	12/17/2015 Page:		
	Page 1		Page 3
1	UNITED STATES PATENT AND TRADEMARK OFFICE	1	I N D E X
2	BEFORE THE PATENT TRIAL AND APPEAL BOARD	2	TESTIMONY OF GREGORY WELCH
3	SONY COMPUTER ENTERTAINMENT AMERICA LLC	3	CROSS-EXAMINATION BY MR. GILBERTSON 4
4	Petitioner	4	REDIRECT EXAMINATION BY MR. KEAN
5	V.	5	CERTIFICATE OF OATH
6	APLIX IP HOLDINGS CORPORATION Patent Owner	6	REPORTER'S DEPOSITION CERTIFICATE
7	Case No. IPR2015-00396	7	
8	Patent No. 7,218,313 Case No. IPR2015-00533	8	
9	Patent No. 7,218,313	9	EXHIBITS
10	Case No. IPR2015-00476 Patent No. 7,218,313	10	(NONE)
11	* * * * * * * * * * * * * * * * *	11	(-133-12)
12	DEPOSITION OF: GREGORY WELCH	12	
13	DATE: December 17, 2015	13	STIPULATIONS
14	TIME: COMMENCED: 11:26 a.m.	14	It is hereby stipulated and agreed by and between counsel present for the respective parties, and
15	CONCLUDED: 12:38 p.m.	15	the deponent, that the reading and signing of the deposition are hereby RESERVED.
16	TAKEN BY: Patent Owner	16	
17	PLACE: Hyatt Regency Orlando International Airport	17	
18	9300 Jeff Fuqua Blvd Orlando, Florida 32827	18	
19	REPORTED BY: Mae Fisher, RMR, CRR	19	
20		20	
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	Page 2		Page 4
1	APPEARANCES:	1	PROCEEDINGS
2	ABRAN J. KEAN, ESQUIRE Of: Erise IP, P.A.	2	THE COURT REPORTER: Do you solemnly swear or
3	ABRAN J. KEAN, ESQUIRE Of: Erise IP, P.A. 5600 Greenwood Plaza Boulevard Suite 200 Williams GO 00111	3	affirm that the testimony you are about to give in
4	(720) 689-5440	4	this cause will be the truth, the whole truth, and
5	Abran.kean@eriseIP.com	5	nothing but the truth?
6	Counsel for the PETITIONER	6	THE WITNESS: I do.
7	ROBERT J. GILBERTSON, ESQUIRE Of: Greene Espel, PLLP	7	GREGORY WELCH,
8	222 South Ninth Street	8	a witness herein, having been first duly sworn, was
9	Minneapolis, MN 55402 (612) 373-0830	9	examined, and testified as follows: CROSS-EXAMINATION
10	Bg11Dertson@greenespe1.com	10	BY MR. GILBERTSON:
11	Counsel for the PATENT OWNER	11	Q. Dr. Welch, we're here for a deposition in
12		12	connection with supplemental declarations that you have
13	CALLIE PENDERGRASS Senior Technical Advisor Erise, IP, P.A.	13	provided in IPR2015-00396, IPR2015-00476, and
14	Erise, IP, P.A. 6201 College Boulevard Suite 300 Overland Dark KS 66211	15	IPR2015-00533. Is that your understanding?
16	Overland Park, KS 66211 (913) 777-5602	16	A. That's correct, yes.
17	()13) ///-3002	17	Q. And I know I asked you this just a little earlier
18		18	in connection with the other deposition, but are you
19		19	able to give accurate testimony today?
20		20	A. I am, yes, thank you.
21		21	Q. Do you have those three supplemental declarations
22		22	in front of you?
23		23	A. I do.
24		24	Q. Let's just note for the record what they are. In
25			the 00396 matter, Exhibit 1042 is your supplemental



EXHIBIT 2051 SCEA v. APLIX IPR2015-00396 s at docketalarm.com

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declaration?

- 2 A. That's correct.
 - Q. And the last page has your signature?
 - A. Yes.

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- 5 Q. And in the 00476 matter, Exhibit 1042, likewise,
- is your supplemental declaration in that matter? 6
- And the last page has your signature? 8
- And also, it's Exhibit 1042 in the 00533 matter. 1 0
 - That's your supplemental declaration?

 - And the last page of it has your signature?
- Q. Are there any aspects of those supplemental 15
- 16 declarations that you feel a need to clarify?
 - A. The only thing for the record, which we discussed off the record, was the exhibit number clarification, which should be really supplanted by the new exhibit that we entered in the previous proceedings. I'm not quite sure how to characterize that, but maybe you can do that better than I did.
- 23 O. Well, the two sides have a point of difference on that in that I object to the new exhibit, so I would not 24
- say that -- I would not agree that it would be 2.5
- supplanted. But I think we could note here for the 1 record that the testimony you gave in your deposition earlier today in the '245 and '692 matters about the Lim 3
- exhibit applied as well to the 00533 matter; and in that matter, the exhibit we were talking about is 5
- Exhibit 2036. Am I right about that, that the Lim
- exhibit we were talking about in terms of the 00533 matter was Exhibit 2036?
- A. Correct. And the corresponding Mr. Lim declaration, I believe, is Exhibit 2009. And the two paragraphs where he cites the article are, I believe, paragraphs 48 and 54, and it's the article that he cites there that I'm referring to and included as a new
- 13 exhibit, or attempted to include as a new exhibit. 14
 - O. And given that the testimony that you gave earlier this morning in the '245, '692 matter is available to the judges to be used in the 00533 matter as well, is there anything else about that issue that you feel you would like to clarify?
 - A. No. I hope I made it clear earlier, and it would be the same for the 00533.
- Q. Okay. If you could turn with me, please, to your 22 00533 supplemental declaration paragraph 13. 23
- 24
 - Q. And, also, turn in your 00396 supplemental

- declaration to paragraph 14, please.
- 2 A. Okay.
- O. Would you agree that those two paragraphs are 3
- substantively the same?
- 5 A. Again, both from memory and from looking at it here, I believe that is correct. I believe they are 6 7 substantively the same.
- Q. And in general, those paragraphs refer to US R Patent 7088342, to Rekimoto, R-E-K-I-M-O-T-O, and 9 10 others; is that right?
 - A. That's correct.
- 12 Q. And I'll just -- I'll note that in the 00396
- matter, Rekimoto was marked by your client Sony as 13
- 14 Exhibit 1004, and the exhibit -- excuse me, in the 00533
- matter, it was marked as Exhibit 1056. In the 00533 15
- matter, you refer to Exhibit 1056 at page -- in
- paragraph 1 of your supplemental declarations; is that 17
- 18 right?

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- A. Yes. I believe that's correct, yes.
- 20 O. And are you aware that this Rekimoto reference
- was submitted by Sony in its 00396 petition as one of 21
- ten pieces of prior art over which Sony argued that the 22 313 patent should be held invalid? 23
- A. I don't recall the details, but I do recall or 24
- believe that it was -- as I stated here, was already 25

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cited in other proceedings related to this, but I don't 1 remember the details. Q. And are you aware that in the 00396 matter, the 3 board opted to go forward with the proceeding relating 4

including Rekimoto? 6 7 A. That sounds right, yes. I mean, I don't remember

to seven of the ten pieces of prior art but not

the specific orders, but that sounds right.

- Q. And are you likewise aware that the Rekimoto reference was also submitted by Sony in its 00476 petition as one of the pieces of prior art over which Sony argued that the '313 patent should be held invalid?
- A. That is correct. Again, for all of these, I 13 think, just to make clear, I'm not relying on these in any way other than just as background art that I offer in response to, in this particular case, some opinions offered by Dr. MacLean. So I don't mean to imply that there's anything beyond that. 18
 - Q. And you're likewise aware that the board opted in the 00476 proceeding to go forward on some of the pieces of prior art that Sony had offered but not Rekimoto?
- A. Again, I don't remember the details of the order, 22 but that sounds -- that sounds right, just sitting here 23 right now from memory. 24
 - Q. And are you likewise aware that the Rekimoto



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reference was not submitted by Sony in connection with its 00533 petition?

- A. I can't tell you one way or the other. I don't know.
- Q. Is it your opinion that the Rekimoto reference was so well known that any person of ordinary skill in the art of -- as of 2003, would have known about it?

 MR. KEAN: Object to the form.

THE WITNESS: Hard for me to say, but I will say that Jun Rekimoto has been around for a long time, and his papers and all of his work, I think, is very well known. He's a pretty famous researcher in this area, so I think people would generally be familiar with his name, probably, and his work.

15 BY MR. GILBERTSON:

- Q. Could you turn to -- in the 00396 supplemental declaration, to paragraph 6, please.
 - A. Okay.

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- Q. You've got that in front of you?
- A. I do.
- Q. And this paragraph refers in part, as do some other paragraphs here, to multitouch capability; is that right?
- A. In this paragraph in particular, it's multitouch gestures, but the phrase multitouch or term multitouch

I'd like you to point to that to me, please.

2 MR. KEAN: Objection. Scope.

3 BY MR. GILBERTSON:

- Q. Well, picking up on that objection, let me ask you this preliminary question, Dr. Welch: Have you offered testimony in connection with the 00396 matter that Ishihara teaches multitouch capability explicitly?
- A. I don't recall whether I did or not. I don't see it here and I don't recall it here in this declaration.

 10 I could well have offered that opinion in my original opening declaration, but I don't remember offhand here.

 12 I really focused on these declarations in preparing for today.
- Q. By these declarations, you mean the supplemental declarations?
- 16 A. That's correct. Thank you. Yes.
- Q. Makes sense. Well, okay, then, let's go back to the question I asked, and feel free to take what time you need with the Ishihara reference that's in front of you. But do you believe that there's any explicit teaching in Ishihara of multitouch capability?

MR. KEAN: Same objection.

THE WITNESS: My memory of this, of Ishihara, is that it does teach that; but just glancing through here, I can't remember -- I believe I offered an

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is there and in other places, yes.

- Q. And paragraph 6 and some of the other paragraphs of your 00396 supplemental declaration discuss that issue in the context of the Ishihara reference; is that right?
- A. Certainly, that appears to be the case in paragraph 6. From memory, I don't have the rest of my declaration memorized, so it would be whatever it is I said, but I'm sorry, I don't remember beyond that.
- Q. Sure. That's fine. Let me hand you a copy of the Ishihara reference Exhibit 1007 in the 00396 matter.
 - A. Okay. I have it. Thank you.
- Q. Is it your opinion that there is any explicit teaching of multitouch capability in Ishihara?
- A. I don't recall, sitting here right now, whether -- how or where it is disclosed, and it being the ability to sense multiple touches simultaneously, but I believe it is. I don't recall whether I opined about that in this document or not, and I don't recall where or how it's described in Ishihara, but I believe it is. It, again, being the ability to sense multiple touches simultaneously on the same surface.
- Q. Well, take your time, if you want to look at Ishihara; but if you think that there's someplace in Ishihara that explicitly teaches multitouch capability,

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opinion about that, but I'm really not sure, or I might have offered an opinion about that in my opening declaration on the '313. So any of the 3 -- '313 IPR matters, but I really don't recall; and just glancing through it right here, I don't see it. So I wouldn't want to speculate at this point about whether it does or does not because I really don't remember.

8 BY MR. GILBERTSON:

- 9 Q. As of now, having heard my question and looked at 10 Ishihara, there's nothing you can point to brief in 11 Ishihara, I take it, that explicitly teaches multitouch 12 capability; is that right?
 - A. Sitting here right now, just having really just glanced through it, I mean, in the 90 seconds or so I took to just look through it, I didn't find the thing that I thought I was looking for, but I wouldn't call my reading through. Again, I think I opined about that, or if it does, I probably opined about it or would have opined about it in my opening declaration for any of the IPRs related to the '313 patent.
- Q. Well, I don't want you to feel constrained to
 90 seconds, so go ahead and take whatever time you need
 to look through Ishihara to answer my question about
 whether you can point to any explicit teaching in
 Ishihara of multitouch capability.



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- A. I will look here for a moment, but I don't want to limit any of my opinions at this moment about explicit or not explicit in terms of the teachings. I just don't recall, again, what I said about Ishihara in my opening declaration, whether I said it may teach it in one way, shape, or form, whether it's explicit or not. But I can certainly take some time here and try and reread the entire patent and see if I spot anything at this moment, sitting here.
- Q. So just for clarity, let me say, I certainly understand your point that you may have said things in your initial declarations that you don't remember off the top of your head right now; that makes perfect sense. My question for you now is, can you point to anything in Ishihara itself explicitly teaching multitouch capability or functionality? And take whatever time you need to answer that.
- A. Sure. And I will look, but can you tell me, is 19 there something in my declaration now that leads you to 20 ask that question so that I can look and see whether I cited anything in Ishihara at that point, because I 21 don't recall that? 22
- Q. Oh, that's actually the whole point. I'm glad 23 you asked that. I didn't see anything about that in 24 your testimony. That's why I'm following up now, just 2.5

to ask whether there's anything that you can point to in the reference that explicitly teaches multitouch capability or functionality.

A. Okay. That makes sense, because just looking at it, and, of course, from memory and my general sense of my supplemental declarations is that they're solely about responding to things that Dr. MacLean or Mr. Lim said, not offering opinions about the prior art itself, which I would have already done. But I will look there for a few minutes and see if I can spot anything.

O. Thank you.

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A. (Examining documents.)

So in looking at Ishihara a little more carefully, I still haven't found any -- any words that explicitly say that. That doesn't mean that they're not there. I just didn't find them. I'm not very good at doing a linear visual search through documents, looking for words. I usually use a find function in an editor of some sort to help me find those topics, look for key words. I can't do that here, so just reading it top to bottom as carefully as I can, which is not perfect, nothing -- those explicit words don't come to mind, but the things that --

Q. Excuse me. The explicit words, teaching

multitouch capability? That's what you're referring to?

Explicit words, yes, explicit words related to that.

A. Again, the words -- as I've said before, the

O. Okav.

words of the patent are there for everyone to look at; but the teachings, of course, are, in my mind, what 6 really matters, what the patent itself teaches or allows 7 to a person of ordinary skill who's looking at it. for example, paragraphs 40 and 51 in the Exhibit 1007, 9 10 the Ishihara exhibit, both describe very basic resistive, I believe, touch sensing technology that is 11 12 very -- very common, very well known at that time, and it's very -- inherently supports multiple touches. And 13 14 certainly, Ishihara doesn't say anything about it not supporting multiple touches. And as I think I -- or as 15 I did offer opinions through paragraphs 6 through 10, at least in my declaration, all of that would have been 17 18 well known to a person of ordinary skill, including, as I said, to someone like me, as an undergraduate at 19 20 Purdue, a junior, who, you know, knew that that same technology could detect multiple touches. 21

So I don't know if the words exactly are in here. I don't remember. I believe I discussed this in my original declaration, but the technical descriptions at 40 and 51 in Ishihara, to me, clearly describe

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technology that would support multiple touches.

Q. Do you believe that in 2003, all touch screens supported multitouch functionality? 3

A. Again, it depends what we mean, to be very careful by multitouch. And so when I say multitouch, I mean literally detecting simultaneously multiple touches. And I would say that I'd be very surprised if there was a technology that did not support the detection of multiple touches. It's possible.

The most common ones that I'm aware of, including 10 the one that I developed, which actually looks a lot 11 like some other ones I've seen looking at in this case, 12 would naturally support detecting of multiple touches. 13 Whether an application chooses to make use of those 14 multiples touches or not is a different issue. The 15 question in my mind is whether the underlying technology 16 supports that. And the ones that I'm aware of universally all do, but I wouldn't say that it's a 18 certainty that all would. I really couldn't say. 19

- Q. Let me ask you to turn, please, to paragraph 10 of your 00396 supplemental declaration.
- A. Okay. I'm there. 22
- 23 In that paragraph, one of the things you refer to is an Exhibit 1028, a patent issue to Itaya, I-T-A-Y-A, 24 et al.; is that right?



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- A. That's correct, yes.
- O. Let me show you that Exhibit 1028. Do you have 2 that in front of you? 3
 - A. Yes, I do. Thank you.

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- Q. Do you find, or do you believe that Itaya, Exhibit 1028, contains any explicit disclosure implementing multitouch on the scale of a hand-held device?
- So, again, just looking briefly at this, because, of course, I don't have this memorized, but my memory of it, at least, which comports with a very quick 12 but somewhat thorough review of the first page, the abstract and a little bit of the introduction, is that it's about -- the general teachings are about the mechanism for developing resistance film method of 15 detecting touch of multiple fingers simultaneously. Not obvious to me anywhere that it is indicating anything that is a requirement about size or scale or anything else, and I believe everything taught in here could be realized at a variety of scales and probably was.

So I think the general teachings are agnostic to scale, if that's what you're getting at. At least I 22 don't see anything in there right now looking at it, and I don't recall anything that would be otherwise specific to size or scale.

Q. Let me ask you to turn in your 00396 supplemental declaration to paragraph 19.

- A. Okay.
- Q. In that paragraph, you cite Exhibit 1051; is that right?
 - A. That's correct, yes.
- In front of you, could you -- you've got some exhibits in front of you as well. Could you turn to Exhibit 1051, toward the back of that set.
 - T see 50, but T don't see 51.
- O. Can I have it back?
 - A. Yes. There it is.
 - O. I might have given you the wrong thing.
- A. That's okay. 14
- O. Sorry. I thought it was at the back of the one I 15 16 had given you. It's actually at the front of the next 17
 - A. That's okay. Okay. I have it. Exhibit 1051.
 - Q. And what, generally, is Exhibit 1051?
- A. It is an AMD, which is a company advanced 20 microdevices specification sheet for a single-chip 21 low-power PC/AT compatible microcontroller. 22
- O. Could you turn to the second page of 23 Exhibit 1051, please, and read out loud into the record 24 the -- well, let me back up. On the second page, do you

see a section called general description?

- A. I do.
- Q. If you could please go to the third paragraph and, for the benefit of the record, read the first 5 sentence of that paragraph out loud.
 - A. The first sentence of the third paragraph of the general description section reads, Leveraging the benefits of the x86 desktop computing environment, the ElanSC400 and the ElanSC410 microcontrollers integrate all of the common logic and I/O functionality associated with a PC/AT computing system into a single device, eliminating the need for multiple peripheral chips.
 - Q. Does that description comport with your understanding of this chip that you're discussing in paragraph 19 of your 00396 supplemental declaration?

A. I'm not sure. When you say this chip, in 19, I'm

- 16 referring to the Intel/AMD x86 processor that I believe 17 18 Mr. Lim referred to. I don't recall and I don't have a cite here because I'm just reacting to his opinions. 19 20 And, you know, as I state there, AMD offered a family of embedded x86 processors. So it's not just one; it is a 21 complete line or family of processors, and this is just 22 23 one example from that.
- O. Fair enough. And my use of the singular of the 24 term is probably too limited.

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In the sentence that you just read from, the third paragraph of page 2 of Exhibit 1051, is there anything in there that you -- strikes you as inaccurate?

- A. I couldn't tell you whether it's inaccurate or 4 accurate. I don't know the details at the level of the 5 design, architecture, everything of the chip and the 6 history to comment on that. I don't have any reason to disbelieve anything that is printed here, but it would not be the first time, if there was a mistake somewhere, but I couldn't tell you. 10
 - Q. Let me ask you to turn, please, to exhibit -- or, excuse me, your 00396 supplemental declaration, paragraph 21.
- A. Okav. I'm there. 14
- Q. And in that paragraph, you refer to a patent 15 issued to Aebli, A-E-B-L-I, et al., that's been marked 16 as Exhibit 1024; is that right? 17
 - A. That's correct.
- Q. I have one copy of Exhibit 1024. Let me hand 19 that to you, Dr. Welch. Is this one of the documents 20 that you reviewed in connection with preparing your 21 supplemental declaration in the 00396 matter? 22
 - A. Yes. I believe so, yes.
 - Q. Do you believe that the Aebli reference shows an input controller inside a mobile phone?

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