

1 Deposition of LEONARD JOSEPH LAUB,
2 conducted virtually.

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5 Pursuant to notice, before Debra Ann Whitehead,
6 E-Notary Public in and for the Commonwealth of
7 Virginia.

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1 A P P E A R A N C E S

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C O N T E N T S

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EXHIBITS MARKED IN TODAY'S SESSION
(none)

EXHIBITS MARKED IN PRIOR SESSIONS
(Not attached)

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

2 LEONARD JOSEPH LAUB,

3 having been duly sworn, testified as follows:

4 EXAMINATION BY COUNSEL FOR PATENT OWNER

5 BY MS. O'BRIEN:

6 Q Good morning, Mr. Laub. Thank you for
7 joining us today.

8 You understand you're here to testify
9 regarding your opinions in three IPRs. Correct?

10 A As represented by my declarations, yes.

11 Q The first IPR is IPR2024-00923 of U.S.
12 Patent Number 10,873,685. Correct?

13 A Yes, that is -- I see that.

14 Q And can we agree to refer to that patent
15 as the '685 patent?

16 A Yes.

17 Q The second IPR is IPR 2014-00924 of U.S.
18 Patent Number 7,612,805. Correct?

19 A I see that, yes.

20 Q And can we agree to refer to that patent
21 as the '805 patent?

22 A Yes.

1 Q The third IPR is IPR2024-00925 of U.S.
2 Patent Number 8,451,339. Correct?

3 A I see that.

4 Q And can we agree to refer to that patent
5 as the '339 patent?

6 A Yes.

7 Q I will be asking a series of questions.
8 And to help the court reporter, I will need you to
9 provide verbal answers to my questions.

10 Do you understand that?

11 A Yes.

12 Q Now, if I ask a question that's unclear
13 or if you haven't heard something, please feel
14 free to ask me to repeat or provide clarification.

15 Okay?

16 A Yes.

17 Q From time to time counsel may object to a
18 question, but unless you are instructed not to
19 answer, you still need to answer each question.

20 Do you understand that?

21 A I do.

22 Q Now, because we are remote, if you refer

1 to any materials that we cannot see on camera,
2 please let us know what you're referring to so
3 that we can look at the same document. Okay?

4 A Will do, yes.

5 Q And I will do my best to keep track of
6 time and take a break at every hour. But if you
7 need a break at any time, please do ask. Okay?

8 A Yes.

9 Q And we provided a link to exhibits that
10 we may discuss today.

11 Do you have access to those exhibits?

12 A I have those exhibits. And I went ahead
13 because they were not in that form, I ran them
14 through the OCR function of Adobe Acrobat. They
15 haven't been changed in any other respect, they
16 have just been OCR'd so they can be searched.

17 Q Okay. Thank you.

18 Let's start with IPR2024-00924, Exhibit
19 1003, your declaration on the '805 patent. If you
20 can please let me know when you have that open.

21 (Exhibit 1003, previously marked, not
22 attached.)

1 A Okay. Just a second. Let me just
2 confirm.

3 Yes, I have that declaration in front of
4 me.

5 Q And just to confirm, this is your
6 declaration on the '805 patent. Correct?

7 A That is. And the file that I'm looking
8 at is the one that you folks sent.

9 Q Great. Thank you.

10 With respect to Paragraph 50, you
11 understand that the '805 patent claims priority to
12 a provisional application filed on July 11, 2006.

13 Correct?

14 A Just a moment. I am basically reading
15 the first sentence of Paragraph 50, and I stand by
16 that first sentence.

17 Q And you offered no opinions that the
18 provisional application failed to provide written
19 description support for specific features of the
20 claimed subject matter. Correct?

21 A I don't believe that I have any opinions
22 regarding the provisional application, other than

1 what I've been told about it to date.

2 Q And you stated that your opinions in this
3 declaration are based on the time of invention of
4 July 6, 2007. Correct?

5 A That's part of the last sentence of
6 Paragraph 50. Accordingly, I have been asked to
7 assume that the time of invention for each claim
8 in the '805 patent is July 6, 2007, and I have
9 applied that understanding in forming my opinions
10 throughout this declaration.

11 Q Would your opinions change based on a
12 time of invention of July 11, 2006?

13 A Elsewhere in the declaration I think I've
14 mentioned a couple of times after stating
15 particular opinions that those opinions would not
16 change based on that earlier date. Those are
17 specific mentions, and I could look up in the
18 declaration if you'd like.

19 Q I believe it may be helpful to reference
20 Paragraph 56 of your declaration.

21 And I'll just ask to confirm you stand by
22 the testimony in Paragraph 56 of your declaration?

1 A I'm sorry, Ms. O'Brien, you had broken up
2 a little bit. So if you had a question, would you
3 please repeat it?

4 Q Yes. I believe that Paragraph 56 of your
5 declaration may be helpful to reference. And I'll
6 just ask that you --

7 A Okay.

8 Q -- stand by the testimony in Paragraph 56
9 of your declaration?

10 A Okay. Let's see. Paragraph 56.

11 Yes. I say that my opinion of the
12 POSITA's background and ordinary skill does not
13 change if I were to consider the definition of a
14 POSITA, a person of ordinary skill in the art, on
15 or around July 11, 2006. So this is with respect
16 specifically to opinion on the POSITA's background
17 and ordinary skill.

18 Q And with respect to Paragraph 58, your
19 opinions based on the perspective of a POSITA
20 would not change if you used the date July 11,
21 2006. Correct?

22 A I beg your pardon, I need you to repeat

1 that question.

2 Q With respect to Paragraph 58 of your
3 declaration --

4 A Fifty-eight. Ah, okay. So I am at
5 Paragraph 58. Sorry. I don't want to talk over
6 you.

7 Q I apologize for that.

8 But with respect to Paragraph 58, your
9 opinions based on the perspective of a POSITA
10 would not change if you used the date July 11,
11 2006. Correct?

12 A You're close. What I've stated in 58 is
13 that my opinions below are based on the
14 perspective of a POSITA on July 6, 2007. My
15 opinions would not change if I used the
16 perspective of a POSITA on July 11, 2006.

17 Q And you stand by that testimony.
18 Correct?

19 A Yes.

20 Q If we could please go back up to
21 Paragraph 54. And let me know when you're there.

22 A I see it.

1 Q You opined on the level of skill of a
2 person of ordinary skill in the art. Correct?

3 A Paragraph 54 says, "I believe a POSITA in
4 the field of the '805 patent on or around July 6,
5 2007," and then I go on to list some
6 characteristics.

7 Q Are you aware that the District Court
8 previously defined a POSITA as someone who would
9 have had an electrical engineering degree and
10 three years of relevant experience?

11 MR. WICHMAN: Objection.

12 A I don't know. I have not followed
13 District Court proceedings.

14 Q If you could please scroll to internal
15 Page 154. At the end of your declaration, and
16 Appendix B, internal Page 154, and let me know
17 when you're there, please.

18 A Okay. 154. Yes, I'm here.

19 Q And do you see second row from the bottom
20 where you cited Exhibit 1027?

21 A I see that.

22 Q And that's the claim construction

1 memorandum opinion and order in the case of
2 Optimum Imaging Technologies, LLC, versus Canon,
3 Inc., Number 2:19-cv-246. Correct?

4 A I see that citation substantially as you
5 just read it.

6 Q And did you review that exhibit in its
7 entirety?

8 A I don't recall.

9 Q Would your opinions change if you used
10 the definition of a POSITA that is an electrical
11 engineering degree and three years of relevant
12 experience?

13 MR. WICHMAN: Objection.

14 A I think that you're reciting what I
15 already put in for the POSITA that -- just a
16 moment. Let me get back to that paragraph. That
17 was 50 -- there it is, Paragraph 54.

18 Okay. So in Paragraph 54 I have
19 indicated that the POSITA in the field of the '805
20 patent on or around July 6, 2007, would have been
21 a person with a bachelor's of science degree in
22 electrical engineering or a related field, paren,

1 which include physics in the case of digital
2 cameras, close paren, with at least two years of
3 industry experience or research, both concerning
4 digital camera system design and image processing.

5 Q And in your opinion, a person who has an
6 electrical engineering degree and three years of
7 relevant experience would meet those
8 qualifications. Correct?

9 A The relevant experience is vital because
10 of the need to understand the optics as well as
11 the electronics of the -- of the devices toward
12 which these claims are referred.

13 Q If we could please go to Paragraph 83 of
14 your declaration. Will you let me know when
15 you're there, please.

16 A Eighty-three. Okay, I am at 83.

17 Q And just for clarification, I may refer
18 to a particular paragraph in your declaration
19 during questioning to help situate you, but you
20 are by no means limited to that specific
21 paragraph. Okay?

22 A Yeah, I understand. Thank you.

1 Q So in your opinion, is there a difference
2 between an optical aberration and a digital
3 aberration?

4 MR. WICHMAN: Objection.

5 A That is subject to understanding how the
6 subject patents use these terms. Because we are
7 dealing with these claims. And just a moment. Do
8 you mind if I open up one of the patents?

9 Q No. Please. The patents, you should
10 have access to the patents if you'll just let me
11 know which patent you are opening so that I can
12 follow along with you, please.

13 A Okay. Sorry. Yes. All right. So from
14 the group that you sent, since we're talking about
15 '805 at the moment, let me open up -- there it
16 is -- the '805 patent.

17 Q I have that open as well. And for the
18 record, this is IPR2024-00924, Exhibit 1001.

19 (Exhibit 1001, previously marked, not
20 attached.)

21 A Okay. Yes. And this is again your copy
22 subjected only to OCR.

1 I want to be sure I remember your
2 question correctly. Would you repeat it, please?

3 Q Yes. Thank you. My question was, in
4 your opinion, is there a difference between an
5 optical aberration and a digital aberration?

6 MR. WICHMAN: Objection.

7 A All right. The '805 patent at Column 11,
8 starting at Line -- let's see, 37. By digitally
9 adjusting for optical distortions, the present
10 system advances the state-of-the-art for fixed
11 focal length lens optics, beyond any opportunities
12 available in film cameras. All right.

13 The following chart illustrates a list of
14 optical distortions that are corrected by
15 in-camera digital solutions.

16 The table or chart that follows, the
17 left-most column is headed Specific Aberrations.
18 So from this I find that distortions and
19 aberrations in the context of the specification
20 are substantially synonymous, substantially
21 interchangeable.

22 Now, with respect to digital aberration,

1 let's find this. The specification uses the
2 phrase "digital aberrations" in a number of
3 places, but does not explain what they are. So
4 it -- given that the chart, the heading for it in
5 Column 11, indicates distortions and aberrations
6 being roughly synonymous, I think the person
7 reading this is left uncertain as to what the
8 inventor means by digital aberrations.

9 Q Staying in the '805 patent, can you
10 please go to Column 8 and let me know when you're
11 there?

12 A I will. Eight. There we are. Yes.

13 Q Looking at Column 8, Lines 3 through 8,
14 do you see the discussion of optical aberrations
15 and digital aberrations?

16 A Ah, I see. Okay. Digital aberrations.
17 All right. At Line -- let's see, that would be 6,
18 7. All right. So starting at Line 6. "In the
19 case of digital aberrations, specific digital
20 artifacts such as aliasing and dust, must be
21 corrected."

22 Yes, I see that.

1 Q But with this nonlimiting example, in
2 your opinion, in the context of the specification,
3 is there a difference between an optical
4 aberration and a digital aberration?

5 MR. WICHMAN: Objection.

6 A I see two, as you put it, nonlimiting
7 lists here, one of optical aberrations and that's
8 carried out more fully in that chart in Column 11.
9 And one here. Thank you for providing it, in this
10 sentence. And at the end of the first full
11 paragraph in Column 8.

12 But because these are nonlimiting, there
13 is no indication that a full list of either of
14 those might include some items present in the
15 other.

16 Q If we could please return to your
17 declaration, Exhibit 1003, and Paragraph 109 more
18 specifically. If you'll let me know when you're
19 there, please.

20 A Okay. Let me just confirm we're still in
21 the '805 declaration?

22 Q Yes, that's correct.

1 A And 139 did you ask me to go?

2 Q 109, please.

3 A 109. Thank you.

4 Okay. I see the paragraph.

5 Q Do you agree that performing FFT-based
6 image processing requires high computing power?

7 MR. WICHMAN: Objection.

8 A I can't -- that -- no. The way the
9 phrase -- your question is asked, there is no way
10 to answer that.

11 Q Do you agree that FFT-based image
12 processing requires a lot of calculations?

13 MR. WICHMAN: Objection.

14 A I have the same point of view.
15 There's -- how to measure "a lot," and what
16 context, at what time. The question does not --
17 as you asked the question, there is no meaningful
18 way to answer it.

19 Q With respect to Paragraph 111, will you
20 let me know when you're there, please.

21 A Okay. I see the entire paragraph, yes.

22 Q Do you agree that a POSITA would

1 understand the use of different camera components
2 affects costs. Right?

3 MR. WICHMAN: Objection.

4 A Again, the question looks for
5 quantification of something that this -- I don't
6 know how to quantify in the question as you asked
7 it.

8 Q In the last sentence of Paragraph 111 you
9 stated, "Often this is a question of cost and
10 manufacturing efficiencies."

11 Correct?

12 A I see that sentence, yes.

13 Q So would you agree that a POSITA would
14 understand different camera components -- strike
15 that.

16 Do you agree that a POSITA would consider
17 cost when choosing camera components?

18 A That really would want some more specific
19 context. But when a person of ordinary skill is
20 attempting to design a camera, the design choices
21 would include any number of factors, and cost
22 would either be a consequence of those or it might

1 be a starting point that would have to be
2 established. So there are many different possible
3 contexts in which a question that you asked could
4 be answered.

5 Q And you mentioned cost and manufacturing
6 efficiencies of two of those factors. Correct?

7 A I indicate often, This is a question of
8 cost and manufacturing efficiencies.

9 Q And in your opinion, would cost be an
10 important consideration to a POSITA?

11 MR. WICHMAN: Objection.

12 A Again, that's an -- "important" is like
13 "a lot." The -- it implies that other
14 considerations are not important. It's very
15 difficult to formulate a meaningful answer to that
16 without more context.

17 Q Would manufacturing efficiencies be an
18 important consideration to a POSITA?

19 A Same. Same issue, that implies that some
20 other considerations are not important or might be
21 more important, less important, or important in
22 some circumstances and not in others. Context is

1 inadequate in the question as you asked it.

2 Q Would computation time for image
3 processing be a consideration to a POSITA?

4 MR. WICHMAN: Objection.

5 A The person of ordinary skill, again in
6 various contexts, would have -- would regard that
7 sort of thing with different priorities or
8 different emphases.

9 No, there is not enough context to answer
10 that question meaningfully.

11 Q You discussed various -- strike that.

12 You mentioned a POSITA would consider
13 various factors when designing a camera. Correct?

14 A Can you point me to those words?

15 Q I believe it was earlier in your
16 deposition testimony when we first started
17 discussing Paragraph 111 here.

18 A Okay. I think I would like you to read
19 back or have the reporter read back my actual
20 words so that I can address those.

21 MS. O'BRIEN: Ms. Whitehead, do you
22 perhaps have access to Mr. Laub's earlier

1 testimony not more than five minutes ago, I
2 believe?

3 (The record was read as follows:

4 "That really would want some more
5 specific context. But when a person of ordinary
6 skill is attempting to design a camera, the design
7 choices would include any number of factors, and
8 cost would either be a consequence of those or it
9 might be a starting point that would have to be
10 established. So there are many different possible
11 contexts in which a question that you asked could
12 be answered.)"

13 MS. O'BRIEN: And I'm sorry, can you
14 please repeat the pending question right before we
15 went back to that.

16 (Pending question read.)

17 Q So, Mr. Laub, you agree a POSITA would
18 consider various factors when designing a camera.

19 Correct?

20 A I agree with the words that were repeated
21 from the -- from the transcript.

22 Q And in your opinion, would computation

1 time for image processing be one of those factors?

2 A You asked substantially that question a
3 little while ago, and that -- that depends on
4 context.

5 Q In what context would computation time be
6 a factor for a POSITA designing a camera?

7 A If there is a consideration for how
8 quickly a finished result can be delivered.

9 Q And in your opinion, would memory storage
10 space be one of those factors a POSITA would
11 consider when designing a camera?

12 A Cameras of the sort that are brought to
13 mind by the claims of these patents -- pardon
14 me -- generally have memory. You could use the
15 term "memory storage." You possibly by "memory
16 storage" may mean memory capacity, I'm really not
17 sure. I'm guessing at what your answer -- your
18 question might be.

19 Q Going along that line, would memory
20 storage capacity be a factor that a POSITA would
21 consider when designing a camera?

22 A Possibly, again depending on context.

1 Q And in what context would memory storage
2 capacity be a factor?

3 A Generally having to do with how high
4 performance the camera and its internal processes
5 are to be.

6 Q And in your opinion, as of July 11, 2006,
7 will you agree that higher memory storage capacity
8 requires a higher size, a greater size of the
9 memory chip?

10 MR. WICHMAN: Objection.

11 A Your question is --

12 (Discussion off the record; technical
13 difficulty.)

14 MR. WICHMAN: What if we go off record
15 and sort this out.

16 (A recess was taken.)

17 MS. O'BRIEN: If we could please go back
18 on the record.

19 BY MS. O'BRIEN:

20 Q I believe there was a question pending
21 before we went off the record, and I will strike
22 that question. I'll start anew here.

1 So, Mr. Laub, in your opinion, would
2 greater memory storage capacity be more expensive
3 as of July 11, 2006?

4 MR. WICHMAN: Objection.

5 A Okay. I think you have two comparisons
6 in there, "greater" and "more." Typically more of
7 anything may cost more, but it's not always the
8 case that there's a direct proportionality.
9 Memory comes in chunks. So maybe.

10 Q And do you still have your declaration on
11 the '805 patent open?

12 A I do.

13 Q And with respect to Paragraph 110, you
14 state that a digital signal processor is a
15 well-known component. Correct?

16 A Wait a moment. Okay. Paragraph 110 is
17 under heading 3, Camera Components. So let's see.
18 "The asserted claims recite many well-known,
19 programmable components." So we're talking about
20 things recited in the claims. The claims recite a
21 microprocessor, digital signal processor, paren,
22 open quote, DSP, close quote, close paren,

1 application specific integrated circuit paren,
2 open quote ASIC, close quote, close paren, and
3 software.

4 And in the next sentence you state each
5 of those components was well-known. Correct?

6 A I see that.

7 Q So in your opinion, the claimed digital
8 signal processor is a well-known component.

9 Correct?

10 A Ah, I see. I actually did not get that
11 you had used the phrase "well-known." It sounded
12 like something else to me.

13 So in the art, which the person of
14 ordinary skill is immersed, digital signal
15 processor generally was well-known.

16 Q What is your understanding of, quote,
17 digital signal processor, close quote, as you used
18 that term in your declaration?

19 A That is based -- because we're dealing
20 with the claims, claims are supported by the
21 patent, what I find generally -- and I think I can
22 find comments within my declaration that speak to

1 that directly -- is that the specification of the
2 patent does not -- does not say more about the
3 phrase "digital signal processor," that's to
4 describe things that are conducting various
5 signal -- the processing signals in the digital
6 matter.

7 So elsewhere in my declaration I believe
8 that I've stated that I believe that as used in
9 these claims, as taught in these patents,
10 disclosed in these patents, that a digital signal
11 processor is anything that processes a signal in a
12 digital manner.

13 Q So in your opinion, "digital signal
14 processor" is not a term of art referring to a
15 specific type of component?

16 A I did not say anything like that.

17 Q In your opinion, is "digital signal
18 processor" a term of art?

19 A There are two routes to addressing that
20 question. One of them is that the specification
21 of the patent presumes that a person reading that
22 patent would understand what is referred to when

1 the phrase "digital signal processor" is used, and
2 then goes on to show without any more specific
3 definition signals being processed in a digital
4 way.

5 At other parts of my declaration I have
6 shown examples of commercial devices which are
7 sold under the name digital signal processor and
8 which were available, publicly known, to people in
9 this art prior to the priority dates that we've
10 discussed.

11 Q And ASIC, the acronym for
12 application-specific integrated circuit, what is
13 your understanding of ASIC as that term is used in
14 your declaration?

15 A Hold on. Let me get back to the '805
16 declaration.

17 Now, at Paragraph 110, where you pointed
18 me before. I simply state the phrase,
19 "application-specific integrated circuit," and
20 then the acronym ASIC for that. However, earlier
21 in my declaration I had more to say about ASICs.
22 Sorry about that.

1 So if you allow me a moment, I will find
2 that -- my testimony that I believe addresses
3 your -- or attempts to answer your question. This
4 shouldn't take very long. I'm just searching in
5 my declaration.

6 Okay. I beg your pardon. There is some
7 specific stuff that I'd like to bring up to you in
8 the absence of finding that quickly, it can
9 indicate that an application-specific integrated
10 circuit as understood in the art of that time.
11 Because when you ask is it a term of art, I
12 presume you're asking would it be art as known to
13 the POSITA as of the priority date.

14 Is that correct?

15 Q I asked what is your understanding of an
16 ASIC as you used that term in your declaration.

17 A I see. In my declaration I, as I thought
18 we had discussed earlier in the early parts of the
19 declaration, I had indicated that my opinions were
20 from the perspective of a person of ordinary skill
21 as defined by credentials and also as of those
22 particular dates in 2006 or 2007.

1 So from that perspective, an
2 application-specific integrated circuit would be
3 basically what its name describes. It is an
4 integrated circuit which is made so as to suit a
5 specific application. That may cause it to have
6 all matter of components, each of which may have
7 more generic capabilities.

8 Q And what is your understanding of an
9 integrated circuit, as you use that term in your
10 declaration?

11 A Again, understanding that it's from the
12 perspective of the POSITA as of those dates, the
13 word "circuit" and the phrase "integrated circuit"
14 refers to an electrical or electronic circuit.
15 And the word "integrated" referred to the
16 embodiment of that electronic circuit in some
17 condensed and tied together form, hence
18 integrated.

19 Q And in what form is that componentry
20 integrated?

21 A Well, there are many possibilities, there
22 really are. One possibility -- well, there are

1 many possibilities.

2 Q Is one example etching into silicon?

3 A Well, silicon, when you say "into
4 silicon," are you referring to the process of
5 photolithography to fabricate something
6 electronic?

7 Q Yes, let's assume for the purposes of
8 this question that is what I'm referring to.

9 A Okay. Electronic circuitry is frequently
10 made by that method.

11 Q And in the scope of your opinions in your
12 declaration, what manners of integration did you
13 consider?

14 A Integration. What manners of integration
15 of what?

16 Q I believe you testified there are
17 different methods of integrating componentry to
18 result in an integrated circuit.

19 Is that accurate?

20 A I said something along those lines.

21 Q And so what manners of integrating did
22 you consider in forming your opinions in your

1 declaration regarding an integrated circuit?

2 A The claims make no requirement as to the
3 contents or the method of fabrication of what is
4 described in the claims as a digital signal
5 processor, so there was no reason to take anything
6 along the lines of your question into account
7 while formulating the opinions formed and
8 presented in my declaration.

9 Q If you could please go to Paragraph 142
10 of your declaration and let me know when you're
11 there.

12 A I will tell you. Just a moment.
13 Okay. I see the paragraph.

14 Q So in your opinion, anything that
15 processes digital signals is a digital signal
16 processor. Correct?

17 A As I understand the '805 patent, anything
18 which performs the process assigned to the
19 claimed, quote, digital signal processor, close
20 quote, can meet this limitation. That is the last
21 sentence of Paragraph 142.

22 Q If you could please go to Paragraph 152

1 and let me know when you're there.

2 A Yes, I am there.

3 Q And you are familiar with the Watanabe
4 U.S. publication, Exhibit 1005 in this IPR.

5 Correct?

6 (Exhibit 1005, previously marked, not
7 attached.)

8 A Yes.

9 Q In your opinion, is Watanabe's CPU a
10 reduced instruction set computer?

11 A I want to consult the Watanabe just to
12 make sure of what I'm pretty sure is the answer
13 for that question. So give me just a moment. I
14 am going to open up Exhibit 1005 from the
15 collection you sent.

16 Okay. Two things.

17 If I remember your question correctly,
18 you asked, in my opinion. Now, I believe that we
19 are generally in this meeting talking about my
20 opinions as published in my declaration. So when
21 you say in my opinion, are you referring to
22 opinions set forth in the declaration?

1 Q I am asking you questions about the
2 opinions set forth in your declaration and
3 clarifying your understanding of the different
4 references, the challenged patents, and any other
5 necessary clarification on those opinions.

6 And so, yes, my question was, in your
7 opinion, meaning is it your understanding that
8 Watanabe's CPU -- well, strike that.

9 Is it your understanding that Watanabe's
10 CPU is a reduced instruction set computer?

11 A To the extent that you are asking for my
12 opinion, since the claims make no requirement as
13 to the internal structure or operating method of
14 the claimed microprocessor, there was no
15 requirement to form an opinion on what the
16 internal structure of a microprocessor might be,
17 which that issue of internal structure could
18 include things like such as is it a RISC, R-I-S-C,
19 processor.

20 So there was no opinion put forward in
21 the declaration regarding the internal detailed
22 structure of the CPU in Watanabe.

1 Q And in Paragraph 152 of your declaration
2 you opined that many dedicated CPUs as found in
3 digital cameras may be reduced instruction set
4 computers.

5 Is that correct?

6 A Well, you're paraphrasing 152. I think
7 the paragraph as it's written would stand by
8 itself. So rather than dealing with a paraphrase,
9 I'll read the first sentence of 152. Many
10 dedicated CPUs, comma, as found in digital
11 cameras, comma, need only a modest set of
12 instructions to carry out the kinds of programs
13 they'll be asked to run.

14 Q And sitting here today, is it your
15 testimony that the opinions in Paragraph 152 do
16 not apply to Watanabe's CPU?

17 A No, that's not true.

18 Q Do the opinions in Paragraph 152 of your
19 declaration apply to Watanabe's CPU?

20 A The Paragraph 152 is part of a
21 description of things that would likely be known
22 to a person of ordinary skill; and by virtue of

1 being known, not be needed to have been spelled
2 out in a reference such as Watanabe.

3 At Paragraph 149 I say, Watanabe does not
4 describe how the hardware components are
5 implemented. And I go on to say that it would be
6 an obvious and attractive choice to, then I list
7 some commercial components that were available at
8 the time that a person of ordinary skill could
9 very well have chosen to use in order to implement
10 Watanabe, making that person's own decisions based
11 on seeing what Watanabe called for a CPU carrying
12 out certain -- certain programs, certain
13 instructions.

14 A particular example of a commercial
15 device available to a person of ordinary skill
16 that I chose to use as an example was the Texas
17 Instruments TMS320C8x, which includes blocks that
18 do digital processing, as well as what is
19 described in that device -- and this is in
20 Paragraph 149 -- as a master processor. Which is
21 a general-purpose computer that can carry out
22 certain instructions, but is of a particular

1 construction that the -- the documentation
2 describes as a 32-bit RISC processor.

3 I then in 152 I go on to describe what
4 both I and a person of ordinary skill as of the
5 priority date would have understood the term
6 "RISC" to be.

7 So that means that if this person of
8 ordinary skill at that time would have chosen to
9 use this particular Texas Instrument chip as part
10 of the implementation of Watanabe's device, that
11 that person would know that the particular device
12 that that person was examining or considering
13 included a RISC processor.

14 And that would give some idea of how to
15 construct the operating ODE, the software that
16 would run on that processor. Because you need to
17 know what the instructions any given processor are
18 capable of carrying out, as mentioned at the end
19 of Paragraph 152.

20 Q So in your proposed modification of
21 Watanabe, would the CPU be a RISC processor?

22 MR. WICHMAN: Objection.

1 A I have made no such proposal.

2 Q In Paragraph 149 you opine on --

3 A Is it ...

4 Q I apologize. Did I interrupt you?

5 A Okay.

6 Q In Paragraph 149 of your declaration, you
7 opine on a manner in which a POSITA would have
8 implemented the components of Watanabe. Correct?

9 A Not quite.

10 Q Is it your opinion that a --

11 A I think no is probably a better answer.

12 Q Is it your opinion that a POSITA, reading
13 Watanabe, would have been motivated to combine a
14 microprocessor and one or more DSPs on an
15 integrated circuit?

16 A My opinion is stated in 149, somewhat
17 different from what you're -- you're asking. So
18 I'll state my opinion by reading that first
19 sentence of Paragraph 149.

20 Watanabe does not specify how the
21 hardware components of digital camera 100 are
22 implemented, but it was well known, and would have

1 been an obvious and attractive design choice, an
2 obvious and attractive design choice for a POSITA,
3 a POSITA, to provide a combination of
4 microprocessor and one or more DSPs, such as on a
5 single integrated circuit or chip.

6 Q What other design choices might a POSITA
7 have?

8 MR. WICHMAN: Objection.

9 A A POSITA -- okay. I'm trying to use your
10 pronunciation. I'm sure I've never used any
11 pronunciation for that term before.

12 The POSITA would understand that Watanabe
13 requires something that Watanabe describes as a
14 CPU in order to carry out or to deliver
15 instructions, and something like with Watanabe
16 shows as Item 58, which is the data called a
17 digital signal processing unit, to act on those
18 instructions and perform certain signal processes
19 in the digital manner. That's Watanabe's
20 presentation.

21 The person of ordinary skill would have
22 access to every available way to implement a

1 suitable CPU and a suitable digital signal
2 processing circuit, and I have not attempted to
3 enumerate all of those choices.

4 Q And I believe you referred to a unit 58
5 disclosed in Watanabe. Did you mean digital
6 signal processing circuit 56 of Watanabe, just for
7 clarification?

8 A Thank you. Thank you. No. My
9 apologies. I'm looking at the copy of my
10 declaration that you sent, and the number was a
11 little bit small.

12 No. The number associated with the unit
13 called digital signal processing circuit is five
14 six. So in my previous answer, when I said 58, I
15 meant 56.

16 Q Sure. Thank you. And I just wanted to
17 have clarity on the record itself.

18 So going back to Paragraph 149. I
19 believe you testified that a combination of a
20 microprocessor and one or more DSPs on an
21 integrated circuit is an, or a, design choice.

22 Correct?

1 MR. WICHMAN: Objection.

2 A Well, I have already read that sentence
3 into the record. Do you need me to read it again?

4 Q No. I just wanted to clarify for my next
5 question, is that design choice what you relied on
6 in subsequent analysis in your declaration?

7 A My declaration stands as written.

8 Q If we could go to Paragraph 157 of your
9 declaration. If you will let me know when you're
10 there, please.

11 A Okay, I am there.

12 Q You opined that, quote, a DSP -- strike
13 that. I apologize. It's Paragraph 157, but it
14 bleeds over on to the next page. It's the first
15 full sentence.

16 You opine that, quote, DSPs provide
17 upgrade benefits as compared to
18 application-specific integrated circuits based on
19 software programming, close quote. Correct?

20 A The last full sentence of 157. I need to
21 read that in total, because it's different from
22 what you just asked.

1 That sentence reads, "DSPs provide
2 upgrade benefits as compared to
3 application-specific integrated circuits based on
4 software programming, while the dedicated hardware
5 of application-specific integrated circuits is
6 better suited for repetitive labor-intensive task
7 to consume less power."

8 And I then support that with a citation
9 to a particular exhibit. Which I would actually
10 like to pull up to make sure that I have the
11 context for that statement, since I did cite that.

12 Q I don't believe --

13 A And to do this, I am going to a folder of
14 exhibits as supplied to the patent office. These
15 are clean copies, with no annotations or anything
16 other than they have been OCR'd. So let's see.

17 Q I am looking at the Ralston reference,
18 R-A-L-S-T-O-N. Is that correct?

19 (Exhibit 1081, previously marked, not
20 attached.)

21 A Yes. And I'm following the citation in
22 my declaration starting at the bottom of Column 7

1 of the Ralston patent. And I will read that.
2 "Codec functions running on RISC processors or
3 DSPs are typically software routines, with the
4 advantage they can be modified in order to correct
5 programming errors or upgrade functionality. The
6 disadvantage of implementing certain complex,
7 repetitive codec functions as software is that the
8 resulting overall processor resource and power
9 consumption requirements typically exceeds those
10 available in mobile communications devices."

11 Q Just to make sure, are you finished with
12 your answer?

13 I'm sorry, Mr. Laub, I couldn't hear you.
14 Are you finished with your answer?

15 A I mean, I can't hear you.

16 Q Can you hear me now?

17 A How about if I leave and rejoin, that may
18 fix it.

19 MS. O'BRIEN: Let's go off the record,
20 please.

21 (A recess was taken.)

22 MS. O'BRIEN: Let's go back on the

1 record, please.

2 BY MS. O'BRIEN:

3 Q Mr. Laub, I believe we were discussing
4 the Ralston reference, Exhibit 1081.

5 Do you still have that open?

6 A I do.

7 Q And in Column 8, starting at Line 5, do
8 you see where the reference says, "Codec functions
9 running on ASICs and multi-media processors are
10 typically fixed hardware implementations"?

11 A Just a second. Okay. So starting, the
12 sentence that begins on Line 5, Column 8. "Codec
13 functions running on ASICs and multi-media
14 processors are typically fixed hardware
15 implementations of complex, repetitive
16 computational steps."

17 Okay. And it goes on some length. But
18 I'm not sure what part of that sentence you're
19 asking me about.

20 Q I'm asking if the disclosure in Ralston
21 regarding ASICs is consistent with your
22 understanding of ASICs?

1 A Well, again, this issue of my
2 understanding. My opinions, as stated in my
3 declaration, are based on responding to the
4 claims, and the claims in turn as supported by the
5 specification of the patent. And there's nothing
6 in the specification that gets at all specific
7 about an ASIC. The claims allow -- the claims
8 make very little requirement on what an ASIC might
9 be. So my -- pardon me.

10 My opinions as I stated in my declaration
11 respond to my understanding of what that term in a
12 claim means and what it takes to discover the
13 degree to which that would have been known to a
14 person of ordinary skill as of the priority date.

15 Q So is it your opinion that ASIC is not a
16 term of art?

17 A That is not true.

18 Q Is it your opinion that ASIC is a term of
19 art?

20 A My opinion in the -- my opinions, plural,
21 in the declaration, respond to the usage of that
22 phrase and that algorithm as presented in the

1 claims. Those are required to be met by the
2 claims. And whatever support for those are
3 provided in the specification of the patent.

4 Q I understand that. And of course I'm
5 trying to understand your opinions in your
6 declaration. So sitting here today, do you have
7 any position on whether the term "ASIC" is or is
8 not a term of art known to a POSITA?

9 A I think the beginning of your question
10 clarifies that you're asking for my opinion as
11 found in the declaration.

12 Is that true?

13 Q Yes, I am trying to understand the
14 opinions in the declaration.

15 A I have a number of statements in the
16 declaration as to what would be known to a person
17 of ordinary skill in the art. Some of those
18 statements involve application-specific integrated
19 circuits, or ASICs. I could find those and read
20 them to you. But those written statements in the
21 declaration over my signature are my opinion
22 relating to what I understand your question to be.

1 Q And most respectfully, I may not be
2 hearing you clearly enough.

3 My question is, sitting here today, is
4 the term "ASIC," is that or is that not a term of
5 art known to a POSITA?

6 A Known to a POSITA as defined in my
7 declaration at the time of the priority date?

8 Q Yes.

9 A Okay. I just want to make sure when you
10 say a POSITA, you're talking about this kind of
11 POSITA, rather than some other variety.

12 Q Oh, yes. The POSITA as defined in your
13 declaration.

14 A Okay. Just a moment.

15 Here we are. All right. I am going to
16 my declaration in order to find at least some
17 statements in there that would respond to your
18 question as I understand it. Let's see this.
19 Okay. Here we are.

20 All right. Now, for example, in
21 Paragraph 64, I am informed by petitioner's
22 counsel that in prior litigation the patent

1 owner's proposed construction of, quote, using the
2 application-specific integrated circuit and the
3 digital signal processor, quote, is its plain
4 meaning. And that in adopting patent owner's
5 construction, the District Court found that the
6 claims include only the requirement that each of
7 the application-specific integrated circuit and
8 digital processor play a role, and the details of
9 how responsibilities are assigned are not part of
10 the claim limitation.

11 Now, that relates to the -- what I in
12 essence failed to find in the specification of the
13 patent, anything that in essence defines that term
14 or makes it more specific than just reciting that
15 phrase itself as it shows up in the claims.

16 And so in the patent's view of the art
17 and in the claims of the patent that is reflected
18 in the patent's view of the art, the phrase
19 "application-specific integrated circuit" has
20 quite a broad meaning. And it is that meaning
21 that I have taken into account when forming the
22 opinions in my declaration.

1 I could then go through the declaration
2 and show you how those are found. But in each of
3 the claim limitations requiring an
4 application-specific integrated circuit, I have
5 described what I found in the reference in that
6 particular ground that in my opinion as stated in
7 the declaration meets the claims requirement,
8 meets the requirement of what the claim recites as
9 an application-specific integrated circuit.

10 That's my answer.

11 Q With respect to Paragraph 158 of your
12 declaration, will you please let me know if you're
13 there.

14 A Hold on. Let me go to -- let me go to
15 158 and then ask you to repeat your questions.

16 Okay, I'm on 158. Would you please state
17 your question?

18 Q Thank you, yes. My question is, is it
19 your opinion that a digital signal processor
20 provides flexible programming?

21 A Well, I think you're referring to the
22 last sentence of 158. So that reads, "Likewise, a

1 POSITA would recognize that while lens aberrations
2 were known, optimization schemes may require the
3 flexible programming of a DSP."

4 Q Yes. And my question is, is it your
5 opinion that a digital signal processor provides
6 flexible programming?

7 A I'm sorry, I missed some words there. Is
8 it my opinion that what about flexible
9 programming?

10 Q That a digital signal processor provides
11 flexible programming?

12 A That's a misunderstanding of the -- of
13 what's written in that sentence.

14 Q Yes, sir. I am not reading verbatim from
15 your declaration; I'm asking clarifying questions
16 about your opinions.

17 And so my clarification question is, is
18 it your understanding that a digital signal
19 processor provides flexible programming?

20 A Well, I heard your question. The
21 question is incorrect. The question is not
22 derived from the sentence that ends Paragraph 158.

1 Q And, of course, your answers are not
2 limited to Paragraph 158. So in the context of
3 your analysis in this declaration, is it your
4 understanding that a digital signal processor
5 provides flexible programming?

6 A Well, this -- even though you've
7 attempted to broaden the scope, you're still,
8 frankly, not actually and correctly referring to
9 what I've stated in the -- at the end of Paragraph
10 158.

11 Q And again, your answer is not limited to
12 Paragraph 158. I was just referring to that to
13 help situate you or provide context. So you may
14 refer to any paragraph in your declaration.

15 I'm just trying to better understand your
16 opinions on a digital signal processor. And so my
17 question is, does a digital signal processor
18 provide flexible programming, as opposed to, for
19 example, fixed functionality?

20 A I think I missed the last two words.
21 Would you repeat, please?

22 Q The last phrase I said was, flexible

1 programming, as opposed to, for example, fixed
2 functionality.

3 A Your question is based on a
4 misunderstanding. It's not -- it's not
5 answerable.

6 Q Okay. Let's break it down.
7 What did you mean when you used the
8 phrase "flexible programming"?

9 A DSP is capable of being programmed in any
10 of a variety of ways. So the DSP is flexible in
11 terms of programs provided to it.

12 Q So in your opinion, a DSP does not have
13 fixed functionality.

14 Is that correct?

15 A I'm sorry, you -- every now and then
16 there is a breaking up on the line. Would you
17 repeat that?

18 Q So is it your opinion that a DSP does not
19 have fixed functionality?

20 A Does not have what functionality?

21 Q Fixed, F-I-X-E-D. Fixed functionality.

22 A I really am not making sense of your

1 question. Would you try one more time?

2 Q So I believe you testified that a DSP is
3 flexible in terms of programs provided to it. And
4 so my question now is, is it your understanding
5 that a DSP does not have fixed functionality?
6 Said another way, that the DSP has flexible
7 functionality.

8 A That is not true.

9 Q So which part of that statement is not
10 true?

11 A The statement is untrue. So if you ask
12 me -- no. I think I can recall the question, but
13 I don't want to try to paraphrase.

14 I will stand by my answer.

15 Q Is it your opinion that a digital signal
16 processor has flexible functionality?

17 A Okay. So this is now outside the scope
18 of my declaration, outside the scope of any
19 testimony that I've made so far. You're asking me
20 a question about what -- about the digital signal
21 processor as -- to the extent it's defined in the
22 patent? You're asking me about the digital

1 signal -- I don't know about what digital signal
2 processor you're asking. And I -- you know, on
3 that basis I really can't answer the question.

4 Q Did you use a consistent definition of
5 "digital signal processor" throughout your
6 analysis in your declaration?

7 A As I found for you previously in the
8 declaration -- and I'm willing to paraphrase that
9 now -- that the digital signal processor required
10 in the claims, because we are talking about those
11 claims, is whatever can carry out the required
12 process on a given signal in a digital manner.

13 Q And you in your declaration identified
14 various components of the -- in the prior art
15 references that allegedly correspond to the
16 claimed digital signal processor. Correct?

17 A I'm sorry, what about the prior art
18 references?

19 Q In your analysis of the prior art
20 references in your declaration, you identified
21 components --

22 A Yes.

1 Q -- that allegedly correspond to the
2 claimed digital signal processor.

3 Right?

4 MR. WICHMAN: Objection.

5 A In my -- okay. I'm sorry, do you have
6 more to your question? If not, I'll answer what I
7 understood. Shall I?

8 Q Please proceed, and I can reask another
9 question if necessary.

10 A Okay. What I just described, or
11 paraphrased in a summary of what's reported in
12 several places within the declaration, that in the
13 context of these patents and these claims, that
14 anything that processes a signal in a digital
15 manner can be called a digital signal processor.

16 So in the various grounds that are
17 described elsewhere in the declaration, based on
18 various prior art references, item by item -- and
19 again I could go through and find each of those
20 for you -- when it comes to the claim limitations
21 calling for digital signal processor, I've
22 identified in those prior art references what I

1 believe to be -- what I believe to meet the claims
2 requirement of a digital signal processor.

3 Q And was flexible programming a
4 consideration in your analysis of identifying a
5 digital signal processor?

6 MR. WICHMAN: Objection.

7 A In Paragraph 158, the sentence indicates
8 that a POSITA -- that to a POSITA optimization
9 schemes may require the flexible programming of a
10 DSP.

11 So that refers to what the various prior
12 art references describe as controlled software or
13 controlled programs or other terms that I'm not
14 necessarily remembering accurately right now; but
15 all of which are sets of instructions which are
16 contained within software that, for example, a CPU
17 might run, but which are then conveyed to a
18 digital signal processor to tell it, hey, now I
19 want you to do this thing, which is described by
20 these instructions.

21 So it's necessary to tell that circuitry
22 to do those things in order to focus its attention

1 on that and not something else.

2 Q And in your opinion, does Watanabe's
3 digital signal processing circuit 56 have flexible
4 programming?

5 MR. WICHMAN: Objection.

6 A Paragraph 158's last sentence describes
7 some broad array of things known to POSITAs at the
8 time, and it's subject to the definition that's
9 stated in the declaration. That includes a range
10 of things which can be called digital signal
11 processors. That range of things that can be
12 called digital signal processors may, in turn,
13 include some devices whose -- which are capable of
14 being flexibly programmed.

15 Q And in your opinion, is Watanabe's
16 circuit 56 capable of being flexibly programmed?

17 A The opinions I provided with respect to
18 the digital signal processing in Watanabe do not
19 address issues such as whether the device that
20 does a digital signal processing is capable of
21 being flexibly programmed. The claims do not
22 require that. So I have stated my opinions

1 regarding the presence of the claimed digital
2 signal processor by finding in Watanabe things
3 which meet the requirements of that claim.

4 Q If we could go to Paragraph 199 of your
5 declaration, please. And let me know when you're
6 there?

7 A Okay. I will do that. 199.

8 Okay. I am looking at that.

9 Q You stated that, quote, it was known to
10 select and load algorithms from memory to provide
11 particular signal processing, paren, open quote,
12 filtration, close quote, close paren, at the DSP
13 to suit various needs, close quote.

14 Right?

15 A Yes, I think you accurately read 199.

16 Q And in your opinion, Watanabe's CPU would
17 select the correction algorithm by accessing the
18 database and forward the algorithm to the DSP.

19 Right?

20 A The forwarding, I think that is -- let me
21 see which claim limitations we're looking at right
22 here. To access -- okay.

1 The term "forwarding" does not appear in
2 the particular limitation under which Paragraph
3 199 falls. So do you want to talk about a
4 different limitation?

5 The next one, for example, does talk
6 about forwarding; but that begins -- my discussion
7 about that begins at Paragraph 201.

8 Q I was actually looking more specifically
9 at Paragraph 200, which is right after Paragraph
10 199 that we just read from.

11 And I'm just looking to clarify that it's
12 your opinion that Watanabe's CPU would select the
13 correction algorithm by accessing the database and
14 forward the algorithm to the DSP. Right?

15 A Just a moment. Let me see where you have
16 those words. And which paragraph are you
17 finding -- in which paragraph are you reading
18 those?

19 Q I'm essentially paraphrasing Paragraph
20 200, the second sentence.

21 A Just a second. Okay. Ah, I see
22 forwarding. Okay.

1 What I don't see is the word "select,"
2 but let me just look back here. Right. All
3 right. I am going to read the entirety of
4 Paragraph 200 because I think that it addresses
5 the sort of thing you're asking about to the
6 extent that I understand what you're asking.

7 A POSITA would have stored or, at a
8 minimum identified, in Watanabe's database, the
9 particular DSP filtration algorithm needed for a
10 particular aberration correction. Thus,
11 Watanabe's microprocessor would, quote, obtain,
12 close quote, the correction algorithm by accessing
13 the database using information identifying the
14 algorithm, then, quote, forwarding, close quote,
15 that algorithm to the DSP so that it could apply
16 the filter and correct the aberration.

17 That is the statement there that I have
18 made, that is my actual testimony relating to what
19 I believe you're asking about.

20 Q And as we just read in Paragraph 199, you
21 agree that it was known to select and load
22 algorithms from --

1 A I'd like to interrupt you. Before you
2 finish that question, I'm beginning to have some
3 difficulty with receiving your audio, so I'm going
4 to try one more time -- it will just take a
5 moment -- to leave and rejoin the meeting.
6 Hopefully that will fix the problem.

7 MS. O'BRIEN: Okay. We'll go off the
8 record.

9 (A recess was taken.)

10 MS. O'BRIEN: If we could please go back
11 on the record.

12 BY MS. O'BRIEN:

13 Q So right before the break we were
14 discussing Paragraph 200 of your declaration on
15 the '805 patent.

16 A Yes. Yes.

17 Q Do you recall that testimony?

18 A I do.

19 Q And I was just about to refer you back to
20 Paragraph 199 which we read earlier as well that
21 states, quote, It was known to select and load
22 algorithms from memory, close quote.

1 Do you recall that?

2 A I -- well, and I do, and I'm also seeing
3 that you're reading the beginning of the sentence
4 accurately. So yes.

5 Q Okay. And so reading Paragraphs 199 and
6 200 together, my question is, when you say that
7 Watanabe's microprocessor would obtain the
8 correction algorithm and then forward that
9 algorithm to the DSP, do you mean that Watanabe's
10 microprocessor would select and load algorithms
11 from memory to provide or forward the algorithm to
12 the DSP?

13 A Let me look at the actual discussion of
14 this. These paragraphs are derived from the
15 background on the references that I provide these
16 for addressing the claims. So let me go back to
17 the part of the declaration that introduces and
18 describes Watanabe.

19 Not that one. Okay. So I'm starting at
20 Paragraph 117. So just give me a moment here.

21 Okay. So at Paragraph 119 and 120 I
22 describe how Watanabe uses the tables of

1 correction information in order to perform the
2 digital signal processing necessary to carry out
3 the correction.

4 But now let me open up Watanabe to these
5 sections, because this is still not everything.

6 Ah, okay. Figure 3 begins to address
7 that, but let me get Watanabe up.

8 Okay. So Watanabe, as described in
9 Paragraph 200, obtains the correction algorithm.
10 It finds the appropriate information in the
11 database, and provides that information to the
12 DSP.

13 Now, Figure 3 of Watanabe shows that more
14 explicitly. Where did you go, Watanabe? Shows
15 the -- pardon me. Shows the CPU accessing the
16 database, and then the arrows show what could be
17 regarded as forwarding of that retrieved
18 information to the digital signal processor for
19 the correction circuit.

20 Q And I know, just for the record, Watanabe
21 is Exhibit 1005, but could you please repeat for
22 me which paragraph of Watanabe you were just

1 looking at?

2 A All right. Just a moment. The latest
3 thing I was referring to was the -- there's
4 Watanabe. Okay. Figure 3. Yeah, Paragraph 47 of
5 Watanabe on Page 3 indicates that -- well, it's a
6 lengthy paragraph. But, if information of a lens
7 type, a focusing point and a zoom position are
8 added the to data 1, data 2, data 3 respectively,
9 and if Tables 70 including data distortion
10 aberration correction values and peripheral light
11 intensity correction values in accordance with
12 focusing points and zoom positions are prepared in
13 advance on a lens-to-lens basis, then the CPU
14 determines a table according to a lens type and
15 determines correction values -- pardon me --
16 according to a focusing point and a zoom position,
17 and image data 72 is obtained in compliance with
18 the correction values.

19 So at the point where the CPU determines
20 the correction values, that can be understood as
21 retrieving the correction values from the
22 database, that the CPU retrieves the correction

1 values from the database. And then the rest of
2 the paragraph indicates that the correction is
3 done.

4 But this is all referring to Figure 3.
5 So if we look at actual Figure 3, what it shows is
6 that the information, the lens type focusing point
7 and zoom position, which describe the
8 circumstances under which the image was captured,
9 as well as the image data, all of that are on the
10 left of Figure 3, a bracket collects them. And
11 then an arrow shows them being submitted to the
12 image-processing program, 71. A program being a
13 program that is running on a CPU.

14 But the imagine processing program then
15 you see a double-headed arrow, a vertical arrow,
16 that connects down to Item 70, the correction
17 value table.

18 So the information is retrieved from the
19 correction value table by the program. And then
20 the program carries out the digital signal
21 processing needed to produce Item 72, the
22 corrected image data.

1 So that's my answer to your question.

2 Q In Paragraph 47 of Watanabe which you
3 just read from -- and apologies, let me just get
4 back there for a second, I was in the figures.

5 In Paragraph 47 of Watanabe, that first
6 sentence you see information of a lens type, a
7 focusing point and a zoom position are added to
8 the data 1, data 2, and data 3 respectively.

9 Right?

10 A I see that. Yeah, I think you read that
11 beginning part of that first sentence of Paragraph
12 47 of Watanabe.

13 Q What is your understanding of, quote,
14 lens type, close quote, in Watanabe?

15 A Well, okay. If I can find ...

16 Let me just find the -- that which refers
17 to it.

18 Okay. In Paragraph 46 -- pardon me -- it
19 indicates that, As shown in Figure 2, various data
20 (data 1 through data N) are added to image data as
21 process information. As these process
22 information, for example, information relative to

1 lens characteristic, that is, or i.e., information
2 relative to distortion aberration in terms of
3 distortion aberration correction, information as
4 peripheral light intensity as information relative
5 to peripheral light intensity correction, and so
6 forth, are stored.

7 So the lens characteristic that is
8 referred to in Paragraph 46 is a broad package of
9 characteristics of a particular lens that is being
10 used by this camera at this particular moment,
11 these characteristics which have been identified
12 ahead of time.

13 So that it is understood that when you
14 are using this particular lens, and then further
15 as the various items in Figure 3 are shown, that
16 you -- let's see. Right. That you have a lens
17 type, but you also have established a focusing
18 point, the distance between the lens and the
19 subject, and a zoom position, and what focal
20 length that lens, which is a zoom lens, was used
21 at that particular moment.

22 Because all of those settings determine

1 which set of aberrations or other characteristics
2 of the lens are to be corrected for at that
3 moment. Each lens has characteristics which
4 depend on things like the focusing point and the
5 zoom position, even some other settings of the
6 lens.

7 So the data 1 through data N tells you --
8 tells the processor of Watanabe on using this
9 particular kind of lens to take this picture. And
10 so now that you know what kind of lens it is, and
11 I also, by the way, have set the focal length to
12 73 millimeters and some other settings. So now,
13 processor, since you know the lens type, you know
14 where to go in the database to find information
15 about that lens type. Now, within that body of
16 information you know where to go to find
17 information for how that lens type works with this
18 particular focal length and other settings that
19 were true at the time this image was captured.

20 Based on all of that information, you
21 should retrieve the correction information
22 particular to all of that, and use that to correct

1 the image.

2 Q And since in Paragraph 47 of Watanabe, do
3 you see that last sentence that says, "An image
4 process can be selected by way of selecting
5 various data according to need"?

6 A Yes, I see the last sentence.

7 Q And is it your understanding that the
8 Watanabe's microprocessor performs that selection?

9 A The image process is selected. And the
10 way that sentence reads suggests that somehow
11 those data 1 through N are selected, they are
12 presented to the processor as part of the package
13 of information that includes the uncorrected image
14 data.

15 Q And based on the data, is it the
16 microprocessor that selects the image process?

17 A The -- going back up to Page -- into
18 Paragraph 147. If the tables are prepared in
19 advance on a lens-to-lens basis, then the CPU
20 determines the table according to a lens type and
21 determines correction values according to focus
22 point, focusing point, and zoom position. And

1 what's shown in Figure 2 and Figure 3 are those
2 various data 1 through N, and is not a specified
3 number, but it provides room for as many bits of
4 information descriptive of how the image was
5 captured that may be useful in carrying out
6 processing.

7 So depending on exactly how you do the
8 processing, you may find it beneficial to select
9 any of a possibly large number of settings or
10 other characteristics that describe how the image
11 was taken, that specific image at that specific
12 moment.

13 Q Okay. And when the image-processing
14 program receives all that data about the different
15 characteristics, the microprocessor selects an
16 image process according to need. Correct? Is
17 that -- is that correct?

18 A Well, I heard you. Just let me formulate
19 my answer.

20 In Paragraph 35, the digital camera is
21 shown as containing a digital signal processing
22 circuit 56 and a CPU 57. So in Paragraph 47 the

1 CPU determines a table. And then image data 72 is
2 obtained.

3 But the way by which that imaging data
4 is -- image data 72 is obtained in compliance with
5 the correction values, is that the digital signal
6 processing circuit 56 works on the supplied image
7 data and the information in the table that was
8 determined by the CPU as described in Paragraph
9 47.

10 Q And in the last sentence of Paragraph 47,
11 you agree that Watanabe discloses --

12 A Ut-oh. I have lost audibility. I am
13 going to do my quick disconnect and reconnect.

14 MS. O'BRIEN: Off the record, please.

15 (A recess was taken.)

16 MS. O'BRIEN: If we could please go back
17 on the record.

18 BY MS. O'BRIEN:

19 Q Before the break we were discussing
20 Paragraph 47 of Watanabe, Exhibit 1005. And I was
21 asking about the last sentence in Paragraph 47 --

22 A Yes.

1 Q -- that says, An image process can be
2 selected.

3 And my question for you is, does the
4 microprocessor perform that selection?

5 A The microprocessor -- pardon me. The
6 first part of that sentence says, Image process
7 can be selected. That selection is done by the
8 CPU. The text in the middle of Paragraph 47 that
9 says the CPU determines a table, that's the
10 selection. Sorry. Right, that's the selection of
11 the image process.

12 Q Now back to your declaration, please,
13 Exhibit 1003.

14 A All right. Okay, I'm there.

15 Q And I just have a high-level question.
16 So you relied on Exhibit 1006 referred to
17 as JP-872 in your declaration. Correct?

18 (Exhibit 1006, previously marked, not
19 attached.)

20 A Just let me confirm that.

21 Yes. Among other things, yes.

22 Q And my question is, do you speak

1 Japanese?

2 A No, I do not.

3 Q Can you read Japanese?

4 A No.

5 Q So you relied on the translation in
6 Exhibit 1006. Correct?

7 A 1006? Is that the certified translation
8 of JP-87 -- yes, I see that.

9 Yes, I do.

10 Q Now, in your declaration, we're in
11 Exhibit 103 in the '805 patent, if you could
12 please go to Paragraph 160. One six zero. And
13 let me know when you're there, please.

14 A Okay. I see 160. Yes.

15 Q And you opined that, quote, it would have
16 been obvious to implement an application-specific
17 integrated circuit and DSP in combination with a
18 CPU/microprocessor, close quote. Correct?

19 A Close. Because you left off the
20 beginning of the sentence saying, "Accordingly, by
21 the patent owner's own admissions," and that in
22 turn is referring to -- let's see. Yes, to what

1 is reported in Paragraph 159.

2 Q And with respect to -- well, sorry.
3 Strike that.

4 I'm generally referring to your opinions
5 in Paragraphs 160 to 162. So you're not limited
6 to those paragraphs, but I'm just providing you
7 that context, so it might be helpful.

8 And my question is that it's your opinion
9 that a POSITA would have implemented the
10 combination of an ASIC and a DSP and a CPU on a
11 single chip. Right?

12 MR. WICHMAN: Objection.

13 A I don't find that, that verbiage, in
14 Paragraphs 160 through 162.

15 Q Sorry, I just wasn't sure if you were
16 finished with your answer.

17 So I'm trying to understand what your
18 proposed combination would be here.

19 So my question -- my next question is,
20 you do not identify a specific component of
21 Watanabe that corresponds to the claimed ASIC.

22 Correct?

1 MR. WICHMAN: Objection.

2 A No, not correct.

3 Q Okay. What component of Watanabe
4 corresponds to the claimed ASIC in your opinion?

5 A What I have -- and I can take you to the
6 specific parts of the declaration where it is set
7 forth in detail, is that the claim limitations
8 requiring ASIC are met by Watanabe as would be
9 understood by a POSITA as defined, POSITA.

10 Q And what specific components of Watanabe
11 meets the claimed ASIC, in your opinion?

12 A Well, that will be easy -- more easily
13 answered when I go to parts of the declaration
14 that address that issue. So I will take a moment
15 and find that for you.

16 Q Okay. Thank you.

17 A Okay. That is -- in paragraph -- in
18 Paragraph 141 I am quoting the patent owner as
19 saying that it is recognized that a digital signal
20 processor, paren, DSP, close paren, typically an
21 application-specific integrated circuit, open
22 paren ASIC, close paren, comma, is used to process

1 a digital image file.

2 So based on that, which comes from the
3 patent owner and is now a statement of how to
4 interpret ASIC or application-specific integrated
5 circuit in the claim, that the DSP can be, or
6 presumably can be incorporated within an ASIC.

7 So seeing this saying that the DSP
8 typically is an application-specific integrated
9 circuit means that if it's possible in a reference
10 to find something that's doing digital signal
11 processing, because the term "digital signal
12 processor" as we established before in this patent
13 only refers to something which digitally processes
14 a signal, that thing which digitally processes a
15 signal is present in Watanabe.

16 And so Watanabe has the DSP, and this
17 statement from the patent owner is indicating the
18 DSP is typically an ASIC. So from that point of
19 view, the ASIC can be found on the authority of
20 the patent owner.

21 Q So in your opinion, the DSP and the ASIC
22 of the claims are the same thing?

1 A No.

2 Q Okay. So I understand that you offered
3 opinions that Watanabe's digital signal processing
4 circuit 56 corresponds to the claimed DSP. And
5 what I am looking for is, what component or
6 components of Watanabe correspond to the claimed
7 ASIC, in your opinion, in your declaration?

8 A Well, I've just given you one part of
9 that answer. I will now go through some of the
10 claim-specific aspects of my declaration. So as
11 soon as I find the right stuff, I will report it.

12 All right. My discussion of that
13 includes Paragraph 156 through 160. Paragraph
14 159, as we just described, as we just discussed,
15 shows the patent owner's indicating that a digital
16 signal processor can typically be an
17 application-specific integrated circuit. But
18 given what the generality of the digital signal
19 processor as explained in the patent itself,
20 something which is doing the signal processing can
21 be something that is specific to that application.
22 Is that limited to being just a DSP? No, it is

1 not.

2 The -- let's see. Just a second. All
3 right. Okay. So at Paragraph 183, indicating --
4 and this is based on an earlier part of the
5 declaration, Section IX.B.2.d describing and
6 disclosing the digital signal processor.

7 And then at 189, to the extent that an
8 application-specific processor is not taught by
9 Watanabe's digital filtration disclosure, a POSITA
10 would recognize the benefit of modifying Watanabe
11 for the digital signal processor to employ an
12 application-specific integrated circuit or
13 labor-intensive repetitive image-processing task
14 such as digital filtration, as admitted by the
15 patent owner.

16 So again, I am relying on the patent
17 owner's own explanation of the significance of the
18 term "application-specific integrated circuit."
19 And if the -- it's a broad -- broad definition to
20 the extent it even stands as a definition. But to
21 the extent that it makes it possible to understand
22 that phrase in the context of claims, like Claim 1

1 and Claim 9, that's the approach that is described
2 in the declaration here, as applying that
3 information, what the patent actually says, what
4 the patent owner says, and what Watanabe
5 discloses.

6 Q So did you look at the patent claims and
7 then look at patent owner's statements in the
8 prosecution history, and then look at Watanabe and
9 say, Yeah, Watanabe's disclosure is -- meets
10 whatever patent owner claimed?

11 MR. WICHMAN: Objection.

12 A I don't know that I could answer you to
13 the exact sequence of thoughts or exact what
14 happened when. But the result of my consideration
15 of all the available information is what's
16 described in the paragraphs I just recited to you.

17 Q So I appreciate you pointing me to those
18 specific paragraphs of your declaration. That is
19 helpful.

20 I am still confused and would appreciate
21 clarification on which component of Watanabe
22 corresponds to the claimed ASIC, or alternatively

1 is your opinion that a POSITA would have added an
2 ASIC into a modified system of Watanabe, or
3 something else?

4 A Watanabe, as is stated in the
5 declaration, does not make explicit the
6 implementation at a level lower than -- finer,
7 more finely grained, than the claims require,
8 particularly as the terms in the claim such as
9 application-specific integrated circuit have been
10 described as the specification of the patent and
11 the patent owner.

12 Q So because Watanabe does not disclose an
13 explicit configuration, in your opinion a POSITA
14 would be motivated to implement the different
15 components of Watanabe in a particular way.

16 Is that correct?

17 MR. WICHMAN: Objection.

18 A I did not -- I don't think the term
19 "motivated" is present there. I think in the
20 declaration I usually used motivated in talking
21 about why a POSITA would combine these various
22 references.

1 Q In Paragraph 153 of your declaration you
2 refer to a system-on-chip, or SoC. Correct?

3 A I will tell you as soon as I get there.

4 Yes, I indicate first sentence of 153, A
5 POSITA would understand combining a CPU and DSPs
6 suited to the specific application on a chip,
7 paren, making what is sometimes called a, quote,
8 system-on-chip, close quote, or, quote, SoC, close
9 quote, has many practical benefits.

10 Q And is it your opinion that a POSITA
11 would have implemented the CPU and DSP of Watanabe
12 as a system-on-chip?

13 A No.

14 Q Is it your opinion that Watanabe's
15 digital signal processing circuit 56 implemented
16 in a particular way corresponds to the claimed
17 ASIC?

18 A No.

19 Q Is it your opinion that a POSITA, reading
20 Watanabe, would have added an ASIC into Watanabe's
21 system?

22 A No.

1 Q Is it your opinion that Watanabe's CPU 57
2 corresponds to the claimed ASIC?

3 A No.

4 Q What component or components in Watanabe
5 do you map to the claimed ASIC?

6 A I've already answered that question as
7 well as I know how. I have nothing further to
8 say.

9 Q Do you know what I mean when I say,
10 mapping a component of a reference to a claimed
11 component?

12 A Well, I have a pretty good idea or guess,
13 but you're welcome to make it more explicit.

14 Q So for context, for example, in your
15 declaration you mapped Watanabe's digital signal
16 processing circuit 56 to the claimed DSP. And you
17 mapped Watanabe's CPU 57 to the claimed
18 microprocessor. And what I need clarification on
19 is what component or components of Watanabe you
20 are mapping to the claimed ASIC?

21 A Okay. I think I already answered that
22 question as well as I can.

1 Q If I recall your testimony correctly, I
2 believe you pointed me to various statements made
3 by the patent owner about camera components, and
4 you pointed me to paragraphs talking about
5 state-of-the-art and knowledge of a POSITA.

6 And I asked you, for example, with
7 respect to Paragraph 153 that references an SoC,
8 or system-on-chip, which you opined would be known
9 to a POSITA, whether that implementation is what
10 you're relying on in your analysis of Watanabe,
11 and I believe you said no.

12 A That's correct.

13 Q And so even with all the contextual
14 paragraphs you referred me to, which is helpful, I
15 do need to understand which components or which
16 modified components of Watanabe correspond to the
17 claimed ASIC.

18 A I'm sorry not to be able to meet your
19 need to your satisfaction. I've given you what I
20 believe is the correct answer to -- to whatever
21 underlies that question.

22 Q And just as a final clarification, it is

1 not your opinion that a POSITA would add an ASIC
2 into a modified system of Watanabe. Correct?

3 A I have already answered that question.

4 Q And did my question accurately reflect
5 your testimony?

6 A Well, I -- it accurately reflects my --
7 your question accurately reflects the question you
8 asked earlier that I believe I already answered.

9 Q And for the sake of my own understanding,
10 your answer to my question of whether a POSITA
11 would add an ASIC to a modified system of
12 Watanabe, your answer is no. Correct?

13 A That's the answer I gave you previously
14 to what I understood that question to be.

15 MS. O'BRIEN: I know we're coming up on
16 the hour here. If we could please go off the
17 record.

18 (A recess was taken.)

19
20
21
22

1 MS. O'BRIEN: If we could please go back
2 on the record.

3 BY MS. O'BRIEN:

4 Q And, Mr. Laub, just to confirm, you did
5 not discuss your testimony with anyone during the
6 break today?

7 A No. No. My wife was nice enough to cook
8 some fish for us, and I had a pleasant, nonlegal
9 conversation with her.

10 Q Good. Well, that's very kind.

11 If you could please open Exhibit 1005,
12 Watanabe.

13 A Okay. Watanabe. Yes. Okay. Sorry, I
14 just wanted to be sure that that was Watanabe.

15 Okay, I have it.

16 Q Great. Thank you.

17 And my question is, can you point me to
18 anything in Watanabe where the proposed solution
19 is incomplete?

20 A Is what? I'm sorry, the last word?

21 Q Incomplete.

22 A Incomplete? There are two parts to your

1 question that I don't think I get.

2 Q I can ask that a different way.

3 Can you point me to any problems
4 identified in Watanabe that are not addressed by
5 Watanabe's proposed solution?

6 A Watanabe provides a solution to a
7 practical and interesting issue and describes it
8 in some detail.

9 You're asking me about complete or not
10 complete. Watanabe is what it is.

11 Q And Paragraph 2 of Watanabe, will you let
12 me know when you're there, please.

13 A Paragraph 2 you say?

14 Q Yes, that's correct, Paragraph 2.

15 A Okay. Luckily you're not breaking up.
16 In this setup you're a little bit faint. Okay.
17 Present invention. Let me just read Paragraph 2
18 to myself.

19 Okay. All right, I have taken a look at
20 Paragraph 2. Go ahead.

21 Q And in your declaration you rely on
22 Watanabe's disclosure of peripheral light

1 intensity correction. Correct?

2 A Watanabe talks about peripheral -- pardon
3 me, light -- just a moment.

4 I certainly cite Watanabe's correction of
5 peripheral lighting issues, light intensity
6 correction.

7 Q And do you agree that Paragraph 2
8 discloses executing an image process such as
9 distortion aberration correction or peripheral
10 light intensity correction?

11 A Hold on. Let's see. Okay. The
12 beginning of Paragraph 2 says, "The present
13 invention relates to an image recording apparatus
14 for executing an image process on read image data
15 and for storing the executed image data."

16 It goes on to talk about another thing,
17 but that's what's described in the part I just
18 read.

19 Q And do you agree that Watanabe discloses
20 executing an image process that is distortion
21 aberration correction or peripheral light
22 intensity correction, but not both?

1 A No.

2 Q I'm sorry, was your answer no?

3 A I said no.

4 Q So in your understanding of Watanabe,
5 executing an image process would correct both
6 distortion aberration correction and peripheral
7 light intensity correction?

8 A Watanabe corrects what it's capable of
9 correcting. And the stuff that I showed you in
10 Paragraph 46 and 47 show that, based on what the
11 lens as used at that particular moment is likely
12 to have done to the image, that that is what
13 Watanabe appears -- intends to correct.

14 And I will make that more explicit by
15 pointing out that Paragraph 46 says, Information
16 relative to distortion aberration in terms of
17 distortion aberration correction, information of
18 peripheral light intensity as information relative
19 to peripheral light intensity correction, and so
20 forth, are stored.

21 And the Paragraph 47 then says that the
22 CPU determines a table according to lens type and

1 determines correction values. And image data 72
2 is obtained in compliance with the correction
3 values.

4 That does not indicate any exclusivity
5 between correcting one or another type of image
6 defect.

7 Q And in Paragraph 47 do you see Watanabe's
8 recitation of distortion aberration correction
9 values and peripheral light intensity correction
10 values?

11 A That's what I just read to you.

12 Q And --

13 A I'm sorry. Yes. Go ahead.

14 Q Apologies for cutting you off.

15 Is it your opinion that the correction
16 values for distortion aberration correction are
17 the same correction values for peripheral light
18 intensity correction?

19 A No.

20 Q And if you could please go to Paragraph
21 42 of Watanabe, and let me know when you're there,
22 please.

1 A Okay. Okay, I see -- I've browsed
2 Paragraph 42.

3 Q And in the second sentence I am going to
4 paraphrase just because it is a long sentence.

5 Do you see where Watanabe discloses that
6 CPU 57 executes, dot, dot, dot, a correction
7 process on image data?

8 A Oh, I see the dot, dot, dot, that you're
9 making an ellipsis in that sentence.

10 Is that correct?

11 Q Correct. I was just making an ellipsis
12 rather than reading the --

13 A I see. Saves a few seconds. That's a
14 good idea. Okay. Let me see. The CPU executes.

15 So this sentence is a long list of things
16 a CPU executes, one of which is the correction
17 process on image data. And it's not an exclusive
18 or limited list because it ends in "and so forth."

19 Q And when Watanabe states that CPU 57
20 executes a correction process, does that
21 correction process refer to either distortion
22 correction or peripheral light intensity

1 correction?

2 A No.

3 Q So in your opinion, the correction
4 process refers to both distortion correction and
5 peripheral light intensity correction. Correct?

6 A That is not explicitly found in my
7 declaration.

8 Q I do understand that that is not
9 explicitly discussed in your declaration. I am
10 looking to understand your understanding of the
11 Watanabe reference and how it works.

12 So my question is, specifically for
13 Paragraph 42, the recitation of correction
14 process, whether that correction process corrects
15 one of distortion correction or peripheral light
16 intensity correction or both or something else?

17 A Okay. So I'm not sure if that -- if what
18 you just said is a question. So could you put it
19 in the form of a question, please?

20 Q Sure. I will repeat in the form of a
21 question.

22 The correction process recitation in

1 Paragraph 42 that we're discussing, does that
2 correction process correct distortion correction
3 or peripheral light intensity correction or both
4 or something else, based on your understanding?

5 A That correction process is described in
6 Paragraph 47. And the correction process that is
7 carried out for a given image is what the CPU has
8 determined based on the lens type in accordance
9 with focusing points and zoom positions to be the
10 correction necessary.

11 Watanabe talks about ways to correct for
12 peripheral -- pardon me, peripheral light
13 intensity errors and distortion. So those are
14 types of correction which are available. But the
15 determination that is made in the middle of
16 Paragraph 47 by the CPU is based on not just the
17 lens, but also the circumstances in which the lens
18 is used. And at that particular -- with that set
19 of data 1 through N describing how the image was
20 received, the CPU will decide what to extract from
21 the table and instruct the processing unit to
22 carry out.

1 There's no restriction in what's recited
2 in Paragraph 47 as to whether that is only this,
3 only that, both of those, something else. But the
4 two of peripheral and distortion are mentioned as,
5 I think it said can be corrected. And the
6 statement in 42 of CPU executing -- where are
7 you -- correction process, there it is, and so
8 forth, that is what's referred to in Paragraph 47.

9 Basically whatever needs to be corrected
10 within the scope of what can be retrieved from the
11 tables 70 is going to be corrected.

12 Q If we could please return to your
13 declaration, Exhibit 1003, on the '805 patent.
14 And let me know when you have that open.

15 A Yes, I'm there.

16 Q I'm looking at Paragraph 235, for
17 example.

18 A Okay.

19 Q Let me know when you're there.

20 A Let's do that. Just a moment. Paragraph
21 235.

22 Okay. I see Paragraph 235.

1 Q And in the last sentence of Paragraph 235
2 you stated that "Russ describes specific manners
3 of executing such processes in digital cameras."

4 Right?

5 A Pardon me. I do see that, yes.

6 Q And if you could please go to Paragraph
7 249 of your declaration and let me know when
8 you're there.

9 A 249. Just a moment. Okay.

10 Q You opine that a POSITA would have used a
11 smoothing filter in Watanabe based on the
12 teachings of Russ.

13 Right?

14 A Not there. Just a moment. Oh, there it
15 is. Sorry. That's a limitation in order to
16 satisfy user specified special effects. That's
17 what the claim requires. So 249. Russ explains
18 how to create a filter to apply a smoothing or
19 softening effect and the color effect.

20 A POSITA would have understood a fast
21 Fourier transform to be a common and preferable
22 manner of applying special effects, such as

1 imaging softening. The POSITA would find it
2 obvious to use Russ's frequency space image
3 enhancement techniques, like color filter special
4 effect functions, and smoothing special effects
5 functions, in order to improve image quality as
6 discussed elsewhere and in Russ.

7 Q In your opinion, would a POSITA have used
8 a filter to apply a smoothing or softening effect
9 and a color effect as taught by Russ in Watanabe?

10 MR. WICHMAN: Objection.

11 A Well, the way you structured the
12 question, I've answered no.

13 Q So in Paragraph 249 you do not suggest
14 using a filter as disclosed in Russ in Watanabe's
15 modified system.

16 Is that correct?

17 A No.

18 Q In the combination of Watanabe and Russ,
19 is it your opinion that a POSITA would have used a
20 filter to apply a smoothing or softening effect
21 and a color effect?

22 A Because of the structure of the question,

1 the answer is no.

2 Q If we could please go to Paragraph 253 of
3 your declaration. And let me know when you're
4 there.

5 A Okay, I have read 253.

6 Q Is it your opinion that in the
7 Watanabe-Russ combination a POSITA would have used
8 a top hat filter as disclosed in Russ?

9 A I missed the last few words of that. But
10 from what I was able to hear of your question, the
11 answer would be no, for the same reasons as
12 previously.

13 Q So you are not relying on Russ's
14 disclosure of a top hat filter in your opinions in
15 Paragraph 253. Correct?

16 A No.

17 Q How would Russ's teachings of a top hat
18 filter be used in the proposed combination of
19 Watanabe and Russ?

20 A I'm not sure what you mean by "the
21 proposed combination," so I don't think the
22 question is answerable as stated.

1 Q Do you agree that in the -- in your '805
2 patent declaration, you offered opinions regarding
3 a proposed combination of Watanabe and Russ?

4 A I do not.

5 Q Are you aware that Ground 2 in
6 IPR2024-00924 relies on the proposed combination
7 of Watanabe and Russ?

8 A That I am.

9 Q And for Claim 2 of the '805 patent, are
10 your opinions based on the proposed combination of
11 Watanabe and Russ?

12 A Claim 2, the description of Claim 2
13 beginning at Paragraph 252, and particularly 253,
14 shows an example of what would be known to a
15 POSITA, what the POSITA -- to read the words of
16 the declaration, can be applied to the digital
17 imaging system in Watanabe.

18 Q So even though a POSITA would understand
19 that the filter can be applied, in your analysis
20 under Claim 2 you are not relying on the fact that
21 a POSITA would apply that filter. Correct?

22 A I have not used the word "would" in every

1 question you have asked about this, and I've
2 answered in the way that I regard is correct.

3 Q In your analysis under Ground 2 for the
4 proposed combination of Watanabe and Russ, how did
5 you decide which enhancement techniques disclosed
6 by Russ would be incorporated into Watanabe's
7 modified system?

8 A The question is not structured in a
9 properly answerable way.

10 Q In your analysis in Ground 2, are you
11 relying on incorporating any specific techniques
12 disclosed by Russ into Watanabe's modified system?

13 A The part of Claim 2 that is shown in the
14 declaration as Claim 2.A requires a special
15 effects function that is a color-enhancing
16 function. Russ discloses a color-enhancing
17 function, and that disclosure of Russ would be
18 known to a POSITA, that is the middle sentence of
19 253, a POSITA, reading Watanabe in view of Russ,
20 would see that the color-enhancement procedures
21 detailed in Russ can be applied to the digital
22 imaging system in Watanabe, and that Watanabe's

1 color difference data would be useful in
2 performing color enhancement. Russ provides great
3 deal detail on how to carry out such procedure, so
4 it would be a simple task to do. That is my
5 opinion on the subject.

6 Q Can we agree that Russ includes extensive
7 disclosure of different enhancement technique --

8 A I'm sorry, there was some external noise.
9 Can I ask you to repeat the question?

10 Q Sorry about that.

11 Can we agree that Russ provides extensive
12 disclosure on many different enhancement
13 procedures?

14 A The word "many" is indefinite enough so
15 that I don't know the question is properly
16 answerable.

17 Q Can we please go to Paragraph 225 of your
18 declaration.

19 A I'm sorry, repeat the number, please?

20 Q 225.

21 A Thank you.

22 Okay.