EXHIBIT B

IN THE UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

ELAN MICROELECTRONICS CORPORATION,	)	
Plaintiff, and Counterclaim Defendant,	)	
-vs-	)	CASE NO. C-09-01531 RS
APPLE, INC.,	)	
Defendant, and Counterclaim Plaintiff,	)	

VIDEOTAPED DEPOSITION OF ROBERT DEZMELYK

DATE: April 9, 2010

TIME: 9:07 a.m.

LOCATION: WEIL, GOTSHAL & MANGES, LLP
201 Redwood Shores Parkway
Redwood Shores, California

REPORTED BY: Anne M. Torreano, CSR, RPR, CCRR
Certified Shorthand Reporter
License Number C-10520

02:48:07 1 A. Well, yeah, let me find where they cite to it
02:48:12 2 first and see what the context of how they're talking
02:48:19 3 about it is.
02:48:29 4 Okay. I would direct you to -- probably the
02:48:33 5 best place to explain it would be column 5. Let's
02:48:40 6 see. It goes to, like, maybe line 27 after the
02:48:50 7 business about the other patent with the simultaneous
02:48:52 8 sensing, and it says the rows and columns are connected
02:48:55 9 to an analog multiplexor 45 through a plurality of X
02:49:01 10 direction conductors and a plurality of Y column
02:49:02 11 direction conductors 55, one conductor for each row and
02:49:05 12 each column.
02:49:06 13 "Under the control of a microcontroller 60,
02:49:09 14 the analog multiplexor selects which traces of the
02:49:13 15 matrix will be sampled, and the output of those traces
02:49:16 16 is then provided to a capacitance measuring circuit."
02:49:17 17 And then they go on to describe some other
02:49:20 18 ways in which people, you know, measure capacitance or
02:49:23 19 cite to, I guess, a patent which describes that.
02:49:26 20 So the analog multiplexor's role here is to
02:49:31 21 select which of the conductors you're measuring the
02:49:34 22 capacitance along that trace in this particular
02:49:37 23 implementation.
02:49:37 24 Q. All right. Any other functions that that
02:49:41 25 multiplexor 45 performs besides that one?

02:49:48 1 A. I have to take a quick scan.
02:50:10 2 I don't see any at the moment. I mean, that's
02:50:16 3 its principal role certainly.
02:50:18 4 Q. Can you think of any other function that it
02:50:20 5 performs besides that principal function?
02:50:23 6 A. That is set forth here?
02:50:25 7 Q. In the patent, yeah.
02:50:26 8 A. I mean, I don't see one.
02:50:28 9 Q. There's another part of figure 2. It's
02:50:36 10 labeled 70. It's called "Circuit to measure changes in
02:50:38 11 capacitance of sensor conductors."
02:50:40 12 Do you see that?
02:50:40 13 A. Right.
02:50:41 14 Q. What is the function of that circuit, circuit
02:50:46 15 70 in figure 2?
02:50:47 16 A. Well, 70 is basically, as it's set forth --
02:50:53 17 again, I direct you to column 5 and about 45. It
02:50:59 18 converts capacitance values from a circuit 70 -- well,
02:51:04 19 the output of 70 is the input -- 70's basically giving
02:51:09 20 you, you know, kind of capacitance to voltage. In this
02:51:14 21 case it looks from A to D it's capacitance to voltage.
02:51:15 22 And as we talked about before, there's
02:51:17 23 circuits -- there's a variety of circuits which will
02:51:20 24 give you a measured signal based on the amount of
02:51:25 25 capacitance that's presented on a conductor connected

to that.

This particular one, I was using the RC oscillator example before. Since this is, you know, being connected to an A to D converter, more likely it's some circuit which gives you an analog voltage level output that's proportional to the capacitance present on its input conductor.

Q. And are there any other functions that measuring circuit performs besides that one?

A. Well, it's -- I mean, in the broad sense all of these components are part of the total functionality of the device. In other words, their presence and their operation is how you determine if you have contact at all. Ultimately they give the data that lets you determine location of the fingers, you know, how many you have, whether they're touching.

So in the broadest description of their function, they're necessary for the operation of the device. In particular definition of what does it do, that's -- it serves the purpose. As it says, it measures the changes in capacitance in the sensor converters.

Q. And what about the analog-to-digital converter box 80? What's the function of that?

A. Well, again, in the narrow sense it does what

it says it does. It takes an analog signal and converts it to a digital value so you can then process that in firmware in the microcontroller.

Q. What values are those that it's converting from analog to digital?

A. It's converting, in this example here, the value of capacitance of the selected conductor -- the value generated -- the analog value generated by 70, this capacitance measuring circuit, for the particular selected conductor or trace that you've selected with analog multiplexor at that point in time, and it's converting that value into a digital representation.

Q. And then --

A. In the broad sense, again, it's part of the whole functionality of the sensing chain. Without it you're not going to have a functional device.

Q. Take a look, please, at column 11. Around line 16 there's a paragraph that begins by saying in effect that the preceding part of the patent was describing ways of detecting a plurality of fingers, et cetera.

Do you see what I'm referring to there?

A. I see the paragraph, yes.

Q. All right. And then it then says that there's a second portion of the invention.

response to the removal and reappearance of said second maxima within a predetermined period of time.

Do you see what I'm talking about there?

A. Yes, I do.

Q. Now, is that a function, that is, providing a click function in response to the removal and reappearance of said second maxima within a predetermined period of time, is that a function that's going to be performed and implemented by a computer?

A. Normally. I mean, either by the microcontroller or the host computer.

Q. Is there -- to perform that sort of processing there's going to be some sort of algorithm that's going to be processed; is that right?

A. There are steps you would take, right. You would write software to do that.

Q. Is there a description of that software algorithm in the '352 patent for how to do that?

A. Well, there's a whole section about dealing with and processing and understanding how many fingers are touching and being removed and how you do scans and know how many fingers are on the surface.

I think if we -- basically the entire section of -- you know, going down, starting at 11 and continuing through 13 talks about examples of how you

would determine, you know, multiple fingers and then what -- you know, how you would scan repeatedly and look at whether you had one fingers, two fingers, et cetera.

So that is sufficient to explain the process of doing that, particularly in light of what people already know how to do.

Q. And is that description a description of an algorithm that's going to tell you how to provide that click function in response to the removal and reappearance of the second maxima within a predetermined period of time?

A. Well, I think the description there is more than sufficient for a practitioner at the time to know what to do. It may not be expressed in like a flow chart, but it's set forth, you know, in description in a way that would be sufficient so someone knew what to do.

Q. There's a functional description in there, correct, in those columns, 12, 13?

A. I don't know how you use the word "functional." There's a description of what to do in essence.

Q. Yeah, what functions to perform, what to do, as you just said.

03:41:17 1 What I'm asking is, is there some sort of
03:41:20 2 description of software algorithm that would say this
03:41:22 3 is the way to do that and this is how you would process
03:41:27 4 that in order to accomplish that function?
03:41:30 5 A. Well, I think the description here does give
03:41:38 6 the information to the person who's the practitioner
03:41:42 7 that they need to have.
03:41:43 8 Q. To do what?
03:41:44 9 A. To do -- to make that determination. In other
03:41:46 10 words, to say if -- the process of -- say we're taking
03:41:54 11 the click events in the simple case of a button up,
03:41:57 12 button down. Practitioners at the time definitely
03:42:00 13 know, you know, how to make a packet that's button up
03:42:03 14 or button down. That's a long-known understood concept
03:42:07 15 in mouse design.
03:42:08 16 So the person who's reading this already knows
03:42:10 17 about that background and knows about, you know, I
03:42:12 18 generate a down packet, I generate an up packet. I
03:42:15 19 mean, they know about that part of it.
03:42:18 20 And so when look at, to me, reading the
03:42:19 21 sections that I pointed out, and I can try to get you
03:42:20 22 the more detailed lines by, you know, picking them out
03:42:23 23 for you, it tells you what you need to do to do that.
03:42:40 24 Q. When you say "it tells you what you need to do
03:42:43 25 to do that," are you saying that with this description

of the operations in terms of putting fingers down and lifting them up, that someone could go ahead and write some sort of an algorithm that would do that?

A. Right. And, I mean, there's also a set of things in, you know, figures 8-2, 9-1, et cetera, that relate to that process.

Q. But the algorithms that are described in figures 8 and 9 and 5 and 6 and all, those aren't setting forth in an algorithm how you would perform that function of providing a click function in response to the removal and reappearance of a second maxima within a predetermined period of time; correct?

A. Well, I don't agree with your characterization.

Q. So point out to me in figure 8 or figure 9 or --

A. Let's turn to --

Q. -- or figure 5 or 6 where that's described.

A. Let's look just for figure 8-1 in a minute. And look at the bottom of figure 8-1 where there's been some processing. There's an X compute and Y compute. There's been some determination of the number of fingers that are present, and then it turns the page onto the remainder of figure 8-2, which is on sheet 15 of the patent.

And then it -- just as an exemplary example here, I won't to try to say exhaustively, but if you look at decision point 905, if the test is that the button was previously up and we have finger 2, then we're going to take the step of reporting button equals down, and we're going to set button previous equal to down.

And then at a later scan we're going to come back through here again, and perhaps we're going to find that we were in -- the case listed as 910 in that decision block, if we fall into that decision block, button previous would be down, in other words, if that, and, you know, we have one of these cases, and then we're going to, of course, report button up.

The process of reporting a button down to the host system followed by a button up report would constitute a click to the host processor. In other words, the event of a button down and a button up.

A practitioner at the time, once you tell them report button equals down, they understand what that means. In other words, that says make the serial output bytes in the packet that match up with a button down event on a mouse, which is a kind of standardized known operation.

So I think they've set forth here a

03:45:33 1 description of how to do it.
03:45:34 2 Q. So where in figure 8-1 and figure 8-2 say that
03:45:39 3 it is the second maxima that is being removed and
03:45:41 4 reappearing within a predetermined period of time?
03:45:44 5 A. Well, first I'll note that I don't think that
03:45:49 6 it has to say that, but notice that if you look at
03:46:03 7 decision block 905, it's making two tests. The first
03:46:06 8 tests is the button previous is up, meaning that we're
03:46:09 9 not reporting a button down. In the second test, and
03:46:12 10 finger equals 2, and if we look back to see what the X
03:46:19 11 finger is, if I dig into the document here, I believe X
03:46:26 12 finger will be a count of fingers.
03:46:28 13 Q. Right. So what tells you in this algorithm,
03:46:30 14 this flow chart figures 8-1 and 8-2, that it is the
03:46:34 15 second finger that is the second maxima as opposed to
03:46:39 16 the first maxima?
03:46:44 17 A. I would generally interpret that if I had a
03:46:51 18 count of fingers and it went zero, one and two, that
03:46:54 19 two would be the second one.
03:46:55 20 Q. So where it says finger equals two in figure
03:47:00 21 8-1 and figure 8-2, your testimony is that that is a
03:47:04 22 reference to the second finger as opposed to the total
03:47:07 23 number of fingers being detected?
03:47:11 24 A. No, I think it's the count of fingers, but
03:47:18 25 since we're scanning repeatedly, the -- notice you have

the previous finger count -- okay. And the state of whether I'm generating a button depends later on whether I have finger equals zero or finger equals one.

But again, see, I think that it's an erroneous way of looking at this claim to say I have to see a algorithm that in the absence of any knowledge about process teaches, you know, a beginner how to do it.

Q. I'm just asking a question. I'm just trying to understand whether there is something set out in figure 8-1 or figure 8-2 or anywhere else in the patent that tells you specifically that it is the second maximum that appears and is removed and reappears, whether that is described in any of these algorithms, how you would determine that it's the removal and reappearance of the second maxima.

A. Okay. Well, let me try to explain that. If we look at column 12, let me just see if I can go back to this. Let me just review it for a moment here.

Okay. Look at the bottom of column 13. I direct you to that. And again, this has to be taken in a totality. So it's not like you find one exact spot. You have to read the entire document to understand it as a practitioner, and that gives you the understanding of it.

But if we look at this paragraph starting at

approximately line 59, referring next to figures 8 and 9, the generalized case associated with figures 7-F1 and 2 but also applicable to the remaining functions may be better appreciated.

In the exemplary algorithms shown in figures 8 and 9 -- and 8, of course, is what? 8-1 is what we've been looking at. "A determination is made whether zero, one or two fingers are in contact with the touchpad. Depending on how many fingers are identified, various operations are permitted.

"It will be appreciated that figure 8 is an analogous to figure 5" and so on. For convenience, steps unchanged are left in, and then it describes how that process goes. And when you look at that and looking at the number of fingers, that explains to you, to me at least as a practitioner, what you would do, the type of steps would you do to do this determination of providing a click function in response to the removal and reappearance.

Q. All right. And where in the portions that you just referred us to or anywhere else in the patent does it tell you how you can determine that a click function is being provided in response to the removal and reappearance of the second maxima as opposed to the first maxima?

of the context it's being used in.

Q. There's a reference to a touchpad program containing virtual actuation zone profiles that describe how the virtual actuation zones are distributed around the touchpad relative to the data sensor coordinates.

You see what I'm referring to?

A. Yes.

Q. So the idea there is that I can have a program that stores not just one but potentially multiple virtual actuation zone profiles; correct?

A. Right. The idea -- I mean, 38 is shown back in figure 2. It's a -- like a microcontroller. And it notes that it may store this idea of a touchpad program which is related to the user interface, the user interface is shown sort of the whole device, and it seems that yes -- I don't see that there's a necessary construct in that paragraph -- I mean, it says profiles, but it seems that there may be one set of them.

I mean, I don't know if it's important, but just sort of parsing that paragraph by itself it says that the touch paid may store a touchpad program. So that would be a single program, for controlling different aspects of the user interface. For example,

04:33:53 1 the touchpad program may continue virtual actuation
04:33:57 2 zone profiles that describe how the virtual actuation
04:34:00 3 zones are distributed.
04:34:02 4 I take "profile" there to mean that you may
04:34:04 5 have multiple actuation zone, in essence, data
04:34:08 6 structures to describe the zones. Not necessarily that
04:34:10 7 you have different sets of them, right, but that you
04:34:13 8 have, say, five zones and therefore, you would have
04:34:17 9 five profiles, one per zone, as the data structures
04:34:20 10 that represent that.
04:34:20 11 Q. Five profiles that -- all set in one
04:34:29 12 particular region, or can those profiles come and go in
04:34:32 13 different regions at different times?
04:34:34 14 A. Well, again, I'm just saying in terms of the
04:34:38 15 way I -- are you asking me to sort of interpret that
04:34:40 16 paragraph? The way I read that paragraph, that there
04:34:45 17 may be a set of more than one zone. In other words,
04:34:48 18 that these virtual actuation zones have a location that
04:34:54 19 is distributed around the touchpad relative to the
04:34:57 20 native sensor coordinates, and it also says what type
04:35:00 21 of value to output.
04:35:01 22 So my, you know, quick kind of interpretation
04:35:03 23 of that is that there's a data structure, maybe we'll
04:35:05 24 call it a profile, that's associated with one of these
04:35:08 25 actuation zones, and it has some set of characteristics

sensor?

A. Well, it certainly couldn't be detected without that and the -- there's some process that goes between, you know, a sensor which outputs some signal, if we're perhaps being excited, and turning into a coordinate.

And there's an in-between process there, but you don't have coordinates until you have coordinates.

Q. And so there's some processing that goes on by a chip or a computer or software or something that then takes those raw values of amps or volts or current or whatever and then says for each of the sensors, aha, this is where that sensor is located?

A. No, this is not where the sensor's located, but this is where the object's located that you're trying to sense the position of.

Q. Which object? A finger or a stylus or something like that?

A. Right. In other words, there's -- there are sensors that can tell you where they're located. That is, you can obtain the location of the sensor. But the type of sensing devices that are, you know, we're discussing here today are devices that are intended to identify the location of an object usually in close proximity to.

Q. Such as a finger or a stylus --

A. Right, right.

Q. -- or what-have-you?

A. You want to know where the finger is on the touchpad, touch screen, whatever. You don't want to know where is the touchpad relative to the room boundaries or relative, you know, to its place on the planet.

Q. I understand.

A. That's another kind of sensing.

Q. Got it.

All right. Paragraph 42 you say, "I may also testify that, 'Sensors configured to map the touchpad surface into native sensor coordinates' means sensors configured to produce signals indicating native sensor coordinates."

Do you see that?

A. Yes, I do.

Q. And what are you relying on as support for that proposition in the specification?

A. Well, the same citation and probably other places, and I think this -- the real point I'm trying to make here is that the coordinates in question are the coordinates of the object, not what might be seen as the coordinates of the sensor itself.

04:44:43 1 Q. All right. So I'm looking at the language in
04:45:29 2 paragraph 42 of your report, the claim language
04:45:33 3 "sensors configured to map the touchpad surface into
04:45:36 4 native sensor coordinates," and it appears that that
04:45:39 5 language is found in the first element under the
04:45:41 6 preamble of claim 1; is that right?
04:45:43 7 A. Let's go find it.
04:45:46 8 Q. That's on column 20. Or am I looking at the
04:45:54 9 wrong section of the claim?
04:45:57 10 A. Right, that phrase, "sensors configured to map
04:46:01 11 the touchpad surface into native sensor coordinates,"
04:46:05 12 appears in the first -- in claim 1, for instance, it
04:46:07 13 says, "a touchpad having a surface and one or more
04:46:11 14 sensors configured to map the touchpad surface into
04:46:14 15 native sensor coordinates."
04:46:15 16 Q. And you have offered the opinion that what
04:46:17 17 that means is that the sensors that are described in
04:46:20 18 that element there of claim 1 are configured to produce
04:46:24 19 signals that indicate native sensor coordinates; right?
04:46:29 20 A. Right. That's what I'm saying, that the
04:46:35 21 sensors are producing signals that indicate or can be
04:46:39 22 used to determine the coordinates of the object.
04:46:50 23 Q. And --
04:46:51 24 A. In other words -- I'm sorry. Sorry for a long
04:46:55 25 break there. But if we look at column 5 in the patent,

roughly 37 or so, line 37, says, "the sensor of the touchpad 36 are configured" -- it literally reads "produce signals," but I believe he means to say "configured to produce signals associated with the absolute position of an object on or near the touchpad.

"In most cases, the sensors of the touchpad 36 map the touchpad plane into native or physical sensor coordinates 40. The native sensor coordinates 40 may be based on Cartesian coordinates or Polar coordinates as shown."

Then it goes on to explain that "when Cartesian, the native sensor coordinates 40 typically include" -- I'm sorry, my mistake in reading -- "typically correspond to X and Y coordinates and then a corresponding Polar, as shown, the native sensor coordinates typically correspond to radial and angular coordinates r theta."

And then it says that you can have a bunch of different types of, you know, resistive optical, et cetera.

Q. So under your interpretation, how is it that one of these signals that is produced by a sensor, quote/unquote, indicates a native sensor coordinate?

How does a sensor do that?

A. Well, the outputs of the sensor -- the sensor

is designed so that the signals it generates, potentially when it's excited by some excitation, but the signals it generates are correlated to position.

So, for instance, to give kind of an example of this in a literal sense, if you were to make a capacitive, well, sensing grid of the type we've been talking about, it's typical that you put the grid lines down in a known spot so that when you get signals from them you can calculate the position of the object that's causing the capacitance.

If you put the capacitive pass down randomly, you know, in some hypothetical, then you wouldn't be able to calculate where the object was. You'd see a bunch of varying capacitance, but you wouldn't know, you know, where it came from. Right?

I mean, so you're configuring the sensors such that the signals it generates are indicative or actually relate to position.

Q. Right. The signals that are being generated by the sensors don't themselves carry with them positional information, do they?

The frequency or the amps or whatever, there's no positional information in there, is there?

A. It may. They may. Depends on the sensor type.

04:56:17 1 A. Right.
04:56:18 2 Q. All right. And I think what you said in your
04:56:20 3 report at paragraph 36 is that a cursor control
04:56:23 4 operation means providing cursor positioning data to
04:56:27 5 effect movement of the cursor; is that right?
04:56:29 6 A. Well, I said that it's a cursor tracking
04:56:36 7 operation that controls the movement of the cursor on
04:56:38 8 the screen.
04:56:39 9 Q. Where did you say that? I didn't see that
04:56:50 10 word "tracking," so maybe you can point that out to me.
04:56:54 11 A. Well, we're talking about my paragraph 36, and
04:56:58 12 I note that, you know, at 6:9-13, "The '218 patent
04:57:04 13 expressly states that a cursor control operation is a
04:57:06 14 cursor tracking operation. That is, an operation that
04:57:09 15 controls the movement of the cursor on the screen."
04:57:11 16 Q. Right. And what I'm trying to understand,
04:57:12 17 first of all, is we have some claim language, "cursor
04:57:16 18 control operation," and I first of all wanted to get
04:57:19 19 your opinion then on what you believe that term means,
04:57:26 20 how it should be construed by one of ordinary skill in
04:57:29 21 the art.
04:57:30 22 I thought you had construed it to mean
04:57:33 23 providing cursor positioning data to affect movement of
04:57:37 24 the cursor, but I may have that wrong.
04:57:42 25 A. Well, I mean, I guess you're asking sort of

04:59:01 1 Q. All right. So now, with that construction in
04:59:05 2 mind that you've provided there of what a cursor
04:59:08 3 control operation is, can you point out to me where in
04:59:13 4 the specification there are described three cursor
04:59:20 5 control operations, a first one, a second one and a
04:59:23 6 third one that are based on the duration of contact and
04:59:26 7 gap intervals?
04:59:28 8 A. Okay. And I'll direct your attention back
05:00:00 9 again to 6 to 9 to 13 where it explains column 6, lines
05:00:05 10 9 to 13 where it says, "As shown in part A of figure
05:00:12 11 5" --
05:00:13 12 THE REPORTER: Slow down.
05:00:13 13 THE WITNESS: I'll just read the -- "if the
05:00:14 14 first contact interval lasts longer than the maximum
05:00:17 15 tap interval," and then there's an example here in
05:00:21 16 parentheses, "i.e., if T subscript T1 is greater than T
05:00:23 17 subscript max, the operation of the touch-sensitive
05:00:26 18 cursor controlling input device during the first
05:00:29 19 contact interval is identified as a cursor control
05:00:31 20 operation, i.e., a cursor tracking operation."
05:00:36 21 And then it goes on to, "Thus, positional data
05:00:38 22 relating to user's contact with a touch-sensitive input
05:00:42 23 device is supplied to the computer system in order to
05:00:44 24 effectuate cursor movement on the computer screen."
05:00:46 25 Now, going back to understand the context of

this to column 5, there's a section which deals with -- I'll just read the whole paragraph beginning at column 5, line 5.

"Consequently, touchpad 200 generates x, y and z data pertaining to the user's contact with the touchpad, e.g., pertaining to the position of the operator's finger on the touchpad, over some region in the x, y and z directions.

"Velocities, accelerations, timing differentials and signal strengths may be determined from this data string. As mentioned below, when these parameters are considered along with prior events, it is possible to discern between cursor manipulation, click, multi-click, drag, click-and-drag, and multi-click and drag operations."

And if we look about what some of these operations are, cursor manipulation would be just simply positioning the cursor. Click would be a button press and release, multi-click would be some set of those in close proximity, drag is the operation wherein the button is down and then there's motion.

Click-and-drag as described here would be a click immediately followed by a drag. So it would be down, up, back down, and then motion. And then the next one there would be a multi-click-and-drag

operation, which would be something on the order of down, up, down, up, down, drag.

So to the extent that there's three cursor control operations you asked me to identify, certainly a cursor positioning would be one, dragging would be two, click-and-drag would be three, and multi-click and dragging would be four.

Q. There is in figure 2 of this patent, I believe, an element called 215.

A. Right.

Q. And I believe that that's called a balance-measuring circuit in the patent.

A. Counsel, do you perchance know what the relative section is just to speed us up here?

Q. Column 4 is what I was focused on, but I didn't want to limit you there.

A. I'll start there. Thank you.

Okay. I mean, in the interest of time, I'm generally familiar with that paragraph.

Go ahead, please.

Q. All right. My question is, what is the function of the balance-measuring circuit 215?

A. In general, this is a kind of top-level description of this particular sensing means. In general, there's a technique to determine, I guess,

total number of tapes used was four. The master videotapes of today's deposition will remain in the custody of McMahon & Associates McMahon & Associates, LLC.

We're now off the record. The time is 5:25 p.m.

(The deposition of ROBERT DEZMELYK was adjourned at 5:25 p.m. this date.)

--- oOo ---

I certify under penalty of perjury that the foregoing is true and correct.

Date _____ _____

ROBERT DEZMELYK