

EXHIBIT 6

**COMPLAINANT'S INITIAL MARKMAN BRIEF
INV. NO. 337-TA-1215**

**UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, D.C.**

**Before The Honorable Dee Lord
Administrative Law Judge**

In the Matter of

**CERTAIN MOBILE ELECTRONIC DEVICES AND
LAPTOP COMPUTERS**

Investigation No. 337-TA-1215

**EXPERT DECLARATION OF JACOB O. WOBBROCK, PH.D.
IN SUPPORT OF MAXELL LTD.'S PROPOSED CLAIM CONSTRUCTIONS**

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43. This capability to distinguish different types of inputs enables enhanced functionality and enhance security, “thus contributing to improved convenience” and usability of the apparatus. ’086 Pat. at 7:46-48.

V. OPINIONS REGARDING THE DISPUTED TERMS OF THE ’086 PATENT

44. My opinions herein pertain to the meaning of two claim terms “first controller . . .” and “second controller . . . ,” as listed in full below. Apple’s proposed constructions raise the same dispute for both of these terms; I therefore address them collectively below:

Claim Term	Maxell and Staff’s Construction	Apple’s Construction
“first controller configured to control the information processing apparatus to operate into two operating modes: at least an identification mode and a registering mode, as the operating mode thereof” ’086 Patent, Claim 1	35 U.S.C. §112 ¶ 6 does not apply to this limitation. Plain and ordinary meaning, <i>i.e.</i> , a first controller that can operate the information processing apparatus in two operating modes, comprising at least (1) an identification mode; and (2) a registering mode	This claim term should be governed by pre-AIA 35 U.S.C. § 112, ¶6. Function: Control the information processing apparatus to operate into two operating modes: at least an identification mode and a registering mode, as the operating mode thereof Claimed Structure: Control unit 3 as depicted in Figure 2, which includes an arithmetic section, a counter, a determination unit that determines condition in accordance with input information into the control unit 3, and a storage unit which stores various types of data (3:24-30), and equivalents thereof.
“second controller configured to execute a specified process when said first information and said second information are coincident within said identification mode” ’086 Patent, Claim 1	35 U.S.C. §112 ¶ 6 does not apply to this limitation. Plain and ordinary meaning, <i>i.e.</i> , a second controller that can execute a specified process when said first information and said second information are coincident	This claim term should be governed by pre-AIA 35 U.S.C. § 112, ¶6. Function: Execute a specified process when said first information and said second information are coincident within said identification mode.

Claim Term	Maxell and Staff's Construction	Apple's Construction
	within said identification mode	Structure: Control unit 3 as depicted in Figure 2, which includes an arithmetic section, a counter, a determination unit that determines condition in accordance with input information into the control unit 3, and a storage unit which stores various types of data (3:24-30), and equivalents thereof, which is indefinite because it is not a second controller.

45. I have reviewed Maxell and Staff's proposed constructions and Apple's proposed constructions for the controller terms and considered them in view of the claims, specification (including the figures), and prosecution history of the '086 Patent, as well as extrinsic evidence.

46. For the reasons described below, it is my opinion that 35 U.S.C. §112 ¶ 6 does not apply to these terms. Instead, these terms should be given their plain and ordinary meaning as provided in Maxell and Staff's proposed construction.

47. For example, the terms do not use "means" or "step for" language. Thus, a person of ordinary skill in the art would understand that there is no presumption that 35 U.S.C. §112 ¶ 6 applies, and Apple has not provided any rationale for why it should apply.

48. In addition, reading the claim terms as a whole, a person of ordinary skill in the art would recognize that the claim language for both terms recite sufficient structure and acts within the claim to perform the recited function. For example, the terms recite a "first controller" and "second controller" that perform the material acts of "control[ing] the information processing apparatus to operate into two operating modes," and "execute a specified process when said first information and said second information are coincident." '086 Patent, at claim 1. Thus, for this additional reason 35 U.S.C. §112 ¶ 6 should not apply.

49. Further, in my opinion, a person of ordinary skill in the art would understand that the terms “first controller” and “second controller,” as used in claim 1, connote sufficiently definite structure for the stated functions.

50. It is my opinion that “controller” is well understood in the electrical engineering context to connote a variety of structures for performing particular tasks, depending on application. Evidence supporting my opinion is included below:

Dictionary and Term	Definition
IBM Dictionary of Computing (1994) at 145 “controller”	“A device that coordinates and controls the operation of one or more input/output devices, such as workstations, and synchronizes the operation of such devices with the operation of the system as a whole.”
Microsoft Computer Dictionary, Fifth Edition (2002) at 128 “controller”	“A device that other devices rely on for access to a computer subsystem.”
Chambers Dictionary of Science and Technology (2007) at 272 “controller”	“A device that controls a functional element within a computer system.”
Comprehensive Dictionary of Electrical Engineering, Second Edition, 2005 at 148 “controller”	“A unit that directs the operation of a subsystem within a computer.”
A Dictionary of Computing, Oxford University Press, Sixth Edition (2008) at 111 “controller”	“A subsystem that governs the functions of attached devices but generally does not change the meaning of the data that may pass through it.”

51. Each of these technical dictionaries confirms that a person of ordinary skill in the art would understand that “controller” denotes a sufficient structure and no construction (beyond plain and ordinary meaning) would be necessary for these terms. For example, they all provide a

consistent meaning that a controller is a component of a computer system that controls the operation of a subsystem within the computer system. And the accompanying modifying language in the claim, and the context from the specification, makes it clear that the claimed controllers are that of a “portable terminal” that are similarly used to control various operations of this portable terminal.

52. It is plain from the claim terms itself, the surrounding claim language, and the specification, that the first controller “controls the information processing apparatus to operate in two operating modes” and the second controller “execute[s] a specified process when said first information and said second information are coincident.” In addition, the specification of the ’086 Patent provides numerous exemplary disclosures that show that the inventor of the ’086 Patent used the term “controller” consistent with its plain and ordinary meaning:

- “Reference numeral 3 denotes a control unit for controlling elements of the touch panel 1.” ’086 Patent, 3:24-26 (explaining that the control unit is controlling the subsystem of the touch panel).
- “Then, the control unit 3 starts a program, adjusts the sensors, initializes the threshold value, and performs initial settings for screen display and other factors (S1000). After the initial setting procedure, the control unit 3 performs control to display lock cancel screen on the touch panel 1 (S1001). As can be seen in FIG. 4A, a lock cancel icon is present in the lock cancel screen which can be dragged in a y direction and a -y direction with a finger tip. The control unit 3 holds until the user drags the lock cancel icon with a finger tip (S1002).” ’086 Patent, 3:63-4:5 (explaining that the control unit executes a program to control various operations including initializing the display and lock operations).
- “The control unit 3 calculates the average value ‘2’ of the number of columns of sensors 4 that responded to the contact with the finger and adds a correction value ‘1’ to the average, thereby defining a threshold value ‘3’. The threshold value is stored in the control unit 3.” ’086 Patent, 4:15-20 and 4:30-34 (explaining that the control unit calculates an average value and stores a threshold value)
- “The control unit 3 unlocks the portable terminal 0 (S1004) and waits until the user makes various inputs by way of the touch panel 1 (S1005). Receiving an input with a contact range equal to or narrower than the threshold value (specifically, “3” or less) (S1006), the control unit 3 determines that a finger tip input is made

(S1007). Receiving an input with a contact range wider than the threshold value (specifically, “4” or more) (S1006), the control unit 3 determines that a finger pad input is made (S1008). After that, various operations are performed following the order of the input.” ’086 Patent, 4:42-51 (explaining that the control unit controls the unlocking operations).

- “When no input is made for a predetermined period, several minutes for example, the control unit 3 stores the time and date of calibration, the threshold value, and other setting values, and then locks the portable terminal 0 (S1009). The control unit 3 displays the lock cancel screen (S1001) when a lock cancel switch assigned to the button switch 5 is pushed (S1010). When the button switch 5 is pressed for a certain time while the power of the portable terminal 0 is on, the power turns off.” ’086 Patent, 4:52-60 (explaining that the control unit stores time and date of calibration and locks the portable terminal).
- “The control unit 3 stores the time t00 at which the contact is started. If the number of sensors responding to the contact range would not change at the subsequent time t01 and time t02, the control unit 3 determines the contact as a finger tip flicking. If the number of sensors responding increases as time elapses as the time t01 and the time t02, the control unit 3 determines the contact as a finger pad tapping. In brief, the control unit 3 distinguishes the finger tip flicking and the finger pad tapping by comparing the number of sensors that responded at the time t00 to the number of sensors responding at the time t02.” ’086 Patent, 5:28-38 (explaining that the control unit stores the time and determines the contact of the finger to distinguish the input methods).
- “When the contact range is equivalent to or larger than the threshold value, the control unit 3 determines that the input is the finger pad input 80 and sets the icon 7 as a moving object (FIG. 7A).” ’086 Patent, 5:54-57 (explaining that the control unit stores the time and determines the input method and sets an icon).
- “A control unit 3 records the contact range of the finger tip input (S2001). Next, an image as shown in FIG. 10B is displayed to prompt the user to make a finger pad contact. The control unit 3 records the contact range of the finger pad input (S2002). Contact ranges are detected at the timing when a button switch 5 is pushed following the contact with finger tip or finger pad. When the contact range of the finger pad input is larger than that of the finger tip input, the control unit 3 authorizes the input as a correct input (S2003: Yes). The contact range of the finger tip input is determined as a threshold value and the value is stored (S2004). When the contact range of the finger pad input is smaller than that of the finger tip input (S2003: No), the control unit 3 prompts the user to make a finger tip input again (S2001). Completing the determination of a threshold value, the control unit 3 next checks the counter value. When the counter is 4 or less (S2005: No), the control unit 3 displays a message to inform the user that a password can be input by either the finger tip input or the finger pad input (FIG. 11A).” ’086

Patent, 6:32-50 (explaining that the control unit records the contact area and stores the time and determines the input method and performs various operations).

- “Then, the control unit 3 compares the contact range with the threshold value. When the contact range is equal to or smaller than the threshold value (S2007: Yes), the control unit 3 stores the input numeral in association with the finger tip input (S2008). A message as shown in FIG. 11C is displayed to inform the user that the numeral has been registered by finger tip input. When the contact range is larger than the threshold value (S2007: No), the control unit 3 stores the input numeral in association with the finger pad input (S2009).” ’086 Patent, 6:55-64 (explaining that the control unit compares the contact area with the threshold value and stores an input numeral).
- “The control unit 3 displays a message as shown in FIG. 11B to inform the user that the numeral has been registered by finger pad input. The control unit 3 then increments the counter and proceeds to the next password input (S2010). When the counter is greater than 4 (S2005: Yes), a numeric string of four input numerals is registered as the password as shown in FIG. 12A.” ’086 Patent, 6:65-7:4 (explaining that the control unit displays a message and increments a counter).
- “As can be seen in FIG. 14, the control unit 3 displays a password cancel screen including a ten-key pad with a plurality of numerals in order to prompt the user to input a numeral. At the same time, the control unit 3 performs initial settings such as counter reset (S3000). The control unit 3 waits until a user inputs a numeral (S3001). Upon the user touching the touch panel 1, the control unit 3 specifies the number according to a position of the contact. The contact range of the contact is compared with a threshold value to thereby determine whether the input is a finger tip input or a finger pad input (S3002). The control unit 3 stores the numeral input and the input method used (S3003). When the number of the input and the password registered earlier matches, (S3004: Yes) and the input methods thereof matches as well (S3005: Yes), the control unit 3 increments the counter (S3006). When the counter is not greater than 4 (S3007: No), the control unit 3 proceeds to the step for inputting the next password number. When the counter is greater than 4 (S3007: Yes), the password is authenticated (S3008) and the lock is canceled. Meanwhile, in cases where the number of input and a password do not match (S3004: No), or in cases where the number of input and a password match but their input methods do not match (S3005: No), the control unit 3 displays a message to inform the password or the input method is wrong (S3009). The password cancellation thus terminates.” ’086 Patent, 7:13-37 (explaining that the control unit performs a variety of tasks as disclosed in Figure 14).

53. Reading all these exemplary disclosures in the ’086 Patent, a person of ordinary skill in the art would understand that the specification uses the term “control unit” consistent with the plain and ordinary meaning of “controller” as identified in the extrinsic evidence. In view of

these teachings in the specification, a person of ordinary skill in the art would have interpreted the claimed “first controller” and “second controller” to connote structure in the form of hardware and software, solutions available in or around 2011. Based on my experience as a professor and instructor of university curriculum, it would have been common for electrical engineering and computer engineering students in or before 2011 to be exposed to such controllers. For example, the University of Washington course catalog for Electrical Engineering on January 30, 2008, indicates that four (4) courses were on offer containing the word “controller” in their short catalog description²: EE 548 (“...full state feedback controller design...”); EE 581 (“Controller design via discrete-time equivalents...”); EE 585 (“Controller synthesis...”); EE 593 (“...design of feedforward controllers...”). Similarly, the course catalog for Computer Science & Engineering on February 21, 2011 includes CSE 579 (“Design [of] near-optimal controllers...”).³

54. This is further evidenced by Apple’s own technical expert in a recent case. For example, in Case No. 5:19-cv-00036 (Maxell v. Apple) in EDTX, Apple’s own expert (Dr. Daniel Menasce) submitted a sworn declaration to the Court in EDTX on December 9, 2019. As shown below, Apple’s expert used the term “controller” consistent with my understanding, that the term is readily understood to have a plain and ordinary meaning as used in the ’086 Patent claims:

² Available at the Internet Archive’s Wayback Machine:

<https://web.archive.org/web/20080130142817/https://www.washington.edu/students/crscat/ee.html>

³ Available at <https://web.archive.org/web/20110221160719/https://www.washington.edu/students/crscat/cse.html>

9. Since 1999 I have been conducting research on self-managed computer systems (aka autonomic computer systems). These systems use sophisticated controllers that allow computer systems to self-configure, self-optimize, self-heal from failures, and self-protect from cyber attacks without human intervention. I have designed, implemented, and validated the efficiency of such controllers for a variety of systems including e-commerce sites, multi-tiered web sites, Internet data centers, distributed software systems, virtualized environments, smart manufacturing, and energy-preserving computer systems. The National Science Foundation, the US Air Force Office of Scientific Research, and the National Institute of Standards and Technology funded my research in this area.

See Declaration of Dr. Daniel A. Menasce In Support of Apple Inc.'s Proposed Claim Constructions, dated December 9, 2019 at ¶9.

55. In this excerpt, when describing his technical expertise, Apple's technical expert explained that he used "controllers" of computer systems and "designed, implemented, and validated" such controllers, thereby acknowledging that the term "controller" does not need a special definition but that this term denotes sufficient structure and has a plain and ordinary meaning to a person of ordinary skill in the art.

56. Moreover, I also disagree with Apple's proposed constructions in that they try to import limitations from the specification into the claim. For example, Apple attempts to limit the claim by requiring it to include a "control unit 3 as depicted in Figure 2, which includes an arithmetic section, a counter, a determination unit that determines condition in accordance with input information into the control unit 3, and a storage unit which stores various types of data." While the specification provides this disclosure, there is no explanation in the specification that the claimed controller must be limited to this structure. In fact, the specification uses "control unit" broadly in various examples (excerpted above) to show that the control unit provides a

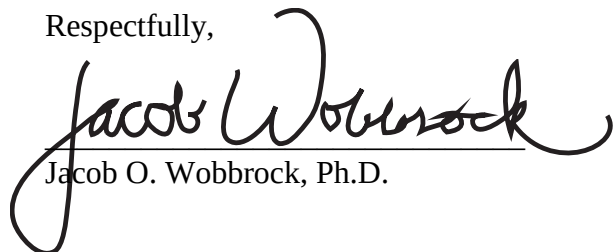
variety of exemplary functions. Thus, it is my opinion that Apple's proposed construction is incorrect for this additional reasoning.

57. Based on the foregoing, it is my opinion that both of the terms above should be given their plain and ordinary meaning as proposed by Maxell and Staff. Apple's proposed construction is incorrect and contradicted by its own expert's sworn statements. The terms "first controller" and "second controller" would have connoted sufficiently definite structure, in the form of hardware and/or software, to a person of ordinary skill in the art. And I see no reason or justification for diverting from the plain meaning of the term, which is apparent from the hardware and software incorporated into portable terminals that were commercially available in or around 2011.

VI. CONCLUSION

In addition to the opinions and evidence expressed herein, I reserve the right to rebut any arguments made or evidence presented in response to this report. I also reserve the right to supplement this report based on further investigation or analysis.

Respectfully,

A handwritten signature in black ink, reading "Jacob O. Wobbrock". The signature is fluid and cursive, with a large loop at the end of the last name.

Jacob O. Wobbrock, Ph.D.

Dated: January 4, 2021