

1 UNITED STATES PATENT AND TRADEMARK OFFICE
2 BEFORE THE PATENT TRIAL AND APPEALS BOARD

3
4 SONY GROUP CORPORATION, SONY CORPORATION, SONY
5 CORPORATION OF AMERICA AND SONY ELECTRONICS, INC.

6 Petitioners

7 v.

8 INMUSIC BRANDS, INC.
9 (record) Patent Owner

10 IPR2023-00294

11 Patent No. 7,567,498
12
13

14 REMOTE DEPOSITION BY VIRTUAL ZOOM OF

15 IVAN ZATKOVICH

16 WEDNESDAY, JANUARY 31, 2024
17
18

19 Stenographically Reported by Ashala Tylor, CRR, RPR
20 California CSR 2436, Oregon CSR 22-0118,
21 Washington CSR 23032768
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25 PAGES 1 - 71

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16 Remote videotaped deposition of IVAN ZATKOVICH,
17 taken via virtual Zoom, commencing at 1:00 p.m. (EST),
18 and ending at 2:55 p.m. (EST), on January 31, 2024,
19 before Ashala Tylor, Certified Shorthand Reporter.
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I N D E X

WITNESS	EXAMINATION BY	PAGE
IVAN ZATKOVICH		
	Mr. Smith	6
	Mr. Blum	68

E X H I B I T S

NO.	DESCRIPTION	PAGE
Exhibit 1001		
	Patent Application US 7,567,498 (Mazur)	
Exhibit 1004		54
	European Patent Application (Cortellesi)	
Exhibit 1005		61
	Patent Application US 2004/0089795 (Spencer)	
Exhibit 1006		56
	Patent Application US 2003/0206506 (Cohen)	

1 E X H I B I T S (continued)

2 NO. DESCRIPTION PAGE

3 Exhibit 2004

4 Declaration of Ivan Zatkovich 10

5

6

7 QUESTIONS INSTRUCTED NOT TO ANSWER

8 (None.)

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1 Wednesday, January 31, 2024

2 1:00 p.m. (EST)

3 --000--

4
5 IVAN ZATKOVICH,

6 being first duly sworn or affirmed to testify
7 to the truth, the whole truth, and nothing but
8 the truth, was examined and testified as follows:

9 THE REPORTER: Thank you.

10 Counsel, proceed.

11 MR. SMITH: Thank you.

12 EXAMINATION

13 BY MR. SMITH:

14 Q. Good morning, sir.

15 For the record, this is Matt Smith of
16 Smith Baluch LLP representing the petitioner.

17 Your name is Ivan Zatkovich; is that
18 right?

19 A. That's correct.

20 Q. And I believe you've been deposed before,
21 right?

22 A. I have.

23 Q. A large number of times in PTAB
24 proceedings, correct?

25 A. I have.

1 Q. You're pretty familiar with the rules of
2 depositions in PTAB proceedings?

3 A. Yes.

4 Q. Great. I'll spare you the introduction.

5 Just one thing I want to make sure you
6 understand is that during cross-examination you're
7 not allowed to communicate with anybody about the
8 substance of your testimony.

9 Do you understand that?

10 A. I do understand that.

11 Q. Even during the breaks.

12 A. Correct.

13 Q. Is there any reason you can't testify
14 accurately today?

15 A. Not that I'm aware of.

16 Q. Any medical or other issues that would
17 interfere with the testimony, without getting into
18 details, obviously?

19 A. No.

20 Q. Do you have copies of anything with you
21 today?

22 A. I have paper copies of prior art and my
23 declaration.

24 Q. Do you have paper copies of the patent at
25 issue, too?

1 A. I do. I have electronic copies of them as
2 well.

3 Q. And do you have any notes or anything
4 written on those copies?

5 A. No, I don't think so. I don't believe so.

6 Q. Where are you physically today, sir?

7 A. I'm physically in Pennsylvania, Bucks
8 County, Pennsylvania.

9 Q. And are you -- what is the situation
10 exactly where you're sitting? Are you in a
11 conference room or where are you?

12 A. No. I'm in our weekend home, our tiny
13 house, and I'm in my workshop/office.

14 Q. Okay. Is there anyone else in the room
15 with you?

16 A. No.

17 Q. Are you in communication with anyone else
18 other than the four of us, obviously?

19 A. No.

20 Q. Is there any way for you to communicate
21 during the deposition that myself, Tony Blum, and
22 the court reporter wouldn't be aware of?

23 A. No. I don't -- my phone is all the way
24 over there, so no.

25 Q. Okay. Do you have any communication

1 windows open on your computer?

2 A. I do not.

3 Q. Have you prepared for the deposition
4 today?

5 A. I did.

6 Q. What did you do, sir?

7 A. I reviewed the materials. I reviewed my
8 declaration, the petition, Dr. Moon's declaration,
9 and I had a session with counsel on Monday.

10 Q. Is that counsel for InMusic?

11 A. Yes, that's correct.

12 Q. Was that Mr. Blum?

13 A. Yes, Mr. Blum.

14 I also spoke with Mr. Weidner and one
15 other attorney I'm trying to recall. I believe it's
16 David Jenkins.

17 Q. Okay. Was anybody else there, sir?

18 A. No.

19 Q. Have you reviewed the -- well, let me back
20 up for a second.

21 Are you familiar with the "PTAB"?

22 A. The PTAB -- the petition and the decision,
23 yes.

24 Q. The Patent Trial and Appeals Board, I
25 mean, as an entity.

1 A. Yes, to some degree.

2 Q. And did you read the institution decision
3 that they issued?

4 A. I did. It was a while back. I haven't
5 reviewed it recently, but I'm aware of it.

6 Q. And just to confirm, you are the Ivan
7 Zatkovich who signed the declaration marked as
8 Exhibit 2004, correct?

9 A. I am.

10 (Exhibit 2004 was marked for
11 identification and attached
12 hereto.)

13 BY MR. SMITH:

14 Q. You understand you signed it under oath?

15 A. I do.

16 Q. Does your recollection relate to U.S.
17 Patent Number 7,567,498?

18 A. Yes.

19 Q. If I refer to that as the '498 patent,
20 will you know what I mean?

21 A. Yes.

22 Q. Are you aware that InMusic's attorneys
23 also wrote a document called "The Patent Owner
24 Response" that refers to your declaration?

25 A. I am aware of that.

1 Q. Did you read it?

2 A. I did not.

3 Q. Turning back to your declaration,
4 Exhibit 2004, did you write the first draft of that
5 declaration?

6 A. Yes. Every opinion in there is something
7 that I drafted and submitted to the report.

8 Q. You typed it into a computer or dictated
9 it into a computer, every word in there?

10 A. I have a consultant -- well, I have
11 multiple consultants in my company. But in this
12 particular case, I have a consultant that assisted
13 me in actually typing out the report itself.

14 Q. Okay. In this case, sir, what is the
15 relevant time frame for determining obviousness?

16 A. Well, I understand that the priority date
17 of the patent-in-suit is June of 2004.

18 Q. And is that what you think the relevant
19 time frame for determining obviousness is?

20 A. Either then or just prior to then.

21 Q. Okay. Can we refer to that time period,
22 June 4, 2004 or just prior to that, as the relevant
23 time frame so I don't have to keep saying it?

24 A. Yes.

25 Q. What, in your opinion, is the field of the

1 '498 patent?

2 A. I would say the field is consumer
3 electronics related to audio turntables.

4 Q. I'm sorry, I think you cut out there for a
5 second. The last thing I heard was "consumer
6 electronics related to." Can you repeat it again?

7 A. Related to audio turntables.

8 Q. You have a CV attached to your
9 declaration, correct?

10 A. I do.

11 Q. And in your CV, you list a large number of
12 PTAB proceedings in which you've served as an
13 expert, correct?

14 A. Correct.

15 Q. That list goes from about page 6 to
16 page 20 of your CV, correct?

17 A. I believe so.

18 Q. And in paragraph 8 of your declaration,
19 Exhibit 2004, you state that you've been qualified
20 as a technical expert in over 60 proceedings,
21 correct?

22 A. Yes.

23 Q. What does it mean to you to be qualified
24 as a technical expert?

25 A. My testimony has been accepted by the

1 Court.

2 Q. When you say "accepted," do you mean the
3 Court credited your testimony in all cases, or do
4 you mean it simply wasn't excluded under the rules
5 of evidence?

6 A. I would say, at least broadly, it wasn't
7 excluded or challenged in other matters.

8 Q. And in the proceedings that you list in
9 your CV from pages 6 to 20, do you believe that you
10 are qualified as a person having ordinary skill in
11 the art in each of those proceedings?

12 A. I'd have to look in detail. In some cases
13 I was a consulting expert. But I would say, yes,
14 for the most part I would.

15 Q. Have you ever worked as a sound engineer?

16 A. No. I would say not a sound engineer.

17 Q. Have you ever worked in your professional
18 capacity as an engineer or a researcher in the field
19 of audio technology?

20 A. Yes, I would say I have.

21 Q. Can you describe the experience that leads
22 you to answer "yes" to that question?

23 A. Sure. At least in my role at Digital
24 Equipment Corporation, I was charged -- I was
25 charged with designing device interfaces and

1 circuits for things like videodisc players. I
2 designed circuits for digitized audio, including
3 text-to-speech, speech-to-text.

4 Text-to-speech, for example, there was a
5 product that I worked on called Deck Talk. I don't
6 know if you are familiar with Stephen Hawking's
7 digital voice. That was Deck Talk. I worked on
8 that project. I also did device drivers for disk
9 drivers. And I think I mentioned videodisc players.

10 So from that perspective, I would consider
11 myself an engineer for at least audio devices. I
12 was also on the ISO and ANSI standards committees
13 for media standards.

14 Q. Did you ever work with controllers in
15 connection with that work?

16 A. Yes, I have.

17 Q. Can you give an example?

18 A. Sure. I designed controllers primarily
19 for utility partners. I designed circuits, for
20 example, for USB interfaces, including USB
21 interfaces that were responsive to analog-to-digital
22 converters.

23 For example, we developed a USB device
24 that was used for meter reading using an agency's
25 analog-to-digital converter that interfaced with USB

1 device.

2 Q. What years was that work done, sir?

3 A. That would have been from 1997 through
4 2000.

5 Q. Okay. Have you ever built or designed a
6 turntable?

7 A. I have not.

8 Q. Have you ever worked with turntables as a
9 consumer audio product?

10 A. I've modified turntables personally, but
11 not -- not professionally.

12 Q. I see. In a private capacity you did?

13 A. Correct.

14 Q. Was that your own home turntable?

15 A. Yes.

16 Q. How did you modify it?

17 A. Well, at the particular time there was
18 optical sensors used to strobe the timing of your
19 turntable to do that speed. And at that particular
20 time, I was getting into LED's circuit -- circuit
21 design. So I designed my own strobing system to
22 synchronize the speed of the turntable.

23 Q. Okay. When you say you haven't worked
24 with turntables in a professional capacity, does
25 that include both the business side of the turntable

1 product as well as the technical side of the
2 turntable product?

3 A. Well, being involved with media players
4 for, if not consistently, at least over the period
5 of my -- my full career over the last 20 to 25
6 years, I naturally have been kept up to date on
7 consumer electronics. So from that perspective, I'm
8 aware of the technological advances of turntables
9 over the years.

10 Q. Were you ever involved in selling or
11 marketing a turntable?

12 A. No.

13 Q. Were you ever engaged in business
14 management in a company that had a turntable
15 consumer audio product?

16 A. Actually, my time at Eva Tone. Eva Tone
17 was a media company there. Their claim to fame was
18 producing those records, audio records, on the back
19 of cereal boxes. Since then they evolved into
20 digital tape, then CDs, then DVDs.

21 So from that perspective, at least as a
22 legacy involvement at Eva Tone, I have been involved
23 in the use -- the production of media for things
24 such as turntables.

25 Q. I see. Not turntables themselves; the

1 media for turntables, correct?

2 A. Yes.

3 Q. And what years was that work, sir?

4 A. I was at Eva Tone from 2002 until 2007.

5 Q. In what way were you involved in the
6 production of media for turntables?

7 A. Well, one of my responsibilities was
8 maintaining digitized media, primarily music.

9 Eva Tone was very involved in audio books
10 as well. So I was involved in the preprocessing of
11 that media so that it could be pressed onto
12 different types of formats anywhere from, again,
13 tape, CDs, even records as well.

14 Q. Have you ever worked as a turntablist?

15 A. I have not. I have friends who are
16 turntablists. I've assisted in setting them up,
17 helping them establish and set them up. So I'm
18 quite familiar with the equipment, but I don't
19 consider myself a turntablist.

20 Q. In what years were you doing that, sir?

21 A. That would have been probably 2012 to
22 2014.

23 Q. Is the turntablist the same thing as a
24 disk jockey?

25 A. Well, a disk jockey -- oh, a turntablist?

1 Yeah, turntablist -- I think a turntablist considers
2 themselves more sophisticated than just a generic
3 disk jockey. A disk jockey -- to qualify as a disk
4 jockey, you could just pull out records and put them
5 on a turntable and play them.

6 A turntablist could do anywhere from
7 simple scratching sounds to mixing, overlays,
8 cross-fade between multiple turntables, for example.

9 Q. And just to be clear, you've never worked
10 as a disk jockey, right?

11 A. I have not.

12 Q. Okay. In your personal capacity, how many
13 times would you say you've helped friends set up for
14 turntabling or disk jockeying events, I guess we
15 would say?

16 A. More than five and less than ten.

17 Q. Have you ever studied turntablists or disk
18 jockeys in an academic sense?

19 A. No, just in a presentation sense. I mean
20 I have observed them up close and personally doing
21 their -- during their presentations, but not
22 academically, no.

23 Q. Okay. Never published any papers related
24 to turntablists or disk jockeys?

25 A. No.

1 Q. If you could turn to your declaration in
2 paragraph 20 -- you don't have to, but I'm going to
3 refer to that in Exhibit 2004.

4 A. Okay.

5 Q. You state "that the inventors of the '498
6 patent worked at Stanton Magnetics, which was "a
7 well-known player in the consumer audio products
8 industry at the time of the invention."

9 Do you see that?

10 A. I don't -- did you say paragraph 20 or
11 page 20?

12 Q. I believe -- it's paragraph 20 on page 9.

13 A. Oh, yes, I have that. Thank you.

14 Q. Okay. Do you know what the inventors did
15 at Stanton Magnetics?

16 A. My understanding is that, among other
17 things, they produced equipment for disk jockeys.

18 Q. And when you say "produced," in what
19 aspect of the production were the inventors
20 involved?

21 A. I don't know. I just know that the
22 company was involved in design and/or manufacture of
23 that type of equipment.

24 Q. Do you know how much experience any of the
25 inventors had at Stanton Magnetics as of the

1 relevant time frame?

2 A. I do not.

3 Q. In paragraph 33 of your declaration you
4 state, "While the references relied on by
5 Petitioners are directed to inventions utilized by
6 DJs, the '498 patent is not directed to turntablism.
7 It makes no reference to such concepts or DJs."

8 What do you mean that the '498 patent is
9 not "directed to turntablism"?

10 A. It's not intended to be a device to be
11 used by DJs, although it could. It's designed as a
12 consumer device. It has no accessories on them that
13 would allow a turntablist to do mixing or overlays
14 or cross-fades or any type of effects.

15 Q. How do you know that, sir?

16 A. The scope of the patent does not describe
17 any of those capabilities.

18 Q. What consequence do you think it has that
19 the '498 patent is not "directed to turntablism"?
20 Why does that matter?

21 A. I think the objective of the '498 patent
22 is to make a consumer-ready product such that it can
23 be operated by someone other than a professional
24 turntablist, for example.

25 Q. Does that figure into your analysis as to

1 the obviousness of the claims in any way?

2 A. To some degree, yes, I think that would be
3 a factor.

4 Q. It would be a factor or it was a factor?

5 A. I think it -- I think it was a factor when
6 I did the analysis.

7 Q. In what way, sir?

8 A. Well, if the intention is to take -- for
9 example, if a piece of prior art were to propose a
10 modification that would only be useful, or would be
11 applicable, or would only be understandable by a
12 professional turntablist, that might go to
13 motivation to make that modification.

14 Q. In other words, you don't think the
15 motivation would be as strong if the motivation
16 weren't directed to a consumer audio product?

17 MR. BLUM: Objection. Form.

18 THE WITNESS: Again -- again, it would be
19 a factor in terms of motivation.

20 BY MR. SMITH:

21 Q. Paragraph 34 of the declaration says,
22 "Instead, the '498 patent is directed to allowing
23 consumers with large vinyl record collections to
24 transfer the music or speech on those records to a
25 computer through USB or firewire, given the

1 transition from vinyl to CDs to digital music that
2 was occurring in the early 2000's?"

3 Were there consumers with large vinyl
4 record collections at the time of the invention,
5 sir?

6 A. In 2004, yes. I had a large vinyl record
7 collection in 2004.

8 Q. Did you own a turntable in 2004?

9 A. I did.

10 Q. Did you have a stereo system that went
11 with that turntable?

12 A. I did.

13 Q. What did it look like?

14 A. It was attached to -- it was a standard
15 preamp that I fed into Bluetooth speakers. So I
16 used a modern -- basically a modern receiver with a
17 legacy turntable.

18 Q. Why is it that you think the '498 patent
19 is directed to the use you are talking about in
20 paragraph 34 of your declaration?

21 A. The entire scope of its use is to take
22 audio from a record while the record is playing and
23 produce audio out of a standard computer port so
24 that it can be received and even listened to in
25 real-time on a -- for example, from a computer sound

1 card.

2 That, in my mind, would be simple enough
3 for consumer usage. Again, it might have
4 application in other fields, but it's clearly
5 intended to be a consumer device.

6 Q. So as I understood your answer, you are
7 inferring from the claimed technology what the use
8 is. Am I wrong about that?

9 A. I am opining based on the type of device
10 it produces as compared to other types of devices
11 that, for example, a turntablist would use with no
12 features or scenarios that would be applicable to
13 that device.

14 Q. I see.

15 A. Yeah, I would say that that would be the
16 extent of my opinion.

17 Q. Okay. And just to be clear, you're not
18 basing your opinion on any statements about the
19 field of use in the '498 patent, correct?

20 MR. BLUM: Objection. Form.

21 THE WITNESS: Actually, any mention of a
22 turntable in the '498 patent refers to a standard
23 phonographic turntable, not any other type of
24 professional device. So their intention is to take
25 a standard phonographic turntable, in other words, a

1 consumer device, and add a specific set of
2 functionality to that.

3 BY MR. SMITH:

4 Q. Is it your opinion that any reference to a
5 turntable in the '498 patent refers to a standard
6 consumer device known as a turntable?

7 I thought that's what you just said, but
8 correct me if I am wrong.

9 A. It's referring to -- well, in terms of the
10 prior art, it's referring to standard phonographic
11 turntables, and it's identifying a solution to
12 improve a standard phonographic turntable as opposed
13 to some other device. So from that perspective,
14 yes.

15 Q. Is it your opinion that DJs and
16 turntablists did not use standard phonographic
17 turntables in the relevant time frame?

18 A. I'm not aware of any successful
19 turntablists that would do so. All the turntablists
20 that I'm aware of and the equipment that I'm aware
21 of for them would not resemble this type of device.

22 Q. Are these the same turntablists you were
23 referring to that you helped set up events for in
24 the 2012 to 2014 time frame?

25 A. And -- and electronic devices that were

1 available in the 2004 time frame.

2 Q. What were some of those devices, sir?

3 A. Well, they -- they in 2004 were just
4 beginning to provide digital devices. So we start
5 to see the incorporation of digital devices.

6 We see the ability to do multi-platter
7 devices where you're doing cross-fades, scratching,
8 changing of the speed, mixing and overlays. So all
9 of that capability was available to DJ and
10 turntablist devices in 2004.

11 Q. Do you recall any specific devices from
12 that time frame?

13 A. Particular brands or models, no, I do not.

14 Q. And how many DJs or turntablists would you
15 say you personally know?

16 A. In terms of what they do and what kind of
17 equipment they do, I would say maybe a half a dozen.

18 Q. And how did you come to know so many DJs
19 and turntablists?

20 A. Well, DJs tend to hang out with other DJs.

21 Q. In paragraph 61 of your declaration you
22 note, "At the time of the invention, it was known to
23 connect the analog audio signal from a conventional
24 phonographic turntable to external conversion means
25 to permit a computer to receive the audio signal in

1 digital form. It was also known to build into a
2 phonographic turntable conversion means delivering a
3 digital audio signal but only in a form not
4 recognized by computers."

5 A. I see that.

6 Q. Yes?

7 A. Yeah, I see that.

8 Q. Okay. Seeing what you've seen of the
9 prior art, would you agree or disagree that it was
10 known to use USB to communicate non-audio
11 information encoded on a vinyl record to a computer
12 in the relevant time frame?

13 A. Could you ask that question again?

14 Q. Sure. Seeing what you've seen of the
15 prior art, would you agree or disagree that it was
16 known to use USB to communicate non-audio
17 information encoded on a vinyl record to a computer?

18 MR. BLUM: Objection. Form.

19 THE WITNESS: I would say Spencer, for
20 example, describes transmitting digital information,
21 for example, from the encoder and from the scanner
22 in a digital fashion and potentially does that over
23 a USB.

24 BY MR. SMITH:

25 Q. Digital information that was encoded on a

1 vinyl record, correct?

2 A. No.

3 MR. BLUM: Objection.

4 THE WITNESS: I'm sorry.

5 That -- that would have been digital
6 information coming from the tonearm coder -- encoder
7 and the platter scanner.

8 BY MR. SMITH:

9 Q. What is the tonearm encoder, sir?

10 A. The tonearm encoder in the Spencer prior
11 art. It's a component of the Spencer prior art.

12 Q. What in your mind distinguishes the
13 '498 patent from the prior art?

14 A. I would say primarily the ability of
15 incorporating within a single device the ability to
16 stream audio from that turntable device as it was
17 playing and directly transmit it through a standard
18 computer protocol, again, in real time.

19 Q. Did the '498 patent teach any --
20 (Technical difficulty.)

21 A. I'm sorry, did you finish your question?

22 Q. That was it, yes.

23 MR. BLUM: Objection to form.

24 THE WITNESS: I didn't hear the rest of
25 the question. Could you repeat?

1 BY MR. SMITH:

2 Q. Okay. Did the '498 patent teach any
3 technical breakthroughs that made that possible?

4 MR. BLUM: Objection. Form.

5 THE WITNESS: I'm not sure I understand
6 the question. I mean anything that provides unique
7 and novel use of a method or process could be
8 considered a technical breakthrough.

9 BY MR. SMITH:

10 Q. Sure. Was the technology available in the
11 relevant timeframe to construct a system that would
12 meet Claim 1 prior to the disclosure of the
13 '498 patent itself?

14 A. I believe the various components discussed
15 in the '498 patent were -- were known, if not
16 well-known. The ability to transmit audio signals
17 over a USB port was well-known. In fact, the USB
18 standard had been known at least eight years prior
19 to this invention, yet the unique combination of
20 components in this invention was not seen for those
21 eight years.

22 So from that perspective -- again,
23 anything can look obvious in hindsight. From this
24 particular standpoint, I'd say we have a unique and
25 novel device.

1 Q. Was the same true of the IEEE 1394
2 communication standard? Specifically, was it known
3 before the time of the invention --

4 A. Yes.

5 Q. -- or the relevant invention, I should
6 say.

7 A. Yes, I'd say it was.

8 Q. Did the combination of elements in Claim 1
9 of the '498 patent produce a surprising technical
10 result?

11 A. Surprising? I'm not sure I understand
12 what you mean by "surprising."

13 Q. Okay. Did it produce an unexpected
14 technical result?

15 A. I think the purpose of a valid patent is
16 to describe something that is enabled. So from that
17 perspective, I don't think it would be considered
18 surprising or unusual.

19 Q. I think you discussed before that you had
20 worked on USB controllers prior to the relevant time
21 frame, correct?

22 A. I did.

23 Q. So are you familiar with the USB
24 communication protocol?

25 A. I am.

1 Q. Can you describe generally how two
2 computers would communicate using USB?

3 A. Well, there's -- there's several forms of
4 communication in USB. The most likely form of
5 communication for audio would probably be the
6 isonic -- the isochronous exchange method in USB.

7 Basically, there's a host controller
8 usually on a computer and then there's a device
9 controller usually on the device. They establish
10 themselves on a network known as a USB bus.

11 And when the device wishes to send
12 information to the host, it has to wait for the host
13 to pole it, say, "Do you have any information for
14 me?"

15 And the device will say, Yes. I want to
16 do an isochronous data exchange."

17 And then the host says, "then go ahead."

18 And then the device begins sending, in the
19 case of isochronous, streaming-like data.

20 Q. Was it digital data?

21 A. Yes.

22 Q. What format is the digital data in?

23 A. I guess the easiest description would be
24 in packets.

25 Q. Do the packets have any routing

1 information in them or header information?

2 A. They do.

3 Q. Can you describe that, sir?

4 A. I'd have to study the spec. I haven't
5 studied the spec in a while. But when each device
6 announces itself on the bus, it receives an
7 address --

8 Q. Go ahead.

9 A. -- so -- so that the host can talk to
10 multiple devices on the same bus.

11 So from that perspective, there isn't
12 necessarily routing occurring, it's just the
13 information appears on the bus with an address of
14 the device so that the host knows where it comes
15 from.

16 Now, in the case of a hub, you can have a
17 hub controller as well, in which case there is some
18 rudimentary routing that occurs from the device to
19 the hub and then from the hub to the host.

20 Q. In terms of the physical layer, how is the
21 data in the USB communication stream being
22 communicated?

23 A. In a serial fashion.

24 Q. And what do the signals consist of?

25 A. Basically highs and lows, 1s and 0s.

1 Q. This is highs and lows of voltages on a
2 wire or what is it?

3 A. Correct.

4 Q. So the USB devices are sending out
5 serially individual bits by essentially changing the
6 voltage out?

7 A. Correct.

8 Q. Did the USB communication protocol dictate
9 how data should be encoded on the physical wire
10 connecting devices?

11 A. Well, it dictates what needs to be in the
12 header. As to what needs to be in the data portion
13 of the packet, not necessarily, no.

14 Q. That could be any unknown string of 1s and
15 0s to the USB controller's perspective?

16 A. It -- it would have to be a format that's
17 known by both the sender and the receiver.

18 Q. And why is that?

19 A. Otherwise the receiver of the information
20 wouldn't know what to do with the data.

21 Q. It would just see a string of 1s and 0s
22 and not know what it is?

23 A. Correct.

24 Q. Is it your opinion, sir, that in the
25 relevant time frame, a record player differed from a

1 turntable?

2 A. I would say a -- not -- not necessarily.
3 I think a record player has a much broader term,
4 similar to a DJ and a turntablist. A record player
5 could be anything, including a more sophisticated
6 high-end turntable.

7 When you say "a turntable," I think a
8 general consumer would understand that you're
9 talking about a high-fidelity device as opposed to
10 some child's device that plays 45 records.

11 Q. What was the function of a record player
12 in the relevant time frame?

13 A. To take information from the grooves of a
14 vinyl record and play it from a speaker.

15 Q. So audio information?

16 A. Correct.

17 Q. Could you refer to paragraphs 161 through
18 163 of your declaration, Exhibit 2004?

19 A. 161?

20 Q. Yes.

21 A. I see that.

22 I'm sorry, did you want me to read that?

23 Q. Oh, no, you don't have to read it. I'm
24 just referring you to the portion of your
25 declaration I'm talking about so you don't have to

1 go hunting for it.

2 A. I have it.

3 Q. You're talking about different kinds of
4 venues that DJs or turntablists might perform at,
5 correct?

6 A. Correct.

7 Q. And these venues, presumably, might have
8 different levels of sophistication with respect to
9 the upcoming performance; is that right?

10 A. Yes, I would say so.

11 Q. And you might have different people hiring
12 DJs and turntablists? I'm sorry, "different people"
13 is unclear.

14 You might have different kinds of people
15 hiring DJs and turntablists. When I say "different
16 kinds," I mean with respect to their sophistication
17 about the performance.

18 MR. BLUM: Objection. Form.

19 THE WITNESS: I'd say that's a reasonable
20 assumption.

21 BY MR. SMITH:

22 Q. For example, if you are doing a
23 performance at a nightclub, you might have a club
24 manager; whereas, if it's for a wedding, you might
25 have a wedding planner, or if it's for a high school

1 dance, you might even have a school administrator or
2 a student.

3 MR. BLUM: Objection. Form.

4 THE WITNESS: That sounds reasonable.

5 BY MR. SMITH:

6 Q. Have you ever done any event planning like
7 this yourself?

8 A. I assisted with a wedding setting up the
9 audiovisual for -- actually, two weddings. But
10 aside from that, not -- not professionally.

11 Q. Things can go wrong sometimes at event
12 planning, correct?

13 A. Sure.

14 Q. Audio equipment can malfunction, correct?

15 A. Yes.

16 Q. And the people hiring DJs at different
17 kinds of venues would presumably have different
18 levels of expertise relating to audio equipment,
19 correct?

20 A. Sure.

21 Q. And sometimes they might make mistakes,
22 correct?

23 A. The people hiring the DJs or the DJs?

24 Q. The people hiring the DJs.

25 A. Make mistakes in what way, for example?

1 Q. Any way in the hiring process.

2 A. Yeah. They might hire inexperienced DJs
3 that don't bring the proper equipment, or they may
4 make assumptions about what is a suitable venue, or
5 what requirements are needed to host a DJ, for
6 example.

7 Q. They might think they have equipment that
8 is working that is actually not working, right?

9 A. Yes. And I experienced that from one
10 wedding. Someone -- someone assured me they had
11 working speakers that we could plug into.

12 Q. Oh, no.

13 Do you know what it means for an artist to
14 sample another artist's music?

15 A. Well, in the realm of DJ, yes. It's
16 generally called mixing or remixing.

17 Q. And what does it mean for an artist to
18 sample another artist's music?

19 A. You take an existing recording of an
20 artist's song and modify it in some fashion.

21 Q. Do you generally take the entire song or
22 portions of it, or how does that work?

23 A. Both.

24 Q. In the relevant time frame, how did an
25 analog-to-digital converter work?

1 A. Many different examples of
2 audio-to-digital converter.

3 Q. I'm sorry, could I ask that again?

4 In the relevant time frame, how did an
5 analog-to-digital converter work?

6 A. Right. And my response is that in 2004
7 and prior to that, many different -- different types
8 of analog-to-digital converters. Some that are very
9 sophisticated can take a high sampling rate, can do
10 filtering, things like that, all the way down to
11 something as simple as doing pulse code modulation,
12 which is -- wouldn't actually require even an
13 integrated circuit. Several discrete circuits could
14 be able to do that. But again, the -- it would not
15 necessarily be suited -- suitable for high-frequency
16 audio.

17 Q. What is the sampling you're talking about
18 here?

19 A. Well, the Nyquist standard is you want to
20 sample at least double the rate of the audio -- the
21 highest audio frequency.

22 Q. Sorry, I was asking something a little bit
23 below your level of technical expertise. I mean
24 what actually is the sampling process? What does
25 that mean?

1 A. Okay. The device generally looks at the
2 amplitude of the output of the analog audio and
3 converts that amplitude to a discrete value,
4 either -- again, using discrete components -- by
5 just capturing a voltage or by a more sophisticated
6 integrated circuit converting that to a value, a
7 digital value.

8 Q. So when you're doing analog-to-digital
9 sampling, you sample the amplitude of the analog
10 waveform at a particular point and get a digital
11 number that represents the amplitude at that point?
12 Then you do that over and over again, right?

13 A. Again, that would be one type of
14 analog-to-digital converter, yes. Probably the more
15 common type of A-to-D converter that appears in
16 integrated circuits.

17 Q. I'm sorry, you froze for a second there.
18 The last thing I heard was "that would be one type
19 of analog-to-digital converter." Could you just
20 repeat the answer?

21 A. Yes. Analog-to-digital converter that
22 generally would be in a higher-end integrated
23 circuit.

24 Q. If the input to an analog-to-digital
25 converter is an analog audio waveform, would you

1 consider the output of the analog-to-digital
2 converter to be reproducibly indistinguishable from
3 the input?

4 A. It would depend on the quality of the
5 A-to-D converter.

6 Q. If it's at or above the Nyquist rate in
7 terms of sampling, would it be reproducibly
8 indistinguishable?

9 A. Yes, I would say so.

10 Q. Would you consider the output to be a new
11 signal?

12 A. Yes.

13 Q. And why is that, sir?

14 A. Because the signal is a different --
15 different type of signal. It represents, at least
16 from the perspective of the audio component, it
17 represents the analog, but it is -- it is a
18 different signal.

19 In fact, again, if we're just talking
20 about the values that are captured, it's not even a
21 signal. When you'd attempt to transmit those values
22 in a streaming fashion, then it becomes a signal.

23 Q. And what does that signal look like?

24 A. Well, it's just a series of data points,
25 discrete data points. Whereas, an analog waveform

1 looks like a continuous curve, or if it's multiple
2 frequencies, spiky -- spiky points.

3 A digital version of that would -- if you
4 could magnify it to some degree, you could actually
5 see discrete points in the wave.

6 Q. The signal would be a series of 1s and 0s
7 that when combined would give you numbers that were
8 taken at the individual sample points. And putting
9 them together you would get something that looks
10 like the analog signal; is that right?

11 A. I'd say that's a reasonable description,
12 yes.

13 Q. I'm going to ask you about a claim term,
14 and I don't want you to feel like I'm taking this
15 out of context or anything.

16 What in your mind does it take to generate
17 a signal?

18 A. I would say some -- some form of energy,
19 either electrical or mechanical, or something that
20 can actually produce a measurable outcome.

21 I don't know if that's the type of
22 question you're asking.

23 Q. No, that's good. I think that's fair.

24 If -- so if I have a component that takes
25 some digital information and converts that to a

1 sequence of voltages on a wire, is that generating a
2 signal in your mind?

3 A. Yes, in general I would say so.

4 Q. What if I had some digital data and
5 processed it into a different digital format, would
6 that be generating a new signal?

7 A. It could be, yes.

8 Q. And why do you hedge with the word "could
9 be"? Under what circumstances would it be and what
10 circumstances would it not be?

11 A. Well, when it's -- for example, when it's
12 stored on a disk by itself, it's just data. When
13 you take that data and either transmit it, or use it
14 to drive another device, then it becomes a signal.

15 Q. I don't want to put words in your mouth
16 here, but it sounds like you're saying inherent in
17 the comment -- sorry -- inherent in the concept of
18 signal is some form of transmission and reception;
19 is that right?

20 A. Yes. You can have a representation of a
21 signal stored on a disk, for example, but it doesn't
22 become a signal until you try to transmit it. And
23 the way, again, the way you transmit that also
24 determines the type of signal it is, not just the
25 data.

1 Q. You might want to look at Claim 1 for this
2 question. And in particular, I'm looking at the
3 controller limitation.

4 The controller limitation -- do you have
5 it in front of you, Mr. Zatkovich?

6 A. Yes.

7 Q. The controller limitation says, "A
8 controller responsive to said analog-to-digital
9 converter for generating an output digital audio
10 signal of music."

11 And what I'm wondering is do you interpret
12 Claim 1 to require that when the controller
13 generates an output digital audio signal, it has to
14 transmit the signal immediately in order to meet the
15 language of the claims?

16 A. Well, in this particular case, the
17 controller is responsive to the analog-to-digital
18 converter. In other words, there must be an
19 interaction that occurs between the controller and
20 the converter.

21 Q. And when the controller generates an
22 output digital audio signal --

23 (Technical difficulty.)

24 THE REPORTER: I'm sorry, Counsel, you're
25 freezing. We can't hear your complete question.

1 BY MR. SMITH:

2 Q. Okay. When the controller in Claim 1
3 generates an output digital audio signal, is it your
4 interpretation of Claim 1 that that must be
5 immediately transmitted outside of the turntable?

6 MR. BLUM: Objection. Form.

7 THE WITNESS: Well, this is a system
8 claim. So my opinion is that it would have to be at
9 least capable of being transmitted out of the
10 turntable. Yeah, I'm saying it has to be capable of
11 doing that, yes.

12 BY MR. SMITH:

13 Q. And is it your opinion that Claim 1 would
14 exclude a system where the output digital audio
15 signal of the controller is stored prior to being
16 transmitted outside the turntable?

17 MR. BLUM: Objection. Form. Relevance.

18 THE WITNESS: Well, again, the -- the
19 production of the standard computer protocol, which
20 is performed by the controller, has to occur
21 responsive to the analog-to-digital converter.

22 In other words, as the analog-to-digital
23 converter is doing its conversion of the analog
24 signal, it has to be interacting with the controller
25 in order to produce the standard computer protocol.

1 BY MR. SMITH:

2 Q. Does the scope of Claim 1 exclude the
3 information in the standard computer protocol format
4 being stored prior to the transmission from the
5 turntable device?

6 A. The -- the -- you're using the term
7 "stored" when you talk about standard computer
8 protocol, which is an output protocol. I'm not
9 aware of actually the ability to store. I mean I
10 guess it's possible. But the USB communication, USB
11 format, for example, would be a standard computer
12 protocol that can be output, that can be
13 transmitted.

14 If that USB protocol were stored before
15 it's transmitted -- I don't know. I'm not aware of
16 any practice that does that.

17 I believe the intent is that the
18 controller is interacting with the digital converter
19 to produce the standard computer protocol and is
20 then output by the -- by the turntable, which is the
21 way the patent describes the specification and the
22 diagrams in the patent describing it.

23 Q. You said "then output by the turntable."
24 And what I'm asking is about the space and time
25 between the controller forming the digital audio

1 output signal, then being output by the turntable,
2 do you think Claim 1 would exclude the temporary
3 storage of the digital information that is going to
4 be output from the turntable prior to it being
5 output?

6 A. Well, the digital information that's --
7 that's being output is the USB protocol, not, for
8 example, a file format such as MP3. MP3 is not a
9 standard computer protocol, so that wouldn't qualify
10 to the claim limitations.

11 Q. I'm not sure I understand how your answer
12 was relevant to my question. Maybe you're assuming
13 something there. Can you try to explain that?

14 A. The --

15 MR. BLUM: Objection. Form.

16 THE WITNESS: The USB signal, for example,
17 or the firewire signal, or some other standard
18 computer protocol, is produced when the controller
19 is responsive to the analog-to-digital converter.

20 BY MR. SMITH:

21 Q. It seems to me like you are effectively
22 saying that when the analog-to-digital converter is
23 producing a stream of digital data, that is
24 immediately output from the turntable without any
25 intermediate storage. Is that correct, sir?

1 A. No, the -- the output that's produced by
2 the controller is the standard computer protocol,
3 not some intermediate format such as an MP3.

4 Q. And that goes immediately from the
5 turntable, according to the claims, correct?

6 MR. BLUM: Objection. Form.

7 THE WITNESS: It's -- it's at least output
8 from the controller at that particular time because
9 it has to produce the standard computer protocol.
10 And again, at that time the controller is
11 interacting with the digital converter.

12 BY MR. SMITH:

13 Q. Okay. I'll give you one last chance to
14 answer this question. And that is, when the
15 controller outputs the output digital audio signal,
16 does that signal need to be immediately sent from
17 the turntable without intermediate storage according
18 to Claim 1?

19 MR. BLUM: Objection. Form.
20 Argumentative.

21 THE WITNESS: Ask that question again,
22 please.

23 BY MR. SMITH:

24 Q. When the controller in Claim 1 generates
25 an output digital audio signal, does that signal

1 need to be immediately transmitted from the
2 turntable to the outside without having been stored
3 after the controller generated the signal?

4 A. The -- I'm not aware of any specific
5 requirement that says it has to be transmitted out
6 of the turntable. But the -- when the standard
7 computer protocol digital output is produced, it
8 must occur at the time that the controller is
9 responsively connected to the digital converter, in
10 other words, when the controller is interacting with
11 the digital converter.

12 MR. SMITH: Do you want to take a quick
13 break or go on?

14 THE WITNESS: I'm fine. I like to do at
15 least an hour and a half between breaks.

16 BY MR. SMITH:

17 Q. I want to ask you about some claim
18 constructions in your declaration. In particular
19 I'm talking about the word "turntable" now. This is
20 paragraphs 112 to 120 of your declaration,
21 Exhibit 2004.

22 Are you familiar with that claim
23 construction?

24 A. I have that, yes.

25 Q. I just wanted to ask you, why do you think

1 this construction of turntable matters?

2 MR. BLUM: Objection. Form. Relevance.

3 THE WITNESS: I'm saying from the same
4 perspective that Dr. Moon considered it necessary
5 for him to construe the term, I found it was
6 necessary to give my understanding of the turntable
7 as well.

8 BY MR. SMITH:

9 Q. In your analysis, does this understanding
10 of "turntable" play into distinguishing the prior
11 art in some way?

12 A. I think it just makes it very clear as to
13 what components are required and need to be operable
14 when the turntable is working.

15 In other words, the -- the platter has to
16 be spinning, and the tonearm has to be active, and
17 the cartridge has to be generating analog signals.
18 So all of those have to be occurring in order to
19 have an operable turntable.

20 Q. Is there any point in your analysis in the
21 declaration where this interpretation of the word
22 "turntable" makes a difference?

23 A. Well, we have at least one piece of prior
24 art that uses only a portion of the turntable. So
25 from that perspective, I think it's important to

1 understand what the components of a turntable are.

2 Q. What is that piece of prior art, sir?

3 A. Well, Cortellesi has a turntable that does
4 not utilize all the components of the turntable. So
5 from that perspective it's not utilizing the tonearm
6 or the cartridge.

7 Q. And so --

8 A. It's not even clear that those components
9 need to be operational.

10 Q. I see.

11 And did your declaration form the opinion
12 or contain your opinion that Cortellesi would not
13 meet the language of Claim 1 because it does not
14 have a turntable?

15 A. At least one of the examples of a
16 turntable in Cortellesi do not require an operable
17 turntable, only a component of a turntable.

18 Q. Did your declaration reflect your opinion
19 that Cortellesi does not meet the requirements of
20 Claim 1 because it does not disclose a turntable?

21 A. No.

22 Q. Now, you've testified in about how many
23 cases, sir?

24 A. Over 60 cases.

25 Q. Do you recall ever providing testimony

1 about the definition of the word "controller" in any
2 of your prior cases?

3 A. I've testified on different types of
4 controllers. I mean the word "controller" is used
5 in many different inventions in different ways. So
6 I would -- I would not be surprised if I had
7 defined, you know, construed the term or used a
8 specific meaning of the term "controller."

9 Q. What is the plain and ordinary meaning of
10 the word "controller" in the relevant time frame?

11 A. In this patent?

12 Q. No. I'm specifically asking about the
13 plain and ordinary meaning of the word "controller"
14 in the relevant time frame.

15 MR. BLUM: Objection. Form. Relevance.

16 THE WITNESS: I would say the word
17 "controller" by itself in no particular context has
18 no specific plain and ordinary meaning.

19 BY MR. SMITH:

20 Q. What does the English word "controller"
21 mean to you?

22 A. I -- I'd have to look that up.

23 Q. You don't know what the word "controller"
24 means?

25 A. If you are asking me what a specific

1 definition of "controller" is, I said I -- if you
2 want an accurate version of that, I'd have to look
3 it up. I'm just telling you, in the technical realm
4 the term "controller" is used in many different
5 aspects for many different purposes.

6 Q. Can you give me an example of a place
7 where you've -- sorry.

8 Can you give me an example of a place
9 where you have encountered the word "controller"?

10 A. Well, just in this case, we know that
11 Spencer used the word "controller" to describe a box
12 containing a turntable. We also know that within
13 its prior art. We're using "controller" in the '498
14 to describe something quite different than a box
15 that contains a turntable.

16 Q. Just to be sure, do you actually know what
17 I'm saying when I use the word "controller"?

18 A. Unless you give me a specific context, I
19 wouldn't know what you mean by the word
20 "controller."

21 Q. Was a USB controller a specific kind of
22 controller in the relevant time frame?

23 A. Yes.

24 Q. Was an IEEE 1394, or firewire controller,
25 a specific kind of controller in the relevant time

1 frame?

2 A. Yes, I would say so.

3 Q. And what is a microcontroller, sir?

4 A. A microcontroller? It's generally a
5 device that contains a microprocessor and other
6 peripheral interfaces within a single chip.

7 Q. Could one use a microcontroller as a USB
8 controller in the relevant time frame?

9 A. In the relevant time frame, there were so
10 many off-the-shelf implementation of USB controllers
11 in silicone. I'd say it would be counterproductive
12 to try to implement that from scratch in a
13 microcontroller.

14 Q. And you have a opposed construction of the
15 word "controller" in paragraph 123 of your
16 declaration.

17 And -- you got it? Okay.

18 That proposed construction has a phrase
19 called -- sorry -- has a phrase that reads "specific
20 data format."

21 Do you see that?

22 A. Yes.

23 Q. And what is a "specific data format"?

24 A. A data format that is understood by the
25 receiver and the sender of that information.

1 Q. I think we talked about this before. If
2 it's not understood by the receiver and sender of
3 that information, it's not very useful, right?

4 A. That's correct.

5 Q. I mean can you think of an example where
6 that would not be true?

7 A. There are devices called repeater where
8 their purpose -- or like a router, something like
9 that -- where their intention is to use the
10 information only in the header and not try to
11 interpret the -- what's called the data load, and
12 just send it on its way to the next destination or
13 the next node in the network, from that perspective.
14 If the receiver of that is intended to use that data
15 in some form, in some fashion, then it would have to
16 understand the format of that data.

17 Q. I see. So in the USB context, for
18 example, we have USB protocol information in the
19 header of a packet that will be understood by the
20 components that are communicating USB, and then we
21 have sort of payload data that will be understood by
22 the applications using the data; is that correct?

23 A. That's correct.

24 Q. So you are familiar with the Cortellesi
25 prior arts that we have been talking about, right?

1 MR. SMITH: And just for the court
2 reporter, it's Exhibit 1004.

3 THE WITNESS: Yes, I'm aware of that.

4 (Exhibit 1004 was marked for
5 identification and attached
6 hereto.)

7 BY MR. SMITH:

8 Q. Now, do you in your declaration dispute
9 that Cortellesi describes Figure 4 as a "top plan
10 view of a first embodiment of the apparatus provided
11 with a record player carrying the virtual disk
12 provided with a reading sensor"?

13 A. I would say that's correct.

14 Q. What is a "top plan view"?

15 A. Looking at -- at the device from the top.

16 Q. In the top plan view, can you see what's
17 underneath the uppermost surface of the device?

18 A. You can surmise some aspect of that from
19 what you can see on the top, but certainly you
20 couldn't see everything that would be in that
21 device.

22 Q. Do you dispute that Cortellesi refers to
23 Figure 4 as showing the turntable of a common record
24 player?

25 A. Yes. I think that was the intention,

1 along with the addition of the virtual disk and
2 the -- and the sensor.

3 Q. I'm sorry, I asked whether you disputed
4 it, and you said "yes." Does that mean you do
5 dispute that?

6 A. I'm sorry. No, I do not dispute that it
7 shows a representation of a common record player.

8 Q. Okay. I'm sorry. I'm just going to ask
9 you a series of questions I have about the opinion
10 where it's not particularly clear to me reading it.

11 Do you dispute that Figure 4 of Cortellesi
12 shows the tonearm and the phono cartridge of the
13 record player?

14 A. I -- I -- I would believe it does show
15 representation of a tonearm and a cartridge, not
16 necessarily that it's operable since it's not
17 necessary to be operable.

18 Q. Do you see near the top of Figure 4 of
19 Cortellesi there are a number of squares that look
20 like buttons?

21 A. I do. I see those.

22 Q. Can you see what they're labeled?

23 A. No.

24 Q. Figure 4 shows a virtual disk placed on
25 the turntable of the common record player, correct?

1 A. Correct.

2 Q. And is it your opinion that the virtual
3 disk is not removable?

4 A. I would say that based on the position of
5 the sensor device, the SD, it's not something that
6 you would want to take off and put on frequently;
7 otherwise, you might damage the SD. Again, it's
8 positioned approximately 2 millimeters above the
9 surface of that. So it's not something you would
10 want to put on and take off very frequently.

11 Q. Can you refer to Exhibit 1006, which is
12 the Cohen reference.

13 (Exhibit 1006 was marked for
14 identification and attached
15 hereto.)

16 THE WITNESS: I'm sorry, what was the
17 question?

18 BY MR. SMITH:

19 Q. I'm going to refer to Exhibit 1006, which
20 is the Cohen reference.

21 A. Okay.

22 Q. Do you believe that the Cohen reference
23 anticipates Claim 1?

24 A. I do not.

25 Q. Why not?

1 MR. BLUM: Objection. Form, relevance.

2 THE WITNESS: I don't believe it has a
3 controller which can generate a digital audio signal
4 that uses data computer protocol. I don't believe
5 it teaches an analog-to-digital converter capable of
6 generating an output signal representative of music
7 or speech.

8 I'd say for at least those two reasons, it
9 doesn't anticipate Claim 1.

10 BY MR. SMITH:

11 Q. Let's talk about the controller for a
12 second. Is it your view that a microprocessor or
13 DSP block cannot qualify as a controller per se, or
14 is it something about the function of it that leads
15 you to say that Cohen does not --

16 (Technical difficulty.)

17 (Reporter clarification.)

18 MR. SMITH: -- that Cohen does not have a
19 controller.

20 MR. BLUM: Objection. Form.

21 THE WITNESS: It doesn't disclose a
22 controller either in the form of a microcontroller
23 or any other, or digital signal processor, that
24 produces a standard computer protocol.

25 BY MR. SMITH:

1 Q. So you're distinguishing it based on the
2 production of a standard computer protocol, correct?

3 A. At least that, yes.

4 Q. And that's because you don't believe that
5 MIDI output is the standard computer protocol?

6 A. I'm sorry, could you ask that again?

7 Q. Yes. The M-I-D-I output, you believe
8 that's not a standard computer protocol?

9 A. That's correct.

10 Q. And what does it take to be a standard
11 computer protocol, sir?

12 A. Something that's present on the majority
13 of computers at the time of the art.

14 Q. And what were the things that were present
15 in the majority of computers at the time of the art?

16 A. Well, the specification identifies, of the
17 '498, describes at least two. That would be the USB
18 and the firewire.

19 There are many other common, what I would
20 consider, standard computer interfaces. I have to
21 decide which of those would be capable of
22 transmitting digital audio signal in 2004.

23 I'm trying to decide, for example, if each
24 DMI was -- no, each DMI certainly was not on any
25 significant number of computers in 2004.

1 If it was available in 2004, trying to
2 decide if it had the bandwidth to transmit digital
3 audio signal representative of music or speech.
4 Potentially.

5 Those are the ones that come to mind as I
6 sit here. There may be others.

7 Q. Now, you can see in Figure 1 of Cohen, the
8 microprocessor, a DSP block is outputting what I
9 call MIDI or M-I-D-I output, correct?

10 A. That's correct.

11 Q. And what is that output, sir?

12 A. MIDI is a series of commands with
13 parameters to identify both configuration
14 information and tonal information.

15 Q. If another device receives those commands
16 with parameters in the M-I-D-I format, how does it
17 know what to do with them?

18 A. There's a specific specification that
19 indicates how to interpret that information.

20 Q. The computer that's receiving that
21 information presumably has to be implemented such
22 that it can use that specification, correct?

23 A. Yes, I'd say that's reasonable.

24 Q. You have a second distinction over Cohen,
25 which was that the analog-to-digital converter would

1 not output a signal that was representative of audio
2 signals, correct?

3 MR. BLUM: Objection. Form.
4 Mischaracterization.

5 BY MR. SMITH:

6 Q. Please tell me if I'm mischaracterizing
7 your testimony.

8 A. Could you ask that question again?

9 Q. Sure. I thought you had a second
10 distinction of Claim 1 over Cohen, which was that
11 the analog-to-digital converter would not output a
12 signal that was representative of an audio signal.

13 A. I think my opinion is that it does not
14 disclose that.

15 Q. Does not disclose it, okay. Thank you.

16 A. Right.

17 Q. And what do you think the
18 analog-to-digital converter in Cohen is outputting?

19 A. Timing information, which would be a much
20 simpler type of conversion, much simpler frequency.

21 Q. Where does the timing information come
22 from?

23 A. The timing information comes from a
24 special type of record that's provided on the -- on
25 the turntable that -- that is not speech or music.

1 It's timing signals.

2 Q. So would you agree with me that Cohen is
3 using an analog-to-digital converter to convert to
4 digital the output of the contents of a record?

5 A. The contents of a non-music or speech
6 record, yes.

7 Q. Let's turn to the Spencer reference.

8 Unless you want to take a break. You said
9 about an hour and a half, but I may be done here
10 soon. We could also just power through.

11 A. Sure, I'm fine with that.

12 (Off the record discussion.)

13 (Recess.)

14 BY MR. SMITH:

15 Q. Welcome back, Mr. Zatkovich.

16 Referring to the Spencer prior art, again
17 as Exhibit 1005.

18 (Exhibit 1005 was marked for
19 identification and attached
20 hereto.)

21 BY MR. SMITH:

22 Q. If you can maybe refer to Figure 1, which
23 shows the overview diagram of the system.

24 I recall you mentioning the controller 100
25 in Spencer. There's also a data processing unit

1 200, correct?

2 A. Correct.

3 Q. How are the controller 100 and data
4 processing unit 200 in communication in Spencer?

5 A. Well, there's various labels and unlabeled
6 interfaces between the two devices. There's the 106
7 interface, which is mixing information. There's the
8 102, which indicates it could be a SCSI or a USB
9 interface.

10 There's several unmarked -- at least two
11 unmarked interfaces there which, I assume, would
12 carry the analog signals from the -- the record on
13 the turntable from the cartridge to the data
14 processor, which is required by the data processor
15 in the specification.

16 Q. And your argument is that the digitization
17 is occurring in the data processing unit 200,
18 correct?

19 A. Correct, it specifically states that.

20 Q. Okay. And is the data processing unit 200
21 a digital computer?

22 A. Yes. It's described as a general purpose
23 computer or a special purpose computer.

24 Q. And is Spencer using the sampled signals
25 to synchronize the analog output with digitized

1 output?

2 MR. BLUM: Objection. Form.

3 THE WITNESS: Could you ask that question
4 again?

5 BY MR. SMITH:

6 Q. Sure. It's not meant to be a tricky
7 question.

8 Is Spencer using the sampled signals to
9 synchronize the analog output of the turntable with
10 digital output from some other source?

11 A. Yes. It creates -- it creates a waveform
12 map. And then that waveform map is then used to
13 synchronize with external digital audio.

14 Q. How would you synchronize an analog signal
15 to a digital signal?

16 A. Well, you would have to first convert the
17 analog signal to something that could be compared to
18 the -- well, I guess you could do it either way.

19 You could convert the -- for example,
20 let's assume that the external device is a CD. We
21 could convert a song on the CD to analog and then
22 compare the analog that's coming from the cartridge
23 to the data processor.

24 Or we can, once the analog signal arrives
25 at the data processor, it could be converted to

1 digital, which is described in the specification.
2 And that digital representation of the music could
3 be compared to the digital representation coming
4 from the CD, for example.

5 Q. The data processing unit 200, is that
6 doing the comparison in the digital domain or is it
7 doing it in the analog domain?

8 A. It describes -- the specification
9 describes that when the analog signals from the
10 cartridge arrive at the data processor, it samples
11 them. So it appears that it is converting them
12 immediately to digital on the data processing side
13 once it receives the analog signals. So my guess is
14 it's comparing the digitized versions of those
15 signals.

16 Q. Could you turn to paragraph 68 of Spencer.
17 Let me know when you're there.

18 A. I have that.

19 Q. What is this paragraph describing, sir?

20 A. So basically it's saying that the data
21 processor wants to control the sampling rate at
22 which -- sampling rate at which it samples the
23 incoming analog signal from the turntable. So it
24 uses the position of the tonearm to determine how
25 fast it does that.

1 So the analog signals that come from the
2 outside grooves of a record are less dense because
3 they're spread over a longer period of time --
4 longer area for a given period of time, as opposed
5 to the information on the inside grooves which are
6 more condensed in area over a given period of time.
7 So it looks at the position of the tonearm to decide
8 how quickly it wants to sample that incoming analog
9 signal.

10 Q. The last sentence of this paragraph says,
11 "Assuming the surface of the record is moving past
12 the stylus 123 at the base of the turn -- at the
13 base turntable speed, the base sampling rate is the
14 rate at which the data processor unit 200 generates
15 the analog waveform."

16 Do you see that?

17 A. I do.

18 Q. Why is the data processing unit 200
19 generating the analog waveform?

20 A. It's, again, describing the waveform as a
21 wave -- for example, a wave pattern that gives it --
22 I guess you could call it a thumbprint for that
23 position on the turntable. In other words, it's --
24 it's a thumbprint based on the analog signal at that
25 particular point on the turntable.

1 Q. But after the sampling process, isn't it a
2 digital waveform?

3 A. Right, but it's describing it as the
4 analog waveform that it received.

5 Q. So it's using "analog waveform" more as a
6 name than a description of the format it's in?

7 MR. BLUM: Objection. Form.

8 THE WITNESS: It's -- it's distinguishing
9 in what form that it's received. It's
10 distinguishing from -- a waveform that's received,
11 for example, from a CD player as a digital waveform
12 from the analog signal that it receives from the
13 turntable.

14 BY MR. SMITH:

15 Q. Let me direct you to paragraph 74 for a
16 minute. I wonder if you could just read through
17 that and tell me what Spencer is describing there,
18 based on your understanding.

19 A. Yes. So let's -- let's talk about --
20 first, let's talk about what it's trying to sync to.

21 So we have an external digital source,
22 such as a CD, which would have more precise
23 information about the timing of the information.

24 So, for example, the CD identifies both
25 the location and in some cases the time signature

1 for a particular segment, audio segment. Okay?

2 So it wants to correlate that location,
3 let's say, at three minutes and 13 seconds into the
4 song on that CD, it wants to correlate that with
5 some location on the record. So it's taking -- it's
6 looking at the analog waveform that it received from
7 the turntable. It's shaping that. In other words,
8 it's looking at a particular profile to see if it
9 matches a similar profile on the CD.

10 When it sees similar waveform patterns, it
11 says, okay, I have a match now. I'm going to make
12 that -- at three minutes and 13 seconds on the CD,
13 that matches with audio wave, this particular
14 sampling of the audio -- analog audio waveform that
15 I received from the record, and it creates that as
16 the synchronization point.

17 So that when it -- when it sees -- when it
18 goes to play that information, the external audio
19 information, and the DJ is then moving that record
20 on the turntable, it can then see if it matches
21 wherever that needle is, and the sample signal, the
22 analog signal at that needle, it knows exactly at
23 what point in the music that pertains to. So it can
24 control the output of the digital audio signal from
25 the CD.

1 Q. What did you understand to be a
2 synchronization point?

3 A. A synchronization point is when the
4 waveform of the analog waveform matches the waveform
5 of the digital waveform.

6 Q. Is it the case that Spencer is forming a
7 map of synchronization points?

8 A. Correct.

9 Q. So it's got certain points throughout the
10 recording where it has sampled a portion of the
11 audio. And it's using that to synchronize with the,
12 say, CD input that has more precise information on
13 timing?

14 MR. BLUM: Objection. Form.

15 THE WITNESS: That's my general
16 understanding, yes.

17 MR. SMITH: No further questions.

18 EXAMINATION

19 BY MR. BLUM:

20 Q. So I just have one question, and that is
21 pretty simple.

22 So Mr. Zatkovich, at the beginning of this
23 process you mentioned people that you met with the
24 other day. And I think you may have misnamed an
25 individual. You previously met with Alan Norman,

1 correct?

2 THE WITNESS: Ah, Alan, yes. Thank you.

3 MR. BLUM: That's all.

4 THE REPORTER: Mr. Blum, did you want a
5 copy of this?

6 MR. BLUM: No, I think I'm okay.

7 MR. SMITH: Ashala, can you give us a
8 rough and an expedited final?

9 THE REPORTER: Sure.

10 (At the time of 2:55 p.m. (EST), the deposition
11 was concluded.)

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DECLARATION

I hereby declare I am the deponent in the within matter; that I have read the foregoing transcript and know the contents thereof; and I declare that the same is true of my knowledge except as to the matters which are therein stated upon my information or belief, and as to those matters, I believe them to be true.

I declare under the penalties of perjury under the laws of the United States that the foregoing is true and correct.

This declaration is executed this _____ day of _____, 20____, at

CITY

STATE

IVAN ZATKOVICH

C E R T I F I C A T E

I, the undersigned, a Certified Shorthand Reporter for the State of California, do hereby certify:

That the foregoing proceedings were taken before me at the time and place herein set forth; that a verbatim record of the proceedings was made by me using machine shorthand, which was thereafter transcribed under my direction; further, that the foregoing is an accurate transcription thereof.

I further certify that I am neither financially interested in the action nor a relative or employee of any attorney of any of the parties.

IN WITNESS THEREOF, I have this date subscribed my name this 2nd day of February 2024.



ASHALA TYLOR, CLR, RPR, CRR, CSR #2436

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California Code of Civil Procedure

Article 5. Transcript or Recording

Section 2025.520

(a) If the deposition testimony is stenographically recorded, the deposition officer shall send written notice to the deponent and to all parties attending the deposition when the Original transcript of the testimony for each session of the deposition is available for reading, correcting, and signing, unless the deponent and the attending parties agree on the record that the reading, correcting, and signing of the transcript of the testimony will be waived or that the reading, correcting, and signing of a transcript of the testimony will take place after the entire deposition has been concluded or at some other specific time.

(b) For 30 days following each notice under subdivision (a), unless the attending parties and the deponent agree on the record or otherwise in writing to a longer or shorter time period, the deponent may change the form or the substance of the answer to a question, and may either approve the transcript of the deposition by signing it, or

refuse to approve the transcript by not signing it.

(c) Alternatively, within this same period, the deponent may change the form or the substance of the answer to any question and may approve or refuse to approve the transcript by means of a letter to the deposition officer signed by the deponent which is mailed by certified or registered mail with return receipt requested. A copy of that letter shall be sent by first-class mail to all parties attending the deposition.

(d) For good cause shown, the court may shorten the 30-day period for making changes, approving, or refusing to approve the transcript.

(e) The deposition officer shall indicate on the original of the transcript, if the deponent has not already done so at the office of the deposition officer, any action taken by the deponent and indicate on the original of the transcript, the deponent's approval of, or failure or refusal to approve, the transcript. The deposition officer shall also notify in writing the parties attending the deposition of any changes which the deponent timely made in person.

(f) If the deponent fails or refuses to approve the transcript within the allotted period, the

deposition shall be given the same effect as though it had been approved, subject to any changes timely made by the deponent.

(g) Notwithstanding subdivision (f), on a seasonable motion to suppress the deposition, accompanied by a meet and confer declaration under Section 2016.040, the court may determine that the reasons given for the failure or refusal to approve the transcript require rejection of the deposition in whole or in part.

(h) The court shall impose a monetary sanction under Chapter 7 (commencing with Section 2023.010) against any party, person, or attorney who unsuccessfully makes or opposes a motion to suppress a deposition under this section, unless the court finds that the one subject to the sanction acted with substantial justification or that other circumstances make the imposition of the sanction unjust.

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