

Exhibit 13

EXHIBIT 18
FILED UNDER SEAL

1 IN THE UNITED STATES DISTRICT COURT
2 FOR THE NORTHERN DISTRICT OF CALIFORNIA

3 SAN JOSE DIVISION

4 CASE NO. 11 CV 01846 LHK

5 APPLE, INC, a California
6 corporation,

7 Plaintiff,

8 vs.

9 SAMSUNG ELECTRONICS CO., LTD.,

10 a Korean business entity;

11 SAMSUNG ELECTRONICS AMERICA, INC.,

12 a New York corporation;

13 SAMSUNG TELECOMMUNICATIONS AMERICA, LLC,

14 a Delaware limited liability company,

15 Defendants.

16 _____ /
17 HIGHLY CONFIDENTIAL

18 ATTORNEYS' EYES ONLY

19 DEPOSITION OF JOSHUA STRICKON, PH.D.

20 Miami, Florida

21 Thursday, October 20, 2011

22 Reported by:

23 DARLINE MARIE WEST, RPR, FRP, CLR

24 Job No. 42680

1 Q. Well, first of all, it's the 3D cameras are
 2 those 3-dimensional cameras, the types of cameras
 3 we've spoken about?
 4 A. Yeah.
 5 Q. Not a touchscreen?
 6 A. No.
 7 Q. How about Sony SmartScan? Is that a
 8 touchscreen device?
 9 MR. BARQUIST: Objection. Lacking
 10 foundation.
 11 THE WITNESS: It's a touch-sensing
 12 device.
 13 BY MS. DUCCA:
 14 Q. What type of touch technology does it use?
 15 MR. BARQUIST: Objection. Lacks
 16 foundation.
 17 THE WITNESS: In reading the paper, it
 18 appears that it uses mutual capacitance.
 19 BY MS. DUCCA:
 20 Q. In reading the paper, did it detect
 21 multitouch?
 22 MR. BARQUIST: Objection. Lacking
 23 foundation, vague and ambiguous.
 24 THE WITNESS: Yes.
 25

1 BY MS. DUCCA:
 2 Q. Let's talk briefly about the Mitsubishi
 3 DiamondTouch, you said?
 4 A. Uh-huh.
 5 Q. What is the Mitsubishi DiamondTouch device?
 6 A. It's a tabletop large touchscreen that
 7 enables multiple people to touch the screen at the
 8 same time. And distinguish who is actually touching.
 9 Q. So, then, it detects multitouch?
 10 MR. BARQUIST: Objection. Vague and
 11 ambiguous.
 12 THE WITNESS: It detects a single touch
 13 from multiple people.
 14 BY MS. DUCCA:
 15 Q. So I could have my hand on it and you can
 16 have your hand on it and it will detect both of our
 17 touches?
 18 A. Yes.
 19 Q. What if I had both of my hands on it?
 20 MR. BARQUIST: Objection. Lacks
 21 foundation. Vague and ambiguous. Calls for
 22 expert testimony.
 23 THE WITNESS: My experience, using the
 24 device, it actually -- since it uses
 25 projection scan, it will actually give you

1 four points because there's an ambiguity
 2 between whether you're touching one wire or
 3 the other wire.
 4 BY MS. DUCCA:
 5 Q. You actually use the Mitsubishi
 6 DiamondTouch?
 7 A. Yes.
 8 Q. When did you use the Mitsubishi
 9 DiamondTouch?
 10 A. Probably at a conference, sometime before
 11 then. Or during school when I visited their lab.
 12 Q. Where's their lab located?
 13 A. It's closed.
 14 Q. Oh, where was their lab located?
 15 A. Cambridge, Massachusetts.
 16 Q. Was there a particular contact that you met
 17 with?
 18 A. Paul Dietz.
 19 Q. Now, what type of technology did you say
 20 that the DiamondTouch used?
 21 A. It's projective capacitive -- it's
 22 projection scan capacitive sensing.
 23 Q. What do you mean by "projective scan
 24 capacitive sensing"?
 25 A. It's a technology in which you have rows

1 and columns.
 2 Q. Okay.
 3 A. And you read the rows and then you read the
 4 columns. So you have these lines that are projected
 5 across the surface. So you end up with a profile of
 6 the self-capacitance in a vertical, in a single X
 7 axis and then a single Y axis. And from that you can
 8 overlay the two sets of data to determine X and Y
 9 locations of a point.
 10 Q. I think you answered this. You said it
 11 used self-capacitive technology and mutual
 12 capacitance?
 13 A. Yes.
 14 Q. Was it -- strike that.
 15 All right. Let's talk a little bit about
 16 the Microsoft Surface product. I should back up.
 17 You said you used the DiamondTouch product.
 18 Have you ever used the SmartSkin product?
 19 A. No.
 20 Q. Now, the Microsoft Surface product, have
 21 you ever used the Microsoft Surface product?
 22 A. Yes.
 23 Q. Did you use the Microsoft Surface product
 24 before it became Microsoft Surface?
 25 A. Yes.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

1 A. Because it says in here that it's -- they
2 talk about the -- the trace orient -- the trace
3 geometry, the layers stack up, as well as the fact
4 that this is self-capacitance, which is determined by
5 a language in the paper which states that sensor is
6 detecting change and a trace capacitance to free
7 space. That implies that it's self-capacitance.

8 Q. Where do you see that statement?

9 A. On page 30301 in the -- in the first
10 paragraph right there.

11 Q. The first paragraph --

12 A. The first incomplete paragraph.

13 Q. On the second column?

14 A. On the second column. It says, "Because
15 the sensor is detecting change in a traces
16 capacitance to free space."

17 Q. Okay.

18 A. "Sensor can only detect objects that can
19 significantly add trace capacitance."

20 Q. Now, you previously testified that you're
21 familiar with the company Synaptics, correct?

22 A. Yeah.

23 Q. Have you ever met with Synaptics or anybody
24 at Synaptics?

25 A. No.

1 Q. Not in the course of your work at Apple?

2 A. No.

3 Q. Were you familiar with the Clear Pad
4 device?

5 A. No.

6 Q. Do you know A. K. Leeper?

7 A. No.

8 (Strickon Deposition Exhibit 788, Document
9 entitled "SmartSkin: An Infrastructure for Freehand
10 Manipulation on Interactive Surfaces, was marked for
11 identification.)

12 BY MS. DUCCA:

13 Q. I've marked as Exhibit 788 a document with
14 Bates number APLND C71287 to 71294. Does this
15 document look familiar to you?

16 A. Yes.

17 Q. When did you last see this document?

18 MR. BARQUIST: Objection. Instruct the
19 witness not to answer to the extent it would
20 involve the disclosure of attorney-client
21 communications or activity at the direction
22 of counsel, if any.

23 THE WITNESS: Outside of any privileged
24 session, the last time I saw this was at the
25 deposition that I gave in August.

1 BY MS. DUCCA:

2 Q. Now, you were familiar with the SmartSkin
3 product before you filed the patent application in
4 became the '607 patent, correct?

5 MR. BARQUIST: Objection. Lacks
6 foundation.

7 THE WITNESS: I was familiar with
8 SmartSkin. It wasn't a product, though.

9 BY MS. DUCCA:

10 Q. You were familiar with the Sony SmartSkin,
11 though, correct?

12 MR. BARQUIST: Objection. Lacks
13 foundation.

14 THE WITNESS: Yes.

15 BY MS. DUCCA:

16 Q. Did you ever meet Rekimoto, who's the
17 author of this article?

18 A. No.

19 Q. You're -- you're aware and you know that
20 SmartSkin is a capacitive touch sensor, correct?

21 MR. BARQUIST: Objection. Lacks
22 foundation.

23 THE WITNESS: Yes.

24 BY MS. DUCCA:

25 Q. And you agree that SmartSkin is a

1 mutual-capacitance, correct?

2 MR. BARQUIST: Objection. Lacks
3 foundation. Calls for expert opinion.

4 THE WITNESS: Yes. My understanding
5 and my experience with the sorts of devices
6 is that it is a mutual-capacitance.

7 BY MS. DUCCA:

8 Q. Okay. Let's take a look at Figure 2, which
9 is on the page with Bates No. 71288, and this figure
10 is captioned "The SmartSkin Sensor Configuration," a
11 mesh-shaped grid is used to determine the hands
12 position and shape.

13 This shows a grid of electrodes, right?

14 MR. BARQUIST: Objection. Calls for
15 expert opinion.

16 THE WITNESS: From my familiarity with
17 the paper and what's described here, it
18 appears to -- to show a grid of electrodes.

19 BY MS. DUCCA:

20 Q. Okay. And each array of electrodes is on a
21 different layer, correct?

22 MR. BARQUIST: Objection. Lacks
23 foundation. Vague and ambiguous.

24 THE WITNESS: It doesn't show here
25 about the layers.

1 the first not such a full paragraph in the second
 2 column. It actually starts in the first column.
 3 Would you read that paragraph, and let me
 4 know when you're finished.
 5 A. Okay.
 6 Q. So the SmartSkin is able to recognize
 7 multiple touches, correct?
 8 MR. BARQUIST: Objection. Lacks
 9 foundation. Calls for expert opinion
 10 testimony. Vague and ambiguous.
 11 THE WITNESS: According to this
 12 paragraph, it says that I can recognize
 13 multiple objects; example, hands.
 14 BY MS. DUCCA:
 15 Q. Did you ever discuss the SmartSkin product
 16 with anybody at Sony?
 17 MR. BARQUIST: Objection. Lacks
 18 foundation.
 19 THE WITNESS: No.
 20 (Strickon Deposition Exhibit 789, Patent,
 21 was marked for identification.)
 22 BY MS. DUCCA:
 23 Q. Marked as Exhibit 789 a document with the
 24 Bates numbers SAMNDCA 31524 to 31557. Have you seen
 25 this patent before?

1 look at Figure 2, which is on the page with Bates
 2 number 31528, and I'd also like you to take a look at
 3 the associated description of Figure 2, which is in
 4 column 13 on the page with Bates number 31550
 5 beginning at line 30.
 6 Would you read that paragraph beginning at
 7 line 30 in column 13 associated with Figure 2, and
 8 then let me know when you're finished.
 9 A. Okay.
 10 Q. Okay. Now, looking at column 13, this
 11 patent's describing a two-dimensional sensor matrix,
 12 correct?
 13 MR. BARQUIST: Objection. Calls for
 14 expert opinion testimony. The document
 15 speaks for itself.
 16 THE WITNESS: I haven't looked at this
 17 entire document. So I couldn't exactly say.
 18 BY MS. DUCCA:
 19 Q. Did you read the paragraph in column 13
 20 beginning at line 30?
 21 A. Yeah.
 22 Q. Okay. Does that paragraph disclose a -- a
 23 two-dimensional sensor matrix?
 24 MR. BARQUIST: Objection. Calls for
 25 expert opinion testimony.

1 MR. BARQUIST: Objection. Instruct the
 2 witness not to disclose the contents of any
 3 attorney-client communications or
 4 discussions. Subject to that instruct, he
 5 may answer.
 6 THE WITNESS: Outside of any privileged
 7 conversations, I saw this at my last
 8 deposition.
 9 BY MS. DUCCA:
 10 Q. Had you seen this patent before your last
 11 deposition?
 12 A. No.
 13 Q. Okay. Are you familiar with a company
 14 called Entrig?
 15 A. I think I've heard of it before.
 16 Q. What is your understanding of what Entrig
 17 is?
 18 MR. BARQUIST: Objection. Lacks
 19 foundation.
 20 THE WITNESS: From looking at the
 21 patent previously, I was under the
 22 impression that they made potentially some
 23 sort of capacitive sensor.
 24 BY MS. DUCCA:
 25 Q. Okay. I'm going to direct you to take a

1 THE WITNESS: This paragraph says a
 2 two-dimensional sensor matrix 20 lies, and
 3 transparent layer over an electronic display
 4 device.
 5 BY MS. DUCCA:
 6 Q. Now, do you see below it says, "At each
 7 junction between two conductors a certain minimal
 8 amount of capacitance exists," and it goes on to say
 9 "A finger touches the sensor 20 at a certain position
 10 and increases the capacitance between the first
 11 conductor line 24 on the orthogonal conductor line,
 12 which happens to be at or closest to the touch
 13 position."
 14 Do you agree that that's talking about
 15 measuring the capacitance between two conductor
 16 lines?
 17 MR. BARQUIST: Objection. Calls for
 18 expert opinion testimony.
 19 THE WITNESS: This doesn't describe
 20 about measuring. It just describes the
 21 finger -- according to this document, that
 22 increases -- increases the capacitance
 23 between the first conductor and the
 24 orthogonal conductor.
 25

1 BY MS. DUCCA:
 2 Q. Marked as Exhibit 790, this is provisional
 3 application for a patent, Application 60/40662. Does
 4 this look familiar to you?
 5 A. I've never seen this.
 6 Q. Okay. Would you turn to page 4 in this
 7 document. You see where it says 4.2 sensor? Do you
 8 see that?
 9 A. Uh-huh.
 10 Q. Would you read that first paragraph and let
 11 me know when you're finished.
 12 A. Okay.
 13 Q. Okay. Would you agree with me that this
 14 talks about two different layers of traces?
 15 MR. BARQUIST: Objection. Documents
 16 speaks for itself. Lacks foundation.
 17 THE WITNESS: It says right there the
 18 grid is made of two layers.
 19 BY MS. DUCCA:
 20 Q. Would you agree with me that each of those
 21 two layers contains conductors that are parallel to
 22 each other?
 23 MR. BARQUIST: Objection. Vague and
 24 ambiguous. Lacks foundation.
 25 THE WITNESS: It says one of the layers

1 contains a set of parallel conductors. The
 2 other layer contains a set of parallel
 3 conductor orthogonal to the set of the first
 4 layer.
 5 BY MS. DUCCA:
 6 Q. So both layers contain a set of parallel
 7 conductors, correct?
 8 MR. BARQUIST: Objection. The document
 9 speaks for itself.
 10 THE WITNESS: I believe that's what the
 11 document says.
 12 BY MS. DUCCA:
 13 Q. Turn to the next page, to page 5. Take a
 14 look at that first paragraph and read that to
 15 yourself. Let me know when you're finished.
 16 A. Okay.
 17 Q. All right. So this document mentions that
 18 ITO can be used as a conductive material, correct?
 19 MR. BARQUIST: Objection. Document
 20 speaks for itself.
 21 THE WITNESS: The document says that
 22 "The present invention sensor can be
 23 implemented on other transparent conductive
 24 materials such as ITO."
 25

1 BY MS. DUCCA:
 2 Q. Take a look in the last paragraph on that
 3 page 5. Starts out "In one embodiment, the
 4 transparent sensor." Do you see that? Read that
 5 paragraph and let me know had when you're finished.
 6 I think it goes on to page 6.
 7 A. Okay.
 8 Q. Now, this paragraph is discussing building
 9 a sensor using three layers, correct?
 10 MR. BARQUIST: Objection. Lacks
 11 foundation. Vague and ambiguous.
 12 THE WITNESS: Yes. It says in one
 13 embodiment the transparent sensor is built
 14 of three different layers.
 15 BY MS. DUCCA:
 16 Q. Two of the layers are used for the
 17 conductive grid lines, correct?
 18 A. It says, two layers are used for the grid
 19 of lines, one for X and one for Y.
 20 Q. Do you think it's discussing something
 21 other than conductive lines?
 22 MR. BARQUIST: Objection. Calls for
 23 speculation. Calls for expert opinion.
 24 Lacks foundation.
 25

1 BY MS. DUCCA:
 2 Q. Feel free to read some of the paragraphs
 3 around that, if you'd like to get some context. Take
 4 your time.
 5 A. I mean, this is the first time seeing this.
 6 This is quite a bit of information in here.
 7 Q. Understood.
 8 A. It will take me some time to sort through
 9 it and understand what's going on. I mean, they're
 10 expert in what they're doing or have an experience in
 11 what this is.
 12 Q. Let me help direct you a little bit. We
 13 previously read the first paragraph in the sensor
 14 section where we discussed the grid being made of two
 15 layers, each layer containing a set of parallel
 16 conductors. Do remember that?
 17 MR. BARQUIST: Objection. Form.
 18 Misstates the testimony.
 19 THE WITNESS: Which paragraph?
 20 BY MS. DUCCA:
 21 Q. First paragraph under "4.2 Sensor."
 22 A. Okay.
 23 Q. Do you have any reason to believe that it's
 24 talking about some other grid of lines other than
 25 those conductor lines?

1 A. Not specifically.
 2 Q. But do you recall the SmartSkin paper?
 3 A. Yes.
 4 Q. Why do you recall the SmartSkin paper?
 5 A. I recall it because we were in talks with
 6 FingerWorks and potentially using their technology to
 7 create a self-capacitance transparent
 8 multitouchscreen, and I was never fully satisfied
 9 with the -- that solution as it was -- seemed overly
 10 complicated, expensive, and required numerous
 11 components. So I was looking for a simpler way of
 12 doing that.
 13 Q. Why was the FingerWorks solution overly
 14 complicated?
 15 A. Essentially, instead of having a row and
 16 column structure like we do in the '607 patent, it
 17 required having essentially every intersection be
 18 directly tied to an IO pin. So, rather -- so,
 19 basically, squared the number of complexity of number
 20 of chips that we would need.
 21 Q. So the -- the FingerWorks solution was
 22 self-capacitive, correct?
 23 A. Yes.
 24 Q. And then the -- but the SmartSkin was
 25 mutual-capacitive, correct?

1 A. Yes.
 2 Q. And the only thing that the SmartSkin
 3 solution wasn't was transparent, right?
 4 MR. BARQUIST: Objection. Vague and
 5 ambiguous. Lacks foundation.
 6 THE WITNESS: No. I mean, beyond what
 7 they show as strictly from the hardware
 8 standpoint, there was no information in that
 9 with regard to the algorithms for detecting
 10 the points and tracking the multiple points
 11 from frame to frame and all the signal
 12 processing that you would have to do to make
 13 this work on a transparent screen.
 14 Furthermore, it didn't talk about or
 15 address some of the specific noises,
 16 characteristics that would be specific to
 17 the transparent screen. And also it didn't
 18 discuss any of the optical problems that we
 19 had to solve with regard to the transparent
 20 screen.
 21 And Apple also imposed on us additional
 22 engineering requirements, design
 23 requirements, such as the -- the black mask
 24 that went around the border to hide the
 25 cables, as well as the rounded corners that

1 they wanted on the glass.
 2 BY MS. DUCCA:
 3 Q. You never met with any of the people at
 4 Sony who worked on SmartSkin, right?
 5 A. No.
 6 Q. Did you ever try to set up a meeting with
 7 them?
 8 A. No.
 9 Q. Why not?
 10 MR. BARQUIST: Objection. Calls for
 11 speculation.
 12 THE WITNESS: Mostly because they're in
 13 Japan and they speak Japanese, and there
 14 wasn't -- and it was actually an older paper
 15 at the time, and I knew that this wasn't
 16 something that they were actively continuing
 17 to work on.
 18 BY MS. DUCCA:
 19 Q. Do you know whether they created a
 20 mutual-capacitive multitouch transparent touchscreen?
 21 A. As far as I know, they didn't. They didn't
 22 present that in any other form.
 23 Q. So you haven't seen any sort of articles
 24 that said they created it. But you don't know if
 25 they actually created it in the lab, do you?

1 MR. BARQUIST: Objection.
 2 Argumentative. Lacks foundation. Asked and
 3 answered.
 4 THE WITNESS: I don't know what they've
 5 done other than what they presented. The
 6 SmartSkin paper came out of their research
 7 labs, and generally everything in their
 8 research labs is usually presented to the
 9 public in some form.
 10 BY MS. DUCCA:
 11 Q. Do you think the engineers from Sony who
 12 worked on SmartSkin had the knowledge and education
 13 to create a multitouch mutual-capacitive transparent
 14 touchscreen?
 15 MR. BARQUIST: Objection. Calls for
 16 speculation, and vague and ambiguous.
 17 THE WITNESS: I can't speculate as to
 18 the what knowledge they had.
 19 (Strickon Deposition Exhibit 792, E-mail,
 20 was marked for identification.)
 21 BY MS. DUCCA:
 22 Q. Marked as Exhibit 792, a document with
 23 Bates numbers -- well, one Bates number,
 24 APLNDC 16600. Do you recognize this document?
 25 A. Okay.