says the USB interface allows the apparatus to be directly
23 connected to a personal computer for digital data processing and
24 transmitting by software programs that improve the quality of recorded
25 pieces of music.

1 So Cortellesi overall is teaching to import analog sources of music,
2 make them digital, and allowing the user to export them to a computer where
3 further manipulation can be done. That motivation is expressly in Cortellesi.
4 It's referenced in the petition. And that's why a person having ordinary skill
5 in the art would have wanted to have the CPU EC output over the USB
6 interface.

7 JUDGE ZADO: I want to take a second. I just want to make sure we
8 have time to touch upon the issue of the level of ordinary skill in the art
9 because I did notice that Patent Owner proffered a different level of ordinary
10 skill.

11 My question is really simple. It's just that if we were to adopt Patent
12 Owner's level of ordinary skill in the art, what impact would that have on the
13 analysis performed by Petitioner and by Dr. Moon?

14 MR. SMITH: Understood, Your Honor. I think that it probably does
15 not have an impact. And I am basing that on the fact that Patent Owner has
16 not provided any specific instance where it says, under the Petitioner's
17 definition, a person of ordinary skill would be able to do this, but under our
18 definition, they would not be able to do it.

19 Or the difference between saying you have, as in the Petitioner's
20 proposed level of ordinary skill, a degree in electrical engineering or a
21 related field and a few years of experience, or under the Patent Owner's
22 level, which is just you have some technical knowledge, where that really
23 makes a difference, where there's any showing that one person would be
24 able to do something or one person would not be able to do something.

1 I also think that at the level the claims are written with the
2 components that are in the claims, all of these features are known. That is
3 the phonograph, the turntable, the turntable components, AD converters,
4 controllers, output jacks. All of these things are things that were known in
5 the prior art. They're all being employed for their known functions, and
6 they're put together in practically the only logical way to do so.

7 And there's no real contention that a person having ordinary skill in
8 the art would not have known how to use any of these components. So I
9 don't really think it makes a difference, nor do I think the Patent Owner has
10 put that at issue.

11 Let me make sure I touch on ground 3, Spencer in view of Cohen.
12 And I'll cut right to the chase here. The primary argument -- I'm on
13 now Petitioner's slide number 26 -- really revolves around whether Spencer's
14 system, and in particular its controller 100, which is shown in Figure 1 in the
15 left, is outputting digitized audio signals from the turntable or is outputting
16 audio signals from the turntable in analog form.

17 From my understanding of inMusic's argument, there's sort of a three-
18 part argument going on. And the three-part argument goes something like
19 this.

20 The Petitioner's and the petition's argument relates principally to
21 paragraph 30 of Spencer. Paragraph 30 of Spencer talks about
22 communicating from port 102 to port 202 on the data processor over SCSI,
23 USB, or some other suitable type port, digitized audio signals and
24 information useful in determining an intratrack needle position.

1 And the first thing inMusic says is that when you read this, the clause
2 useful in determining an intratrack needle position actually applies not only
3 to information, but also to digitized audio signals. So it's modifying both of
4 those phrases.

5 I don't think that would actually make a difference in the claims
6 because the claims don't require any particular use of the digitized audio
7 signal. You don't have to listen to them, save them, or not use them for
8 intratrack needle position. It just requires the output of digitized audio
9 signals.

10 So inMusic goes a step farther and says, because in our reading of
11 paragraph 30 of Spencer, digitized audio signals are useful in determining
12 the intratrack needle position, they are not the audio signals coming from the
13 record that is playing on the turntable. There's some other kind of audio
14 signal. We don't know what it is, but it's probably used for determining the
15 intratrack needle position in some way.

16 And then the third thing inMusic says is that there is other evidence in
17 the specification that the turntable is outputting analog signals. So let me
18 deal with each of those three arguments in turn.

19 First, just the grammatical parsing of paragraph 30. I don't think
20 inMusic's argument makes sense because to apply useful in determining an
21 intratrack needle position to both information and digitized audio signals is a
22 little bit redundant. And it's redundant because digitized audio signals are
23 information.

24 So it's strange to start off with the specific, then say the generic, and
25 then say that both are useful in determining an intratrack needle position.

1 You could just write this as information useful in determining an intratrack
2 needle position. The more likely interpretation of this is that the digitized
3 audio signals are output and information that is useful in determining an
4 intratrack needle position is output.

5 And that goes to the second part of inMusic's argument, which is
6 saying the digitized audio signals are not the audio from the turntable, the
7 record player, but some other kind of audio, but Spencer never discloses
8 what that other kind of audio might be. The only audio that comes from
9 controller 100 is from the record playing on the turntable. And that, in
10 paragraph 30, is said to be communicated via digitized audio signals here.

11 There is no audio signal that is useful in determining the intratrack
12 needle position. The things in Spencer that are useful in determining the
13 intratrack needle position are the deflection of the tone arm. And they have
14 some labels around the outside of the record that can be scanned as the
15 record is going around so you know how far it is in its revolution.

16 It's basically using those two things to figure out where the stylus is
17 within the groove of the record, but it's not using audio signals to do that.
18 There's no disclosure of that.

19 So inMusic's inference that these audio signals must be something
20 else is speculative and, in this obviousness case, I think secondary. That is,
21 when a person of ordinary skill in the art reads paragraph 30, having read up
22 to paragraph 30, they know that the only audio that the controller 100 is
23 talking about comes from the playing of the record. And so they would
24 associate digitized audio signals with the only audio that Spencer has talked
25 about.

1 InMusic's third argument is that Spencer has other indications that
2 analog audio signals are being sent to the data processor 200. And I would
3 agree that Spencer at times refers to the audio signal as the analog waveform
4 in terms of its processing, but what it's doing in that instance is just using the
5 term analog here to refer to the source of the information.

6 By the time it's at data processor -- in fact, by the time it leaves the
7 controller 100, it's already in digital form, as paragraph 30 says. We know
8 this for a number of reasons.

9 One is that paragraph 30 expressly says that it's exporting digitized
10 audio signals. The second is that the USB interface is an inherently digital
11 interface. It's transmitting 1s and 0s in packets.

12 The third is that the data processor 200 is a standard personal
13 computer, which is a digital device. I understand that in the sur-reply,
14 inMusic has said --

15 JUDGE ZADO: Counselor?

16 MR. SMITH: Yes, Your Honor.

17 JUDGE ZADO: I want to pause for a moment. First, this is just to let
18 you know we're at 34 minutes.

19 The second question I have is with regard to the USB interface, which
20 you've mentioned -- I'm paraphrasing -- that it's essentially a digital
21 interface.

22 Looking at the test for obviousness, even if somebody could come up
23 with a corner case where USB could be used to transmit an analog audio
24 signal, would that even be relevant because if the standard is really what

1 would have been obvious to an ordinarily skilled artisan when they see USB,
2 would digital audio signals occur to them?

3 Or would it have been relevant if someone could have argued, well,
4 technically, you could have found a corner case where somebody could have
5 manipulated or found a way to use the USB interface to transmit analog
6 audio? Would that defeat Petitioner's argument? What impact would that
7 have?

8 MR. SMITH: Yes, Your Honor. I don't think that would have impact
9 for the reasons in the premise of the question. And I'm going to go back for
10 a second to Petitioner's slide 26.

11 When paragraph 30 of Spencer says communicating digitized audio
12 signals, what a person of ordinary skill from that primarily understands, the
13 very first thing they're going to think of is that this is audio coming from the
14 only audio source in Spencer, and it has been digitized, and it's going over
15 the USB interface. That's the first thing they think of.

16 Now, if you could find a corner case, an edge case, or make some sort
17 of hypothetical argument that perhaps Spencer is doing things in a different
18 way, I agree with you that in an obviousness context, and in particular in the
19 obviousness context as set up by the petition, where paragraph 30 is
20 suggestive to the person of ordinary skill in the art having reason to use the
21 known infrastructure of the Cohen reference within the controller 100 of
22 Spencer, that it really doesn't make a difference.

23 It's not sufficient, I think, for inMusic to say one percent of the time a
24 POSITA would look at this paragraph and think, I'm not sure those digitized
25 audio signals really are coming from the turntable, if 99 percent of the time

1 they're going to ascribe digitized audio signals to the only source of audio
2 coming from the controller.

3 So I think it doesn't make a difference. We're not making an
4 anticipation argument with these references. We're making an obviousness
5 argument, as your question, I think, aptly pointed out.

6 I do want to address the question of the analog waveform. If one goes
7 through the specification of Spencer, starting with about paragraph 57 of
8 Spencer where it talks about the standard personal computer, the standard
9 personal computer is operating as a digital computer.

10 As a digital computer, it cannot even think of numbers outside of the
11 digital form. Thinking meaning the memory, the registers within the
12 computer, is storing numbers as 1s and 0s, not storing them as some sort of
13 analog waveform.

14 In, for example, paragraph 58 of Spencer, Spencer talks about all of
15 the software that can be run on the, quote, analog waveform. And there's no
16 way to do that unless the, quote, analog waveform means it is the waveform
17 you have received from an analog source, but which has been converted to
18 digital.

19 And this is the argument I wanted to address from the sur-reply. I
20 understand inMusic to be saying -- to be characterizing our argument as a
21 personal computer can never receive analog input. And that is not what we
22 are trying to say.

23 What we're trying to say is that a personal computer operates digitally.
24 And so when it is applying software within the computer, when it is using its
25 own CPU, that is done in the digital domain.

1 Spencer, however, talks about that kind of software application on the
2 analog waveform. And that indicates that when it uses the term analog
3 waveform, it is talking about where it got the information from, not the
4 current form it is in, analog versus digital.

5 And this is shown on Petitioner's slide 28, in particular at the end of
6 paragraph 68, where it talks about the sampling rate, which is what inMusic
7 contends is the analog-to-digital conversion in Spencer, and the sampling
8 generates the analog waveform.

9 If sampling, as in inMusic's contention, is the analog-to-digital
10 conversion, then it should generate a digital waveform, not an analog
11 waveform. And this indicates that Spencer is using the term analog
12 waveform just as an indication that it came from the record player to
13 distinguish it from waveforms that come from digital sources like CDs.

14 When we asked Mr. Zatkovich, inMusic's deponent expert about this,
15 he agreed that it was using the term analog to distinguish where the
16 waveform was received from, not to say that when you sample a waveform
17 and generate an analog waveform that it's actually still an analog waveform.

18 Within the computer, it's a digital waveform. Within the USB bus, it's
19 a digital waveform. And that suggests the application of the AD controller
20 and the DSP of Cohen within the controller 100 of Spencer.

21 And I just want to take a step back, I think, at the end -- and I'll
22 conclude shortly here -- to talk about the context of obviousness. As I
23 previously mentioned, we're not making anticipation arguments here. We're
24 arguing that the references' most likely suggestion to the person having

1 ordinary skill in the art is an arrangement of the components that meets the
2 claim language.

3 And inMusic's counter arguments are a sort of fine parsing of the
4 references. What does Cortellesi say exactly about what Figure 4 contains?
5 What does Spencer say exactly about the digitized audio signals referenced
6 in paragraph 30?

7 And I'm not sure in this context that entirely makes a difference. The
8 question is, what is obvious to a person having ordinary skill in the art? And
9 the background of the technology in this case is entirely known.

10 First of all, the desire to connect a turntable to an AD converter in
11 order to be able to digitize the analog output of the turntable and use a
12 computer on it either to play it back or manipulate it was already well
13 known. It was in the New York Times, as shown in Petitioner's slide
14 number 5.

15 Each of the components were well known in the art, and they're used
16 in ways that were well-understood functions of those particular components.
17 We asked Mr. Zatkovich if there's anything surprising or unusual that this
18 combination of particular components generated. And he said, I don't think
19 that anything would be considered surprising or unusual.

20 It's quite often that patent owners have good stories of the invention or
21 they're able to say, we had to invent a component in order to be able to make
22 this work. Or we had the components, but it turns out if you put them in a
23 different order, you get a 20-percent efficiency improvement or something
24 like that.

1 There's nothing like that here. There is no reason given by the Patent
2 Owner why there was any sort of technical hurdle that had to be overcome
3 or why doing things the way they did it produced any sort of improvement
4 that wouldn't have been entirely expected by a person having ordinary skill
5 in the art.

6 And based on the disclosure of the references, the obviousness
7 contentions in the petition, and the background against which it is
8 considered, I think you should find the claims obvious.

9 Are there any other questions from the panel?

10 JUDGE AHMED: Yes, Mr. Smith. I have a question. Could you
11 address paragraph 36 of Spencer that Patent Owner relies on?

12 You tried to explain analog signals, but that paragraph specifically
13 says analog electrical signals. And it says cartridge 122 generates those
14 signals and then communicates those analog electrical signals to data
15 processor unit 200. How do we read that paragraph consistent with your
16 interpretation?

17 MR. SMITH: In the same way, Your Honor, in that analog here is
18 being used to refer to the source. And I don't think there's any other way to
19 reconcile it with the rest of the disclosure of Spencer.

20 I know that they have thrown the word electrical in there, and that's
21 what you're referring to. But at base, all of these signals, digital or analog,
22 are electrical signals, right? In the end, all signals are analog even if they're
23 digital.

24 In this case, it's fairly clear, I think, from the overall reading of
25 Spencer that Spencer is trying to solve the problem of synchronizing an

1 output source that is fundamentally analog with an output source that is
2 fundamentally digital. You're a DJ. You have a record that's playing. You
3 now want to sync in the output of a digital CD. How do you do that?

4 The way that Spencer does that is to communicate the digitized audio
5 signals, as directly stated in paragraph 30, over the USB interface digitally
6 and to the data processor 200. And the data processor 200 is operating on
7 what is still called an analog waveform, but obviously doing so in the digital
8 domain.

9 And I would also add onto that that, again, this is an obviousness
10 contention. And the first impression that, I think, a person of ordinary skill
11 in the art would take away from paragraph 30 is that those digitized audio
12 signals are in fact what they are said to be, digitized audio signals.

13 And so the use in paragraph 36 of analog electrical signals is no
14 different than the use of, say, analog waveform in paragraph 58 where the
15 software is said to be operating on the analog waveform.

16 JUDGE AHMED: Okay. Thank you.

17 MR. SMITH: Thank you, Your Honor.

18 JUDGE ZADO: All right. You're at 45 minutes, so you have 15
19 minutes remaining.

20 MR. SMITH: Thank you, Your Honor.

21 JUDGE ZADO: And so now we'll shift over to argument by Counsel
22 for Patent Owner. Before you begin, how much time would you like to
23 reserve?

24 MR. BLUM: Good morning, Your Honor. We would like to reserve
25 five minutes for rebuttal.

1 JUDGE ZADO: I'm sorry. Can you please introduce yourself?

2 MR. BLUM: I apologize. This is Anthony Blum for Patent Owner,
3 inMusic.

4 JUDGE ZADO: And I'm sorry. How many minutes are you
5 reserving?

6 MR. BLUM: Five minutes, Your Honor.

7 JUDGE ZADO: Five minutes. Okay. Whenever you're ready, you
8 may begin.

9 MR. BLUM: Yes, Your Honor. I am sharing Patent Owner's
10 demonstrative. I'm going to start off with slide 2, Your Honor. Sony has
11 failed to meet its burden to establish invalidity with respect to any of the
12 grounds of obviousness.

13 And I just want to go through a few of the claim construction issues
14 fairly quickly. Go to slide 3. We agree with Petitioner that there is no need
15 to construe the turntable limitation. With respect to the controller term, I
16 think it's also probably unnecessary to construe that term.

17 I think the issue here that we'll get into when we discuss the prior art
18 is that Sony often points to something and calls it controller, but it then
19 doesn't sufficiently establish that that element actually meets the rest of the
20 limitations that are recited in claim 1 with respect to the controller. And
21 that's specifically with respect to generating an output digital audio signal,
22 which is then later in the claim, output from the turntable.

23 The last claim construction issue -- and I'll go to slide 8.

24 JUDGE ZADO: Can we pause? I'm sorry. I want to stay with that
25 for a moment just to be sure I understand Patent Owner's position on claim

1 construction of the term controller. So I'm just looking at claim 1 right now,
2 for example.

3 I believe what I understand Patent Owner's position to be is that we
4 need not construe controller because the claim language itself describes what
5 the controller does, and that Petitioner hasn't shown that the prior art
6 references have those features that appear in the claim.

7 MR. BLUM: Yes, Your Honor. That's correct.

8 JUDGE ZADO: So I'm looking at claim 1, what we've labeled
9 element [1e] in the decision on institution, for example. And this is at page
10 6 of the decision on institution. This is just by way of example. I'm not
11 trying to limit everything that might be in the claim about the word
12 controller.

13 Limitation [1e] recites, a controller responsive to said analog-to-
14 digital converter for generating an output digital audio signal with music or
15 speech, and it goes on.

16 So is that what Patent Owner is referring to, that what Petitioners
17 failed to show, for example, would be the words that appear after the word
18 controller?

19 MR. BLUM: Yes, Your Honor. I think it specifically will come up
20 with the Spencer-Cohen combination where they point to a computer's
21 general microprocessor, but then they do not explain how that actually
22 generates the output digital audio signal that is communicated out of the
23 turntable.

24 JUDGE ZADO: Okay. Thank you. I believe I understand Patent
25 Owner's position.

1 MR. BLUM: Your Honor, the last claim construction issue on slide 8
2 is representative limitation. And again, this also likely does not need to be
3 construed.

4 The issue here is simply that, again, I think it goes to the Spencer-
5 Cohen combination where it's our position that the audio, it's analog audio
6 that's communicated from the turntable to the computer. It's not digital
7 audio.

8 And so the issue is really not what representative means. The issue
9 really comes down to whether it's a digital audio signal as required in the
10 claim or whether it's an analog audio. I think it will make more sense to just
11 explain that within the context of the obviousness arguments themselves.

12 And I'm going to actually do this in reverse order. So I'm going to
13 jump to slide 22.

14 JUDGE ZADO: Counsel, before you do that, I do want to quickly
15 touch upon level of ordinary skill in the art before we start going and delving
16 into the substantive issues.

17 I have the same question for you essentially as I had for Petitioner,
18 which is that the proposed level of ordinary skill in the art is not the same
19 amongst both parties. And so I just want to know what the difference --
20 does it matter?

21 If we were to adopt Patent Owner's versus Petitioner's or vice versa, I
22 didn't see anything in the papers from Patent Owner that indicate that
23 somehow somebody's analysis would be correct or incorrect depending on
24 which standard they used or there'd be some kind of difference, like it's
25 correct under one standard but incorrect under another standard.

1 So can you identify anything in the record that shows that the
2 difference between the levels would somehow change or alter the outcome
3 in this case?

4 MR. BLUM: Yes, Your Honor. I do not believe the level of ordinary
5 skill in the art matters here. We believe that it was simply too narrow to say
6 electrical engineering, although Sony did say other related degrees. We
7 were just unclear what those other related degrees are.

8 It really only mattered because at one point in time, Sony indicated
9 that they might move to exclude inMusic's expert, who does not have a EE
10 degree but has a computer science background. They did not actually file
11 that motion or move to exclude Mr. Zatkovich. So I don't think the level of
12 ordinary skill in the art actually does matter for the results here.

13 JUDGE ZADO: Okay. Thank you.

14 MR. BLUM: So Your Honor, if we move on to slide -- excuse me.
15 Let's start with slide 22. And actually, let's go to slide 23. I now want to
16 discuss the Spencer-Cohen ground, which was, I believe, ground 3 in Sony's
17 petition.

18 Here, I think Sony's interpretation of the Spencer reference is,
19 respectfully, just incorrect. Spencer's turntable, which is described as the
20 controller unit 100, does not output digital audio signals that are
21 representative of an analog audio signal that are representative of the
22 recording, as required by the claims.

23 Sony's assertion, to the contrary, is based solely on paragraph 30.
24 And in paragraph 30, Spencer states that the controller has a port to

1 communicate digitized audio signals and information useful in determining
2 an intratrack needle position.

3 That paragraph never states that the audio signals are representative of
4 the analog audio signals that come from the recording itself. Instead, what
5 it's highlighting is that the signals are useful in determining the intratrack
6 needle position.

7 And I don't think it's proper to simply look at this one paragraph from
8 Spencer. If you read the entire disclosure, all 96 or so paragraphs of it, it's
9 clear that the turntable from Spencer does not transmit the digital audio
10 signals that are required by the '498 Patent.

11 JUDGE GALLIGAN: Counsel, this is Judge Galligan.

12 MR. BLUM: Yes, Your Honor.

13 JUDGE ZADO: I'm sorry. Was somebody going to ask a question?

14 JUDGE GALLIGAN: Yes, I am.

15 JUDGE ZADO: Please go ahead. I apologize, Judge Galligan.

16 JUDGE GALLIGAN: I was just going to ask real quickly. So we
17 have the disclosure, whether you like it or not, of digitized audio signals.
18 They come out of a SCSI or a USB port.

19 The question I have is what are the -- that's what it says. What does
20 Patent Owner contend are the digitized audio signals?

21 I saw in Mr. Zatkovich's declaration where he testifies that they could
22 be the tone arm assembly signals. Is that what Patent Owner's contending
23 they are?

24 MR. BLUM: If you read the rest of the specification of Spencer, the
25 only other time that the specification ever discusses signals being

1 communicated from that output port 102, it is with respect to the tone arm
2 assembly signals. So I think those are what these signals could be.

3 The specification also discloses, I think, some of the label signals that
4 Mr. Smith discussed earlier, as well as signals that have to do with the
5 rotational velocity. So those could also potentially be communicated via
6 that port 102, although it does not explicitly state what port those signals are
7 communicated through.

8 JUDGE GALLIGAN: All right. This is Judge Galligan. Are label
9 signals audio signals?

10 MR. BLUM: I don't think the label signals would be. Whether the
11 tone arm assembly signals or rotational velocity signals are, the specification
12 does not speak to that beyond paragraph 30.

13 JUDGE GALLIGAN: Okay, just to follow up. I just want to wrap
14 this up. This is Judge Galligan. What is Patent Owner's position as to what
15 the digitized audio signals are?

16 MR. BLUM: So I think those signals could be the tone arm assembly
17 signals.

18 JUDGE GALLIGAN: Okay. Thank you.

19 MR. BLUM: If we go to slide 24, I think it's helpful to step back and
20 understand what Spencer is disclosing in its entirety. And it's disclosing a
21 turntable that can be used to control digital music from a computer where
22 analog music is coming from the turntable and being played with digital
23 music from the computer synchronously.

24 In Spencer, music from an LP record is sent to the computer to the
25 data processor unit 200 via analog signals. Digital signals sent via port 102

1 would be the other type of signals, as we've just discussed, such as tone arm
2 assembly signals.

3 If we go to slide 25, nowhere does Spencer say that those digitized
4 audio signals in paragraph 30 are representative of an audio recording from
5 the turntable. And it's clear when you look at paragraph 36, as was
6 discussed earlier, that analog signals are being transmitted.

7 If you look at the yellow highlighted language on slide 25, it's
8 describing the process by which a traditional turntable creates analog
9 electrical signals using the mechanical vibrations from the grooves in the LP
10 record.

11 The green highlighted language then states that the cartridge 122
12 communicates those analog electrical signals to the data processor unit 200
13 for sampling. So it's clear that there are electrical analog signals being sent
14 to 200, and it also explains that those are sent to the computer for sampling.

15 And I would note I brought up Exhibit 1002, which hopefully you can
16 see on the screen, which is Dr. Moon, Sony's expert, his declaration.

17 He goes into great detail explaining what sampling is on page 16 of
18 his declaration. He explains that sampling, that's the process by which the
19 ADC, the analog-to-digital converter, converts an analog waveform to a
20 digital waveform.

21 That's exactly what Spencer describes as occurring through sampling,
22 and none of that occurs on the turntable. It describes that as occurring on the
23 computer 200.

1 JUDGE ZADO: I have a question for you because I am looking here
2 at what appears to be an excerpt from -- I'm sorry. Can you please identify
3 what you were just showing? It was page 16. Was that of --

4 MR. BLUM: That was page 16 of Exhibit 1002, which is Dr. Moon's
5 declaration.

6 JUDGE ZADO: Okay. Thank you. I'm sorry. That was my
7 question. I just was wanting confirmation of --

8 MR. BLUM: Thank you, Your Honor.

9 JUDGE ZADO: -- what we were looking at. Thank you.

10 MR. BLUM: So Your Honor, if we go to slide 26, Sony argues -- it's
11 actually helpful if we look at a few other places in Spencer.

12 If you go to paragraph 67 of Spencer, at the end of that paragraph it
13 also states, data processor unit 200 may sample the audio waveform
14 generated by the interaction of the stylus 123 and groove sidewalls.

15 It's not just paragraph 36. There are repeated disclosures throughout
16 Spencer in which it is clear that the analog waveform is the -- it is the
17 electrical signals that are created by the stylus and its interaction with the
18 grooves in an LP record.

19 JUDGE ZADO: I have a question. This is Judge Zado. If we were to
20 assume arguing that the audio signals representing the audio signals from a
21 record, if we were to assume that they're analog when they are sent from
22 turntable 100 to data processor 200, paragraph 30 does refer to SCSI and
23 USB ports. And these are standard computer protocol ports.

24 Is Patent Owner's position that analog audio signals are being sent
25 over a USB port?

1 MR. BLUM: No, Your Honor. It is Patent Owner's position that the
2 analog -- the tone arm assembly signals would be sent via the 102 USB, but
3 the analog audio signals are going to be sent via a different port. And that
4 actually goes to slide 26.

5 JUDGE ZADO: Okay. Which port? I'm now looking at Figure 1 of
6 Spencer and Spencer is Exhibit 1005. I see turntable 100.

7 And the only ports I see between turntable 100 and data processor 200
8 are the port 102 on the turntable side, which is port 202 on the data
9 processor side. And that's USB, SCSI, or the like. And then I see port 106
10 on the turntable side, and it's labeled as port 209 on the data processor side.
11 I don't see any other ports.

12 So is it Patent Owner's -- so which ports is Patent Owner referring to
13 when saying a different port other than USB is being used to communicate
14 analog audio signals?

15 MR. BLUM: I think there's several possibilities that we discuss in the
16 brief. One is that there appear to be potentially unlabeled ports that have red
17 arrows pointed to them in slide 26. It's possible one of those could be an
18 analog port.

19 Also, if you look at port 104 in Figure 1, it's going to a speaker 430.
20 During the playback process, it's going to be connected to that speaker. But
21 the process when the analog signals are communicated from the turntable
22 100 to the computer 200 is actually described as taking place in a -- I may
23 have the language wrong, but it's a pre-processing stage.

1 During that pre-processing stage, you're not using the speaker, so it's
2 possible that port 104 could be used at that point in time. It may just also
3 not be disclosed in Figure 1.

4 What I think is clear from paragraph 36, paragraph 66, and 67 in
5 Spencer is that analog electrical signals are being communicated from the
6 computer 100 -- excuse me -- from the turntable 100 to the computer 200.

7 You also see that, I think, in the claims of Spencer itself. If you look
8 at claim 1 of Spencer, it refers to an analog signal source assembly for
9 generating an analog audio waveform. So it's clear throughout all the
10 disclosures of Spencer that it is the turntable, the analog audio source
11 assembly, that's generating that analog waveform.

12 JUDGE ZADO: I have an additional question. If I understood
13 Petitioner's arguments correctly, it seems that Petitioner was arguing that
14 when Spencer refers to an analog waveform, it's really referring to not the
15 format, has it been digitized or not, but it's referring to the fact that the
16 waveform is from a record as opposed to from a digital source such as a CD.

17 With that in mind, Petitioner's position in mind, I would like for you
18 to please turn your attention to paragraph 77 of Spencer. And paragraph 77
19 now is talking about some matching that's occurring inside the data
20 processor unit 200.

21 And again going back to what I understand Petitioner's position to be,
22 in order to synchronize the analog audio or the audio coming from the record
23 with audio coming from the CD, portions of the audio signal coming from
24 the record that match a particular intratrack needle position have to be
25 communicated to data processor 200.

1 And data processor 200 is going to take that audio that comes from
2 the record and compare it with portions of audio that come from the CD and
3 try to match those two. So paragraph 77 is saying that data processor unit
4 200 is going to do this matching.

5 And it says, in automatically matching the portions of the analog
6 waveform with corresponding portions of the digital waveform, data
7 processor unit 200 may calculate beats per minute of the digital waveform.
8 And it goes on.

9 So I just want to know, is it Patent Owner's position that data
10 processor unit -- because here this paragraph 77 is referring to doing a
11 matching of an analog waveform with a digital waveform. Is it Patent
12 Owner's position that data processor unit 200 can actually analyze an analog
13 waveform that has not been put into digital form?

14 MR. BLUM: No. What Spencer discloses is that the analog -- excuse
15 me. Spencer discloses that the computer 200, the data processor unit 200,
16 samples the analog waveform. And so it's then going to be a sampled analog
17 waveform, which would be from which the --

18 JUDGE ZADO: Let me take a step back because I'm just trying to
19 understand. From the perspective of an ordinarily skilled artisan, how does
20 a digital data processor unit -- I'm just trying to understand Patent Owner's
21 position. It's Patent Owner's position that the processor is capable of
22 sampling an analog signal?

23 MR. BLUM: Yes. The processor -- excuse me -- the data processor
24 unit 200 would presumably have an analog-to-digital converter. So in many

1 ways, it's actually similar to the New York Times article that Sony brought
2 up earlier.

3 And I think that's actually the big issue here, which is all of Sony's
4 prior art is like that New York Times article where the --

5 JUDGE ZADO: I'm still struggling to understand this. Is Patent
6 Owner's position then that sampling is the same thing as digital-to-analog
7 conversion, that those terms are synonymous and that to a signal processor,
8 they'd actually mean the exact same thing?

9 MR. BLUM: So sampling is the process by which you do that analog-
10 to-digital conversion. And that's described by Dr. Moon at page 16 of his
11 expert report.

12 JUDGE ZADO: Did Mr. Zatkovich present any of his own testimony,
13 either through his declaration or otherwise, as to what it means to sample
14 versus what it means to do digital-to-analog -- I'm sorry -- analog-to-digital
15 conversion? Or does he just agree with Dr. Moon?

16 MR. BLUM: I'm not sure if he explicitly agreed with Dr. Moon or if
17 he referenced that portion of Dr. Moon's declaration. I believe in Mr.
18 Zatkovich's declaration, he explains that what Spencer is disclosing is that
19 the computer 200 is doing that analog-to-digital conversion through that
20 sampling process that is described.

21 JUDGE ZADO: Okay. Thank you. I believe that answers my
22 question.

23 MR. BLUM: And so I want to address a little bit more of this point
24 from Sony that the analog waveform is actually digital. If we look at slide

1 28, it's Sony's position essentially that sampling is not really sampling and
2 the analog waveform is not really analog, but it's actually digital.

3 And if sampling is not sampling, I'm not really sure what it is. I don't
4 think that makes sense within the rest of Spencer's disclosure.

5 If we look at paragraph 66, which is shown on slide 28, Spencer
6 explains that the data processor 200 samples the analog audio waveform
7 communicated from the controller unit 100, e.g. the analog waveform.

8 And as we discussed with respect to paragraph 36, Spencer teaches
9 that what is communicated from the controller unit are the analog electrical
10 signals. So there's no doubt that these analog electrical signals are the
11 analog waveform.

12 That can be also seen in paragraph 66 where it describes that after
13 sampling occurs, after the digitization, Spencer then refers to it as the
14 sampled analog waveform. It does not refer to digital signals as an analog
15 waveform.

16 And then as mentioned earlier, later in paragraph 66, Spencer again
17 refers to sampling an analog audio waveform generated by the interaction of
18 the stylus 123 with the groove sidewalls. So sampling is a process that is
19 occurring on the analog audio.

20 I want to take a step back to slide 27, which we skipped. This slide
21 just kind of describes the process that Spencer is disclosing to provide a little
22 more context.

23 Spencer describes a pre-production step. That is the time in which the
24 analog audio is transferred from the turntable to the data processor unit 200.

1 So at that point in time, you're not using the speakers. You're just doing pre-
2 processing.

3 And it then uses that -- it samples the audio. And then from that
4 sampled audio waveform, it creates the waveform map. And that is where
5 the sampled audio is correlated with corresponding values from the tone arm
6 assembly signals, which are the signals that are indicative of the needle
7 position.

8 And then from there, it creates a synchronization map. That
9 synchronization map just maps up points in the waveform map with
10 corresponding points from a digital audio that's stored separately from an
11 external digital source. So that's the process by which analog music can be
12 synchronized with digital music and a turntable itself can be used to control
13 the playback of digital music.

14 In this entire process, throughout the entirety of the disclosures of
15 Spencer, the only digital signals communicated from the turntable 100 to the
16 data processor unit 200 are those that are for determining the intratrack
17 needle position.

18 JUDGE ZADO: I have a question. This is Judge Zado again.

19 MR. BLUM: Yes.

20 JUDGE ZADO: This is an obviousness case. It's not a 102 case. My
21 question is -- this is something I believe Counsel for Petitioner had argued,
22 that if an ordinarily skilled artisan starts reading Spencer and they get to
23 paragraph 30, they read paragraph 30.

1 And if that ordinarily skilled artisan who hasn't continued reading
2 Spencer, by the time they get to paragraph 30, the entire invention of claim 1
3 occurs to them, then that ordinarily skilled artisan continues reading.

4 And let's say arguendo that skilled artisan then thinks, well, maybe the
5 analog audio signal -- maybe the audio signal is analog and it's
6 communicated over a different port, and it's not communicated over USB as
7 a digitized audio signal.

8 Legally, would that be -- why would that defeat obviousness if the
9 ordinarily skilled artisan as they're reading Spencer chronologically, when
10 they finish paragraph 30, if the entire invention of claim 1 occurs to them at
11 that point?

12 And then why would it even be relevant to obviousness if after they
13 get past paragraph 1, they continue reading and maybe get a different
14 understanding of what's really being disclosed? Why would that defeat an
15 obviousness argument?

16 MR. BLUM: So Your Honor, a person of ordinary skill in the art
17 who's read Spencer, they're going to be familiar with the entirety of its
18 disclosures. And they're going to --

19 JUDGE ZADO: That's not my question. My question was as they're
20 reading chronologically and they get to paragraph 30 -- this is a legal
21 question -- if the total invention of claim 1 occurs to them at that point, why
22 wouldn't that be sufficient under the law?

23 MR. BLUM: So I don't think that's actually how obviousness works,
24 though, because a person of ordinary skill in the art is presumed to have read
25 all of the prior art. So he's going to have read -- she or he will have read all

1 of the prior art and will know that analog signals are not -- digital signals are
2 not being communicated to the computer 200.

3 Now you're asking would a person of ordinary skill in the art find it
4 obvious to modify Spencer such that the turntable 100 does communicate
5 digital signals, but that's not an argument that Sony has actually made. So
6 it's not an argument that has been briefed or that has been addressed with
7 inMusic's expert.

8 JUDGE ZADO: Okay. I do have one other question, an additional
9 question at this time. And that is that Petitioner made the argument after
10 going through the '498 Patent that there's no technical problem that had to be
11 overcome, or at least there's no disclosure of a technical problem that had to
12 be overcome.

13 And so from Petitioner's point of view, was the invention -- was it
14 overcoming a technical problem or was it the recognition of, say, an unmet
15 need? I'm just trying to understand what made this inventive.

16 MR. BLUM: I don't think that was an issue that we addressed in the
17 briefs or that Sony addressed in the briefs. I know part of what they were
18 bringing up with Mr. Zatkovich was surprising results or unexpected results,
19 which goes to secondary considerations, which is not a requirement for
20 patentability.

21 With respect to the actual inventiveness here, Sony has failed to
22 establish that it is obvious, but I think there is a recognition in the fact that
23 you've had USB. Obviously, there was turntables for many decades at this
24 point in time. USB had existed, but yet nobody had ever done this in the
25 eight or nine years preceding this.

1 During the prosecution history, there was a finding that the prior art
2 did not disclose having the ADC and the controller integrated within the
3 turntable. And none of the prior art that Sony has brought up in this
4 proceeding actually discloses having the ADC or the controller within the
5 turntable.

6 JUDGE ZADO: So I don't believe that really addresses the question.
7 The '498 Patent disclosure does not discuss any technical problem that had
8 to be overcome. And so was the invention just a recognition of an unmet
9 need or was it something else?

10 I'm just trying to understand because I'm trying to understand what
11 Patent Owner's position is to why it wasn't obvious to draw the boxes
12 differently, so to speak, as to whether the analog-to-digital converter is
13 integrated into the turntable or not.

14 MR. BLUM: I think our position is that it was not obvious to add the
15 analog-to-digital converter and the controller in the turntable.

16 JUDGE ZADO: It was not obvious because why?

17 MR. BLUM: Well, first of all, I will say that the patent is presumed
18 obvious here. And it's Sony's burden to prove that it's obvious, which they
19 have not done.

20 But I think at that point in time, it had never been done. And the
21 examiner found that it was not obvious. There has been no motivation and
22 there's been no accommodation presented in this proceeding in which a
23 person of ordinary skill in the art would have had motivation or rationale to
24 include an ADC and a controller within a turntable.

1 JUDGE ZADO: Well, let me ask you this question then. Turning to
2 the '498 Patent, Exhibit 1001, it refers to -- at column 1, beginning at line 35,
3 it says that the SPDIF, Sony/Phillips Digital Interface, has been built into
4 some turntables in order to provide a digital output.

5 So this is the '498 specification actually acknowledging that
6 somebody actually had provided a digital output built into the turntable.
7 And that suggests that there was an analog-to-digital converter built into the
8 turntable.

9 Is that correct? Or is there some other understanding that Patent
10 Owner has as to what that statement means?

11 MR. BLUM: So I'm not 100 percent certain what is meant by this
12 sentence. There's been no prior art presented in this proceeding by Sony in
13 which you have a turntable with SPDIF and then an integrated analog-to-
14 digital converter. That's not an argument that Sony has made here. They
15 have no --

16 JUDGE ZADO: Patent Owner raised this issue. Patent Owner raised
17 this issue by pointing to the notice of allowance in the file history where the
18 examiner states -- and I don't want to misquote this. Let me pull up the file
19 history. Please bear with me for a moment. The notice of allowance, this is
20 in Exhibit 1008. Patent Owner does cite to this statement and relies on it.

21 The examiner states, although many prior art of record disclose
22 converting analog audio signal reproduced from the record into digital audio
23 signal, none of them teach having an analog-to-digital converter and a
24 controller responsive to the analog-to-digital converter are built inside a
25 turntable.

1 The examiner made that finding and Patent Owner relies on it, but it's
2 Patent Owner's own specification that states that the Sony/Phillips Digital
3 Interface has been built into some turntables in order to provide a digital
4 output.

5 So Patent Owner has put this in issue by pointing to the notice of
6 allowance, and now we have the statement in the specification. So I just
7 want to know what Patent Owner's position is on this statement and how to
8 reconcile it with the examiner's notice of allowance.

9 MR. BLUM: Yes, Your Honor. So within this proceeding, there's no
10 evidence that the S/PDIF turntable referenced within the '498 Patent actually
11 converted the audio from the record itself into the SPDIF format and
12 outputted it. It's not clear if that's what it was attempting to disclose or not.
13 There could have been some type of digital pass-through, but there's just no
14 evidence in this proceeding.

15 JUDGE ZADO: Thank you. I believe I understand Patent Owner's
16 position.

17 MR. BLUM: So if we go to slide 30, I'll jump to the next issue with
18 respect to the Spencer-Cohen combination. And this is an additional reason,
19 an independent reason, that Sony has failed to meet its burden. This deals
20 with the controller limitation. With respect to the controller limitation, Sony
21 has a multi-stepped argument.

22 First, it argues that a person of ordinary skill in the art would have
23 found it obvious to incorporate Cohen's microprocessor, the microprocessor
24 from the Cohen reference, into Spencer's turntable. And then second, it

1 argues that a person of ordinary skill in the art would have found it obvious
2 to implement a host controller into that microprocessor.

3 First of all, implementing a host controller into a microprocessor is
4 not something described in Cohen. That is just something that was brought
5 up whole-cloth by Dr. Moon, Sony's expert, but he never explains why you
6 would implement a host controller on a microprocessor, on a computer's
7 general processor.

8 The '498 Patent describes there being a separate USB controller. Mr.
9 Zatkovich's declaration describes separate USB controllers. And Dr. Moon
10 in his analysis points to the '971 Patent, which also describes there being a
11 host controller on a separate unit, not on the microprocessor.

12 Sony also doesn't explain why there would even be a host controller
13 within the turntable of Spencer. As Mr. Zatkovich explained, a host
14 controller is typically found on the computer, while the device controller is
15 on the device being controlled by the computer. So within the context of the
16 Spencer system, the host controller would be on the data processor unit 200,
17 not on the turntable. So Sony failed to meet its burden with respect to the
18 Spencer-Cohen reference.

19 If we jump back to the beginning of the slides to talk about the
20 Cortellesi combination or the Cortellesi obviousness argument, I direct you
21 to slide -- it's going to be slide 12. Yes, slide 12, Your Honor.

22 So with respect to the Cortellesi ground, which is ground 1 in Sony's
23 petition, again, Sony has failed to meet its burden with respect to the
24 controller limitation. Sony maps Cortellesi's central processing unit EC, or
25 the CPU EC, onto the controller of claim 1. It doesn't explain, though, why

1 or how that CPU generates an output digital audio signal of music or speech
2 as required by claim 1.

3 On page 42 of Sony's petition, Sony points out that the CPU is
4 responsible for processing and delivering data. It also explains that the CPU
5 executes a program for processing the digital information, but it never
6 explains how those disclosures actually meet the limitation of generating an
7 output digital audio signal.

8 On page 43 of the petition, Sony argues it would have been obvious
9 for the CPU to generate that output digital audio signal. Its basis is the
10 playing unit RDA that's described in Cortellesi. And I think it's helpful to
11 look at that actual figure from Cortellesi, which is Exhibit 4, Figure 1, which
12 is hopefully shared on the screen.

13 With respect to the playing unit, which is RDA in the top-right corner
14 of Figure 1, Sony's argument is that the EC that's in the center of Figure 1
15 sends data to the playing unit. That playing unit is then going to convert that
16 data into the analog audio or into the S/PDIF output that can be seen in
17 Figure 1.

18 Sony argues that that data transmitted from the EC to the playing unit
19 is the output digital audio signal, but this fails for a couple of reasons. First,
20 Sony's claim mapping is based upon the audio, the digital audio being
21 outputted via the USB or other ports. There's no argument that the audio is
22 outputted via the RDA. There's no disclosure in Cortellesi that data goes
23 from the playing unit to the USB.

24 Second, data sent to the playing unit can't even be output digital audio
25 signal because that data is never actually output from the turntable. Instead,

1 the data sent from the CPU to the RDA would be instead converted and new
2 signals would be created in either the analog signals or the S/PDIF. And it
3 would then be those analog or S/PDIF signals that are output from the
4 turntable.

5 I'm going to go to slide 14. If we go to slide 14 of inMusic's
6 demonstratives, this is the second reason why Sony has failed to establish
7 that the Cortellesi reference renders the challenged claims obvious. And the
8 reason here is because Cortellesi does not disclose the ADC and the
9 controller being within the turntable as required by claim 1.

10 So Sony's argument is based upon Figures 1 and 2. Figure 1 discloses
11 a first block diagram of the storing-playing apparatus. On slide 15, we have
12 Figure 2, which is a storing-playing apparatus further provided with the
13 virtual disk.

14 Slide 16, Cortellesi's specification introduces those drawings and
15 explains that they show some preferred embodiments. So it's disclosing
16 multiple embodiments that are depicted in Figures 1 and 2.

17 If we go to slide 17, Sony points out that Cortellesi explains Figure 2
18 is different from the previous diagram by the presence of a virtual disk VD.
19 Cortellesi doesn't state that's the only difference, though. There's a lot of
20 ambiguity in the Cortellesi reference, but the figures appear to show
21 differences.

22 If you look at Figure 2, there's no USB unlike Figure 1. Figure 1 also
23 has a number of other interfaces that are not disclosed in Figure 2. And also,
24 just the fact that they're introduced as the storing-playing apparatus and then

1 Figure 2 is a storing-playing apparatus appears to indicate that they are two
2 different apparatuses.

3 Regardless, Cortellesi does disclose that Figure 1 can also be used
4 with the virtual disk. In introducing the elements of Figure 1, it discloses
5 that Figure 1 has a --

6 JUDGE ZADO: This is Judge Zado. I have a question. If we were to
7 assume arguendo that there is some ambiguity and it's not 100 percent clear
8 whether Figure 4 of Cortellesi is saying that certain portions of the
9 apparatus, including the analog-to-digital conversion and the EC, are within
10 the turntable, even if there were some ambiguity under KSR, do we need to
11 find precise teachings?

12 Isn't it sufficient if a skilled -- why would it not be sufficient if a
13 skilled artisan looked at that ambiguity and the invention of claim 1 occurred
14 to them?

15 MR. BLUM: So if there's this ambiguity and the Board would hold
16 that Figure 4 does not include all of the elements of Figure 1 and Figure 2,
17 Sony would then have to have an argument that it would be obvious to
18 include all of those elements into Figure 2.

19 And it has that backup argument. I'll move to slide 19 to explain that.
20 In that backup argument, Sony says it would have been obvious to include
21 an ADC and a controller into the turntable.

22 It actually never argues that it would be obvious to include the USB or
23 to somehow have a standard computer protocol. It basically just completely
24 forgets about that claim limitation. And so from that perspective, Sony has
25 failed to meet its burden.

1 In its reply brief, Sony doesn't really even contest that. Instead, what
2 it argues is that inMusic has misunderstood its argument and has
3 misunderstood what the apparatus is in Cortellesi.

4 And then it argues that Figure 4 is the apparatus and that Figure 4
5 already includes USB, but if that's the case, that wouldn't be a backup
6 argument. That's its main argument.

7 So it has no backup argument that it would be obvious to include USB
8 into a common turntable that's disclosed in Figure 4. That's not an argument
9 that has been raised by Sony anywhere in its briefing.

10 JUDGE ZADO: Let's take a step back because I just want to make
11 sure I understand Patent Owner's argument. Patent Owner seems to concede
12 that Petitioner in their Petitioner's backup argument does argue that there
13 would be analog-to-digital conversion and the controller EC.

14 And it sounds like Patent Owner's position is that Petitioner fails to
15 show in particular a USB output, but the claim does not say USB output. It
16 says standard computer protocol.

17 So is it Sony's position then that -- sorry, not Sony's -- Patent Owner's
18 position then that, in addition to showing that there would have been analog-
19 to-digital conversion and there would have been a controller, what Petitioner
20 has failed to show is an output port that's in a standard computer protocol,
21 that that would have been obvious?

22 MR. BLUM: Yes. And claim 1 requires the standard computer
23 protocol. I believe claim 3 is in particular to USB. And then there's a
24 dependent claim for FireWire.

1 And the argument there is simply that Sony hasn't met its burden
2 because it doesn't argue it. It has nothing on that point.

3 JUDGE ZADO: Thank you for the clarification.

4 MR. BLUM: The other issue, though, is that Sony has not even met
5 its burden to show that it would be obvious to include the ADC and the
6 controller into the common record player that's disclosed in Figure 4. It has
7 not provided sufficient rationale for why a person of ordinary skill in the art
8 would do that.

9 The entire purpose of Cortellesi as described in paragraph 2 is to
10 create an apparatus that plays digital music without the need for the original
11 music supports. Nowhere in Cortellesi is the record player of Figure 4 ever
12 shown as being used for recording purposes. It always describes there being
13 an external record player for that purpose.

14 What Cortellesi uses the common record player in Figure 4 for is as a
15 mechanism for controlling digital music. For example, to create scratching
16 effects in the digital music.

17 Cortellesi teaches modifying that common record player with a sensor
18 SD and the virtual disc VD. That modified common record player in
19 Cortellesi is a substitute for the knob that's described in Figures 1 and
20 Figures 2 as either JOG or MA, which can also be used for the same
21 purpose.

22 So the purpose of the virtual disc in Cortellesi is for the DJ to create
23 the appearance that he's actually manipulating a traditional analog record, as
24 Mr. Smith explained earlier. But if a person of ordinary skill in the art were
25 going to build this control mechanism anew and create this all-in-one device

1 that has all of the elements of Figures 1 and 2 and Figure 4, there's no
2 motivation or rationale for including the analog turntable technology.

3 At that point in time, the only rationale that's been provided by Sony
4 would be to create a digital turntable that does not have the stylus or the
5 phonocartidge, which are not needed for the virtual disc.

6 Sony hasn't even explained how this all-in-one unit could actually
7 work and be capable of playing both analog records and a virtual disc.
8 Cortellesi describes that the sensor SD is positioned a mere two millimeters
9 over the virtual disc.

10 And Mr. Zatkovich explained that because of that two-millimeter
11 tolerance and the positioning of the sensor SD, you wouldn't want to remove
12 the virtual disc because that would cause damage to either the virtual disc or
13 the sensor.

14 In its reply brief, Sony agreed with Mr. Zatkovich and stated that that
15 somehow supported its argument that a DJ would want the virtual disc pre-
16 installed on the record player. But Sony ignores that if the combination had
17 a pre-installed virtual disc, it wouldn't be able to play normal LP records.

18 So Sony has not provided any rationale for why one of ordinary skill
19 in the art would create this combination with all of these analog parts that
20 then cannot even be used.

21 I'm going to go back to slide -- excuse me one second, Your Honor.
22 I'm going to go to, Your Honor, slide 18, where it shows Figure 4.

23 And I'd just like to point out that what Figure 4 -- looking at Figure 4,
24 you can see that you do not have this all-in-one unit. There is no disclosure

1 of the knob JOB. There's no disclosure of the display DV. None of that is
2 disclosed in the Figure 4 that's shown on slide 18.

3 What Cortellesi actually discloses is that a common record player is
4 used. A common record player, of course, would not have all of the
5 elements of Figure 1 and Figure 2 and that can be used either with Figure 1
6 or Figure 2. And when you look at Figure 1, you can see that it would then
7 have to be connected to Figure 1 via the analogic inputs L and R.

8 Also, just looking at the figures, which I have back on 14 and 15. If
9 you look at slide 15, which shows Figure 2, there's just no indication that all
10 of these elements are all in the same apparatus. The record player is not
11 even disclosed in Figure 2. The display DV and the JOG appear to be in one
12 box that's completely separate from the sensor SD, which is on the opposite
13 side of the figure.

14 JUDGE ZADO: I just want to let you know you're at 54 minutes.

15 MR. BLUM: Thank you, Your Honor. So the last thing I would point
16 out on slide 18 is that Sony points to the text that you can see at the top of
17 slide 18 that introduces Figure 4.

18 And I'd point out that that just does not state that Figure 4 is a top/plan
19 view of the apparatus. It has this ambiguous language that says it's a
20 top/plan view of a first embodiment of the apparatus provided with the
21 record player.

22 That is very ambiguous language that I don't think is correct English.
23 An embodiment is where you put something intangible into a concrete form.
24 That's when you talk about an embodiment of the invention. So an

1 embodiment of the apparatus doesn't actually make sense. Figure 4 is not
2 the first embodiment, given that there's already been Figure 1 and Figure 2.

3 And so I think Sony is trying to take advantage of this ambiguous
4 language. When you look at the actual figures and the rest of the
5 disclosures, including Figure 4 and all the disclosures that explain that it is a
6 common record player, Cortellesi does not disclose this all-in-one apparatus
7 that Sony asserts.

8 I will save the rest of my time for rebuttal, Your Honor.

9 JUDGE ZADO: You have four minutes remaining.

10 Okay. So we will switch back to Petitioner for Petitioner's rebuttal.
11 You have 15 minutes for rebuttal. You may begin whenever you're ready.

12 MR. SMITH: Thank you, Your Honor. I'm trying to share the correct
13 screen. I see the problem now. Okay. Let me address this in chronological
14 order as presented by my counterpart.

15 First, on the Spencer versus Cohen, I'm on Petitioner's slide number
16 28. And here we have, of course, Mr. Zatkovich's testimony regarding
17 paragraph 68 of Spencer.

18 I have not heard inMusic address their own expert's testimony on this.
19 I did not read a discussion of this in the sur-reply either. I don't think they've
20 ever addressed this.

21 And the importance of this testimony is that Mr. Zatkovich is
22 recognizing that in the Spencer's specification, they are using the term
23 analog waveform to distinguish the source of the waveform, not whether it is
24 currently in analog or digital form. He has a dispute as to when it is
25 converted from analog to digital, but he does not dispute that Spencer is

1 using the term analog waveform, particularly when they're doing data
2 processing, to mean the digital waveform.

3 Mr. Blum pointed out Dr. Moon's testimony in his declaration where
4 he has a background explanation of how AD conversion works and how
5 sampling works with respect to AD conversion. And I agree that sampling
6 is a process that is needed in AD conversion. When you have a continuous
7 analog waveform, you have to sample different points on that waveform in
8 order to form digital data.

9 The problem is that that is not the way it is used in Spencer. And you
10 can see this right in paragraph 68. At the end of paragraph 68 on Petitioner's
11 slide number 28, they're using the sampling process to produce the analog
12 waveform. And the only way that makes sense is that the analog waveform
13 has already been converted to digital.

14 And the sampling process is referring to a broader conception of what
15 sampling means. I'd refer you, of course -- we cited this in the reply, but to
16 Mr. Zatkovich's testimony in his deposition transcript, Exhibit 1029 on page
17 64, where he acknowledges that sampling has meanings beyond the
18 sampling that would be used in AD conversion.

19 For example, when one artist samples another work, the work of
20 another artist, and that's what Spencer is essentially doing. Spencer is taking
21 certain parts of a song and analyzing, for example, what the beats per minute
22 are in that part of the song, and then using different sampled portions of the
23 song to line up with a song that is played from a digital device. And that's
24 what it means when it's talking about sampling.

1 There was an argument from Mr. Blum that Spencer refers to the
2 analog waveform up until the point where it is AD-converted and then refers
3 to it as the, quote, sampled analog waveform. But I think if you read the
4 specification of Spencer -- and I refer you to paragraph 77, which Judge
5 Zado pointed out, or paragraph 58, for example -- you can see the processor,
6 the data processor unit 200 operating using software on the, quote-unquote,
7 analog waveform. Not the sampled analog waveform, but the analog
8 waveform.

9 And there's really no way to do that in the digital domain without
10 having already sampled it. So it just indicates, again, that Spencer is using
11 analog waveform to refer to the source.

12 I'm sorry. I got Mr. Zatkovich's deposition testimony cite incorrect.
13 He talks about sampling at page 36, lines 13 to 22. And he talks about the
14 digital processor operating in the digital domain at page 64, lines 5 to 15.

15 With respect to ground 3, I also wanted to address slide 30 of the
16 Patent Owner's demonstratives. I think there's a new argument there with
17 respect to whether or not a person of ordinary skill in the art would
18 implement a host controller USB on a device as opposed to a computer.

19 I have not seen that before. The page reference on that slide refers to
20 the sur-reply. But even if you look at the sur-reply on those pages, I don't
21 see that argument.

22 Nevertheless, the device 100 in Spencer is called the controller, and it
23 is used to control. So it would not at all be strange in any way to put a host
24 controller for USB on the controller 100, nor would it affect the function

1 whether it is a host controller or device controller. It simply means that the
2 host controller takes the lead in the USB signaling protocol.

3 With respect to Cortellesi, I am going to go to Petitioner's slide
4 number 21. First, I just want to point out the argument -- and this is under
5 the last claim element in the petition at pages 47 to 48 -- where we say a
6 person with ordinary skill in the art, as they see the way Cortellesi operates,
7 understands that there are analog or digital input signals that are going to the
8 CPU EC.

9 The CPU EC can either store the music in a digital storage or output
10 to analog speakers or output over the external interfaces. And a person of
11 ordinary skill would have been motivated to output over the USB interface
12 so that the user could apply, quote, software programs that improve the
13 quality of recorded pieces of music, i.e. removal of ground noise,
14 interference, et cetera, citing the relevant portion of Cortellesi.

15 That is the reason a person of ordinary skill would have used the USB
16 interface in the Figure 4 embodiment. Cortellesi provides the motivation to
17 do that.

18 I don't know what Mr. Blum is talking about, but there has not been
19 an argument. The references to the output playing unit or the storage are not
20 to be confused with the output from the device, which is a later claim
21 element. Those simply demonstrate that the CPU EC does produce an
22 output digital audio signal.

23 I think the overall flow of Cortellesi demonstrates that you have
24 inputs coming into the EC and outputs. Many of the outputs are
25 manipulating digital audio signals.

1 Certainly in the case of USB, digital music is being sent to a computer
2 so that it can be somehow processed or rendered. And that meets the
3 generating portion of the claim term. It also meets the digital audio output
4 portion of the claim term using a standard computer protocol.

5 There was also an argument that the common record player of Figure
6 4 is external to Cortellesi's apparatus, but that really doesn't make sense with
7 respect to Cortellesi's description of Figure 4 because it says a first
8 embodiment of the apparatus. If Figure 4 is external to the apparatus,
9 Cortellesi wouldn't call it the apparatus itself.

10 And lastly, I wanted to talk about the idea of whether or not
11 components are integrated into the turntable. This was the discussion Mr.
12 Blum had about the distinction over the prior art and the colloquy from the
13 last presentation.

14 And I just wanted to point out there that integrating these components
15 where they have known functions, their known components into the housing
16 of a turntable or not, it's not something that should have been patentable in
17 the relevant time frame.

18 And we address this directly in the petition at pages 31 to 32 for the
19 first ground and page 60 for the third ground. So this is directly addressed in
20 the petition, that potential distinction over the prior art.

21 So with that, if there are no further questions from the Board, I will
22 pass the baton to my colleague.

23 JUDGE ZADO: This is Judge Zado. I don't have any further
24 questions for Petitioner.

1 Okay. Then we will go ahead and hear rebuttal from Patent Owner.
2 You have four minutes remaining. You can begin whenever you're ready.

3 MR. BLUM: Thank you, Your Honor. I'd like to go back to the point
4 that Mr. Smith made on paragraph 68. And I think the problem here is that
5 Sony is, just like they did with paragraph 30, they're taking one sentence out
6 of context. I think you have to read the prior paragraphs.

7 If you read paragraphs 67 and 68 all together, you can see that it's
8 talking about the process by which that sampling occurs. And it repeatedly
9 talks about how the data processor unit 200 may sample the audio waveform
10 generated by the interaction --

11 JUDGE ZADO: I'm sorry. Can you specify -- paragraphs 67 and 68.
12 Are you referring to Cortellesi or Spencer?

13 MR. BLUM: Spencer, Your Honor.

14 JUDGE ZADO: Thank you.

15 MR. BLUM: I'll just put the paragraphs up on the screen.

16 JUDGE ZADO: I'm just trying to make sure the transcript record is
17 clear.

18 MR. BLUM: Yes, Your Honor. And so you can see in paragraph 67,
19 it is talking about the process by which the data processor unit 200 may
20 sample the audio waveform generated by the interaction of the stylus. And
21 so the paragraphs 66, 67, and 68 of Spencer are talking about the data
22 processor unit sampling the analog audio waveform.

23 Sony points to the very last sentence of paragraph 68, in which it
24 states that the base sampling rate is the rate at which the data processor unit

1 200 generates analog waveform. It, frankly, appears that that is a typo in the
2 reference. It doesn't actually make sense.

3 It would only make sense if you interpret -- if generates was supposed
4 to have been samples, if it said the base sample rate is the rate at which the
5 data processor unit 200 samples the analog waveform. That is what makes
6 sense when you read the surrounding paragraphs.

7 Even if you take it at face value, I don't see how it helps Sony. Under
8 Sony's interpretation, it's saying that the analog audio is generated at the
9 turntable and the digital audio is generated at the turntable, and then that
10 digital audio is transmitted to the computer 200. This is an analogous or
11 kind of a strange sentence that states the data processor unit 200 generates
12 the analog waveform.

13 When you read paragraphs 67 and 68, it's also talking about the
14 process by which the data processor does the sampling. It's changing the
15 rate based upon the radius, based upon the distance from the spindle.

16 And so as you get closer to the center of the record where there is
17 essentially the data, the audio stored more densely, the rate starts to increase.
18 And when you're towards the outer edge of the record player, it uses a
19 smaller sampling rate. None of that makes sense under Sony's interpretation
20 of the Spencer reference.

21 So for all the reasons that I've stated today, Sony has failed to meet its
22 burden to establish that any of the claims of '498 Patent are invalid. Thank
23 you, Your Honor.

24 JUDGE ZADO: Well, I have no further questions. This is Judge
25 Zado.

1 I ask my colleagues, Judges Galligan and Ahmed, if you have any
2 further questions?

3 JUDGE GALLIGAN: Nothing from me.

4 JUDGE AHMED: No, thank you.

5 JUDGE ZADO: Okay. Well, then that will conclude this hearing. I
6 ask the parties to remain on the line for the court reporter in the event that
7 the court reporter has any questions to make sure they have names correct
8 and the like.

9 I'm sorry. Let's just pause for one moment, though, before we
10 adjourn. Okay. So yes, this hearing is officially adjourned.

11 (Whereupon, the above-entitled matter went off the record at 2:00
12 p.m.)

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