

United States District Court,
N.D. California.

ELANTECH DEVICES CORP., a corporation existing under the laws of Taiwan, R.O.C,
Plaintiff.

v.

SYNAPTICS, INC., a Delaware corporation; and Averatec, Inc., a California corporation,
Defendants.

No. C 06-01839 CRB

April 6, 2007.

Sean Debrune, Akin Gump Strauss Hauer & Feld LLP, Palo Alto, CA, Hsin-Yi Cindy Feng, Ming-Tao Yang, Yitai Hu, for Plaintiff.

Karl J. Kramer, Erika Lin Labit, Robert L. McKague, Morrison & Foerster LLP, Palo Alto, CA, Damir Cefo, Elizabeth Farber Bernhardt, Karen Helene Bromberg, Cohen & Gresser LLP, New York, NY, Scott R. Raber, Kast Ner/Banchero LLP, San Francisco, CA, for Defendants.

CLAIM CONSTRUCTION ORDER

CHARLES R. BREYER, United States District Judge.

Elantech Devices Corp. ("Elantech") filed suit against Synaptics, Inc. ("Synaptics") for infringement of U.S. Patent No. 5,825,352 ("the '352 patent"). Synaptics counterclaimed for infringement of U.S. Patents No. 5,880,411 ("the '411 patent"), No. 5,943,052 ("the '052 patent"), No. 5,543,592 ("the '592 patent"), and No. 6,380,931 ("the '1 patent"). The Court will construe eight claim terms selected by the parties.

BACKGROUND

I. The '411 Patent

The '411 patent, entitled "Object Position Detector With Edge Motion Feature and Gesture Recognition," discloses a method to enable a touchpad to recognize finger contact, movement, and drag gestures, and to emulate various mouse functions. The patent was issued March 9, 1999, and by assignment, Synaptics is the owner of the entire right, title, and interest of the '411 patent.

The '411 patent contains only one of the claim terms to be construed: "incrementally move." The relevant patent claims are directed to a method for extrapolating cursor motion once the user reaches the edge of a touchpad. FN1 The general goal of the relevant claims is to detect when the user wants to move the cursor to a position that is beyond the limited bounds of the touchpad and to move the cursor accordingly-this is called cursor "edge motion." ' 411 patent at 5:9-10.

FN1. The term to be construed is present in claims 40, 46, 53, and 59.

II. The '931 Patent

The '1 patent, entitled "Object Position Detector With Edge Motion Feature and Gesture Recognition," discloses a method to enable a touchpad to recognize tap gestures and emulate various mouse functions. The patent was issued April 30, 2002, approximately three years after the '411 patent, and by assignment, Synaptics is the owner of the entire right, title, and interest of the '1 patent.

The '1 patent contains three of the claim terms to be construed: (1) "initiating a signal to the host indicating the occurrence of said tap gesture;" (2) "maintaining said signal for a predetermined period of time;" and (3) "detecting in which of at least one corner of the touch-sensor pad said tap gesture occurred." The first two claim terms are related and are generally directed to "a method for recognizing a tap gesture made on a touch-sensor pad." FN2 The patent claim relevant to the third claim term is directed to detecting the occurrence of a tap gesture in a particular corner. The patentee asserts that the invention allows for greater structural design flexibility and efficiency. The patentee described methods of recognizing tap gestures that were known in the prior art, and asserted that the prior art systems were slower, less intuitive for users, and more likely to cause user strain.

FN2. The first two terms to be construed are present in claims 1 and 7. The third term is present in claim 5.

III. The '352 Patent

The '352 patent, entitled "Multiple Fingers Contact Sensing Method for Emulating Mouse Buttons and Mouse Operations on a Touch Sensor Pad," discloses a method for recognizing the presence of multiple fingers on a touchpad and emulating various mouse function; the patent also discloses a touchpad with such capabilities. The patent was issued October 20, 1998, and by assignment, Elantech is the owner of the entire right, title, and interest of the '352 patent.

The '352 patent contains four of the claim terms to be construed: (1) "scanning the touch sensor" or "means for scanning the touch sensor to ...;" (2) "*scanning the touch sensor to ... identify a first maxima in a signal corresponding to a first finger;*" (3) "*scanning the touch sensor to ... identify a minima following the first maxima;*" and (4) "*scanning the touch sensor to ... identify a second maxima in a signal corresponding to a second finger following said minima.*" The claims are directed to "a method for detecting the operative coupling of multiple fingers to a touch sensor." FN3 Generally, the goal of the method is to detect the presence of multiple fingers on a touch sensor and emulate mouse functions. The patentee described methods of emulating mouse functions using a touchpad that were known in the prior art, and asserted that these systems were more stressful and less intuitive than using a mouse.

FN3. The terms to be construed are present in claims 1 and 18.

DISCUSSION

I. Legal Standard for Claim Construction

Claim construction is a matter of law for the court to decide. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed.Cir.1995), *aff'd*, 517 U.S. 370, 372, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). When construing claims, a court first looks to intrinsic evidence of record, and thereafter, if appropriate, to extrinsic evidence. *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed.Cir.1996). Intrinsic evidence comprises the patent claims, the specification, and, if entered into evidence, the prosecution history. *Id.* Intrinsic evidence also comprises the prior art cited in a patent or during the prosecution. *Kumar v. Ovonic Battery Co.*, 351 F.3d 1364, 1368 (Fed.Cir.2003). In most cases, the intrinsic evidence alone will determine the proper meaning of the claim terms. *Vitronics*, 90 F.3d at 1583.

When construing claims, the analysis begins with, and must focus on, the language of the claims themselves. *Interactive Gift Exp., Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1331 (Fed.Cir.2001). If the claim language is clear on its face, then the rest of the intrinsic evidence is considered only for whether any deviation from the plain meaning is specified. *Id.* Deviation may be warranted if, for example, the patentee has "chosen to be his own lexicographer," or if the patentee has disclaimed a certain portion of the claim scope that would otherwise be afforded by the plain meaning. *Id.* (citations omitted). Where the claim language is not clear, other intrinsic evidence is used to resolve the lack of clarity. *Id.*

Generally, a court gives the words of a claim their ordinary and customary meaning. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed.Cir.2005) (en banc). The "ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Id.* at 1313. The context in which a word appears in a claim informs the construction of that word. *Id.* at 1314. Where there are several common meanings, the patent disclosure "serves to point away from the improper meanings and toward the proper meanings." *Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1300 (Fed.Cir.2003) (citation omitted). If more than one definition is consistent with the usage of a term in the claims, the term may be construed to encompass all consistent meanings. *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1203 (Fed.Cir.2002).

Other claims of the patent in question "can also be valuable sources of enlightenment as to the meaning of a claim term." *Phillips*, 415 F.3d at 1314. Because claim terms are normally used consistently throughout the patent, "the usage of a term in one claim can often illuminate the meaning of the same term in other claims." *Id.* The presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim. *Id.* at 1315.

Claims must be read in light of the specification. *Markman*, 52 F.3d at 979. The specification "is the single best guide to the meaning of a disputed term." *Vitronics*, 90 F.3d at 1582. Where a claim term has multiple yet potentially consistent, definitions, the rest of the intrinsic record, beginning with the specification, provides further guidance. *Brookhill-Wilk*, 334 F.3d at 1300. If the patentee explicitly defined a claim in the specification, that definition trumps the ordinary meaning of the term. *CCS Fitness v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed.Cir.2002). The specification may define a term by implication. *Phillips*, 415 F.3d at 1321. The specification may also reveal a disclaimer of the claim scope by indicating that the invention and all of its embodiments only occupy part of the broad meaning of a claim term. *SciMed Life Sys. v. Advanced Cardiovascular Sys.*, 242 F.3d 1337, 1343-44 (Fed.Cir.2001).

It is error, however, to import a limitation from the specification into the claim. *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 905 (Fed.Cir.2004). Standing alone, an embodiment disclosed in the specification does not limit the claims. *Id.* at 906. Even when the specification describes only a single

embodiment, the claims of the patent are not to be construed as restricted to that embodiment unless the patentee demonstrates a clear intention to limit the claim scope using "words or expressions of manifest exclusion or restriction." *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1327 (Fed.Cir.2002). Absent clear statements of scope, courts are constrained to follow the language of the claims and not that of the written description provided by the specification. *Id.* at 1328; *see also* *Specialty Composites v. Cabot Corp.*, 845 F.2d 981, 987 (Fed.Cir.1988) (stating a limitation should not be read into the claims unless a specification so requires).

Conversely, a construction that excludes a preferred embodiment is "rarely, if ever, correct." *Pfizer Inc. v. Teva Pharm., USA, Inc.*, 429 F.3d 1364, 1374 (Fed.Cir.2005) (*quoting* *Sandisk Corp. v. Memorex Products, Inc.*, 415 F.3d 1278, 1285 (Fed.Cir.2005)). Courts require highly persuasive evidence that the claims do not encompass a preferred embodiment. *Vitronics*, 90 F.3d at 1583.

II. Construction of the Disputed Terms

The following analysis considers as intrinsic evidence the claims, the specification, and the prosecution history.

A. The '411 Patent

The parties have requested the Court to construe the term "incrementally move."

1. "Incrementally move"

Claims 40, 46, 53, and 59 of the '411 patent contain the term "incrementally move." For example, claim 40 recites, in relevant part:

... generating second cursor motion signals different from said first cursor motion signals if said object has moved into said outer region of said sensing plane, said second cursor motion signals for causing said cursor to *incrementally move* on the display screen a selected distance in a direction representing the difference between a fixed reference point on said sensing plane and said present position of said object on said sensing plane....

'411 patent at 62:53-60 (emphasis added).

Elantech proposes a construction of "movement defined by the second component of Equations 12 and 13 in the '411 patent, namely, $S(X_{\text{cur}}-X_{\text{center}})$ and $S(Y_{\text{cur}}-Y_{\text{center}})$." Limitations in narrow claims dependent from claim 40 may not be imported into the broad language of claim 40. The limitation in dependent claim 44 sets the "fixed reference point" of claim 40 as the center of the sensing plane. Dependent claim 45 includes a speed variable in the calculation of the incremental motion of claim 40. A construction of "movement defined by the second component of Equations 12 and 13 in the '411 patent, namely, $S(X_{\text{cur}}-X_{\text{center}})$ and $S(Y_{\text{cur}}-Y_{\text{center}})$ " would impermissibly import limitations from dependent claims into a broad claim.

Moreover, Elantech's very narrow construction limiting the claims to one embodiment ignores the explicit statement in the specification of the '411 patent: "[t]hose of ordinary skill in the art will recognize that a linear proportionality is described by the above equation. As used herein, 'proportionality' means that the signal generated is a monotonic function. Those of ordinary skill in the art will recognize that other

monotonic functions, including but not limited to inverse proportionality, and non-linear proportionality such as logarithmic or exponential functions, could be employed in the present invention without departing from the principles disclosed herein." '411 patent at 31:29-38. This statement immediately follows an explanation of how Equations 12 and 13 might be applied within an algorithm in the preferred embodiment. '411 patent at 30:65-67-31:1-29.

The term "incrementally move" means "move in calculated increments."

B. The '931 Patent

The parties have requested the Court to construe the following three terms:

- (1) "initiating a signal to the host indicating the occurrence of said tap gesture;"
- (2) "maintaining said signal for a predetermined period of time;" and
- (3) "detecting in which of at least one corner of the touch-sensor pad said tap gesture occurred."

The first and second terms appear together in the claims, and both are used to describe steps concerned with transmission of a signal; these terms will be analyzed together.

1. "Initiating a signal to the host indicating the occurrence of said tap gesture" and "Maintaining said signal for a predetermined period of time"

Claims 1 and 7 of the '1 patent both contain the term "initiating a signal to the host indicating the occurrence of said tap gesture" and the term "maintaining said signal for a predetermined period of time." Claim 1 recites, in relevant part:

... initiating a signal to the host indicating the occurrence of said tap gesture if the amount of time said conductive object is present on said touch pad is less than said reference amount of time and if the amount of motion made by said conductive object while it is present on said touch pad is less than said reference amount of motion; and maintaining said signal for a predetermined period of time.

'1 patent at 53:4-12 (emphasis added).

For the term "initiating a signal to the host indicating the occurrence of said tap gesture," Synaptics proposes a construction of "initiating the transmission of a set of data to a computer, or other device that can take as input the output of a touch-sensor pad, that indicates that a tap gesture has occurred on the touch-sensor pad." Elantech proposes a construction of "outputting to the host a high state of a signal that has a low and a high state, where the high signal state represents that a tap gesture occurred on the touch-sensor pad."

For the term "maintaining said signal for a predetermined period of time," Synaptics proposes a construction of "to continue, retain, or repeat the signal for a period of time that was determined before." Elantech proposes a construction of "continuously outputting the high state of the signal only for a predetermined time period (i.e., changing the signal state from high to low at the end of the predetermined time period)." In other words, Elantech asserts that a "signal" has only two states and that "maintaining" the signal can only be accomplished by continuous output of the signal, while Synaptics asserts a flexible construction of the

word "signal" as "the transmission of a set of data" and that "maintaining" a signal may be accomplished in several ways.

The claims and the specification do not support a construction where a "signal" can only represent a low state and a high state. The word "signal" is used broadly throughout the '1 patent. As used in claim five, a "signal" is able to indicate both that a tap gesture occurred and *where* the tap gesture occurred. This type of complex data communication is beyond the capacity of a signal that only has a low state and a high state, and there is nothing in the claims to indicate that the word "signal" in claim five should be construed differently than the word "signal" in claims one or seven. The word "signal" is also used in other contexts throughout the '1 patent: a packetized "10-bit wide digital signal," '1 patent at 13:64-65, and "a monotonic function." '1 patent at 31:59-60. In their opposition brief, Elantech argues that every reference to the word "signal" that relates to gesture recognition refers only to the "OUT" signal described in Fig. 15a-e. However, the "OUT" signal described in Fig. 15a-e of the specification is the output of tap unit 280, which is only one component in the circuitry. *Id.* at 34:23-29. The "OUT" signal is not the ultimate signal which is sent to the host, as described in the relevant claims; it is only used to convey information about (1) the fact that a tap gesture occurred, and (2) which button click should be emulated-left, middle, or right. *Id.* at 35:26-27.

There is little in the intrinsic evidence that describes exactly how a "signal" is "maintained." Nothing in the claims addresses this point, but one clue arises in the description of the flowchart that illustrates the operation of the tap unit: "[s]tep 334 also sets the Suppress flag to True to cause the virtual button signal to stay low for a short period." '1 patent at 43:1-2; Fig. 17B. The fact that setting a flag to a value of True could cause a signal to "stay low"-to maintain a particular value-"for a short period of time" indicates that there is more than one way of "maintaining" a signal. There is no evidence to support Elantech's construction that a signal is "maintained" only by continuously outputting the signal.

The term "initiating a signal to the host indicating the occurrence of said tap gesture" means "initiating the transmission of a set of data to a computer, or other device that can take as input the output of a touch-sensor pad, that indicates that a tap gesture has occurred on the touch-sensor pad." The term "maintaining said signal for a predetermined period of time" means "to continue, retain, or repeat the signal for a period of time that was determined before."

2. "Detecting in which of at least one corner of the touch-sensor pad said tap gesture occurred"

Claim 5 of the '1 patent recites, in relevant part:

... detecting in which of at least one corner of the touch-sensor pad said tap gesture occurred ...

Id. at 53:29-30 (emphasis added).

Synaptics proposes a construction of "detecting that a tap gesture has occurred in at least one corner, the identity of which is distinguished in some way from other corners of the touch-sensor pad." Elantech proposes a construction of "after detecting the occurrence of the tap gesture, separately detecting in which of at least one corner of the touch-sensor pad the tap gesture occurred." In other words, Synaptics asserts that the single event of the detection of the occurrence of the tap gesture also provides information on where the tap gesture occurred, while Elantech asserts that the detection of where the tap gesture occurred is a separate event from the detection of the occurrence of the tap gesture.

Claim five requires that the first two detection steps be complete by the time the last step of the method is executed, since it is not possible to send a signal "indicating the occurrence of said tap gesture and in which of at least one corner of said touch-sensor pad said tap gesture occurred" unless one has already detected the occurrence of said tap gesture and detected in which of at least one corner of said touch-sensor pad said tap gesture occurred. However, there is nothing in the claim language to indicate that the two detection steps could not occur simultaneously.FN4 Elantech argues that "[i]t would be impossible to detect in which of at least one corner of the touch-sensor pad said tap gesture occurred if the tap gesture has not previously been detected," and cites cases where an order has been imposed upon steps in a method. However, in all the cases cited there is a modifying adjective present in one step of the method that refers to an action taken in a previous step-an explicit link that requires the imposition of an order as between the two steps.FN5 The cited cases are therefore distinguishable because in the second detection step here there is no adjective modifying the phrase "tap gesture" that refers to an action taken in the first detection step.

FN4. The specification and the figures illustrate in meticulous detail the steps involved in detecting the occurrence of a tap gesture and (assuming that it was a corner tap) detecting in which corner the tap gesture occurred. "1 patent at 42:34-44:33; Fig. 17B-C. Step 326 is where the tests are performed to determine whether a tap gesture has occurred, and step 348 is where the tests are performed to determine whether a corner tap has occurred. As described in the specification and figures, there are many interleaving steps, however, there is no way to arrive at step 348 without first proceeding through step 326. Nevertheless, an order cannot be imposed as between the two detection steps since there is no law to support such a ruling where the plain words of the claim impose no such order.

FN5. Elantech cites *Combined Sys., Inc. v. Def. Tech. Corp. of Am. and Fed. Labs.*, 350 F.3d 1207, 1210 (Fed.Cir.2003) (claim 1 of the '562 patent recites a step of "*forming folds* in said tubular sock-like projectile body" and then a step of "*inserting said formed folds* of said tubular sock-like projectile body") (emphasis added); *see also* *Mantech Env'tl. Corp. v. Hudson Env'tl. Servs., Inc.*, 152 F.3d 1368, 1376 n. 13 (Fed.Cir.1998) (where claim 1 of the '483 patent recites a step of "providing a treating flow of *acetic acid* ... into said groundwater region" and then a step of "introducing ... an aqueous solution of ferrous ion into said groundwater region, for mixing with said *acidified groundwater*") (emphasis added).

The term "detecting in which of at least one corner of the touch-sensor pad said tap gesture occurred" means "detecting that a tap gesture has occurred in at least one corner, the identity of which is distinguished in some way from other corners of the touch-sensor pad."

C. The '352 Patent

The parties have requested the Court to construe the following four terms:

- (1) "scanning the touch sensor" or "means for scanning the touch sensor to ...;"
- (2) "*scanning the touch sensor to* ... identify a first maxima in a signal corresponding to a first finger;"
- (3) "*scanning the touch sensor to* ... identify a minima following the first maxima;" and

(4) "*scanning the touch sensor to ... identify a second maxima in a signal corresponding to a second finger following said minima.*"

The latter three terms are used in the context of scanning the touch sensor and together describe the process of recognizing the presence of one or more fingers on the touch sensor; these three terms will be analyzed together.

1. "Scanning the touch sensor"

Claims 1 and 18 of the '352 patent both contain the term "scanning the touch sensor." Claim 1 recites, in relevant part:

... scanning the touch sensor to (a) identify a first maxima in a signal corresponding to a first finger, (b) identify a minima following the first maxima, (c) identify a second maxima in a signal corresponding to a second finger following said minima....

'352 patent at 16:16-20 (emphasis added).

Elantech proposes a construction of "examining information associated with the touch sensor." Synaptics contends that the phrase should be construed to mean "measuring the traces in the touch sensor and assigning them to a sequence corresponding to their physical order on the touch sensor." In other words, Elantech asserts a broad construction of "scanning the touch sensor" that is not tied to any particular touch sensor technology and that the data obtained from scanning the touch sensor need not be structured or ordered in any way. By contrast, Synaptics asserts that the "touch sensor" must be limited to capacitive devices using traces and that each capacitance value obtained from scanning the touch sensor must be associated with information representing the particular position on the touch sensor where the value was detected; Synaptics does not argue that the traces must be sensed in a sequential fashion and agrees that, as disclosed by the '352 patent, all traces may be sensed simultaneously.

There is nothing in the language of claims 1 or 18 that require a construction of a "touch sensor" that includes traces. In fact, claim 6, which is dependent from (and thus narrower than) claim 1, includes a limitation on the touch sensor "wherein said touch sensor includes a plurality of lines." Furthermore, the specification explicitly states that "[t]he present invention may be implemented based on any conventional touch sensing technology, although an exemplary embodiment involves the use of a capacitive touch sensing device." '352 patent at 2:20-24. Synaptics argues that because the parties have agreed on a construction of the term "operative coupling" to mean "electrical finger-induced effect," the claims must then be limited to methods and systems that measure such an electrical phenomenon. Although this may be true, there is no evidence that methods and systems that detect electrical finger-induced effect necessarily require traces.

Elantech's construction of "examining information associated with the touch sensor," by contrast, is far too broad, as such words could be interpreted to include determining the chemical composition of the surface of the touch sensor, the manufacture date of the touch sensor, or the power consumption metrics of the touch sensor. The term "scanning the touch sensor" only appears in claims 1 and 18, and the term only appears in conjunction with the purpose of seeking to detect operative coupling. '352 patent at 16:16-20, 17:29-34. As stated in Elantech's own reply brief, the purpose of "scanning the touch sensor" is "to identify finger presence."

The term "scanning the touch sensor" means "measuring the values generated by a touch sensor to detect operative coupling and determining the corresponding positions at which measurements are made."

2. "Scanning the touch sensor to (a) identify a first maxima in a signal corresponding to a first finger, (b) identify a minima following the first maxima, (c) identify a second maxima in a signal corresponding to a second finger following said minima"

Claims 1 and 18 of the '352 patent both contain the three terms "identify a first maxima in a signal corresponding to a first finger," "identify a minima following the first maxima," and "identify a second maxima in a signal corresponding to a second finger following said minima." Claim 1 recites, in relevant part:

.... *scanning the touch sensor to* (a) identify a first maxima in a signal corresponding to a first finger, (b) identify a minima following the first maxima, (c) identify a second maxima in a signal corresponding to a second finger following said minima....

Id. at 16:16-20 (emphasis added).

For the term "identify a first maxima in a signal corresponding to a first finger," Elantech proposes a construction of "identify a first peak value in a finger profile obtained from scanning the touch sensor." Synaptics proposes a construction of "measuring the trace values of the touch sensor corresponding to a first finger and determining the point at which the measured values cease to increase and begin to decrease."

For the term "identify a minima following the first maxima," Elantech proposes a construction of "identify the lowest value in the finger profile that occurs after the first peak value, and before another peak value is identified." Synaptics proposes a construction of "measuring the trace values of the touch sensor following, in scan order, said minima and determining the point at which the measured values cease to decrease and begin to increase."

For the term "identify a second maxima in a signal corresponding to a second finger following said minima," Elantech proposes a construction of "after identifying the lowest value in the finger profile, identify a second peak value in the finger profile." Synaptics proposes a construction of "measuring the trace values corresponding to a second finger following, in scan order, said minima and determining the point at which the measured values cease to decrease and begin to increase."

In other words, Elantech asserts that a "maxima" or "minima" represents only the maximum or minimum capacitance value measured across a finger profile; a "maxima" or "minima" does not refer in any way to the particular position[s] on the touch sensor where the maximum or minimum capacitance values appear. Synaptics asserts that a "maxima" or "minima" represents not only the capacitance measured at that one trace, but also the particular position on the touch sensor where that maximum or minimum level of capacitance was detected across the finger profile. Synaptics also asserts that within a finger profile, a "maxima" or "minima" can only appear at one precise point on the touch sensor, and so when a maximum or minimum capacitance value, as measured across a finger profile, appears at multiple traces (a plateau), the "maxima" or "minima" appears at the last trace that is included within that plateau region. Finally, Synaptics asserts that, in accordance with its construction of "scanning the touch sensor," a limitation must be imposed upon the location in which a minima following a first maxima or a second maxima following a minima may appear.

Synaptics bases its argument on the detailed mechanics of the embodiment described in the specification and in Fig. 5-6. There is support in the claims for a construction of the terms "maxima" and "minima" as data objects that have position information, as well as a capacitance value; FN6 however, there is no support in the intrinsic evidence for a construction of either the term "maxima" or the term "minima" wherein the position information can only relate to a precise point—a single X axis value and a single Y axis value. Such a construction could twist the ordinary meaning of a "maxima" or a "minima" so as to exclude a plateau maxima, where the maximum capacitance value appears over a range of X axis values and/or Y axis values.

FN6. Claim 8 adds a step to the method of claim 1 of "comparing a distance between said first maxima and said second maxima to a predefined threshold." '352 patent at 16:41-43. Claim 10 adds the step of "detecting a distance between said first and second maxima." '352 patent at 16:57-59.

Claim 15 adds the step of "determining if said first and second maxima are within 5 centimeters." '352 patent at 17:17-18-43. Claim 13 also adds a step of "detecting a movement of said first maxima." '352 patent at 17:2.

The term "identify a first maxima in a signal corresponding to a first finger" means "identify a first peak value in a finger profile obtained from scanning the touch sensor." The term "identify a minima following the first maxima" means "identify the lowest value in the finger profile that occurs after the first peak value, and before another peak value is identified." The term "identify a second maxima in a signal corresponding to a second finger following said minima" means "after identifying the lowest value in the finger profile, identify a second peak value in the finger profile."

IT IS SO ORDERED.

N.D.Cal.,2007.

Elantech Devices Corp. v. Synaptics, Inc.

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