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Paper 11
Entered: September 28, 2022

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

CPC PATENT TECHNOLOGIES PTY, LTD.,
Patent Owner.

IPR2022-00602
Patent 9,665,705 B2

Before SCOTT A. DANIELS, BARRY L. GROSSMAN, and AMBER L. HAGY, *Administrative Patent Judges.*

GROSSMAN, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314, 37 C.F.R. § 42.4

I. INTRODUCTION

A. Background and Summary

Apple Inc. ("Petitioner" or "Apple") filed a Petition for *inter partes* review of claims 1, 4, 6, 10–12, and 14–17 (collectively, the "challenged claims") of U.S. Patent No. 9,655,705 B2 (Ex. 1001, "the '705 patent"). Paper 1 ("Pet."). CPC Patent Technologies PTY, Ltd. ("Patent Owner" or "CPC") timely filed a Preliminary Response to the Petition. Paper 7 ("Prelim. Resp."). With our authorization, Petitioner filed a Preliminary Reply (Paper 8 ("Prelim. Reply")) addressing the issue of discretionary denial raised in the Preliminary Response and Patent Owner filed a Prelim. Sur-Reply (Paper 9 ("Prelim. Sur-Reply")).

We have jurisdiction under 35 U.S.C. § 314. Under § 314, an *inter partes* review may not be instituted "unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314(a). The Board determines whether to institute a trial on behalf of the Director. 37 C.F.R. § 42.4(a).

Petitioner has the burden of proof. *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) ("In an IPR, the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.").

For the reasons set forth below, we determine that Petitioner has demonstrated that there is a reasonable likelihood that at least one of the challenged claims is unpatentable. Accordingly, we institute an *inter partes* review of all challenged claims and on all grounds asserted in the Petition. *PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1360 (Fed. Cir. 2018) (stating

that a decision to institute is "a simple yes-or-no institution choice respecting a petition, embracing all challenges included in the petition").

B. Real Parties-in-Interest

Apple identifies itself as the sole real party-in-interest. Pet. 62.

CPC also identifies itself as the sole real party-in-interest. Paper 4, 2.

C. Related Matters

Petitioner and Patent Owner each identify the following two district court proceedings as related matters: (1) *CPC Patent Technologies Pty Ltd. v. Apple Inc.,* Case No. 6:21-cv-00165-ADA (W.D. Tex.); and (2) *CPC Patent Technologies Pty Ltd. v. HMD Global Oy,* Case No. 6:21-cv-00166-ADA (W.D. Tex.) (the "HMD W.D. Texas case"). Pet. 62; Paper 4, 2.

The first listed case, between the same parties involved in this *inter partes* review proceeding, however, has been transferred to the Northern District of California. *See In re Apple Inc*., 2022 WL 1196768 (Fed. Cir. Apr. 22, 2022); *see also* Ex. 3002 (Text Order granting Motion to Change Venue). The case is now styled *CPC Patent Technologies Pty Ltd. v. Apple Inc*., No. 5:22-cv-02553 (N.D. Cal.) (the "Apple N.D. California case"). *See* Ex. 3003 (PACER Docket for the transferred case); Prelim. Resp. 1, fn 1 (Patent Owner acknowledging the transfer from the Western District of Texas to the Northern District of California).

Petitioner and Patent Owner also each identify the following two pending *inter partes* review proceedings as related matters: (1) IPR2022-00600, challenging claims in Patent 8,620,039; and (2) IPR2022-00601, challenging claims in Patent 9,269,208, which is the "parent" of the '705 patent. *See* Ex. 1001, code (63).

D. The '705 Patent

The '705 patent discloses a system "for providing secure access to a controlled item." Ex. 1001, Abstr. The "controlled item" can be, for example, the locking mechanism of a door or an electronic lock on a personal computer. *Id.*, 1:43–46.[1] The system uses a database of "biometric signatures" (*id.*, 2:32), such as a fingerprint (*id.*, 7:36) for determining authorized access.

Figure 2 from the '705 patent is reproduced below.

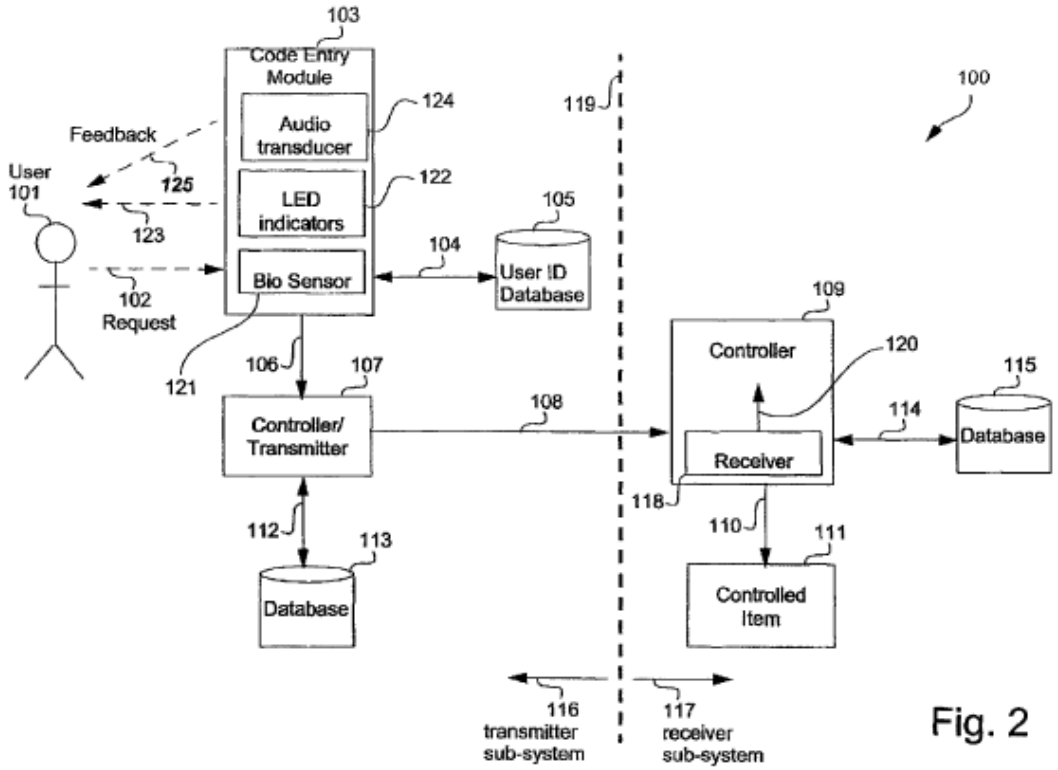


Fig. 2

Figure 2 is a functional block diagram of an arrangement for providing secure access according to the system disclosed in the '705 patent. Ex. 1001, 5:18–19.

[1] Citations are to column:line[s] of the '705 patent.

User 101 makes a request to code entry module 103. *Id.*, 5:56–57. Code entry module 103 includes biometric sensor 121. *Id.*, 5:57–58. If biometric sensor 121 is a fingerprint sensor, for example, then the request "typically takes the form of a thumb press" on a sensor panel (not shown) on code entry module 103. *Id.*, 5:60–63. Code entry module 103 then "interrogates" an authorized user identity database 105, which contains "biometric signatures" for authorized users, to determine if user 101 is an authorized user. *Id.*, 5:64–6:2. If user 101 is an authorized user, code entry module 103 sends a signal to "controller/transmitter" 107. *Id.*, 6:2–4.

The '705 patent also discloses that code entry module 103 may be activated by providing a succession of finger presses to biometric sensor 121 included in module 103. *Id.*, 10:56–58. If these successive presses are of the appropriate duration, the appropriate quantity, and are input within a predetermined time, controller 107 accepts the presses as potential control information and checks the input information against a stored set of legal control signals. *Id.*, 10:58–67.

If user 101 is an authorized user based on the inputs to code entry module 103, controller/transmitter 107 then sends "an access signal," based on a "rolling code," to controller 109. Ex. 1001, 6:2–9. According to the written description, "[t]he rolling code protocol offers non-replay encrypted communication." *Id.*, 6:9–10. Other secure codes, such as "the Bluetooth™ protocol, or the Wi Fi™ protocols" also can be used. *Id.*, 6:32–38.

If controller 109 determines that the rolling code received is "legitimate," then controller 109 sends a command to "controlled item 111," which, for example "can be a door locking mechanism on a secure door, or an electronic key circuit in a personal computer" that is to be accessed by user 101. *Id.* at 6:11–20.

Code entry module 103 also incorporates at least one mechanism for providing feedback to user 101. *Id.*, 6:24–25. This mechanism can, for example, take the form of "one or more Light Emitting Diodes (LEDs) 122," and/or audio transducer 124, which provide visual or audio feedback to the user. *Id.*, 6:25–31.

In Figure 2, "sub-system 116," shown on the left of vertical dashed line 119, communicates with "sub-system 117," shown on the right of dashed line 119, "via the wireless communication channel" used by access signal 108 between controller/transmitter 107 and controller/receiver 109. *Id.*, 6:61–67. As disclosed in the '705 patent, "[a]lthough typically the communication channel uses a wireless transmission medium, there are instances where the channel used by the access signal 108 can use a wired medium." *Id.*, 7:9–14.

E. Illustrative Claim

Among the challenged claims, claims 1, 10, 11, 14, 15, 16, and 17 are independent claims.

Independent claims 1 and 15 are directed to a "system for providing secure access to a controlled item." Ex. 1001, 15:62–63; 18:39–40. These claims are identical except for claim 1 using the phrase "configured to," whereas claim 15 uses the phrase "capable of." For example, claim 1 includes "a biometric sensor *configured to receive* a biometric signal" (*id.*, 15:66–67 (emphasis added)), whereas claim 15 includes "a biometric sensor *capable of receiving* a biometric signal." (*id.*, 18:43–44 (emphasis added)). This same distinction also applies to the claimed elements of "a transmitter sub-system controller," "a transmitter," and "a receiver sub-system controller." *Compare id.*, 16:1–23 (claim 1) *with id.*, 18:45–67 (claim 15).

We discuss below in Section II.C (Claim Construction) whether use of the phrase "capable of" rather than the phrase "configured to" is a distinction without a substantive difference.

Independent claims 10 and 16 are directed to a "transmitter sub-system for operating in a system for providing secure access to a controlled item." *Id.* at 17:19–20; 19:1–2. The only distinction between claims 10 and 16 is the same "capable of"/"configured to" distinction discussed above for claims 1 and 15. *Compare id.*, 17:19–39 (claim 10) *with id.*, 19:1–20 (claim 16).

Independent claims 11 and 17 are directed to a "method for providing secure access to a controlled item." *Id.*, 17:40–41. The only distinction between claims 11 and 17 is the same "capable of"/"configured to" distinction discussed above for claims 1 and 15. Again, the only distinction between claims 11 and 17 is the same "capable of"/"configured to" distinction discussed above for claims 1 and 15. *Compare id.*, 17:40–67 (claim 11) *with id.*, 19:21–20:23 (claim 17).

Independent claim 14 is directed to a "non-transitory computer readable storage medium storing a computer program." *Id.*, 18:18–19.

Independent claim 1 is illustrative and is reproduced below.

> 1. A system for providing secure access to a controlled item, the system comprising:
>
> a memory comprising a database of biometric signatures;
>
> a transmitter sub-system comprising:
>
> a biometric sensor configured to receive a biometric signal;
>
> a transmitter sub-system controller configured to match the biometric signal against members of the database of biometric signatures to thereby output an accessibility attribute; and

> a transmitter configured to emit a secure access signal conveying information dependent upon said accessibility attribute; and
>
> a receiver sub-system comprising:
>
> a receiver sub-system controller configured to:
>
> receive the transmitted secure access signal; and
>
> provide conditional access to the controlled item dependent upon said information;
>
> wherein the transmitter sub-system controller is further configured to:
>
> receive a series of entries of the biometric signal, said series being characterised according to at least one of the number of said entries and a duration of each said entry;
>
> map said series into an instruction; and
>
> populate the data base according to the instruction, wherein the controlled item is one of: a locking mechanism of a physical access structure or an electronic lock on an electronic computing device.

Ex. 1001, 15:62–16:23.

F. Prior Art and Asserted Grounds

Petitioner asserts that the challenged claims are unpatentable on the following ground:

Claim(s) Challenged	35 U.S.C. §[2]	Reference(s)/Basis
1, 4, 6, 10–12, 14–17	103(a)	Mathiassen,[3] McKeeth,[4] Anderson[5]

[2] The Leahy-Smith America Invents Act ("AIA"), Pub. L. No. 112-29, 125 Stat. 284, 296–07 (2011), took effect on September 16, 2011. The changes to 35 U.S.C. §§ 102 and 103 in the AIA do not apply to any patent application filed before March 16, 2013. Because the application for the patent at issue in this proceeding has an effective filing date before March 16, 2013, we refer to the pre-AIA version of the statute.

[3] Mathiassen et al, US 2004/0123113 A1, published June 24, 2004 (Ex. 1004, "Mathiassen").

[4] McKeeth, US 6,766,456 B1, issued July 20, 2004 (Ex. 1005, "McKeeth").

[5] Anderson,US 6,509,847 B1, issued Jan. 21, 2003 (Ex. 1006, "Anderson").

Petitioner also relies on the declaration testimony of Andrew Sears, Ph.D. *See* Ex. 1003.[6]

II. ANALYSIS

A. Legal Standards

Section 103 forbids issuance of a patent when "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) when available, evidence such as commercial success, long felt but unsolved needs, and failure of others.[7] *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966); *see KSR*, 550 U.S. at 407 ("While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry

[6] Exhibit 1003 is a 238 page declaration from Dr. Sears, including its Appendix A, which is a detailed mapping of the disclosures of the three applied references to the challenged claims. Dr. Sears currently is a Professor and Dean of the College of Information Sciences and Technology at The Pennsylvania State University. Ex. 1003 ¶ 5. Dr. Sears earned a Bachelor of Science degree in Computer Science, and a Ph.D. degree, also in Computer Science. *Id.* ¶ 6. He has held various positions in academia, including serving as the Interim Chief Information Security Officer at Penn State. *Id.* ¶¶ 7, 8. He has authored or edited a number of computer-related publications and held leadership positions in several computer industry organizations. *Id.* ¶¶ 10–12.

[7] Patent Owner does not direct us to any objective evidence of non-obviousness in its Preliminary Response.

that controls."). The Court in *Graham* explained that these factual inquiries promote "uniformity and definiteness," for "[w]hat is obvious is not a question upon which there is likely to be uniformity of thought in every given factual context." 383 U.S. at 18.

The Supreme Court made clear that we apply "an expansive and flexible approach" to the question of obviousness. *KSR*, 550 U.S. at 415. Whether a patent claiming the combination of prior art elements would have been obvious is determined by whether the improvement is more than the predictable use of prior art elements according to their established functions. *Id.* at 417. To support this conclusion, however, it is not enough to show merely that the prior art includes separate references covering each separate limitation in a challenged claim. *Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011). Rather, obviousness additionally requires that a person of ordinary skill at the time of the invention "would have selected and combined those prior art elements in the normal course of research and development to yield the claimed invention." *Id.*

In determining whether there would have been a motivation to combine prior art references to arrive at the claimed invention, it is insufficient to simply conclude the combination would have been obvious without identifying any reason *why* a person of skill in the art would have made the combination. *Metalcraft of Mayville, Inc. v. Toro Co.*, 848 F.3d 1358, 1366 (Fed. Cir. 2017).

Moreover, in determining the differences between the prior art and the claims, the question under 35 U.S.C. § 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. *Litton Indus. Prods., Inc. v. Solid State Sys. Corp.*, 755 F.2d 158, 164 (Fed. Cir. 1985) ("It is elementary that the

claimed invention must be considered as a whole in deciding the question of obviousness."); *see also Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1537 (Fed. Cir. 1983) ("[T]he question under 35 U.S.C. § 103 is not whether the differences *themselves* would have been obvious. Consideration of differences, like each of the findings set forth in *Graham*, is but an aid in reaching the ultimate determination of whether the claimed invention *as a whole* would have been obvious.").

As a factfinder, we also must be aware "of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning." *KSR*, 550 U.S. at 421.

Applying these general principles, we consider the evidence and arguments of the parties.

B. Level of Ordinary Skill in the Art

The level of skill in the art is "a prism or lens" through which we view the prior art and the claimed invention. *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). "This reference point prevents . . . factfinders from using their own insight or, worse yet, hindsight, to gauge obviousness." *Id.*

Factors pertinent to a determination of the level of ordinary skill in the art include: (1) educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of workers active in the field. *Env't Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 696–697 (Fed. Cir. 1983) (citing *Orthopedic Equip. Co. v. All Orthopedic Appliances, Inc.*, 707 F.2d 1376, 1381–82 (Fed. Cir. 1983)). Not all such factors may be present in every case, and one or more of these or other factors may predominate in a particular case. *Id.*

Moreover, these factors are not exhaustive but are merely a guide to determining the level of ordinary skill in the art. *Daiichi Sankyo Co. v. Apotex, Inc.*, 501 F.3d 1254, 1256 (Fed. Cir. 2007). In determining a level of ordinary skill, we also may look to the prior art, which may reflect an appropriate skill level. *Okajima*, 261 F.3d at 1355.

Petitioner asserts that a person of ordinary skill in the art would have had "at least a bachelor's degree in computer engineering, computer science, electrical engineering, or a related field, with at least one year experience in the field of human-machine interfaces and device access security." Pet. 4 (citing Ex. 1003 ¶¶ 35–38). [8] Petitioner also states that "[a]dditional education or experience may substitute for the above requirements." *Id.*

Patent Owner does not propose a level of ordinary skill, nor does Patent Owner comment on Petitioner's proposed level of ordinary skill. *See* Prelim Resp.; Prelim Sur-reply.

For purposes of this Decision, based on the prior art, the sophistication of the technology at issue, and Dr. Sears' Declaration testimony, we adopt Petitioner's undisputed definition of the level of ordinary skill.

C. Claim Construction

We construe each claim "using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. [§] 282(b)." 37 C.F.R. § 42.100(b) (2021). Under this standard, claim terms are generally given their ordinary and customary meaning as would have been understood by a person of ordinary skill in the art at the time of the

[8] Petitioner cites this testimony as "Dec." Pet. 4, fn 1. We will cite it, as we do all other evidence, by reference to its Exhibit number, which is Exhibit 1003.

invention and in the context of the entire patent disclosure. *Phillips v. AWH Corp*., 415 F.3d 1303, 1312–14 (Fed. Cir. 2005) (en banc) ("We have frequently stated that the words of a claim 'are generally given their ordinary and customary meaning.'" (citations omitted)).

Petitioner states that in the related district court litigation between the parties, the Western District of Texas court entered a Claim Construction Order on February 10, 2022. (Ex. 1077). Pet. 5. Petitioner also states "the Parties agreed to certain constructions in a Joint Claim Construction Statement" in the Western District of Texas litigation (Ex. 1074). *Id.* Petitioner then proposes that "[f]or purposes of this IPR, Apple applies the District Court's constructions from the *Apple* litigation [Ex. 1077] and constructions agreed to by the Parties (Ex. 1074)[9] that are not otherwise plain and ordinary meaning." *Id.*

Petitioner also highlights specific constructions for the claim terms "database," "conditional access," "biometric signal," and "accessibility attribute" from Exhibits 1074 and 1077. Pet. 6.

Patent Owner does not address claim constructions in its Preliminary Response or Preliminary Sur-reply.

Based on the record before us, we adopt, for purposes of this Decision, Petitioner's unopposed proposed claim constructions. "[W]e need only construe terms 'that are in controversy, and only to the extent necessary to resolve the controversy.'" *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co. Ltd*., 868 F.3d 1013, 1017 (Fed. Cir. 2017) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc*., 200 F.3d 795, 803 (Fed. Cir. 1999)).

[9] The cited Exhibits 1074 and 1077 are from the case *prior to* its transfer from the Western District of Texas to the Northern District of California.

As we discussed above in Section I.E (characterizing the challenged independent claims), the challenged claims in this case use the phrases "configured to" and "capable of." As we discussed above, except for use of these different phrases, claims 1, 10, and 11 would be identical to claims 15, 16, and 17, respectively. In further briefing in this proceeding, the parties should address the difference, if any, that use of the "configured to" and "capable of" phrases create in construction of the claims.

This initial claim construction determination does not preclude the parties from arguing their proposed constructions of the claims during trial. Indeed, the parties are hereby given notice that final claim construction, in general, is an issue to be addressed at trial. Claim construction will be determined at the close of all the evidence and after any hearing. The parties are expected to assert all their claim construction arguments and evidence in the Petition, Patent Owner's Response, or otherwise during trial, as permitted by our rules.

We now turn to the merits of Petitioner's asserted Grounds of unpatentability.

D. Ground 1
Claims 1, 4, 6, 10–12, 14–17
Based on Mathiassen, McKeeth, and Anderson

Petitioner asserts "there is a reasonable likelihood claims 1, 4, 6, 10-12, and 14-17 are obvious over the combination of Mathiassen, McKeeth, and Anderson." Pet.9 (Section VI heading, all capital letter font modified).[10] We first summarize the cited references.

[10] Although Petitioner refers to a "reasonable likelihood" that the claims "are obvious," Petitioner's burden in this IPR proceeding is to establish by a preponderance of the evidence that the challenged claims would have been obvious. 35 U.S.C. § 316(e) ("In an inter partes review instituted under this

1. Mathiassen (Ex. 1004)

Rather than using passwords or "tokens," such as an entry card, Mathiassen discloses a portable fob-type fingerprint sensor to access secured items, such as vehicles, computers, safes, medicine cabinets, weapons cabinets, and vehicles. Ex. 1004 ¶¶ 1–4, 16–18, 109–113.

Figure 8 from Mathiassen is reproduced below.

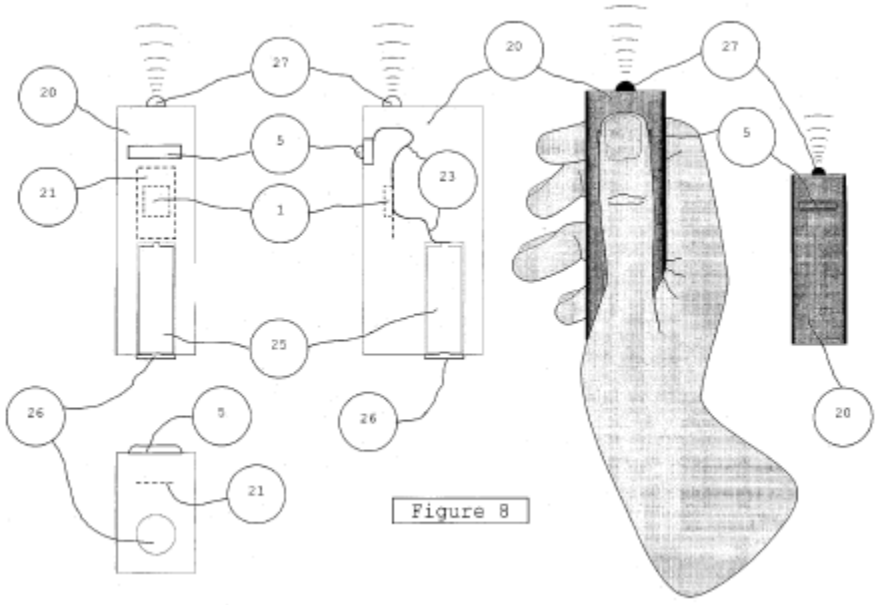


Figure 8 is a schematic illustration of a "user input device" providing access to a vehicle door. As shown in Figure 8, portable device 20 contains fingerprint sensor 5 coupled to a miniature printed circuit board 21 on which

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chapter, the petitioner shall have the burden of proving a proposition of unpatentability by a preponderance of the evidence."); *see also id.*, § 103(a) (stating a patent may not be obtained if the invention "would have been obvious at the time the invention was made" to a person of ordinary skill in the relevant technology). Our determination in this Decision as to whether or not to institute an IPR proceeding is whether Petitioner has established a reasonable likelihood of meeting the "preponderance of the evidence" burden of proof. This is the standard we have applied in reaching our determination.

is mounted integrated circuit ("IC") 1. Ex. 1004 ¶ 147. Thus, remote control 20 becomes a biometric sensor. *Id.* ¶ 5. Remote biometric control 20 includes battery 25 as a power supply. Ex. 1004 ¶ 147. Battery 25 is connected to printed circuit board ("PCB") 21 by wires. *Id.*

Remote biometric control 20 also is equipped with wireless 2-way transceiver 27. All the active components are connected to integrated circuit 1 by cables 23 through printed circuit board 21. *Id.*

Ignition control device 15 (*see* Fig. 6) is mounted inside the car on gear stick 71 or on steering wheel 72. *Id.* ¶ 148. Remote control 20 and embedded ignition control 15 are both connected to a central computer (not shown) in the car. *Id.* ¶ 149. Remote control 20 is connected to the central computer by 2-way wireless transceiver 27, while ignition control 15 is hard-wired to the central computer. *Id.*

2. McKeeth (Ex. 1005)

McKeeth discloses a method and system for authenticating a user to access a computer system. Ex. 1005, Abstr.

McKeeth summarizes the problems with current systems for accessing computers, such as using a private identification code or password (Ex. 1005, 1:14–30),[11] or a machine readable card (*id.* at 1:31–36). McKeeth also notes that "some computer makers considered using the user's fingerprint to authenticate and grant access to the computer system." *Id.* at 1:36–38. McKeeth recognized, however, that even using fingerprints was not without problems because "a sophisticated computer hacker may be able to copy the user's fingerprint and provide a simulated signal to the computer system to obtain access." *Id.* at 1:51–54.

[11] Citations are to column:line of McKeeth.

The method and system disclosed in McKeeth provide for one or more of various types of user inputs to be used, alone or in combination, for authentication. These various inputs can be a password, a unique series of clicks of a mouse, a unique geometric pattern created by the user (*see* Figs. 3A–3D (illustrating a simple triangle, rectangle, line, or circle drawn by the user), an audio sensor (for voice recognition), or an optical scanner for fingerprint, retina scans, or other biometric inputs. Ex. 1005, 2:2:53–3:12.

Figure 1 from McKeeth is reproduced below.

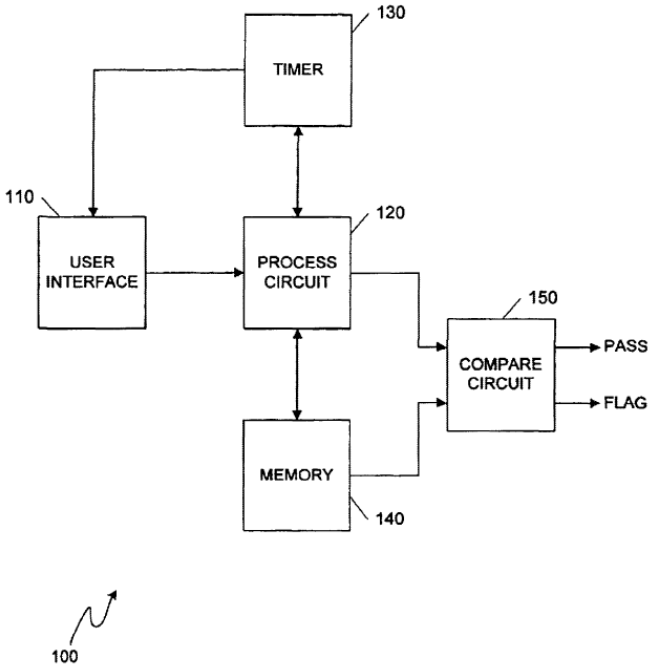


Figure 1 from McKeeth is a block diagram showing one version of a the method and system for authenticating the identity of a user disclosed in McKeeth. Ex. 1005, 2:36–37. As shown in Figure 1, computer system 100 includes user interface 110 that is operationally connected to process circuit 120. *Id.* at 2:55–57. User interface 110 may be any input device that is used to enter or communicate information to computer system 100, such as a keyboard, mouse, trackball, pointer, touch-screen, remote terminal, audio

sensor, optical scanner, telephone, or any similar user interface. *Id.* at 2:57–61.

Process circuit 120 is configured to receive input signals from user interface 110. The process circuit is operationally connected with timer 130 that measures time duration between the various input signals. Ex. 1005, 3:36–38. If, for example, the user performs a fingerprint scan and/or pattern within the designated time, process circuit 120 communicates the input signals to compare circuit 150 for authentication. *Id.* at 3:52–55. Compare circuit 150 is operationally coupled to memory 140, which stores a list of legitimate user identifications (ID's) with respective passwords, fingerprint, pattern, or any other type of security information for recognition by the computer system. *Id.* at 3:55–60. If there is a match between the user inputs, within the designated time, and stored security information, the compare circuit 150 issues a "pass" signal to computer system 100. *Id.* at 65–67.

3. Anderson Ex. (1006)

Anderson also discloses a system and method for authenticating an authorized user to access a secured device. Anderson's disclosed system inputs an access code "via temporal variations in the amount of pressure applied to a touch interface." Ex. 1006, Abstr.

Anderson's method of inputting an access code uses digitizer pad 120 as a touch interface, which may include an optical scanner or thermal sensor for collecting an image of the user's fingerprint. Ex. 1006, 5:43–44, 7:4–7. The user enters the access code as a series of pressure pulses having varying durations. *Id.* at 6:45–47. This fingerprint access code is then compared with a stored code template to determine whether they match. If they do, access is permitted. *Id.* at 6:48–54.

Anderson discloses a system where the touch interface may sense only "temporal applications of pressure," relying on *timing* of the pressure applications for entry of the access code. Ex. 1006, 7:28–30; Fig. 4A. Alternately, as shown in FIG. 4B, the touch interface may sense both temporal applications of pressure and variations in pressure magnitude or intensity. *Id.* at 7:34–37. Thus, the access code would be entered as a series of alternating short and long pressure applications that vary both in duration and magnitude. *Id.* at 7:37–39.

Annotated Figures 4A from Anderson is reproduced below.

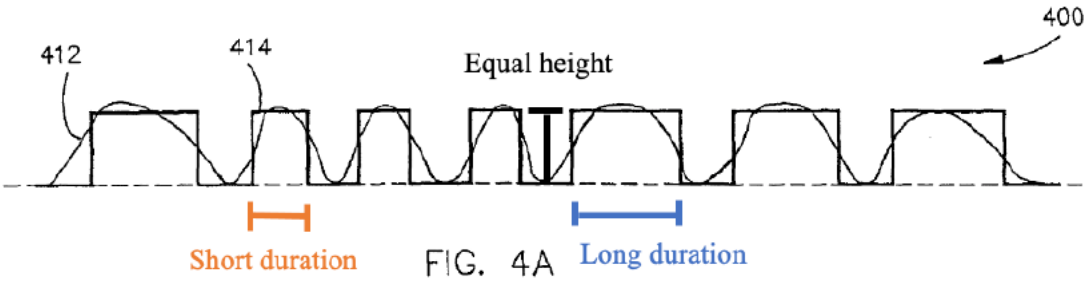


Figure 4A from Anderson is a diagram illustrating entry of an access code via temporal pressure variation. Ex. 1006, 2:65–67. The annotations are provided by Dr. Sears in his declaration testimony. Ex. 1003 ¶ 100. As explained by Dr. Sears, in Figure 4A, "the height of each bar the same because the magnitude or intensity of the finger pressure press is not detected. However, at least some of the presses have a different duration than other presses, as represented by the width of each bar." *Id.*

Annotated Figure 4B from Anderson is reproduced below.

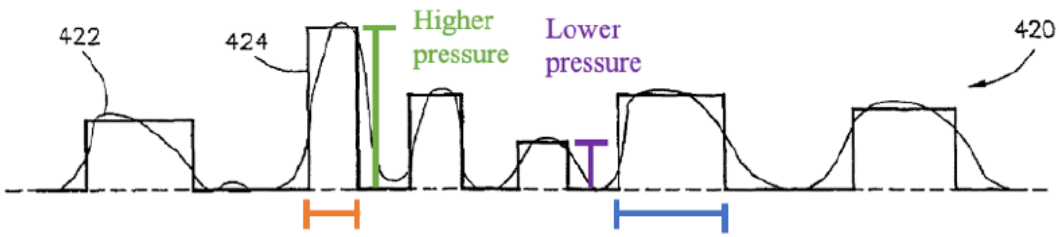


FIG. 4B

Figure 4B from Anderson is a diagram illustrating entry of an access code via temporal pressure variation. Ex. 1006, 2:65–67. The annotations are provided by Dr. Sears in his declaration testimony. Ex. 1003 ¶ 101. As explained by Dr. Sears, Figure 4B, "illustrates variations in both the amount of pressure applied using the height of each bar and the duration of the applied pressure using the width of each bar." *Id.*

4. Analysis of Independent Claim 1

Petitioner provides a clause-by-clause analysis of independent claim 1, identifying where in each of the cited references, Mathiassen, McKeeth, or Anderson, the claimed element is disclosed, and why it would have been obvious to a person of ordinary skill to combine the various disclosed elements with a reasonable expectation of success. *See* Petition 9–42. Throughout its analysis, Petitioner cites the Declaration testimony (Ex. 1003) of Dr. Sears for evidentiary support.

Petitioner also provides a "Claims Listing Appendix" where Petitioner labels each clause for ease of reference. Pet. 64–69. For independent claim 1, the clauses are listed at page 64 of the Petition, listing the clauses as "Claim 1 (Pre)"[12] through "Claim 1(e)." *Id.*, 64. For ease of reference and

[12] We understand the designation "Pre" to refer to the preamble portion of the claim. "Whether to treat a preamble as a limitation is a determination 'resolved only on review of the entire[ ] ... patent to gain an understanding of

consistency, we will refer to Petitioner's labeling convention, as did Patent Owner. *See, e.g.*, Prelim. Resp. 14, fn 7 (referring to element "1(d1)."

Patent Owner does not address specifically the merits of Petitioner's patentability challenge. *See* Prelim. Resp. 2–3 ("The case for discretionary denial of the instant Petition is so clear that Patent Owner has determined not to burden the Board with a full discussion of the merits of the Petition in this Preliminary Response."); *id.*, fn 3 ("Patent Owner will address the merits of the Petition in the unlikely event that the Board institutes *inter partes* review."). We discuss Patent Owner's arguments for a discretionary denial under 35 U.S.C. § 314(a) (*see* Prelim. Resp. 3–19) in Section III of this Decision.

Here, however, in our consideration of the merits of Petitioner's case, we will note and consider Patent Owner's two references to the merits (Prelim. Resp. 14 (the "Duration Limitation"), 17 ("Under Which Conditions" requirement)) in its arguments that, in Patent Owner's view, the merits "do not identify any compelling factor requiring institution," (Prelim. Resp. 19), which is *part of* Patent Owner's arguments for a discretionary denial of the Petition

a) Preamble

"A system for providing secure access to a controlled item."

Petitioner asserts that "[t]o the extent the preamble is limiting, Mathiassen teaches a system for providing secure access to a controlled

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what the inventors actually invented and intended to encompass by the claim.'" *Shoes by Firebug LLC v. Stride Rite Children's Grp., LLC*, 962 F.3d 1362, 1367 (Fed. Cir. 2020) (citing *Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) (quoting *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1257 (Fed. Cir. 1989)).

item." Pet. 9 (citing Mathiassen, Abstr., ¶¶ 16, 122–123, 145–147; Ex. 1003 ¶¶112–113).

Patent Owner does not address this clause.

Based on the current record, for the purposes of this Decision, we are persuaded Petitioner has demonstrated sufficiently that Mathiassen discloses "[a] system for providing secure access to a controlled item" as recited in the preamble of claim 1.

b) Clause 1(a)
a memory comprising a database of biometric signatures

Under Petitioner's proposed construction, a "database" is an "organized structure of data." Pet. 6. Petitioner asserts that Mathiassen discloses a stored database of tables stored in memory 7, 7A. Pet. 11–13 (citing Ex. 1004, ¶¶ 50, 147, Fig. 2B; Ex. 1003 ¶¶ 119–121).

Patent Owner does not address this clause.

Based on the current record, for the purposes of this Decision, we are persuaded Petitioner has demonstrated sufficiently that Mathiassen discloses "a database of biometric signatures," as recited in claim 1.

c) Clause 1(b)
a transmitter sub-system

Petitioner asserts Mathiassen teaches a transmitter subsystem, including transceiver 27, fingerprint sensor 5, processor 2 (of integrated circuit 1), and non-volatile memory 7, 7A, each housed in portable control 20. Pet. 13–14 (citing Ex. 1004 ¶¶ 185–188; Ex. 1003 ¶¶ 123–126).

Patent Owner does not address this clause.

Based on the current record, for the purposes of this Decision, we are persuaded Petitioner has demonstrated sufficiently that Mathiassen discloses "a transmitter sub-system," as recited in claim 1.

d) Clause 1(b1)
a biometric sensor configured to receive a biometric signal

Petitioner asserts that Mathiassen's "fingerprint sensor 5" is a "biometric sensor for receiving a biometric signal" because it detects a finger on the sensor and processes raw images of fingerprints. Pet. 14 (citing Ex. 1004 ¶ 49; Ex. 1003 ¶¶ 127–128).

Patent Owner does not address this clause.

Based on the current record, for the purposes of this Decision, we are persuaded Petitioner has demonstrated sufficiently that Mathiassen discloses "a biometric sensor for receiving a biometric signal," as recited in claim 1.

e) Clause 1(b2)
a transmitter sub-system controller configured to match the biometric signal against members of the database of biometric signatures to thereby output an accessibility attribute

Under Petitioner's proposed construction, an "accessibility attribute" is an "attribute that establishes whether and under which conditions access to the controlled item should be granted to a user." Pet. 6.

Petitioner asserts "Mathiassen's processor 2 of the IC 1 in the portable door control 20 discloses a "transmitter sub-system controller," as recited in claim 1. Pet 15. According to Petitioner, Mathiassen's portable control processor is configured to match the user's biometric signal against the database of biometric signatures. Pet. 16 (citing Ex. 1003 ¶¶ 131, 133–135). If there is a match, the processor will proceed to open (or lock) the car doors. *Id.*, 17 (citing Ex. 1004, 1¶¶ 180–182); Ex. 1003 ¶ 136).

Petitioner also asserts Mathiassen's "open door" command as modified by McKeeth's "teaching of duress and alert conditions" discloses

"or renders obvious" outputting an accessibility attribute, as claimed. Pet. 17 (citing Ex. 1003 ¶¶ 137–171).

Patent Owner argues "the district court defined 'accessibility attribute' as an "attribute that establishes whether and ***under which conditions*** access to the controlled item should be granted to a user." Prelim. Resp. 17 (emphasis added by Patent Owner) (citing Pet. 6; *see also* Ex. 1077, 2–3).

Patent Owner asserts that "[t]he independent claims of the '705 Patent make clear that the output of the claimed 'accessibility attribute' is a function of 'matching the biometric signal against members of the database of biometric signatures.'" Prelim. Resp. 17 (citing Ex. 1001, 16:1–4). This claim construction, however, simply requires matching signals against a database. Patent Owner argues that "Apple relies on McKeeth's teaching of outputting 'both a duress instruction and an alert instruction when there is no [biometric signal] match' to supplement Mathiassen in order to satisfy the 'under which conditions' requirement of the 'accessibility attribute' limitation." Prelim. Resp. 17 (citing Pet. 18). It appears that Patent Owner misstates and overstates Petitioner's position.

Petitioner's application of the references is as follows:

> *Mathiassen* and *McKeeth* each teaches **whether** access is granted. In *Mathiassen*, access *is granted* (as opposed to denied) by opening (i.e., unlocking) the car doors. *Mathiassen*, [0181-0182]; *Dec.,* 139. The issued "open door" command indicates "whether" access should be granted. *Mathiassen* teaches the open door command is issued in response to access minutiae matching a stored biometric signature of the car owner/administrator. *Mathiassen,* [0182]; *Dec.,* 139. In contrast, if the processor 2 does not find a match, then no access will be granted because "the process will be aborted." *Mathiassen,* [0181]. Thus, the "open door" command indicates that access should be granted.

Pet. 17. Here, consistent with the proposed construction, Petitioner relies solely on Mathiassen to satisfy the proposed claim construction of an attribute that establishes whether and ***under which conditions*** access to the controlled item should be granted to a user. If the processor 2 in Mathiassen does not find a match, then no access will be granted. That is all this clause of claim 1 requires.

Petitioner also, separately, asserts that McKeeth discloses a system in which "access is granted where 'there is a match between the input and security information.'" Pet. 18 (citing Ex. 1005, 3:65–67, 3:11–28). McKeeth discloses different types of input security information, including audio sensors to detect a voice recognition and an optical scanner for fingerprint and/or retina scans. Ex. 1005, 3:1–10. Any, a combination, or all of the described types of input signals may be used to authenticate a user. Ex. 1005, 3:11–12. If the input and security information do not match the stored information, the compare circuit issues a "flag signal" indicating denial of access by the user. *Id.* at 4:2–4.

Petitioner concludes that the "collective teachings" of Mathiassen and McKeeth:

> teach outputting an accessibility attribute, where the accessibility attribute may be one of an access attribute (Mathiassen and granting access to a car owner/administrator), a duress attribute (McKeeth and granting limited access along with a security alert), and an alert attribute (McKeeth and denying access along with a security alert).

Pet. 21–22 (italic font for reference names deleted). Thus, Mathiassen combined a more comprehensive "accessibility attribute" than Mathiassen alone.

Petitioner also provides reasoning why it would have been obvious to combine Mathiassen and McKeeth, with a reasonable expectation of success. Pet. 22–24.

Based on the current record, for the purposes of this Decision, we are persuaded Petitioner has demonstrated sufficiently that Mathiassen and McKeeth disclose a transmitter sub-system having an "accessibility attribute," as recited in claim 1.

f) Clause 1(b3)
a transmitter configured to emit a secure access signal conveying information dependent upon said accessibility attribute

Petitioner asserts Mathiassen teaches a "transmitter," namely transceiver 27 of portable control 20, that is "configured to emit a secure access signal conveying information dependent upon said accessibility attribute." Pet. 24. (citing Ex. 1004 ¶¶ 147, 186; Ex. 1003 ¶ 172–173).

Petitioner also asserts the IC processor in Mathiassen encrypts a command, such as "open door," with a temporary password or key. Pet. 25 (citing Ex. 1004 ¶¶ 50, 185). Transceiver 27 wirelessly transmits the encrypted command to a transceiver at the central car computer. *See* Ex. 1004 ¶ 186–188); Ex. 1003 ¶ 178. Petitioner concludes that "[b]ecause Mathiassen teaches the key used to encrypt the command sent from the portable control to the ignition control/car computer changes for each transaction, the encrypted command is non-repeatable and non-replayable. Therefore, Mathiassen teaches a 'secure access signal.'" Pet. 26 (citing Ex. 1003 ¶ 182–183).

Patent Owner does not address this clause.

Based on the current record, for the purposes of this Decision, we are persuaded Petitioner has demonstrated sufficiently that Mathiassen discloses

"a transmitter configured to emit a secure access signal conveying information dependent upon said accessibility attribute," as recited in claim 1.

g) Clauses 1(c and 1(c1))
a receiver sub-system comprising: a receiver sub-system controller configured to: receive the transmitted secure access signal

Petitioner discusses clauses 1(c) and 1(c1) together, and we follow this format.

Petitioner asserts Mathiassen teaches a receiver sub-system comprising "the central car computer and door lock transceivers, the central car computer, and ignition control 15." Pet. 28 (citing Ex. 1004 ¶¶ 186–188). As asserted by Petitioner, the central car computer includes a transceiver receiving the secure access signal (the "open door" command) from the portable control. *Id.* As Petitioner states correctly "the door locks include a transceiver receiving the relayed and authenticated open door command." Pet. 28. (citing Ex. 1003 ¶ 187–189; Ex. 1004 ¶¶ 149, 167, 186–187). According to Petitioner, a "transceiver" is well understood to include a receiver. *Id.* (citing Ex. 1003 ¶ 190). Petitioner concludes that Mathiassen discloses a receiver sub-system, as claimed. *Id.* (citing Ex. 1003 ¶ 191).

Petitioner also asserts that Mathiassen discloses a receiver sub-system, including the transceivers, the central car computer, and ignition control. Pet. 28–30. According to Petitioner, "a POSITA would have understood a processor performing the claimed function of receiving the signal and providing conditional access," which is "at least equivalent to the claimed "controller." *Id.* at 28 (citing Ex. 1003 ¶¶ 192-197).

Patent Owner does not address this clause.

Based on the current record, for the purposes of this Decision, we are persuaded Petitioner has demonstrated sufficiently that Mathiassen discloses "a receiver sub-system" and "a receiver sub-system controller," as recited in claim 1.

h) Clause 1(c2)
a receiver sub-system control . . . configured to: provide conditional access to the controlled item dependent upon said information

Petitioner's proposed construction in this proceeding for the phrase "conditional access" is "access based on accessibility attributes." Pet. 6, 30; *see also* Ex. 1074, 3 (the Joint Claim Construction Statement in the related parallel litigation). We use that proposed construction for purposes of this Decision.

Building on Petitioner's assertions for clauses 1(c) and 1(c1), discussed above, Petitioner asserts Mathiassen discloses access to a closed item, such as a door, dependent upon the information in the secure access signal. Pet. 30. According to Petitioner, because Mathiassen's commands specifically instruct a function (i.e., open door locks vs. lock door locks), the command (i.e., the "secure access signal") includes information specific to the instructed function. *Id.* (citing Ex. 1004 ¶ 167; Ex. 1003 ¶ 200).

Patent Owner does not address this clause.

Based on the current record, for the purposes of this Decision, we are persuaded Petitioner has demonstrated sufficiently that Mathiassen discloses "a receiver sub-system control . . . configured to: provide conditional access to the controlled item" dependent upon received information," as recited in claim 1.

i) Clause 1(d)
wherein the transmitter sub-system controller is further configured to:

Similar to the analysis for clause 1(b2) discussed above, Petitioner asserts that "processor 2 of IC 1 in [the] portable door control" in Mathiassen discloses this element. Pet. 31 (citing Ex. 1004 ¶¶ 50, 147; Ex. 1003 ¶ 202).

Patent Owner does not address this clause.

Based on the current record, for the purposes of this Decision, we are persuaded Petitioner has demonstrated sufficiently that Mathiassen discloses a transmitter sub-system, as recited in clause 1(d).

j) Clause 1(d1)
[configured to] receive a series of entries of the biometric signal, said series being characterised according to at least one of the number of said entries and a duration of each said entry;

Petitioner acknowledges that [a]lthough Mathiassen teaches inputting a command via a series of fingerprint representations, Mathiassen does not teach determining a duration of each entry. Anderson teaches inputting an access code including fingerprint presses of varying duration." Pet. 3.

Petitioner asserts Mathiassen discloses storing "**a series of consecutive fingerprint representations** generated by the fingerprint sensor signal capture and preprocessing block (5C))" that represent various "finger movements across the sensor in two dimensions." Pet. 32 (citing Ex. 1004 ¶ 192; Ex. 1003 ¶¶ 205–210).

Petitioner relies on Anderson for the disclosure of a "series of fingerprint pressure pulses of varying duration. Pet. 33–34 (citing Ex. 1006, 6:45–48 ("For example, wherein the access code is entered by the user as a series of pressure pulses having varying durations, a predetermined tolerance may be provided for variations in the lengths of the pulses."), 7:40–47); *see*

also id., 7:34–39 (disclosing that, "as shown in FIG. 4B, the touch interface may sense both temporal applications of pressure and variations in pressure magnitude or intensity. Thus, the access code would be entered as a series of alternating short and long pressure applications that vary both in duration and magnitude.")).

Patent Owner refers to this clause as the "Duration Limitation" and argues that this clause is not disclosed or suggested in the cited references. Prelim. Resp. 14–17. According to Patent Owner, "Anderson fails to teach any duration for the individual biometric signals within a series of such signals." Prelim. Resp. 15. We disagree based on the clear disclosures in Anderson and Dr. Sears' unrebutted testimony.

Dr. Sears' annotated figures 4A and 4B from Anderson (*see* Ex. 1003 ¶¶ 97, 98; also discussed in Section II.D.3 of this Decision) are reproduced again below for convenient reference.

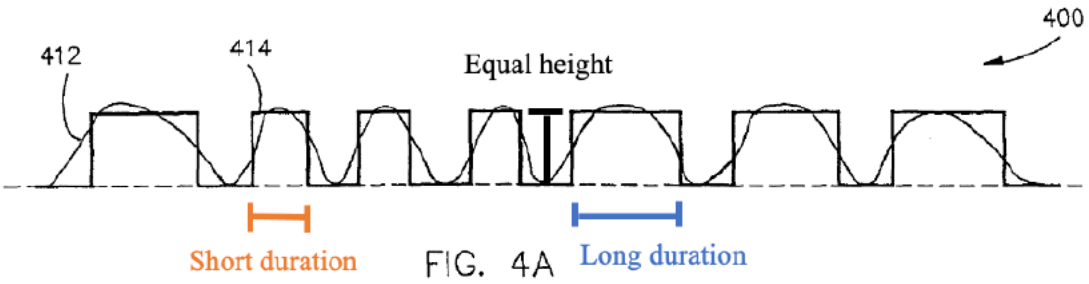


FIG. 4A

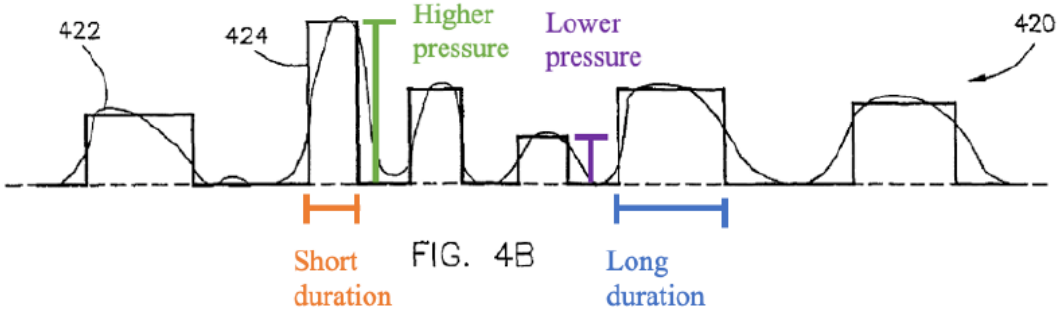


FIG. 4B

Dr. Sears testifies that Anderson's method of inputting an access code uses digitizer pad 120 as a touch interface, which may "include an optical

scanner or thermal sensor for collecting an image of the user's fingerprint. Ex. 1003 ¶ 96 (citing Ex. 1006, 5:43–44, 7:4–7). The user then enters the access code "as a series of pressure pulses having varying durations." *Id.* (quoting Ex. 1006, 6:45–47). This fingerprint access code is then compared with the "stored code template" in Anderson to determine a "match" to enable the desired function. *Id.* (citing Ex. 1006, 6:48–54). Dr. Sears testifies that "Anderson teaches two different access code applications: one where both the pressure of each press *and* the duration of each press is detected (Fig. 4A), and another where only the duration of each press is detected (Fig. 4B)." *Id.* (citing Ex. 1006, 7:28–39).

Dr. Sears also states, "Anderson discloses that in the second option, the 'access code would be entered as a series of alternating pressure applications of varying duration' where the touch interface 'may only sense temporal applications of pressure' and "not detect variations in pressure magnitude or intensity." Ex. 1003 ¶ 96 (citing Ex. 1006, 7:28–34, discussing Figure 4A in Anderson). It is Dr. Sears' opinion that "in the first [option] the touch interface may sense both temporal applications of pressure and variations in pressure magnitude or intensity." *Id.* (citing Ex. 1006, 7:34–37, discussing Fig. 4B in Anderson).

Patent Owner's argument that Anderson's "digitizer pad works with or without fingerprint imaging" and "durational variation" recognizes that one option disclosed in Anderson is to include "durational variation" (Prelim. Resp. 15) of biometric fingerprint signals, which is all that is required in the proposed claim construction of this clause.

Based on the current record, for the purposes of this Decision, we are persuaded Petitioner has demonstrated sufficiently that Anderson discloses

the "duration limitation" in clause 1(d)(1), based on the disclosure of Anderson and the testimony of Dr. Sears.

Petitioner also provides argument and probative evidence as to why a person of ordinary skill would have combined the disclosures of the references, with a reasonable expectation that the combination would be successful. Pet. 36–37.

k) Clause 1(d2)
[the transmitter sub-system controller is further configured to:] map said series [of entries of the biometric signal] into an instruction

Petitioner asserts Mathiassen discloses the processor in integrated circuit 1 maps the series of biometric signal entries into an instruction by translating the series of finger movements to a command in a command table. Pet. 37–38 (citing Ex. 1004 ¶ 192). The cited disclosure in Mathiassen states:

> As an additional safety feature the portable or embedded device could be equipped with means for the input of code or commands. This is achieved by defining a fingerprint storage segment in non-volatile memory (7, 7A or 7E) where the device may store a series of consecutive fingerprint representations generated by the fingerprint sensor signal capturing and pre-processing block (5C). *Movement analyzing means, in the form of a hardware or a software movement analyzing program module analyzes the obtained series of fingerprint representations to obtain a measure of the omni-directional finger movements across the sensor in two dimensions. Translation means in the form of a hardware or a software translation program module analyzes and categorizes the omni-directional finger movements across the fingerprint sensor according to predefined sets of finger movement sequences* including directional and touch/no-touch finger movement sequences. *A command table is used to translate the categorized finger movements into control signals whereby the translating means generates control signal for controlling the device, e.g.*

the stand-alone appliance, in response to the finger movements on the sensor.

Ex. 1004 ¶ 192 (emphases added). There can be no reasonable dispute that Mathiassen discloses a computer implemented software translation program for converting finger movements into control signals.

Patent Owner does not address this clause.

Based on the current record, for the purposes of this Decision, we are persuaded Petitioner has demonstrated sufficiently that Mathiassen discloses a transmitter sub-system controller configured to "map said series [of entries of the biometric signal] into an instruction," as recited in claim 1.

l) Clause 1(d3)
[the transmitter sub-system controller is further configured to:] populate the data base according to the instruction

Petitioner asserts "Mathiassen-McKeeth teaches or renders obvious a system enrolling or populating a database of new users." Pet. 38–42 (citing Ex. 1004 ¶¶ 71, 131, 162–167, 192; Ex. 1003 ¶¶ 231, 236–238, 241–245).

Patent Owner does not address this clause.

Based on the current record, for the purposes of this Decision, we are persuaded Petitioner has demonstrated sufficiently that Mathiassen discloses a transmitter sub-system controller configured to populate the data base according to the instruction, as recited in claim 1.

m) Claim 1(e)
wherein the controlled item is one of: a locking mechanism of a physical access structure or an electronic lock on an electronic computing device.

Petitioner asserts "Mathiassen teaches the controlled item is a 'locking mechanism of a physical access structure' (i.e., the car door locks of the central locking system)." Pet. 42 (citing Ex. 1004 ¶ 187; Ex. 1003 ¶ 247 (testifying that Mathiassen discloses a controlled item that is a locking

mechanism of a physical access structure, *i.e.* a car door]. We also note that Mathiassen clearly discloses use of its disclosed computer-based locking and access system on a "laptop computer," "hotel safe," "medicine cabinet," and as a "door control" in "automotive applications." Ex. 1004 ¶¶ 41–44, 109–113.

Patent Owner does not address this clause.

Based on the current record, for the purposes of this Decision, we are persuaded Petitioner has demonstrated sufficiently that Mathiassen discloses "a locking mechanism of a physical access structure or an electronic lock on an electronic computing device," as recited in claim 1.

n) Conclusion for Claim 1

Based on the arguments and evidence in the record before us, and our analysis above, Petitioner has established a reasonable likelihood it will prevail on claim 1.

5. Analysis of Claims 4, 6, 10–12, and 14–17

Petitioner provides an element-by-element analysis of where each element in the challenged claims 4, 6, 10–12, and 14–17 is disclosed in, or would have been obvious in view of, the cited references. Pet. 42–54. For clauses in claims 4, 6, 10–12, and 14–17 that are similar to those in claim 1, Petitioner refers to its arguments for claim 1, or other claims. *See, e.g.*, Pet. 49–50 (referring to its analysis for claim 14). Petitioner also provides a reason why it would have been obvious to modify and combine the references with a reasonable expectation of success, as proposed by Petitioner. *Id.* Petitioner also relies throughout the analysis of these claims on the testimony of Dr. Sears (Ex. 1003) for evidentiary support.

Other than as discussed above in the context of claim 1, Patent Owner does not address the merits of claims 4, 6, 10–12, and 14–17. Prelim. Resp.

3 ("Patent Owner has determined not to burden the Board with a full discussion of the merits of the Petition in this Preliminary Response.").

Accordingly, based on the arguments and evidence of parties on the record before us, we determine, for purposes of this Decision, Petitioner has established a reasonable likelihood of prevailing on claims 4, 6, 10–12, and 14–17.

III. DISCRETIONARY DENIAL UNDER 35 U.S.C. § 314(A)

Patent Owner argues that we should exercise our discretion under 35 U.S.C. § 314(a) and deny institution. Prelim. Resp.; Prelim. Sur-reply. Petitioner opposes discretionary denial. Pet. 54–60; Prelim. Reply. Upon consideration of the particular circumstances of this case, we decline to exercise discretion under § 314(a) to deny review.

Section 314(a) does not require the Director to institute an *inter partes* review. *See Harmonic*, 815 F.3d at 1367 ("[T]he PTO is permitted, but never compelled, to institute an IPR proceeding."). Rather, a decision whether to institute is within the Director's discretion, and that discretion has been delegated to the Board. *See* 37 C.F.R. § 42.4(a) (2021); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2140 (2016) ("[T]he agency's decision to deny a petition is a matter committed to the Patent Office's discretion.").

As the November 2019 Consolidated Trial Practice Guide ("CTPG")[13] notes, the Leahy-Smith America Invents Act ("AIA") was "designed to establish a more efficient and streamlined patent system that will improve patent quality and limit unnecessary and counterproductive litigation costs."

[13] Available at https://www.uspto.gov/sites/default/files/documents/tpgnov.pdf.

CTPG at 56 (quoting H.R. Rep. No. 112-98, pt. 1, at 40 (2011), 2011 U.S.C.C.A.N. 67, 69 (stating that post-grant reviews were meant to be "quick and cost effective alternatives to litigation")); *see also* S. Rep. No. 110-259, at 20 (2008). The Board has recognized these goals of the AIA, but also has "recognize[d] the potential for abuse of the review process by repeated attacks on patents." *Gen. Plastic Indus. Co. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 at 16−17 (PTAB Sept. 6, 2017) (precedential as to § II.B.4.i).

In determining whether to exercise discretion to deny institution under § 314(a) on behalf of the Director for reason of parallel court proceeding(s), we consider the Board's precedential decisions in *NHK Spring Co. v. Intri-Plex Techs., Inc.*, IPR2018-00752, Paper 8 (PTAB Sept. 12, 2018) ("*NHK*") and *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential) ("*Fintiv*"). In *Fintiv*, the Board explained that "cases addressing earlier trial dates as a basis for denial under *NHK* have sought to balance considerations such as system efficiency, fairness, and patent quality." *Fintiv*, Paper 11 at 5. *Fintiv* sets forth six non-exclusive factors for determining "whether efficiency, fairness, and the merits support the exercise of authority to deny institution in view of an earlier trial date in the parallel proceeding." *Id.* at 6.

The *Fintiv* factors consider: 1) whether a stay exists or is likely to be granted if a proceeding is instituted; 2) proximity of the court's trial date to the Board's projected statutory deadline; 3) investment in the parallel proceeding by the court and parties; 4) overlap between issues raised in the petition and in the parallel proceeding; 5) whether the petitioner and the defendant in the parallel proceeding are the same party; and 6) other

circumstances and considerations that impact the Board's exercise of discretion, including the merits. *Id.* at 5–6.

On June 21, 2022, the Director of the United States Patent and Trademark Office issued an *Interim Procedure for Discretionary Denials in AIA Post Grant Proceedings with Parallel District Court Litigation* (June 21, 2022)[14] ("*Interim Procedure*")[15] to clarify "the [Board's] current application of *Fintiv* to discretionary institutions when there is parallel litigation" and to "confirm[] that the precedential import of *Fintiv* is limited to the facts of that case." *Interim Procedure*, 2. In particular, the *Interim Procedure* sets forth that: (1) the Board will not rely on the *Fintiv* factors to discretionarily deny institution "where a petition presents compelling evidence of unpatentability" (*id.* at 2); (2) the *Fintiv* factors do not apply to parallel U.S. International Trade Commission proceedings (*id.* at 2–3); (3) the Board will not discretionarily deny institution "where a petitioner presents a stipulation not to pursue in a parallel proceeding the same grounds or any grounds that could have reasonably been raised before the [Board]" (*id.* at 3); and (4) "the [Board] will consider the median time from filing to disposition of the civil trial for the district in which the parallel litigation resides" (*id*.).

A. Analysis

This case presents an unusual situation for a discretionary denial, as acknowledged by Patent Owner. Prelim. Resp. 1 ("The instant Petition

[14] Available at: https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf.
[15] Available at: https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf.

presents a novel, but nonetheless compelling, set of circumstances as it concerns the *Fintiv* factors for discretionary denial of institution."). We agree it is "novel." We disagree that it compels a discretionary denial of the Petition before us.

There is pending parallel litigation involving the parties to this IPR proceeding and the '705 patent. It is the Apple N.D. California case cited in Section I.C (Related Matters) that was transferred from the Western District of Texas to the Northern District of California. *See* Ex. 3003 (PACER Docket for the transferred case). Patent Owner argues we should ignore the Apple N.D. California case and base our analysis on the HMD W.D. Texas case in which Patent Owner asserted the '705 patent against a different defendant.

Even though there are different parties, the asserted connection between the HMD W.D. Texas litigation to this IPR proceeding sufficient to justify discretionary denial, according to Patent Owner, is that, "as part of the invalidity defenses" in the HMD litigation, HMD cites the "same prior art combination as allegedly teaching the Duration Limitation in the '705 Patent" as is cited in this IPR proceeding. Prelim. Resp. 2 (citing Ex. 2002, 63–64). The cited evidence (Ex. 2002), however, does not support Patent Owner's argument.

Exhibit 2002 is a 78-page document titled "Exhibit B-15 to HMD's Invalidity Contentions." Ex. 2002, 1. It is not dated nor is it signed. There is no indication of the context for this Exhibit B-15. There is no declaration testimony stating what this document represents. It appears to be similar to invalidity contentions served, not filed, in district court patent infringement litigation.

Exhibit 2002 states it is a "claim chart," showing the invalidity contentions for the claims of the '705 patent. Ex. 2002, 1. The exhibit does not state that it relates to the HMD litigation in Texas. The exhibit states that the claims "are invalid" in view of U.S. Patent Application Publication No. 2004/0123113 ("Mathiassen"), "alone or in combination with one or more prior art references and other arguments identified in HMD's Invalidity Contentions." *Id.* Exhibit 2002 further states

> To the extent Plaintiff contends that Mathiassen fails to disclose, teach, or suggest one or more of the claim elements set forth below, it would be obvious to combine Mathiassen with one or more of the prior art references listed in HMD's Invalidity Contentions, described element-by-element in Exhibit C, and with the knowledge of a person of ordinary skill in the art, to render the asserted claims obvious. As included in the following claim chart, it would be obvious to combine Mathiassen with at least the following references, either alone or in combination with each other:

Ex. 2002, 1–2. Exhibit 2002 then lists eleven references that may be combined with Mathiassen, individually or collectively, in various combinations or permutations, to invalidate the claims of the '705 patent in the HMD litigation. *Id.*

The invalidity contentions in Exhibit 2002 apparently are not final. The exhibit states "HMD reserves the right to rely on other evidence providing comparable evidence of how Mathiassen alone or in combination with other prior art renders the '705 patent invalid." Ex. 2002, 2.

Patent Owner's citation to only pages 63 and 64 of Exhibit 2002 (*see* Prelim. Resp. 2) does not represent a complete analysis in this document.

In the claim chart that is Exhibit 2002, the analysis of the Duration Limitation begins on page 52. *See* Ex. 2002, 52 listing the claim element "1d1, the Duration Limitation," in the left column, and discussing the

asserted references relevant to this clause in the right column. The alleged invalidity analysis begins with a discussion of the Mathiassen reference. Ex. 2002, 52–55. This is the same Mathiassen reference cited in this IPR proceeding.

The analysis of the Duration Limitation continues with a discussion of "U.S. Patent No. 6,983,061 ('Ikegami')." Ex. 2002, 55–60. This is followed by discussions of "U.S. Patent No. 5,933,515 ('Pu')" (*id.* at 60–62), "PCT Pub. No. WO 2005/043451 ('Steinar')" (*id.* at 62–63), and "U.S. Patent No. 6,509,847 ('Anderson')" (*id.* at 63–64).

The only information established in Exhibit 2002 is that Mathiassen, alone, or combined with one or more of Ikegami, Pu, Steinar, and/or Anderson, in various combinations or permutations, may be relied on in the HMD litigation to show that the Duration Limitation was known or would have been obvious. Thus, there is no persuasive evidence to establish whether the "same prior art combination," in this IPR proceeding, that is Mathiassen, McKeeth, and Anderson, will be asserted in the HMD litigation against the Duration Limitation in the '705 patent. *See* Pet. 31 (discussing the Duration Limitation and asserting "*Mathiassen* (as modified by *McKeeth*) and further modified by *Anderson* teaches Claim 1(d1)"). Patent Owner's argument to the contrary is based on speculation, not evidence. We agree with Petitioner that "it is entirely unclear what art actually will be presented at the HMD trial," and that Patent Owner "asks the Board to speculate on what invalidity position HMD will present at trial (if it ever proceeds to trial)." Prelim. Reply 4. Thus, on this basis alone, the fact that there are different parties and no persuasive evidence of overlapping references, we would decline look to the HMD W.D. Texas case in determining to exercise our discretion under Section 314(a) deny institution.

We discuss below the *Fintiv* factors based on the Apple N.D. California case.

Factor 1: whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted.

"A district court stay of the litigation pending resolution of the PTAB trial allays concerns about inefficiency and duplication of efforts. This fact has strongly weighed against exercising the authority to deny institution under NHK." *Fintiv*, Paper 11 at 6 (citations omitted).

On September 6, 2022, the N.D. California District Court entered a stay of the case "in its entirety" until November 17, 2022, "pending a decision on institution" from PTAB. Ex. 1088, 1. The parties were ordered to "meet and confer following any decision forthcoming from the PTAB as to next steps." *Id.* A Case Management conference is scheduled for November 17. This guidance from the District Court suggests the Court may be willing to avoid duplicative efforts and await our final resolution of the patentability issues raised in the Petition before proceeding with the litigation.

We determine that the facts underlying this factor provide some weight against exercising our discretion to deny institution.

Factor 2: proximity of the court's trial date to the Board's projected statutory deadline for a final written decision

If the court's trial date is earlier than the projected statutory deadline, the Board generally has weighed this fact in favor of exercising authority to deny institution under *NHK*. *Fintiv*, Paper 11 at 9. If the court's trial date is at or around the same time as the projected statutory deadline or even significantly after the projected statutory deadline, the decision whether to

institute will likely implicate other factors discussed herein, such as the resources that have been invested in the parallel proceeding. *Id.*

If we institute an IPR proceeding, a final written decision likely will be due on or before September 30, 2023.

Consistent with the Director's *Interim Procedure*, we consider the median time from filing to disposition of the civil trial for the district in which the parallel litigation resides, which is the N.D. California District Court. Based on court statistics, the median time from filing to trial in the Northern District of California is 31.1 months. Ex. 3004. Because this case was filed in Texas on February 23, 2021, and was transferred on April 25, 2022 to the Northern District of California (*see* Ex. 3003), we don't know how the transferred case will be treated in the California Court. A Case Management Order has not yet issued. As stated above, a Case Management Conference is scheduled for November 17, 2022. Ex. 1088. Even measured by the Texas Court filing date of February 23, 2021, however, and applying the N.D. California court's 31.1 median time from filing to trial, the California trial will not begin until September, 2023, which coincides with the September 30, 2023, deadline for our final written decision. On the record before us, this fact weighs against exercising discretion to deny institution

Additionally, *if* we were to look to the Texas case between *different* parties concerning the '705 patent, our analysis would not change because Patent Owner's argument on this factor relies on unpersuasive, anecdotal data from the Waco Division, rather than data reflecting the entirety of the Western District of Texas. *See* Prelim. Resp. 7 ("The most recent statistics indicate that, in the *Western District of Texas*, the approximate time to trial is two years from the filing of the complaint." (emphasis added) (citing

"*VoIP-Pal.com v. Google LLC*, 6:21-cv-00667, 2022 WL 2068254, at *7 (W.D. Tex. June 8, 2022)").

The cited case does *not* represent data from "the Western District of Texas," as argued by Patent Owner. The cited *VoIP* case refers to data only from one judge in the Waco Division. As the Director's *Interim Procedure* states clearly, "Parties may present evidence regarding the most recent statistics on median time-to-trial for civil actions in the district court in which the parallel litigation resides." *Interim Procedure* 8–9 (citing the source of the "most recent statistics"). The median time from filing a complaint to trial in the Western District of Texas, using the correct source of data, is 28.3 months. *See* Ex. 3005 (annotated to highlight the applicable data). Applying this data to the Texas case establishes that the Texas case would go to trial approximately in July 2023, based on a filing date in Texas on February 23, 2021. Our Final Decision in this IPR proceeding will issue no later than September 30, 2023. *If* we were to consider the Texas case between different parties as "parallel," which we do not for the reasons stated above, this small difference is not persuasive for us to discretionarily deny the Petition in this case.

Factor 3: investment in the parallel proceeding by the court and the parties

"The Board also has considered the amount and type of work already completed in the parallel litigation by the court and the parties at the time of the institution decision." *Fintiv*, Paper 11 at 9.

Because of the transferred status of this case, and the fact that no Case Management Order has been issued, again, we decline to speculate about any investment by the parties and the court in the N.D. California litigation involving the'705 patent. We consider this factor to be neutral.

Factor 4: overlap between issues raised in the Petition and in the parallel proceeding

"[I]f the petition includes the same or substantially the same claims, grounds, arguments, and evidence as presented in the parallel proceeding, this fact has favored denial." *Fintiv*, Paper 11 at 12 (citations omitted). "Conversely, if the petition includes materially different grounds, arguments, and/or evidence than those presented in the district court, this fact has tended to weigh against exercising discretion to deny institution under NHK." *Id.* at 12–13 (citations omitted).

Petitioner's Stipulation

The Director's *Interim Procedure* states:

> Consistent with *Sotera Wireless, Inc*., the PTAB will not discretionarily deny institution in view of parallel district court litigation where a petitioner presents a stipulation not to pursue in a parallel proceeding the same grounds or any grounds that could have reasonably been raised before the PTAB.

Interim Procedure, 7–8; *see also Sotera Wireless, Inc. v. Masimo Corp*., IPR2020-01019, Paper 12 (PTAB Dec. 1, 2020) (precedential as to § II.A).

In the Petition, Petitioner stipulates "that if the Board institutes the Petition on the same grounds presented, then Apple will not seek resolution in the District Court of any ground of invalidity that utilizes Mathiassen, McKeeth, or Anderson." Pet. 67. This stipulation eliminates direct overlap and duplication, as well as partial overlap based on any one of the three asserted references in this IPR proceeding. This stipulation is not as detailed as the stipulation in *Sotera* or in the Director's *Interim Procedure*, in that it does not include "any grounds that could have reasonably been raised before the PTAB." We determine that the stipulation is entitled to some probative weight against exercising our discretion to deny institution.

Factor 5: whether Petitioner and the defendant in the parallel proceeding are the same party

The Director's *Interim Procedure* states "Parallel district court and AIA proceedings involving the same parties and invalidity challenges can increase, rather than limit, litigation costs." 1.

This factor suggests that "[i]f a petitioner is unrelated to a defendant in an earlier court proceeding, the Board has weighed this fact against exercising discretion to deny institution under *NHK*." *Fintiv*, Paper 11 at 13–14. Here, the HMD W.D. Texas litigation on which Patent Owner relies involves a different party, HMD. Petitioner, Apple, is a defendant in the N.D. California litigation. There is no evidence to which we have been directed of any relationship between HMD and Apple. We weigh this fact against exercising discretion to deny institution.

Factor 6: other circumstances that impact the Board's exercise of discretion, including the merits

Based on our review of the arguments and evidence on the merits, as discussed in this Decision, we determine that Petitioner has demonstrated a reasonable likelihood that it would prevail in this IPR proceeding on at least one claim.

The Director's *Interim Procedure* explains that "where the PTAB determines that the information presented at the institution stage presents a compelling unpatentability challenge, that determination alone demonstrates that the PTAB should not discretionarily deny institution under *Fintiv*." *Interim Procedure*, 4–5. "Compelling, meritorious challenges are those in which the evidence, if unrebutted in trial, would plainly lead to a conclusion that one or more claims are unpatentable by a preponderance of the evidence." *Id.* at 4.

Based on our analysis of the merits of the Petition, we determine that, on the current record, Petitioner has established "a reasonable likelihood" that Petitioner's unpatentability ground, if unrebutted at trial, will lead to a conclusion that the challenged claims are unpatentable. *See supra* Section II.D. This "reasonable likelihood" determination is not the same as a determination that the information presented at the institution stage presents a "compelling unpatentability challenge."

B. Discretionary Denial Summary

Based on the evidence of record in this IPR proceeding and the analysis above, we determine that efficiency and integrity of the system are best served by *not* exercising our discretion to deny institution.

IV. CONCLUSION

For the foregoing reasons, we determine Petitioner has established a reasonable likelihood of prevailing in showing that one or more claims are unpatentable over the cited prior art.

Our review of the Petition under 35 U.S.C. § 314 is not to determine whether an individual asserted fact is indisputable or whether a preponderance of the evidence supports Petitioner. Our review is to determine whether the totality of the information presented in the Petition and Preliminary Response shows that there is a reasonable likelihood that Petitioner would prevail with respect to at least one of the claims challenged in the Petition. "The 'reasonable likelihood' standard is a somewhat flexible standard that allows the Board room to exercise judgment." Consolidated Trial Practice Guide, 53 (Nov. 2019) (available at https://www.uspto.gov/sites/default/files/documents/tpgnov.pdf).

This is a decision to institute an *inter partes* review under 35 U.S.C. § 314. Our determinations at this stage of the proceeding are preliminary,

and based on the evidentiary record developed thus far. This is not a final decision as to the patentability of claims for which *inter partes* review is instituted. Our final decision will be based on the record as fully developed during trial.

V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review is *instituted* on all challenged claims with respect to all grounds set forth in the Petition; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(a), *inter partes* review of the '705 patent is instituted commencing on the entry date of this Order, and pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is given of the institution of a trial.

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