

**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**

Inv. No. 337-TA-1215

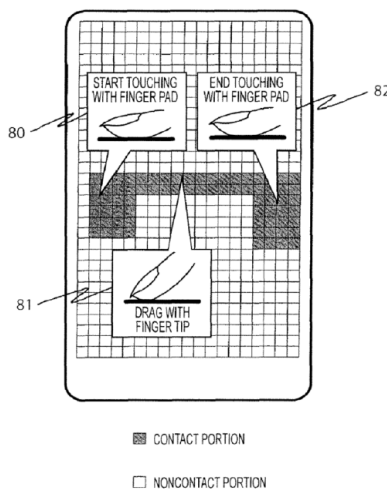
COMPLAINANT'S INITIAL *MARKMAN* BRIEF

below, along with a more detailed technical background and an explanation of the terms disputed by the parties. The parties have agreed upon the level of ordinary skill for each patent.

A. The '086 Patent

1. Technical Background of the '086 Patent

This patent discloses a portable terminal “that offers improved convenience to users” by allowing a user to perform various operations including tapping, dragging, flicking, pinching, and unlocking based on different types of input provided to a touch interface of the portable terminal. '086 Patent at 3:39-49. For example, the touch panel in the portable terminal “includes a group of sensors or a sensor” and “when the user’s finger contacts with the touch panel, capacitance of the sensor 4 changes and the sensor 4 outputs a signal according to the change.” *Id.* at 3:17-20 and Fig. 2. As shown below, the portable terminal disclosed in the '086 Patent is able to detect the variations in the capacitance of the sensor based on a touch and determine the region of the finger (*e.g.*, end or pad) that is causing the change in capacitance:



'086 Patent at Fig. 8.

Using a group of capacitance sensors to distinguish between types of input entered by a user’s finger enables the portable terminal to execute a variety of operations that are associated with different types of inputs. *Id.* at 7:42-44 and Fig. 12B.

DIGIT		1	2	3	4	OPERATION
PASSWORD		0	5	2	8	—
INPUT METHOD	1	FINGER TIP	FINGER PAD	FINGER PAD	FINGER PAD	WAITING SCREEN
	2	FINGER TIP	FINGER TIP	FINGER TIP	FINGER TIP	MAIL CREATING SCREEN
	3	FINGER PAD	FINGER TIP	FINGER PAD	FINGER TIP	APPLICATION STARTING

'086 Patent at Fig. 12B.

One example includes an “enhanced security function that incorporates a four-digit password and a difference in the contact range” with respect to the capacitive sensors in the portable terminal being touched by different portions of the user’s finger. *Id.* at 6:16-35. The portable terminals “can thus handler user’s highly confidential information” and the “burden[] on the user for memorization can thus be alleviated.” *Id.* at 7:50-60.

2. The Level of Ordinary Skill in the Art for the '086 Patent

For the '086 patent, a person of ordinary skill in the art at the time the first priority application to the '086 patent was filed (on or around February 9, 2011) would have at least a Bachelor’s degree in electrical engineering, computer engineering, computer science, or a related field, with at least one to two years of experience in the field of computing devices with touch interfaces. Additional education or experience might substitute for the above requirements.

3. Disputed Terms for the '086 Patent

Term 1: “first information necessary for an identification of the user”...
“second information relating to the identification of the user, which is stored in advance” ('086 Patent, claim 1)

Maxell and Staff’s Proposed Construction	Apple’s Proposed Construction
information sufficient for the identification of a user ... previously stored information related to the identification of a user	information sufficient for the identification of the user, but not including information about a user’s fingerprint ... previously stored information related to the identification of a user, but not including information about a user’s fingerprint

not rise to the level of disavowal, which is what Apple must establish to justify its negative limitations. In fact, when the events of the entire prosecution history are considered, it is clear that Applicant did not disavow “fingerprint” at all, but cancelled the additional claims in view of a different rejection in order to get the remaining claims allowed in an expedited manner. Applicant even added “a finger of a user,” to the remaining claims. But to disavow or disclaim the full scope of a claim term, the patentee’s statements in the specification or prosecution history must amount to a “clear and unmistakable” surrender. *See Cordis Corp. v. Boston Sci. Corp.*, 561 F.3d 1319, 1329 (Fed. Cir. 2009). And where, as here, “an applicant’s statements are amenable to multiple reasonable interpretations, they **cannot be deemed clear and unmistakable.**” *3M Innovative Props. Co. v. Tredegar Corp.*, 725 F.3d 1315, 1326 (Fed. Cir. 2013) (emphasis added); *Grober v. Mako Prods.*, 686 F.3d 1335, 1341 (Fed. Cir. 2012).

Apple’s proposed constructions should be rejected and Maxell and Staff’s proposed constructions, which are consistent with the plain and ordinary meaning of the claim terms, should be accepted.

Term 2: “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”... “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)

Maxell and Staff’s Proposed Construction	Apple’s Proposed Construction
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 ... a second controller that can	35 U.S.C. §112 ¶ 6 applies to this limitation. 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. ... Execute a specified process when said first information and said second information are coincident within said

Maxell and Staff's Proposed Construction	Apple's Proposed Construction
execute a specified process when said first information and said second information are coincident within said identification mode	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 there are not two controllers.

For these terms,⁴ Apple invokes Section 112, ¶ 6. But this does not apply when “the words of the claim are understood by persons of ordinary skill in the art to have sufficiently definite meaning as the name for structure.” See *Williamson*, 792 F.3d at 1349. Where the ordinary meaning of claim language is readily understood by one of ordinary skill in the art, claim construction “involves little more than the application of the widely accepted meaning of commonly understood words.” See *Phillips*, 415 F.3d at 1314. This is precisely why the claimed “first controller . . .” and “second controller . . .” limitations are not be MPF terms and should be construed consistent with their plain and ordinary meaning as proposed by Maxell and Staff.

The term “controller” connotes sufficiently definite structure to a person of ordinary skill in the art. Wobbrock Decl. at ¶¶ 49-52. Dr. Wobbrock’s opinions are supported at least by the following technical dictionaries, each of which has an entry for “controller” that confirms the term is a well-known structure with a plain and ordinary meaning:

- “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.” IBM Dictionary of Computing (1994) (Ex. 11) at 145.
- “A device that other devices rely on for access to a computer subsystem.” Microsoft Computer Dictionary, Fifth Edition (2002) (Ex. 12) at 128.

⁴ The parties agreed to brief these terms collectively because the dispute is based on Apple’s argument that 35 U.S.C. § 112, ¶ 6 applies to “controller.”

- “A device that controls a functional element within a computer system.” Chambers Dictionary of Science and Technology (2007) (Ex. 13) at 272.
- “A unit that directs the operation of a subsystem within a computer.” Comprehensive Dictionary of Electrical Engineering, Second Edition (2005) (Ex. 14) at 148.
- “A subsystem that governs the functions of attached devices but generally does not change the meaning of the data that may pass through it.” A Dictionary of Computing, Oxford University Press, Sixth Edition (2008) (Ex. 15) at 111.

See also Wobbrock Decl. at ¶ 50 (explaining same).

Further, it is clear from the claim language itself that the terms are used consistent with their plain and ordinary meaning. *Id.* at ¶¶ 52-53. For example, 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.” ’086 Patent, claim 1; Wobbrock Decl. ¶ 48. In other words, the claim itself shows that this term has sufficiently definite structure. See *Free Stream Media Corp. v. Alphonso Inc.*, 2017 WL 1165578, at *25 (E.D. Tex. Mar. 29, 2017) (declining to construe “client device” as an MPF term because “the claims themselves connote sufficiently definite structure by describing how the ‘client device’ operates within the claimed invention to achieve its objectives”); see also *Personalized Media Communications, L.L.C. v. Int’l Trade Com’n*, 161 F.3d 696, 704 (Fed. Cir. 1998) (“where a claim recites a function, but then goes on to elaborate sufficient structure, material, or acts within the claim itself to perform entirely the recited function, the claim is **not in means-plus-function format** even if the claim uses the term means”).

In addition, the specification of the ’086 Patent describes a control unit that performs various functions for the portable terminal, consistent with the plain and ordinary meaning of the term controller. Wobbrock Decl. at ¶ 52. For example, Dr. Wobbrock explains that:

Reading all these exemplary disclosures in the ’086 Patent, a person of ordinary skill in the art would understand that the disclosed control unit is corresponds to,

for example, one or more components of the portable terminal that controls various subsystems of the portable terminal by, for example, executing software to perform the disclosed methods. One of ordinary skill in the art would understand that such components could include, for example, a microcontroller, a CPU, and/or one or more processors as were being used in portable terminals in or around 2011.

Id. at ¶¶ 52-53 (citing '086 Patent at 3:24-26, 3:63-4:5, 4:15-20, 4:30-34, 4:42-51, 4:52-60, 5:28-38, 5:54-57, 6:32-50, 6:55-7:4, 7:13-37 (explaining how the control unit acts as a processor to perform and/or control operations such as controlling the touch panel, executing a program to initialize the display, locking/unlocking the portable terminal, calculating an average value and threshold value for touch detection, and/or storing information related to inputs performed by the user's finger)). Thus, both the claim language and the specification confirm that the claimed "first controller" and "second controller" correspond to known structures consistent with the plain and ordinary meaning of the term.

Maxell and Staff's proposed constructions are also supported by prior court decisions that have consistently held that the term "controller" denotes sufficiently definite structure. *See e.g., Sound View Innovations, LLC v. Facebook, Inc.*, 2017 WL 222177, at *5 (D. Del. May 19, 2017) ("Controller' may be a class of structures, rather than one specific structure, and may be defined with functional terms, but that does not make it means-plus-function."); *see also Honeywell Int'l Inc. v. Universal Avionics Sys. Corp.*, 264 F. Supp. 2d 135 (D. Del. 2003) ("controller" is not an MPF term); *911EP v. Whelen Eng'g Co., Inc.*, 512 F. Supp. 2d 713, 727 (E.D. Tex. 2007) ("[t]he claim language does not merely describe a controller, but adds further structure by describing the operation of the controller. ... Accordingly, the description of the operation of a controller is sufficient to avoid section 112 P 6."); *see also SynQor, Inc. v. Artesyn Techs., Inc.*, 2010 WL 2991037, at *23 (E.D. Tex. Jul. 26, 2010), *aff'd*, 709 F.3d 1365 (Fed. Cir. 2013) (finding that "control circuitry determining ..." is not an MPF term); *Maxell Ltd. v. Huawei Device USA Inc.*,

297 F. Supp. 3d 668, 748 (E.D. Tex. 2018) (“‘controller’ connotes structure [and] does not fall with the means-plus-function analysis”).

Moreover, even Apple’s own expert from a recent litigation confirms Maxell and Staff’s understanding that controller denotes a known structure when he used the term—consistent with the plain and ordinary meaning—to explain his expertise with designing computer systems:

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 (Ex. 16), dated December 9, 2019 at ¶ 9.

Further, Apple’s own technical documents use the term “controller” to refer to components in Apple products, indicating that even Apple engineers realize that the term “controller” denotes sufficient structure.⁵

Despite all this, Apple continues to seek a construction to shoehorn additional limitations into the claims to further its invalidity argument. Apple’s proposed structures require an arithmetic section, a counter, and a determination unit, which are disclosed as part of an **exemplary** embodiment. Moreover, Apple’s argument that the claim is indefinite because no structure is provided for a “second controller” is illogical because it attempts to limit the meaning of “control

⁵ These documents are confidential technical specifications under the Protective Order. To the extent Apple disputes the fact that its own technical documents refer to the term “controller” as having sufficient structure, Maxell reserves all rights to attach those documents as confidential exhibits in its Responsive Brief and/or present them to the Court during the *Markman* Hearing.

unit” in the specification to be a single component when the specification does not limit the disclosure in any such way. As Dr. Wobbrock explained, “the specification uses ‘control unit’ broadly in various examples . . . to show that the control unit provides a variety of exemplary functions.” Wobbrock Decl. at ¶ 56.

Moreover, Apple and its expert (Dr. Andrew Sears) have not proposed that “controller” is a MPF structure in an IPR filed for the ’086 Patent, but rather treat this term according to its plain and ordinary meaning. See IPR2021-00362, Paper No. 1 at 9 (“Apple submits that no claim construction is necessary for purposes of determining institution of this IPR”).

Apple also has not established that in context of the claim or the specification, the term does not connote structure. In contrast, as shown by Maxell, the intrinsic evidence, extrinsic evidence, the legal precedent, and Apple’s own expert confirm that the term controller connotes sufficiently definite structure. Thus, Apple’s proposals should be rejected and the terms should be construed consistent with their plain and ordinary meaning, as proposed by Staff and Maxell.

B. The ’821 Patent

1. Technical Background of the ’821 Patent

The ’821 Patent generally relates to the field of art of image processing, and specifically an imaging apparatus that captures pictures or video and has a “white balance function.” ’821 Patent at 1:6-9. A “white balance function,” also referred to as white balancing of an image or white balance correction, processes an image such that color in different portions of an image is balanced with white portions of an image. Richardson Decl. ¶ 45. Conventional white balance functions prior to the ’821 Patent would be classified into two separate types: external photometric-type white balancing and internal photometric-type white balancing. ’821 Patent at 1:23-37. External photometric-type white balancing is characterized by “directly detecting a color temperature of an illumination light source by a color temperature sensor or the like and

IV. AGREED-UPON TERMS FOR CONSTRUCTION

The parties propose six agreed-upon terms for claim construction, shown in Appendix 1.

V. CONCLUSION

For the reasons presented in this brief, Complainant respectfully requests that the preceding claim terms be construed as proposed by Complainant and the Staff, or as agreed by all parties.

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Respectfully submitted,

/s/ Jamie B. Beaber

Jamie B. Beaber
Alan M. Grimaldi
Kfir B. Levy
James A. Fussell, III
Baldine B. Paul
Tiffany A. Miller
William J. Barrow
Saqib J. Siddiqui
Bryan C. Nese
Michael L. Lindinger
Alison T. Gelsleichter
Clark S. Bakewell
Sen (Alex) Wang
MAYER BROWN LLP
1999 K Street, NW
Washington, DC 20006
Telephone: (202) 263-3000
Facsimile: (202) 263-3300
Maxell-Apple-Service@mayerbrown.com

Robert G. Pluta
Amanda S. Bonner
Luiz Miranda
Nicholas J. Ronaldson
MAYER BROWN LLP
71 S. Wacker Drive
Chicago, IL 60606
(312) 782-0600
Maxell-Apple-Service@mayerbrown.com