

EXHIBIT 6

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

**Before the Honorable Monica Bhattacharyya
Administrative Law Judge**

In the Matter of:

CERTAIN MOBILE ELECTRONIC DEVICES

Investigation No. 337-TA-1324

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

58. In addition, the '086 Patent discloses a “finger” over one hundred times without once explicitly excluding fingerprints like Respondents’ construction does. A POSITA or any person would understand that fingers include fingerprints just like they include a knuckle and a nail. So, when the '086 Patent discloses fingers, it is not doing so at the exclusion of fingerprints.

59. In addition, while I am not a legal expert that is qualified to give opinions on whether some portion of the file history rises to a level of a disclaimer to justify including a negative limitation, I did not see any facts in the file histories upon my review that would lead me to believe that there is an ambiguous disavowal of claim scope that would justify including a negative limitation. To the contrary, the face of the '086 Patent lists 2005/0162407 as known prior art that was cited by the USPTO Examiner during prosecution and that explicitly discloses fingerprint detection:

[0004] Conventionally, when logging into a personal computer or the like, a user authentication was performed by inputting a password on a keyboard or the like. However, there is the possibility that the password may be learned if anyone steals a look while typing the password on the keyboard. Another authentication method has been proposed by installing a fingerprint authentication device. However,

2005/0162407 (Ex. 8) at ¶ [0004].

60. For the above reasons, I do not agree with Respondents’ proposed constructions; I disagree with the contention that “first information” and “second information” cannot include information about a user’s fingerprint—indeed they can. I find nothing in the '086 specification or file history that precludes fingerprint information from being part of the “first information” or “second information.”

B. “Controller” Term

47. My opinions herein pertain to the meaning of the following term:

Claim Term/Phrase	Maxell's Construction	Respondents' Construction	Staff's Construction
“second controller configured to execute a specified process when said first information and said second information are coincident within said identification mode” '086 patent; cl. 1	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 within said identification mode	§112 ¶ 6 term Second Controller Function: execute a specified process when said first information and said second information are coincident within said identification mode. Second Controller Structure: no corresponding structure disclosed, rendering the term indefinite.	Subject to § 112 ¶ 6. Second Controller Function: execute a specified process when said first information and said second information are coincident within said identification mode Second Controller Structure: a control unit 3 (as shown in Fig. 2 and described at col. 3:26-30) that includes an arithmetic section, a counter, a determination unit, and a storage unit; and is configured to execute a specified process assigned to a matching registered password as shown in Fig. 12B and described at col. 7:38-48; and equivalents thereof.

48. I have reviewed each of the three proposed constructions and considered them in view of the claims, specification (including the figures), and prosecution history of the '086 Patent, as well as extrinsic evidence. 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's proposed construction. In addition, I disagree that this term is indefinite.

49. First, the terms do not use “means” or “step for” language. Thus, a POSITA would understand that there is no presumption that 35 U.S.C. §112 ¶ 6 applies, and I am not aware of any rationale by Respondents on why it should apply.

50. In addition, reading the claim terms as a whole, a POSITA would recognize that the claim language recites sufficient structure and acts within the claim to perform the recited function. For example, the term recites a “second controller” that performs the material act of “execut[ing] 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.

51. Further, in my opinion, a POSITA would understand that the term “second controller,” as used in claim 1, connotes sufficiently definite structure for the stated functions. For example, “controller” is well understood in electrical and computer engineering contexts to connote a variety of structures for performing particular tasks, depending on application. A POSITA would understand that the claimed “second controller” can perform particular tasks—“executing a specified process”—by using a processor (e.g., CPU) typically included in the known structures of a controller. For example, a POSITA would recognize that one example of a known structure corresponding to the claimed “controller” would be a microcontroller. My opinion is supported by the following textbook that confirms the understanding of a POSITA that a “controller” was a known structure at the time of the ’086 Patent.



See Valdes-Perez, F.E. and Pallas-Areny, R. (2009). Microcontrollers: Fundamentals and Applications with PIC. Boca Raton, FL: CRC Press (Ex. 11) at title page.

52. Consistent with the understanding of a POSITA, this textbook describes the basic architecture of the known structure of a microcontroller explaining that “[m]icrocontrollers combine the fundamental resources available in a microcomputer such as the CPU, memory, and I/O resources in a single chip.” *Microcontrollers: Fundamentals and Applications with PIC* (Ex. 11) at 3. In particular, the textbook explains that “the CPU is the brain of the microcontroller . . . [that] fetches the program instructions from their locations in memory one by one, interprets or decodes them, and executes them. The CPU also includes the **ALU circuits** for binary **arithmetic and logic operations.**” *Id.* (emphasis added). Furthermore, this textbook provides the following exemplary block diagram of a known structure of a microcontroller:

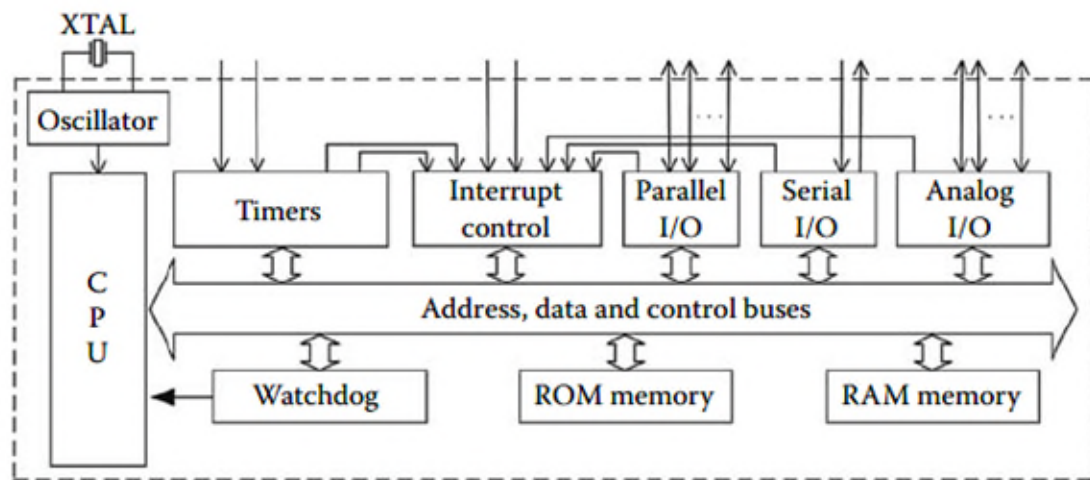


FIGURE 1.2
Basic block diagram of a microcontroller.

Id. at 4

53. In my opinion, this known structure and description of a microcontroller is consistent with the structure of “control unit 3,” disclosed in the ’086 Patent. Specifically, the ’086 Patent discloses that “[t]he control unit 3 includes an arithmetic section, a counter, a determination unit which determines condition in accordance with input information into the control unit 3, and

a storage unit which stores various types of data.” ’086 Patent at 3:26-30. Similar to the textbook description, the ’086 Patent is describing an example of a known structure, i.e., microcontroller (control unit 3) that includes a CPU (e.g., one or more of arithmetic section, counter, and/or determination unit) for performing “arithmetic and logic operations,” as explicitly described in the textbook. See *id.* and compare with description at *Microcontrollers: Fundamentals and Applications with PIC* (Ex. 11) at 3.

54. In addition, just like the textbook discloses that the known structure of a microcontroller includes a “program counter (PC) [that] is the CPU register where addresses of instructions are stored,” the ’086 Patent discloses that control unit 3 includes a “counter.” See ’086 Patent at 3:26-28 and compare with description at *Microcontrollers: Fundamentals and Applications with PIC* (Ex. 11) at page 4 (“program counter”). Further, just like the textbook discloses the microcontroller including memory, the ’086 Patent also describes that control unit 3 includes a “storage unit.” See ’086 Patent at 3:29-30 and compare with description at *Microcontrollers: Fundamentals and Applications with PIC* (Ex. 11) at pages 4-5 (“ROM Memory” and “RAM Memory”). Moreover, just like the textbook discloses that the known structure of a microcontroller includes a “CPU [that] fetches the program instructions from their locations in memory . . . and executes them,” the ’086 Patent discloses that the control unit 3 “performs particular processing when the determination unit determines that the identification information detected by the detection unit matches the reference identification information.” See ’086 Patent at 1:58-59 and compare with description at *Microcontrollers: Fundamentals and Applications with PIC* (Ex. 11) at page 3.

55. Even the claim language confirms that the claimed “second controller” corresponds to such a known structure because it explains that this controller will “execute a specified process,” just as the CPU in the textbook is described to fetch instructions and execute them.

56. The textbook also confirms that at the time of the invention of the '086 Patent, several examples of the known structures of controller existed:

- Actel. FPGA with 8051 and ARM7 cores.
- Advanced Micro Devices (AMD). Microprocessors compatible with xx86.
- Altera. FPGA with Nios II core.
- Analog Devices. Architectures for digital signal processing based on 8052, ARM7, and other processors.
- Applied Micro Circuits Corp. (AMCC). Architectures based on the PowerPC microprocessor.
- ARC International. Architectures based on ARC 600, ARC 700, etc., microprocessors.
- ARM. Architectures based on ARM7, ARM9, ARM10, etc., microprocessor cores.
- Atmel. Architectures based on Marc 4, AVR, 8051, ARM7, ARM9, ARM11, PowerPC, and SPARC.
- Fujitsu Microelectronics America. Microcontrollers FR80, MB9140x, and F2MC-8FX.
- Goal Semiconductor. Architectures based on 8051.
- Holtek Semiconductor. Microcontroller HT8.
- Hyperstone. Digital Signal Processors EI-32XSR/XSRU, HyNet32S, etc.
- Infineon Technologies (formerly Siemens). Microcontrollers C500, C800, C166, TriCore, etc.
- Infrant Technologies. Microcontrollers for data networks.
- Integrated Device Technology (IDT). Data Communications processors based on MIPS architecture.
- Intel. Microcontrollers from families MCS51, MCS151, MCS251, MCS96, MCS296, etc. Microprocessors xx86, IXP4xx, etc.
- Microchip Technology. Microcontrollers PIC (PICmicro) and digital signal controllers dsPIC.
- Broadcom. Processors for communications and data networks with MIPS architecture.
- Cambridge Consultants. Architectures based on XAP1, XAP2, and XAP3 core processors.
- Cavium Networks. Architectures based on MIPS.
- Cirrus Logic. Architectures based on ARM.
- Cradle Technologies. Digital signal processors: CT3400 and CT3600.
- Cyan Technology. Microcontroller eCOG1k.
- Cybernetic Micro Systems. ASICs with microcontroller P-51.
- Cypress Microsystems. Devices with PSoC (Programmable System-on-Chip) architecture.
- Dallas Semiconductor. 8051-compatible microcontrollers.
- EM Microelectronics. Very low consumption EM6812.
- Freescale Semiconductor (from Motorola). Microcontrollers 68HC05, 68HC08, 68HC11, 68HC12, and 68HC16. DSPs. Processors ColdFire and PowerQuicc with PowerPC core.
- MIPS Technologies. Processors MIPS (Microprocessor without Interlocked Pipeline Stages).
- National Semiconductor. Microcontrollers COP8 and CR16, and microprocessors NS32000.
- NEC Electronics America. Microcontrollers 78K0, V850, and others.
- NetSilicon. Processors based on ARM7 and ARM9 cores.
- NXP Semiconductors (formerly Philips Semiconductors). Microcontrollers with 8051, ARM7, and ARM9 cores.

- Oki Semiconductor. Microcontrollers with ARM core.
- PMC-Sierra. MIPS-based processors.
- Rabbit Semiconductor. Processors Rabbit 2000 and 3000.
- Renesas Technology (formerly Hitachi). Microcontrollers R8, H8, and others.
- Sharp Microelectronics. Microcontrollers BlueStreak with ARM7 and ARM9 core.
- Silicon Laboratories. Microcontrollers with 8051 core.
- Silicon Storage Technology. Microcontrollers with 8051 core.
- STMicroelectronics. Microcontrollers with 8051 and ARM7 cores.
- Texas Instruments (TI). Digital signal processors TMS370 and TMS470. Microcontrollers MSP430.
- Toshiba America Electronic Components. Microcontrollers CISC and RISC.
- Ubicom. Microcontrollers SX, IP2000, and IP3000.
- Xemics. Microcontrollers with CoolRISC core.
- Xilinx. FPGA with PowerPC cores.
- ZiLOG. 8-bit microcontrollers with Z8 and Z80 architectures.

Microcontrollers: Fundamentals and Applications with PIC (Ex. 11) at 12-14.

57. While the above comparison between the intrinsic evidence and extrinsic evidence confirms my opinion that the inventors of the '086 Patent did not invoke 35 U.S.C. §112 ¶ 6 when reciting “second controller,” but simply recited a known structure of a microcontroller that includes, for example, a processor (e.g., CPU) and additional components for performing various processes, such as the claimed specified process, the following additional evidence also supports my opinions.

58. For example, 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 the above described plain and ordinary meaning by explaining that the control unit 3 can execute various processes by using components such as a CPU, memory, counter, and/or additional logic:

- “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 determines the input method, fingertip or finger pad, 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).

59. The above examples make clear that the ’086 Patent discloses “control unit 3” to have the known structure of a microcontroller including a processor (e.g., CPU) component because it is performing various operations by controlling the touch panel, starting a program, unlocking the portable terminal, controlling the display and memory by performing display and memory tasks, and/or performing various calculations and determinations.

60. In addition to the above exemplary disclosures, considering patents and publications cited during the prosecution of the ’086 Patent, a POSITA would also understand that the specification uses the terms “controller” and “control unit” consistent with their plain and ordinary meaning as identified in the intrinsic evidence to include at least a processor. For example, U.S. Patent No. 5,844,547 (“Minakuchi et al.”) (Ex. 12) discloses an apparatus for manipulating an object displayed on a display by using a touch screen in which a “system controller 50 determines the type of manipulation which was conducted by the operator.” Minakuchi et al. (Ex. 12) at 4:7-9. Minakuchi et al. discloses that a controller, like a system controller that controls the operation of a touch screen, can be implemented by programs executed by a CPU: “A system controller 50, a touch discriminator 51, a display controller 52, which are programs stored in the memory 5 and executed by the CPU 4 (or may be constructed by hardware).” Minakuchi et al. (Ex. 12) at 3:22-25. I understand that Minakuchi is related to JPH05100809A, alt. JP-A-05-100809 (“Mizuguchi”), which is discussed within the specification of the ’086 Patent itself. ’086 Patent at

1:16-21. Indeed, Mizuguchi discloses a display method for object by touch panel in which “the central processing unit (CPU) 4 executes the display control program on the main memory 5 to perform the display operation.” See Mizuguchi’s machine translation (Ex. 13) at 4. Mizuguchi discloses that the contents of the display control program executed by the CPU include an overall management unit 50 also referred to as **general control** section 50 (which corresponds to the system controller of Minakuchi). Compare Minakuchi Fig. 3 to Mizuguchi Fig. 1. Specifically, Mizuguchi discloses: “Overall management unit 50 and touch determination unit in FIG. 1 (a) A display management unit 52 and a display management unit 52 [sic] are the configuration contents of the display control program in the main memory 5.” See Mizuguchi’s machine translation (Ex. 13) at 4.

61. As additional support, reading exemplary disclosures in patents and publications cited during the prosecution of the parent of ’086 Patent, U.S. Patent No. 8,654,093 now U.S. RE48,830, a POSITA would understand that the specification uses the terms “controller” and “control unit” consistent with their plain and ordinary meaning as identified in the intrinsic evidence to refer to include at least a processor. For example, U.S. Patent Publ. No. 2010/0045608 (“Lessing”) (Ex. 14) cited by the Examiner discloses a multidimensional navigation for touch sensitive display that implements a touch controller as part of a processing logic or processor. Lessing discloses: “Touch panel controller 340 may include hardware- and/or software-based logic to identify input received at touch panel 120. For example, touch panel controller may identify which sensors may indicate a touch on touch panel 120 and the location of the sensors registering the touch. In one implementation, **touch panel controller 340 may be included as part of processing logic 320.**” Lessing (Ex. 14) at [0056] (emphasis added). Indeed, Lessing further discloses: “**Processing logic 320 may include a processor, a microprocessor, an application**

specific integrated circuit (ASIC), a field programmable gate array (FPGA), or the like. Processing logic 320 may execute software instructions/programs or data structures to control operation of electronic device 100.” (Ex. 13) Lessing at [0053].

62. In another example, U.S. Patent Publ. No. 2010/0070931 (“Nichols”) (Ex. 15) cited by the Examiner discloses method and apparatus for selecting an object on a touch-sensitive display that implements a controller as a microprocessor for controlling the operation of a touch screen device. Nichols discloses: “The portable communication device 10 includes a controller 30 that controls the overall operation of the portable communication device. **The controller 30 may include** any commercially available or custom **microprocessor or microcontroller.**” Nichols at [0059] (emphasis added). In addition, Nichols discloses: “The touch-sensitive display 14 is operatively coupled to and controlled by a display controller 45 (*e.g.*, a **suitable microcontroller or microprocessor**) and configured to facilitate touch input functionality (detection of user touch or user input on the touch-sensitive display and recognition of desired user input based on the touch of the display). The touch-sensitive display 14 also is operatively coupled to the controller 30 and may, for example, relay detected position and coordinate location to the controller to track the position of the user input when the user input is in contact with the touch-sensitive display 14.” Nichols at [0060] (emphasis added).

63. Thus, this intrinsic evidence also supports my opinion that a POSITA 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 POSITA would have interpreted the claimed “second controller” to connote structure in the form of hardware and/or software solutions available in or around 2011, as

referenced above in reference to the textbook. See *Microcontrollers: Fundamentals and Applications with PIC* (Ex. 11) at 12-14.

64. Moreover, 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 the known structures of controllers as claimed in claim 1 of the '086 Patent. 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 description⁵: 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...”).⁶

65. Each of the following technical dictionaries also provide additional evidence that a POSITA 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, via using a processor (*e.g.*, CPU), 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.

⁵ Available at the Internet Archive’s Wayback Machine:

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

⁶ Available at <https://web.archive.org/web/20110221160719/https://www.washington.edu/students/crscat/cse.html>

Dictionary and Term	Definition
IBM Dictionary of Computing (1994) at 145 (Ex. 16) “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 (Ex. 17) “controller”	“A device that other devices rely on for access to a computer subsystem.”
Comprehensive Dictionary of Electrical Engineering, Second Edition, 2005 at 148 (Ex. 18) “controller”	“A unit that directs the operation of a subsystem within a computer.”
The Dictionary of Multimedia Terms & Acronyms, Fourth Edition (2005) at 94 (Ex. 19) “controller”	“In computer hardware, a processing component that manages the flow of data between the computer and peripheral devices.
Wiley Electrical and Electronics Engineering Dictionary (2004) at 145 (Ex. 20) “controller”	“A circuit board or device which controls the way peripheral devices access the computer, and vice versa. It is usually contained in a single chip. Examples include disk controllers, graphic controllers, and video controllers.”

66. Thus, in my opinion, the '086 Patent does not invoke 35 U.S.C. §112 ¶ 6 by using the term “controller” because the claim, the specification, intrinsic evidence, and extrinsic evidence all consistently describe controller as a known structure. I respectfully disagree with a proposed construction that imports limitations from the specification into the claim by invoking 35 U.S.C. §112 ¶ 6. For example, I respectfully disagree with attempts to limit the claim by requiring it to

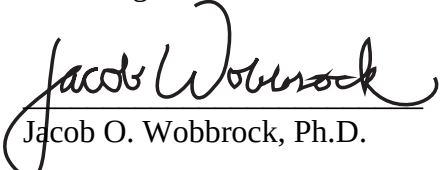
include a “control unit 3 as depicted in Figure 2, which includes an arithmetic section, a counter, a determination unit that determines condition in accordance with input information into the control unit 3, and a storage unit which stores various types of data.” These were just examples of describing known structural components in a microcontroller, but microcontrollers may include additional or fewer components as well. In fact, a POSITA would have recognized that many types of controllers can be used and I have provided several examples of such known controllers in this declaration. There is no intrinsic evidence that would require the claimed “controller” to be limited to a specific type of 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 (*e.g.*, control, unlock, store, display, determine, calculate, etc.) and there is no disclosure that requires that the claimed second controller be construed in a limiting way by using 35 U.S.C. §112 ¶6. Thus, no construction is necessary for this term, the term is definite, and the plain and ordinary meaning of this term must apply.

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.

I hereby declare under the penalty of perjury under the laws of the United States of America that the foregoing and the opinions set forth in my expert reported dated November 29, 2022 are true and accurate to the best of my knowledge, information, and belief.

Executed this 29th day of November, 2022 at Seattle, Washington.


Jacob O. Wobbrock, Ph.D.