

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ROKU, INC.,
Petitioner,

v.

ECOLINK INTELLIGENT TECHNOLOGY, INC.,
Patent Owner.

IPR2023-00792
Patent 10,692,340 B2

Before DANIEL J. GALLIGAN, STEVEN M. AMUNDSON, and
JASON M. REPKO, *Administrative Patent Judges*.

REPKO, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Roku, Inc. (“Petitioner”) filed a petition requesting an *inter partes* review of claims 1, 2, 6, 11, 12, and 16 of U.S. Patent No. 10,692,340 B2 (Ex. 1001, “the ’340 patent”). Paper 2 (“Pet.”). Ecolink Intelligent Technology, Inc. (“Patent Owner”) filed a Preliminary Response. Paper 7 (“Prelim. Resp.”).

To institute an *inter partes* review, we must determine “that 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) (2018). For the reasons discussed below, Petitioner has shown a reasonable likelihood that it would prevail with respect to all claims challenged in the Petition. Thus, we institute an *inter partes* review.

A. *Related Matters*

The parties have not identified any related matters. *See* Pet. 3; Paper 4 (Patent Owner’s Mandatory Notices); Paper 6 (Petitioner’s Updated Mandatory Notices).

B. *Real Party in Interest*

Patent Owner’s Mandatory Notices do not identify any real party in interest, as required by 37 C.F.R. § 42.8(b)(1). *See* Paper 4. Patent Owner must provide this information by filing a paper with updated mandatory notices within one month of this decision’s entry.

C. *The ’340 Patent*

The ’340 patent is directed to reducing the occurrence of false alarms in a security system for a home or business. Ex. 1001, Abstract. The system determines whether a barrier, such as a window or a door, has been opened. *See id.* The alarm device then starts a timer. *Id.* at 24:49–60. Once the timer expires, the system initiates a security response. *Id.* at 24:55–58. To avoid

initiating the response, the alarm can be canceled before the timer expires.

Id. at 24:49–25:13.

D. Claims

Of those challenged, claims 1, 6, 11, and 16 are independent.

Claim 1 is reproduced below.

1. A barrier alarm device, comprising:

a barrier status detection device for indicating that a barrier monitored by the barrier alarm device has been opened;

a human detection device for indicating that a human being is inside a premises in proximity to the barrier;

a transmitter for transmitting a timed alarm signal to a receiver associated with a security panel, the timed alarm signal for initiating a timer associated with the security panel;

a memory having processor-executable instructions stored thereon; and

a processor coupled to the barrier status detection device, the human detection device, the transmitter, and the memory, for executing the processor-executable instructions that cause the barrier alarm device to:

respond to the barrier status detection device indicating that the barrier has been opened by determining whether the human detection device indicates that the human being is inside the premises in proximity to the barrier; and

transmit, via the transmitter, the timed alarm signal to the receiver only when it is determined that the human detection device indicates that the human being is inside the premises in proximity to the barrier.

Ex. 1001, 29:28–53.

E. Evidence

Name	Reference	Exhibit No.
Lamb	U.S. 2016/0247370 A1, published August 25, 2016	1009
Williams	U.S. 6,057,764, issued May 2, 2000	1010
Sharma	U.S. 7,696,873 B2, issued April 13, 2010	1011

F. Asserted Grounds

Petitioner asserts that claims 1, 2, 6, 11, 12, and 16 are unpatentable on the following grounds. Pet. 9.

Claims Challenged	35 U.S.C. §	Reference(s)/Basis
1, 2, 6, 11, 12, 16	103	Lamb, Williams
1, 11	103	Sharma

II. ANALYSIS

A. Level of Ordinary Skill in the Art

Petitioner asserts that a person of ordinary skill in the art “would have had a bachelor’s degree in computer science, in electrical engineering, or a related field, and approximately two or more years of experience or equivalent study in sensor systems.” Pet. 12 (citing Ex. 1003¹ ¶¶ 37–40). Petitioner also asserts that “[a]dditional graduate education could substitute for professional experience, or significant experience in the field could substitute for formal education.” *Id.* at 12–13.

Patent Owner disagrees and argues,

The ‘340 patent expressly states that the “present application relates to the field of home and business security.” (EX1001 at 1:15-16.) Petitioner’s definition of a POSITA, on the other hand, encompasses individuals that have experience with *any* sensor systems for *any application*. Petitioner does not explain how or why an individual with experience in sensors

¹ Exhibit 1003 is the declaration of Bruce McNair.

systems for speech recognition applications, for example, would have been considered a POSITA with respect to the ‘340 patent.

Prelim. Resp. 9.

At this stage, we determine that the differences between the two definitions do not affect our decision to institute. That is, in our analysis below, we apply Petitioner’s proposed definition, but our decision would be the same under Patent Owner’s. If the parties continue to disagree about the level of ordinary skill in the art during trial, they are encouraged to explain how the differences affect the Board’s assessment of Petitioner’s obviousness analysis.

B. The Declaration of Bruce McNair

Petitioner offers the Declaration of Bruce McNair in support of its Petition. Ex. 1003.

Patent Owner argues that “it is an abuse of discretion to admit expert testimony ‘on any issue that is analyzed through the lens of an ordinarily skilled artisan’ (e.g., invalidity) where the expert ‘does not have ordinary skill in the art.’” Prelim. Resp. 48 (citing *Kyocera Senco Indus. Tools Inc. v. Int’l Trade Comm’n*, 22 F.4th 1369, 1377–78 (Fed. Cir. 2022)). Patent Owner argues that Bruce McNair’s experience in amateur radio, speech recognition, and cryptography does not meet its definition of a person of ordinary skill in the art, which requires knowledge in the field of home and business security. *Id.* at 48–49 (citing Ex. 1001, 1:15–18). In Patent Owner’s view, “Petitioner has failed to establish that its expert has ordinary skill in the art, Petitioner’s expert’s opinions are inadmissible, and Petitioner has failed to support its Petition with the requisite testimony of a POSITA.” *Id.* at 49 (citing *Kyocera*, 22 F.4th at 1377–78).

We disagree based on the current record. Even if we assume that a person of ordinary skill in the art requires knowledge in “the field of home and business security,” Petitioner’s expert, Bruce McNair, testifies that he has designed and installed home security, sensor, and alarm systems. Ex. 1003 ¶ 12.

Also, Mr. McNair’s experience with wireless communication and cryptographic security systems is also relevant (*see, e.g., id.* ¶ 10) even if it involved more complex systems because, “to be qualified to offer expert testimony on issues from the vantage point of an ordinarily skilled artisan in a patent case, an expert must *at a minimum* possess ordinary skill in the art.” *Kyocera*, 22 F.4th at 1377–78 (emphasis added).

Thus, on this record, we disagree with Patent Owner’s argument Petitioner has failed to support its Petition with the testimony of someone who possesses the knowledge and skill at least of an ordinarily skilled artisan—even under Patent Owner’s definition. *See* Prelim. Resp. 49.

C. Claim Construction

“The Board is required to construe ‘only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.’” *Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (citing *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

In interpreting the claims here, we use the same claim construction standard that would be used to construe the claims in a civil action under 35 U.S.C. § 282(b). 37 C.F.R. § 42.100(b) (2023). Under that standard, claim terms are generally given their ordinary and customary meaning as would be understood by one with ordinary skill in the art in the context of the specification, the prosecution history, other claims, and extrinsic

evidence. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–17 (Fed. Cir. 2005) (en banc).

1. *Timed Alarm Signal*

At this stage, the term “timed alarm signal” in independent claims 1 and 11 is in controversy. Specifically, claim 1 recites, in part,

transmitting a *timed alarm signal* to a receiver associated with a security panel, the timed alarm signal for initiating a timer associated with the security panel.

Ex. 1001, 29:35–38 (emphasis added). Similarly, claim 11 recites, in part,

transmitting by the barrier alarm device a *timed alarm signal* to the central security panel for the purpose of initiating a timer associated with the central security panel only when it is determined that the human detection device indicates that the human being is in inside the premises and in proximity to the barrier.

Id. at 30:58–63 (emphasis added)).

Petitioner asserts that “the claimed ‘timed alarm signal’ is only ‘for initiating a timer’ associated with the security panel.” Pet. 29–30.

Patent Owner argues that Petitioner’s construction of “timed alarm signal” is overbroad. Prelim. Resp. 25–26. In Patent Owner’s view, the term “alarm” lacks any meaning in Petitioner’s construction. *Id.* at 23, 25–26.

According to Patent Owner, the proper construction of “timed alarm signal” is a “signal that itself indicates an alarm condition and instructs to initiate a security response after a period of time.” *Id.* at 15, 26. Patent Owner argues that the patent’s specification and prosecution history support its construction. *Id.* at 16–22.

As for the patent’s specification, Patent Owner points to several embodiments that purportedly show that the signal itself indicates that an alarm condition exists. *Id.* at 16–17 (citing Ex. 1001, 4:52–54, 5:52–54,

10:14–21). In one embodiment, the alarm signal tells the central security panel to initiate a security response, according to Patent Owner. *Id.* at 17 (citing Ex. 1001, 2:28–39, 2:50–59, 4:10–20, 5:58–60, 6:2–10, 16:64–17:4, 17:8–51, 21:13–35). In another, the alarm signal tells the system when the response should be initiated, for instance, immediately, Patent Owner argues. *Id.* at 17–18 (citing Ex. 1001, Abstract, 2:7–9, 2:45–47, 4:16–20, 6:2–10, 16:64–17:17, 17:46–51, 19:16–18, 19:58–61, 20:33–38, 26:65–27:2).

Patent Owner argues that the specification is clear that a signal that merely indicates that a human has been detected is not a “timed alarm signal.” *Id.* at 16–20, 26–27. Rather, in Patent Owner’s view, the specification distinguishes a “status message” and “raw data” from the local alarm signal itself. *See id.* at 18–20. To support this view, Patent Owner cites examples from the specification in which the security panel uses status signals or raw data to determine that an alarm condition exists and that a security response should be generated. *Id.* at 18–19 (citing Ex. 1001, 5:49–64, 11:33–45, 11:52–12:3). Patent Owner contrasts those embodiments with others that use the alarm signal itself to indicate the condition, which in its view obviates any determination from messages and raw data. *Id.* at 19–20 (citing 4:52–54, 5:52–54, 10:14–21, 11:33–45); *see also id.* at 20 n.1 (citing Ex. 1001, 10:18–21, 21:13–16, claim 6, claim 16).

Patent Owner argues that the prosecution history also supports its construction because the Examiner-cited prior art also distinguishes a “status message” and “raw data” from a “local alarm signal” that itself indicates a local-alarm condition exists and initiates the system alarm. *Id.* at 20–22 (citing Ex. 2001 ¶¶ 27, 58–59, 71–72, 102–103, 110).

At this stage and on this record, we disagree with Patent Owner’s proposed construction of “timed alarm signal”: a “signal that itself indicates an alarm condition and instructs to initiate a security response after a period of time.” *Id.* at 15, 26.

Claims 1 and 11 expressly recite how the signal is used—i.e., for initiating a timer. Patent Owner’s argument turns on the meaning of the term “alarm.” *Id.* at 16–22. On this record, we disagree that the term “alarm” limits the claim in the way that Patent Owner argues and question whether Patent Owner’s limitations are consistent with the rest of the claim. *See id.*

We agree with Patent Owner, though, that the term “alarm” should not be ignored or rendered meaningless under the correct construction. *See id.* 22–23. Even so, under Petitioner’s reasoning, the term “alarm” indicates that the signals are transmitted by the recited barrier alarm device and are connected to its operation. Pet. 29–30. Under this reading of the claim, the other limitations further narrow the claim scope by reciting when, where, and how those signals are transmitted and used. That is, here, an “alarm signal” at least is limited to signals transmitted by an alarm device. Thus, the term is not rendered meaningless under Petitioner’s reasoning.

Patent Owner’s construction, however, imposes additional unrecited limitations on how the signal is connected to the barrier alarm device’s operation: “signal that itself indicates an alarm condition and instructs to initiate a security response after a period of time.” Prelim. Resp. 15, 26. And, under Patent Owner’s construction, we question whether requiring the timed alarm signal to be a “signal that itself indicates an alarm condition” is consistent with the rest of the claim. *Id.*

According to the plain language of claims 1 and 11, the timed alarm signal’s purpose is to initiate a timer, and other claimed features define how

the timer and human-detection device trigger the alarm condition. For example, the device in claim 1 transmits the “timed alarm signal” only when it is determined that the detection device indicates that a person is inside. Ex. 1001, 29:50–53. Before that happens, claim 1 requires that the timed alarm signal is used to initiate a timer. *Id.* at 29:35–38. But, if the timed alarm signal “itself indicates an alarm condition,” then the recited timer and other limitations that expressly define the alarm condition would be redundant. During trial, Patent Owner is encouraged to explain what it means for the signal itself to “indicate an alarm condition,” and reconcile its proposed construction with the features already recited in the claim that appear to define the alarm condition—e.g., the recited timer and human-detection device.

Patent Owner’s construction adds unrecited limitations because claims 1 and 11 do not recite “security response.” Based on our preliminary review of the parts of the specification and prosecution history cited by Patent Owner, we disagree that the correct construction includes those limitations. *See* Prelim. Resp. 16–22. For example, the patent’s specification “may reveal a special definition given to a claim term.” *Phillips*, 415 F.3d at 1315. Or it may reveal “an intentional disclaimer, or disavowal, of claim scope.” *Id.* “The patentee’s lexicography must, of course, appear ‘with reasonable clarity, deliberateness, and precision’ before it can affect the claim.” *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1249 (Fed. Cir. 1998). The patentee can disavow claim scope with language in the specification or the prosecution history. *Poly-Am., L.P. v. API Indus., Inc.*, 839 F.3d 1131, 1136 (Fed. Cir. 2016). “In either case, the standard for disavowal is exacting, requiring clear and unequivocal evidence that the claimed invention includes or does not include a particular feature.” *Id.*

At this stage and on this record, we determine that the '340 patent does not define “timed alarm signal” with the reasonable clarity, deliberateness, and precision required for a patentee’s lexicography or disavowal. For example, the '340 patent explains that the embodiments are only illustrative. *See, e.g.*, Ex. 1001, 29:15–26.

As for the prosecution history, Patent Owner identifies prior art that is owned by Patent Owner (“Lamb-611”) that was cited during prosecution in an Examiner’s rejection of claims that were later amended. Prelim. Resp. 20 (citing Ex. 2002). Lamb-611 uses similar terminology as the '340 patent. *See* Ex. 2001 ¶¶ 27, 58, 59, 72, 103, 110.

Based on our preliminary assessment, the prosecution history does not indicate an intentional disclaimer or disavowal of claim scope. *See, e.g.*, Ex. 1002, 168–173 (rejection in view of Lamb-611), 242–243 (response to the rejection in view of Lamb-611), 251–256 (amendments to the claims), 257 (remarks). Rather, the remarks in response to the rejection discuss how Lamb-611 does not determine whether a human being is inside a monitored premises. *Id.* at 242–243. Other remarks are related to correcting typographical errors. *See id.* at 251–256 (amendments to the claims), 257 (remarks). Should Patent Owner present arguments about the prosecution history in its Response during trial, the Board invites Patent Owner to discuss how the rejection and corresponding responses affect our final claim construction, if at all.

Thus, for this decision, we determine that “timed alarm signal” means a signal in an alarm system “for initiating a timer associated with the security panel.” *See* Pet. 29–30. We emphasize that our determination is preliminary and invite the parties to address this issue during trial.

2. *Immediate Alarm Signal*

Claim 2 recites,

The barrier alarm of claim 1, wherein the processor-executable instructions further comprise instructions that cause the barrier alarm device to transmit, via the transmitter, an *immediate alarm signal* to the receiver for causing a security response to be initiated when it is determined that the human detection device does not indicate that the human being is inside the premises in proximity to the barrier.

Ex. 1001, 29:54–60 (emphasis added). Claim 12 recites similar limitations. *Id.* at 30:64–31:2.

Under Patent Owner’s construction, “the term ‘immediate alarm signal’ is a signal that itself indicates an alarm condition and instructs to immediately initiate a security response.” Prelim. Resp. 15; *see also id.* at 36 (arguing “‘immediate alarm signal’ is a signal that itself instructs a security response to be initiated ‘immediately’” (citing Ex. 1001, 17:46–51, 26:65–27:2)).

At this stage and on this record, we disagree with Patent Owner’s arguments directed to the “alarm signal” part of this feature for the reasons discussed in Section II.C.1, based on our review of the parts of the specification and prosecution history cited by Patent Owner. *See id.* at 16–22.

We also disagree with Patent Owner’s arguments concerning the “immediate” part of this feature. *See id.* at 15, 36. Under Patent Owner’s construction, the signal “instructs a security response to be initiated ‘immediately,’” and the transmission occurs “when it is determined that the human detection device does not indicate that the human being is inside the premises in proximity to the barrier.” *Id.* at 36. For example, in one embodiment, the ’340 patent discloses that central security panel 116

“immediately initiates one or more security responses” within five seconds of receiving the immediate alarm signal. Ex. 1001, 17:46–52. That is, here, the ’340 patent discloses that a security response within five seconds is immediate. *See id.*

Claims 2 and 12, though, do not expressly recite immediately initiating the security response. *Id.* at 29:54–60 (claim 2), 30:64–31:2 (claim 12). Also, at this stage and on this record, we preliminarily determine that the ’340 patent does not define “immediate alarm signal” with the reasonable clarity, deliberateness, and precision required for a patentee’s lexicography or disavowal to limit the signal to the disclosed embodiment. *See, e.g., id.* at 17:46–52. Thus, in deciding whether to institute here, we do not construe claims 2 and 12 as requiring an immediate security response. *See id.* Rather, we preliminarily determine that the claims do not preclude other ways that the alarm signal could be “immediate.” *See supra* § II.D.5.a. During trial, the parties are invited to further address whether the Board should limit the recited “immediate alarm signal” to only signals for causing an immediate security response.

3. *First Alarm Signal*

Claim 6 recites, in part, “receive *a first alarm signal* from a barrier alarm device that monitors a barrier of a premises, the first alarm signal indicative of the barrier being opened.” Ex. 1001, 30:13–15 (emphasis added). Claim 16 recites, in part, “receiving *a first alarm signal* from a barrier alarm device that monitors a barrier of a premises, the first alarm signal indicative of the barrier being opened.” *Id.* at 31:16–18 (emphasis added).

Patent Owner argues that a “first alarm signal” is “a signal that itself indicates an alarm condition and instructs to initiate a security response.” Prelim. Resp. 15.

Claims 6 and 16 do not expressly recite that the first alarm signal “indicates an alarm condition.” *See* Ex. 1001, 30:13–15 (claim 6), 31:16–18 (claim 16). Rather, the claims recite a “first alarm signal indicative of the barrier being opened.” *See id.* Unlike claims 1 and 11, claims 6 and 16 recite generating a security response. *Id.* at 30:25 (claim 6), 32:6 (claim 16).

At this stage and on this record, we disagree with Patent Owner’s arguments directed to the “first alarm signal” in claims 6 and 16 for the reasons discussed in Section II.C.1, analyzing the recited “timed alarm signal.” Thus, for this decision, we determine that “first alarm signal” means a signal in an alarm system that is “indicative of the barrier being opened.”

D. Obviousness: Lamb and Williams

Petitioner asserts that claims 1, 2, 6, 11, 12, and 16 are unpatentable as obvious over Lamb and Williams. Pet. 13–56.

1. Lamb

Lamb is generally directed to reducing the number of false alarms that may occur in a home security system. Ex. 1009, code (57). Lamb’s barrier alarm device determines whether a person is in proximity to an open door or window—that is, a “barrier.” *Id.* ¶ 18. If so, the system presumes that the person is authorized to be on the premises and does not trigger an alarm. *Id.* Otherwise, an alarm is triggered. *Id.*

2. Williams

In Williams, authorized persons wear portable devices, like a bracelet, to enter a space protected by an alarm system. Ex. 1010, 1:44–63, 2:25–38. The portable devices transmit an authorization code to prevent triggering the

alarm when the person is not an intruder. *Id.* This system operates on a timer. *Id.* If the timer expires before an authorized code is received from the person wearing a device, an alarm is triggered. *Id.* at 1:64–2:8, 4:32–39. If the authorized code is received in time, an alarm is not triggered. *Id.*

3. *Claims 1 and 11*

a. *Timed Alarm Signal Limitations*

Claim 1 recites, in part, “a transmitter for transmitting a *timed alarm signal* to a receiver associated with a security panel, *the timed alarm signal* for initiating a timer associated with the security panel” and instructions that cause the device to “transmit, via the transmitter, the *timed alarm signal* to the receiver.” Ex. 1001, 29:35–38, 29:50–51 (emphasis added). Similarly, claim 11 recites, in part, “transmitting by the barrier alarm device a *timed alarm signal* to the central security panel.” *Id.* at 30:58–59 (emphasis added). Patent Owner refers to these limitations as the “Timed Alarm Signal Limitations.” Prelim. Resp. 24.

Petitioner asserts that the Lamb-Williams combination teaches or suggests the Timed Alarm Signal Limitations. Pet. 25–33. In particular, Petitioner asserts that Lamb’s transmitter sends an alarm signal to security panel 116. *Id.* at 25 (citing Ex. 1009 ¶¶ 20, 22, 29, 36, 37, 41, Figs. 1, 3; Ex. 1003 ¶¶ 64–65, 67–68). Petitioner argues that a person of ordinary skill in the art would have been motivated to modify Lamb to transmit a timed alarm signal in view of Williams. *Id.* at 28 (citing Ex. 1010, 2:35–38; Ex. 1003 ¶¶ 66, 69). Doing so would have provided “‘significantly greater personal protection to individuals occupying a secure space’ by verifying that the potential alarm is indeed caused by an authorized person, and not an unauthorized person,” the Petition states. *Id.* (quoting Ex. 1010, 2:35–38).

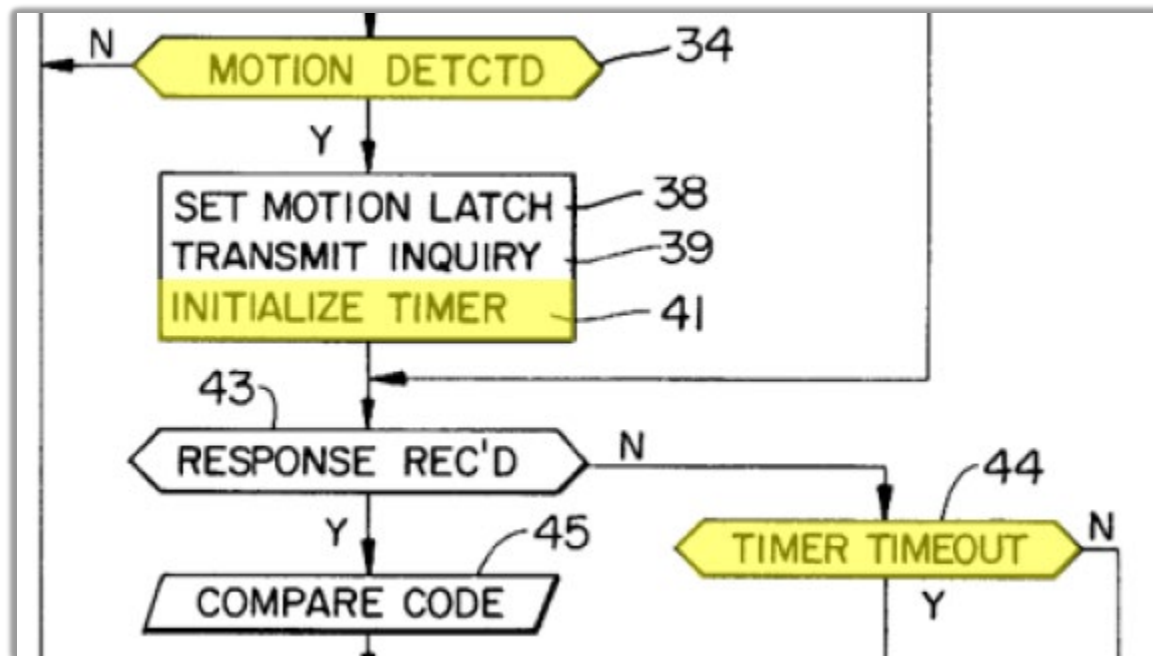
Patent Owner argues that Williams does not teach a timed alarm signal under the proper construction. Prelim. Resp. 25–26. As discussed in Section II.C, claims 1 and 11 do not expressly recite a “security response.” Yet Patent Owner argues that the proper construction requires a “security response” and argues that Petitioner has not explained how Williams teaches this feature. *Id.* at 27. For instance, Patent Owner argues that Petitioner does not explain what “setting an alarm” means, how doing so would be a security response, or how the signal tells the system to set an alarm when the timer times out. *Id.*

For the reasons discussed in Section II.C, we disagree with Patent Owner’s construction at this stage and on this record. Rather, “timed alarm signal” is a signal “for initiating a timer associated with the security panel” and the rest of the claim defines how that signal is used beyond initiating a timer associated with the recited panel. *See supra* § II.C (Claim Construction). We preliminarily determine that Petitioner sufficiently shows that the Lamb-Williams combination teaches or suggests such a signal and sufficiently explains why it satisfies the Timed Alarm Signal Limitations.

Specifically, Petitioner explains that Williams transmits a timed alarm signal to a security panel because its motion detector provides a “violation signal” in response to sensing motion within a space, and the control panel initializes a timer in response to detecting a human. Pet. 29. According to the Petition, the system sets an alarm when the timer expires. *Id.*

Patent Owner argues that Petitioner does not show that Williams discloses transmitting any signal from the barrier device to a security panel (e.g., control panel 17). *See* Prelim. Resp. 27–29. Patent Owner identifies various signals in Williams and concludes that the barrier device does not transmit any of them to the security panel. *See id.*

At this stage and on this record, we disagree. Petitioner sufficiently explains why, in Williams, control panel 17² receives a signal from the motion detector when it detects a person, which initializes the timer. Pet. 29–33. Figure 2, reproduced in part below with Petitioner’s highlighting, shows an overview of the routine. *Id.* at 30.



In Figure 2, test 34 determines whether the motion detector detects motion. *See* Ex. 1010, 3:49–4:39. If motion is detected, step 38 sets the “motion latch,” and step 39 transmits an inquiry signal for an authorized person nearby. *Id.* Step 41 sets the timer for receiving a response to the inquiry. *Id.*

² Williams refers to “conventional control device 17” (Ex. 1010, 3:4) “motion detector 14” (*id.* at 3:3), “control panel 17” (*see, e.g., id.* at 5:23), and “control panel 14” (*id.* at 3:31–32). We treat the reference to “control panel 14” as a typographical error. *Id.* In this decision, all references to a control panel to refer to element 17 in Figure 1, which appears on a wall with keys and a display. *See id.*, Fig. 1, 5:20–21 (describing keys), 5:27 (explaining that control panel 17 displays the word “code”).

Figure 2, though, does not specifically show the signals to and from the devices. *See id.*, Fig. 2.

Williams, though, explains that every sensor could have a transceiver to “enter an alarm condition.” *Id.* at 3:24–25. But a single transceiver could “handle sensings of any and all sorts of detectors with respect to that room.” *See id.* at 3:26–31. For example, a control panel’s transceiver could perform the inquiry created by switch 13 on entry door 12 and for motion sensed in the room. *Id.* at 3:30–35. From this record, we preliminarily determine that Williams teaches that the control panel in this configuration is in communication with the motion sensors in the room. *Id.* at 3:30–35, Fig. 2. This would allow the system to proceed from step 34 to steps 39 and 41 in Figure 2—i.e., transmit inquiry and initialize the timer. *Id.* In this way, Williams supports Petitioner’s argument that the barrier alarm device has a transmitter for transmitting a timed alarm signal to a receiver associated with a control panel (“security panel”), on this record and at this stage.

Patent Owner argues that the only signals are to and from the occupant’s personal device 22. Prelim. Resp. 27–28 (citing Ex. 1010, 2:11–16, 3:19–24, 3:31–34, 5:11–13, 5:22–32, 7:64–8:1, 8:18–24). During trial, Patent Owner is invited to explain what would prompt the inquiry or interrogation in the first place—i.e., steps 34 through 41 in Figure 2—if no signals were sent from the motion detector to the control panel, especially in the case where the control panel is the only device in the room that transmits the inquiry. *See* Ex. 1010, 3:26–35.

Also, Petitioner relies on a combination of Lamb and Williams to address the Timed Alarm Signal Limitations. Pet 25. In the proposed combination, Lamb’s transmitter sends an alarm signal to security panel 116. *Id.* (citing Ex. 1009 ¶¶ 20, 22, 29, 36, 37, 41, Figs. 1, 3; Ex. 1003 ¶¶ 64–65,

67–68). So, apart from Williams’s teachings about control panel 17 and the routine shown Figure 2, we disagree with Patent Owner’s arguments about the timed alarm signal limitations for the additional reason that the arguments do not address the combined teachings of Lamb and Williams, and how the signal would be transmitted in Petitioner’s proposed combination. *See id.* at 25–33.

Thus, we preliminarily determine that Petitioner sufficiently shows that the Lamb-Williams combination teaches or suggests the Timed Alarm Signal Limitations. *See id.*

b. Timer Limitations

Claim 1 recites, in part, “initiating a timer associated with the security panel.” Ex. 1001, 29:37–38. Claim 11 recites, in part, “initiating a timer associated with the *central* security panel.” *Id.* at 30:60–61 (emphasis added). Patent Owner refers to these limitations as the “Timer Limitations.” Prelim. Resp. 30.

Petitioner asserts that Williams’s Figures 2 and 2A teach a control panel that initializes a timer. Pet. 17, 29–33 (citing Ex. 1010, 1:64–2:8, 3:9–38, 3:49–4:39, 5:3–5, 7:43–63 Figs. 2 and 2A); Ex. 1003 ¶¶ 51, 70, 71. Figures 2 and 2A, as highlighted by Petitioner, are reproduced below. Pet. 30–31.

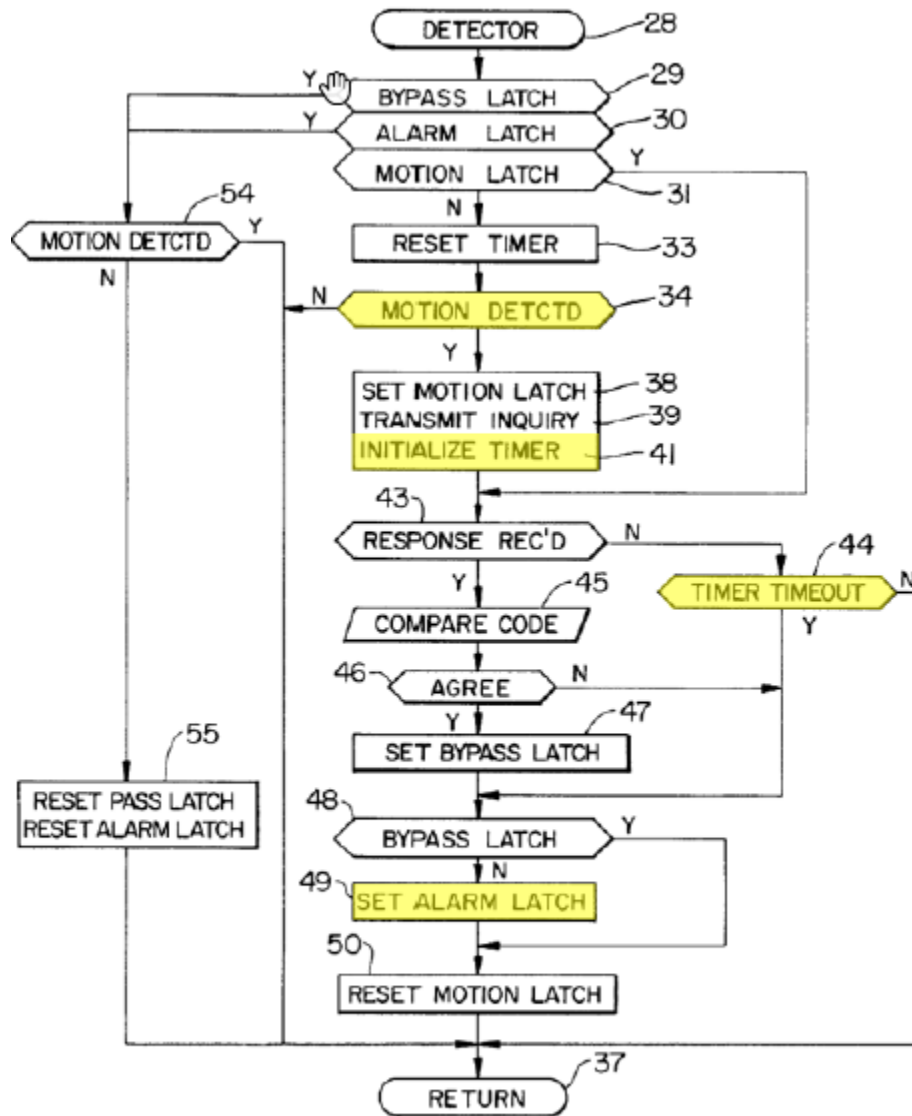


FIG. 2

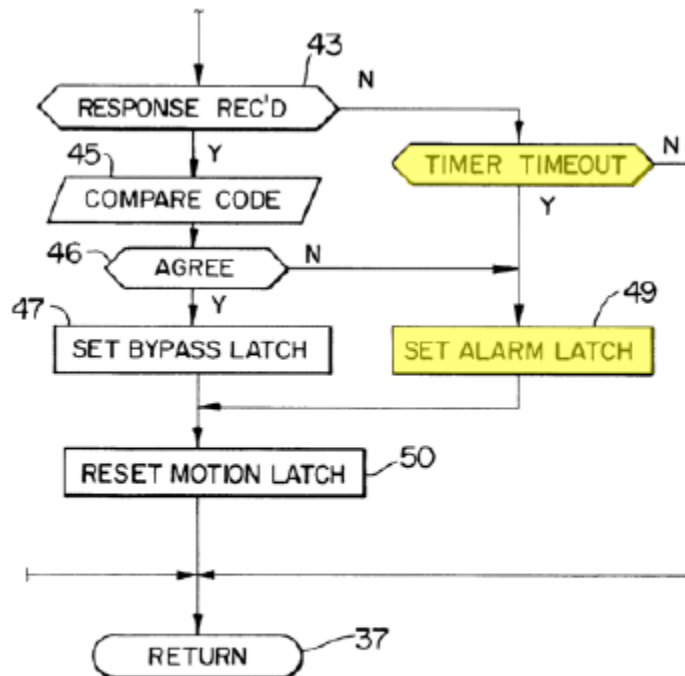


FIG. 2A

Figures 2 and 2A are high-level functional diagrams of the system's operation. Ex. 1010, 2:48–50. In Figure 2 above, Petitioner highlights the steps of motion detected (test 34), initialize timer (step 41), and timer timeout (test 44). Pet. 30. In Figure 2A above, Petitioner highlights the steps of timer timeout after the response received (test 43) and set alarm latch (step 49). *Id.* at 31. Petitioner argues that Williams's system looks for an authorized code (step 39) and initializes a timer in response to detecting motion (test 34). *Id.* at 29 (citing Ex. 1010, 3:56–4:3).

Patent Owner argues that Petitioner has not shown that Williams discloses or teaches the Timer Limitations because Williams lacks a timer associated with a control panel. Prelim. Resp. 30–31. According to Patent Owner, Williams's Figures 2 and 2A and the corresponding descriptions do

not mention a control panel. *Id.* In Patent Owner’s view, Figures 2 and 2A illustrate a “detector routine.” *Id.* at 31 (citing Ex. 1010, 3:49).

As this stage and on this record, we disagree with Patent Owner’s argument because it does not address Petitioner’s reliance on Lamb’s central security panel 116 in the Lamb-Williams combination. *Id.* at 30–31. Instead, Patent Owner’s argument focuses on Williams individually. *See id.* Also, we preliminarily determine that Patent Owner does not give sufficient weight to Williams’s teachings about control panel 17, as we discussed in Section II.D.3.a.

In particular, Petitioner argues that, although Lamb does not expressly disclose that “central security panel 116 would have necessarily included a receiver because Lamb discloses that the barrier alarm device and central security panel 116 communicate, *e.g.*, via Wi-Fi, RF, and telephone wiring.” Pet. 25.³ At this stage, Petitioner sufficiently supports the assertion that “[t]hese transmitted electromagnetic signals, which travel through the air and/or wires to the central security panel 116, must be ‘received’ by a ‘receiver’ associated with the central security panel 116.” *Id.* (citing Ex. 1003 ¶ 68).

According to Petitioner, Williams teaches that, “in response to receiving a signal when a human is detected, ‘control panel’ initializes a timer that, upon timing out without receiving an authorized code, sets an alarm.” *Id.* at 29. As in Lamb, the transceiver in Williams’s control panel 17 makes the inquiry for a potential alarm created by an opened barrier (switch 13 on the entry door 12). Ex. 1010, 3:9–38, *cited in* Pet. 31. The transceiver

³ In this decision, we have changed bold or colored text here and elsewhere when quoting the Petitioner.

also makes an inquiry for a potential alarm created by motion within the room. *See* Ex. 1010, 3:9–38. And, as shown in Figure 2 above, the timer initialization (step 41) is at least associated with the inquiries (step 39). *Id.*, Fig. 2.

In the proposed combination, Petitioner asserts that Lamb’s central security panel 116 teaches the recited security panel (Pet. 25), and that it would have been obvious to incorporate Williams’s timed alarm signal into Lamb (*see id.* at 17, 25, 28; *see also* Ex. 1003 ¶¶ 66–69). Accounting for the role of Lamb’s security panel 116 as a receiver for the required signals in combination with Williams’s timing routine in the proposed combination, Petitioner sufficiently shows at this stage that the Lamb-Williams combination teaches or suggests “initiating a timer associated with the security panel” (claim 1) and “initiating a timer associated with the central security panel” (claim 11). *See* Pet. 17, 25, 30.

Thus, we preliminarily determine that Petitioner sufficiently shows that the Lamb-Williams combination teaches or suggests the Timer Limitations. *See id.*

c. Obviousness Rationale

Petitioner argues that it would have been obvious to modify Lamb to transmit a timed alarm signal in view of Williams because doing so would have provided “‘significantly greater personal protection to individuals occupying a secure space’ by verifying that the potential alarm is indeed caused by an authorized person, and not an unauthorized person.” *Id.* at 28 (citing Ex. 1010, 2:35–38; Ex. 1003 ¶¶ 66, 69).

Patent Owner argues that Petitioner’s obviousness rationale is deficient because it lacks rational underpinning and would change Lamb’s basic principle of operation. Prelim. Resp. 36–43.

i. Rational Underpinning

To support a legal conclusion of obviousness, there must be some articulated reasoning with some rational underpinning. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). But “the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *Id.*

Here, Patent Owner argues that Petitioner’s reason for modifying Lamb lacks a rational underpinning because it is not logically connected to the proposed modification. Prelim. Resp. 39. According to Patent Owner, Petitioner does not explain how transmitting a timed alarm signal or initializing a timer verifies that an authorized person caused the potential alarm. *Id.* (citing Pet. 17–18). In Patent Owner’s view, Williams’s system verifies that an authorized person wearing a device caused the alarm, which is not even a claimed feature. *Id.* at 39–40. In other words, under Patent Owner’s reasoning, Williams cannot detect an authorized person that is not wearing the personal device. *See id.*

At this stage and on this record, we disagree with Patent Owner because it fails to account for inferences and creative steps that a person of ordinary skill in the art would employ to ensure that only authorized persons have access to the device 22 or that authorized persons comply with the security protocols including wearing the device at all times on the premises, for example.

ii. Basic Principle of Operation

Patent Owner argues that Petitioner’s proposed modifications to Lamb would change its basic principle of operation: reducing the occurrence of false alarms. *Id.* at 40 (citing Ex. 1009 ¶ 2). According to Patent Owner,

Lamb does not need to do anything to prevent false alarms because its system will not send an alarm when a door or window is accidentally opened. *Id.* at 40–41 (citing Ex. 1009 ¶¶ 18, 29). By contrast, Williams treats any movement inside the premises as a potential alarm unless the user is wearing a personal device, Patent Owner argues. *Id.* (citing Ex. 1010, 1:54–2:10, 2:25–34). In Patent Owner’s view, Lamb and Williams operate on “fundamentally different underlying assumptions” about motion detected inside a premises. *Id.* at 41 (citing Ex. 1009 ¶¶ 18, 29; Ex. 1010, 1:64–23, 3:9–38).

Patent Owner argues that the proposed modification to Lamb would fundamentally change Lamb’s basic principle of operation in two ways: (1) Lamb’s system would assume that motion detected is of an unauthorized person, and (2) Lamb’s system would require users to wear a personal device. *Id.* at 41–42 (citing Ex. 1009 ¶¶ 18, 29; Ex. 1010, 1:54–2:10, 2:25–34, 3:9–38).

At this stage and on this record, we disagree with Patent Owner’s characterization of Lamb and Williams. *Id.* Rather, Williams also assumes that motion detected is of an unauthorized person unless the personal device indicates otherwise. Ex. 1010, 1:54–2:10, 2:25–34, 3:9–38. The record at this stage favors Petitioner’s reasoning that a person of ordinary skill in the art would have been motivated to verify instead of just assuming that a potential alarm was triggered by an authorized person. Pet. 18.

Overall, the similarities between the references tend to support Petitioner’s obviousness rationale, on this record. Petitioner sufficiently explains that both Lamb and Williams explain that the purpose is to secure the premises from unauthorized people without inhibiting authorized people. *See id.* at 17–18 (citing Ex. 1009 ¶¶ 37, 40, 58–59; Ex. 1010, 1:13–2:38,

5:63–66). Williams provides an additional layer of assurance that authorized entry will be detected, according to the Petition. *Id.* at 18 (citing Ex. 1010, 2:31–34, 5:63–66; Ex. 1003 ¶ 53). So, even assuming that reducing false alarms is Lamb’s basic principle of operation, Petitioner’s proposed modification, i.e., a timer, appears to support this goal, on this record and at this stage. *Id.* at 25.

iii. Intended Purpose

Patent Owner argues that Petitioner’s proposed modification would frustrate Lamb’s intended purpose of reducing false alarms.

Prelim. Resp. 42. In Patent Owner’s view, Lamb’s system automatically prevents false alarms without the need for the user to do anything because it does not send an alarm signal or will send a bypass signal when someone accidentally opens a door or window. *Id.* (citing Ex. 1009 ¶¶ 2, 18, 29).

Patent Owner argues that Lamb, however, requires the user to do something to prevent false alarms: carry a personal device. *Id.* (citing Ex. 1010, 1:54–2:10, 2:25–34). According to Patent Owner, adding a personal device to Lamb’s system would increase the number of false alarms because a false alarm would occur when the user forgets the personal device, the personal device loses power, or the device otherwise malfunctions, for example. *Id.* Patent Owner argues that Petitioner does not explain why a person of ordinary skill in the art would have looked to enhance security at the expense of reducing false alarms, which is one of Lamb’s expressed goals. *Id.* at 43 (citing Pet. 17–19).

We disagree for the reasons discussed in II.D.3.c.ii. Also, apart from attorney argument, we see no evidence at this stage that forgetting the device or the device’s failure rate would happen at such a frequency that would discourage one of ordinary skill in the art from making the proposed

combination. Also, “the expectation of success need only be reasonable, not absolute.” *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1364, 1367–68 (Fed. Cir. 2007); *see also Acorda Therapeutics, Inc. v. Roxane Lab., Inc.*, 903 F.3d 1310, 1333 (Fed. Cir. 2018) (“This court has long rejected a requirement of ‘[c]onclusive proof of efficacy’ for obviousness.”).

Thus, at this stage and on this record, Petitioner has sufficiently articulated reasoning with some rational underpinning to support its obviousness rationale. *See KSR*, 550 U.S. at 418.

d. Remaining Limitations

Apart from the arguments against this combination analyzed above, Patent Owner does not present separate arguments directed to the remaining limitations. *See Prelim. Resp.* Even so, Petitioner has the burden to show that the challenged claims are unpatentable. *See Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). Thus, we have reviewed Petitioner’s arguments and evidence submitted in connection with the remaining limitations and find them sufficient at this stage and on this record. *See Pet.* 17–42, 54–55.

Thus, on this record and at this stage, Petitioner has sufficiently shown that claims 1 and 11 would have been obvious.

4. Claims 6 and 16

a. First Alarm Signal Limitations

Claim 6 recites, in part, “receive *a first alarm signal* from a barrier alarm device that monitors a barrier of a premises, *the first alarm signal* indicative of the barrier being opened.” Ex. 1001, 30:13–15 (emphasis added). Claim 16 recites, in part, “receiving *a first alarm signal* from a barrier alarm device that monitors a barrier of a premises, *the first alarm signal* indicative of the barrier being opened.” *Id.* at 31:16–18 (emphasis

added). Patent Owner refers to these limitations as the “First Alarm Signal Limitations.” Prelim. Resp. 31.

Petitioner asserts that Lamb teaches receiving a first alarm signal indicative of the barrier being opened, as recited, because Lamb’s barrier alarm device transmits the barrier-status signal to central security panel 116 when barrier-detection device 306 detects an open barrier. Pet. 47 (citing Ex. 1009 ¶ 43).

Patent Owner argues that Lamb distinguishes a barrier-status signal from an alarm signal. Prelim. Resp. 32 (Ex. 1009 ¶ 43). In Patent Owner’s view, neither Petitioner nor its declarant explains why a barrier-status signal is the claimed first alarm signal. *Id.*

Patent Owner argues that Lamb’s barrier-status signal is not a first alarm signal, under the correct construction of that term: a “signal that itself indicates an alarm condition and instructs to initiate a security response.” *Id.* According to Patent Owner, Petitioner has only shown that Lamb’s barrier-status signal indicates an opened barrier. *Id.* at 32–33.

At this stage and on this record, we disagree with Patent Owner’s construction. Rather, for reasons similar to those described in Section II.C (Claim Construction), we preliminarily determine that Petitioner sufficiently shows that the Lamb-Williams combination teaches or suggests the First Alarm Signal Limitations. In particular, at this stage and on this record, we agree with Petitioner that the claims only require that first alarm signal is “indicative of the barrier being opened.” *See* Pet. 47 (citing Ex. 1009 ¶ 43); *see supra* § II.C.3. In fact, the cited part of Lamb expressly states that the signal is “indicative of the barrier being opened.” Ex. 1009 ¶ 43.

At this stage, we disagree with Patent Owner that Lamb expressly distinguishes an alarm signal from a barrier-status signal. Prelim. Resp. 32.

Rather, Lamb's barrier-alarm system uses multiple signals. *See* Ex. 1009 ¶ 43. We determine at this stage that any of those signals could be alarm signals for at least the reason that they are signals within an alarm system. *See supra* § II.C.

Thus, Petitioner has sufficiently shown at this stage that Lamb teaches or suggests the First Alarm Signal Limitations. *See* Pet. 47.

b. Countdown Timer

Claim 6 recites, in part, "begin a measuring of an elapsed time from when the first alarm signal was received." Ex. 1001, 30:19–20. Claim 16 recites, in part, "starting a countdown timer." *Id.* at 32:1.

Petitioner asserts that the Lamb-Williams combination teaches these limitations in claims 6 and 16. Pet. 48–50 (claim 6), 55–56 (claim 16). Petitioner asserts that, as discussed in connection with claim 1, Williams discloses a countdown timer initialized upon an opened door or detected motion. *Id.* at 49 (citing Ex. 1010, 1:64–2:8, 2:11–18, 3:19–38, 3:56–4:3, 4:12–27, 5:3–5, Abstract, claims 1, 5, 8; Ex. 1003 ¶¶ 112, 114). Specifically, in the Petition's analysis of claim 1, Petitioner asserts that Williams discloses a signal that initiates a timer and that it would have been obvious to incorporate this feature in Lamb. *See id.* at 28–30; *supra* §§ II.D.3.a (the timed alarm signal limitations of claim 1), II.D.3.c (the rationale to combine Williams and Lamb).

According to Petitioner, Williams's control panel starts the timer when a human is detected. Pet. 49. Petitioner argues, to the extent that the claims require measuring the time from the receipt of the first alarm signal, i.e., the time from detecting an opened barrier instead of the time from detecting a person, it would have been obvious to do so. *Id.* at 49–50.

Patent Owner argues that Petitioner’s assertion that Williams teaches the timer recited in claims 6 and 16 is “unsupported and incorrect” for reasons similar to those presented in connection with claims 1 and 11. Prelim. Resp. 34. In particular, Patent Owner argues that Williams’s Figures 2 and 2A and corresponding disclosures do not mention a control panel or a timer associated with one. *Id.* (citing Ex. 1010, 1:64–2:8, 3:9–38, 3:49–5:10, 7:43–63, Figs. 2, 2A, claims 1, 5, 8).

For the reasons discussed in connection with the Timer Limitations recited in claims 1 and 11, we disagree with Patent Owner at this stage and on this record. *See supra* §§ II.D.3.b (the timed alarm signal limitations of claim 1), II.D.3.c (the rationale to combine Williams and Lamb). Specifically, as with the arguments presented in connection with claim 1, Patent Owner’s argument do not give sufficient weight to Williams’s discussion of control panel 17 and its relationship to the detection routine in Figures 2 and 2A. *See* Prelim. Resp. 34. Also, Patent Owner does not squarely address Petitioner’s reliance on a combination of teachings from Lamb and Williams. *See supra* §§ II.D.3.a & c. Rather, we preliminarily determine that Petitioner’s showing is sufficient at this stage and for institution for the reasons discussed in Sections II.D.3.a & c.

Thus, Petitioner has shown that the Lamb-Williams combination teaches or suggests the timer in claims 6 and 16. *See* Pet. 28–30.

c. Remaining Limitations

Apart from the arguments analyzed above, Patent Owner does not present separate arguments directed to the remaining limitations. *See* Prelim. Resp. Even so, Petitioner has the burden to show that the challenged claims are unpatentable. *See Dynamic Drinkware*, 800 F.3d at 1378. Thus, we have reviewed Petitioner’s arguments and evidence submitted in connection with

the remaining limitations and find them sufficient at this stage and on this record. *See* Pet. 44–53 (claim 6), 55–56 (claim 16).

Thus, on this record and at this stage, Petitioner has sufficiently shown that claims 6 and 16 would have been obvious. *See id.*

5. *Claims 2 and 12*

a. *Immediate Alarm Signal Limitations*

Claim 2 recites, in part, “instructions that cause the barrier alarm device to transmit, via the transmitter, an *immediate* alarm signal.” Ex. 1001, 29:55–57 (emphasis added). Similarly, claim 12 recites, in part, “transmitting by the barrier alarm device an *immediate* alarm signal.” *Id.* at 30:64–65 (emphasis added). Patent Owner refers to these limitations as the “Immediate Alarm Signal Limitations.” Prelim. Resp. 35.

Petitioner asserts that, when Lamb’s processor 300 determines that a door is open and a person is not inside the monitored premises, an alarm signal is transmitted to central security panel 116. Pet. 42–43 (citing Ex. 1009 ¶¶ 37, 41, 51–53).

Under Patent Owner’s construction, “the term ‘immediate alarm signal’ is a signal that itself indicates an alarm condition and instructs to immediately initiate a security response.” Prelim. Resp. 15; *see also id.* at 36 (arguing “‘immediate alarm signal’ is a signal that itself instructs a security response to be initiated ‘immediately’” (citing Ex. 1001, 17:46–51, 26:65–27:2)). Patent Owner argues that Petitioner does not explain how Lamb’s alarm signal is an “immediate alarm signal,” as recited in claims 2 and 12. *Id.* at 35–36. Patent Owner argues that Petitioner does not give weight to the term “immediate.” *Id.* That is, in Patent Owner’s view, Petitioner does not assert that Lamb’s alarm signal instructs or causes a security response to be initiated immediately. *Id.* (citing Pet. 42–43).

For the reasons discussed in Section § II.C (Claim Construction), we disagree with Patent Owner’s construction, which inserts additional unrecited limitations in claims 2 and 12—i.e., an immediate security response.

On this record and at this stage, we disagree with Patent Owner that Petitioner has not shown that Lamb’s response is “immediate,” as claimed. Rather, Petitioner’s citation to Lamb’s Figure 5, below with Petitioner’s highlighting, shows an alarm signal being generated immediately after the determinations. Pet. 43.

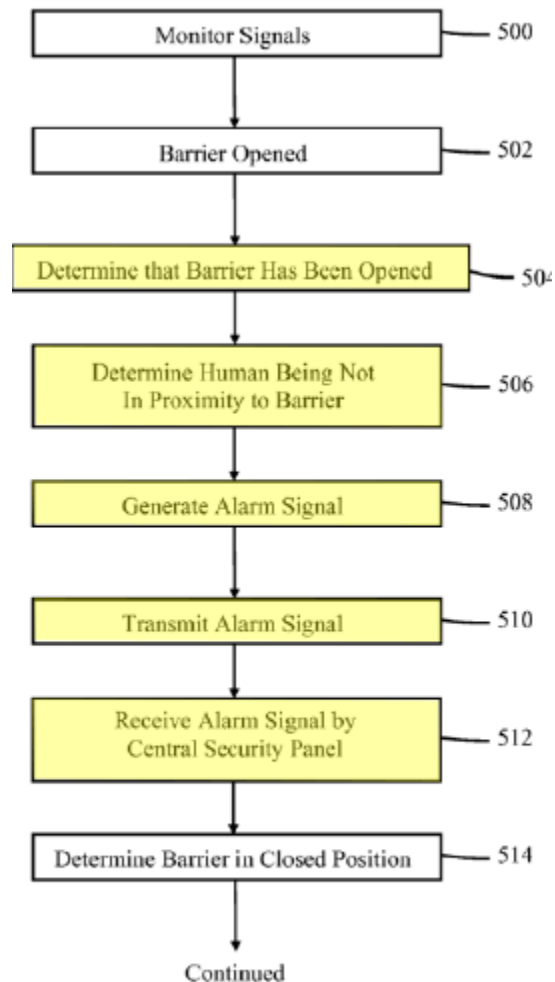


FIG. 5

Highlighted Figure 5 from Lamb shows the steps of generating, transmitting and receiving an alarm signal (508, 510, 512) immediately following the determinations that a barrier has been opened (504) and that a person is not near the barrier (506). That is, here, the alarm signal is immediate with respect to the preceding steps. *See id.* Also, Lamb discloses that central security panel 116 receives the alarm signal and “takes at least one action,” which could be activating a loud siren. Ex. 1009 ¶ 53, *cited in* Pet. 44. Thus, at this stage and on this record, Petitioner has shown that the proposed combination teaches the immediate alarm signal limitations recited in claims 2 and 12. *See* Pet. 42–44 (citing Ex. 1009 ¶¶ 37, 41, 51–53).

During trial, the parties are invited to further discuss how the recited alarm signal is “immediate” and whether Patent Owner’s construction requiring an immediate security response is consistent with the conditions recited in the “when” clause of claims 2 and 12. *See* Ex. 1001, 29:58–60, 30:67–31:2; *see supra* § II.C.2.

b. Remaining Limitations

Apart from the arguments against this combination analyzed above, Patent Owner does not present separate arguments directed to the remaining limitations. *See* Prelim. Resp. Even so, Petitioner has the burden to show that the challenged claims are unpatentable. *See Dynamic Drinkware*, 800 F.3d at 1378. Thus, we have reviewed Petitioner’s arguments and evidence submitted in connection with the remaining limitations and find them sufficient at this stage and on this record. *See* Pet. 42–44 (claim 2), 54–55 (claim 12).

E. Obviousness: Sharma

Petitioner asserts that claims 1 and 11 are unpatentable as obvious over Sharma. *Id.* at 57–79.

1. Sharma

Sharma automatically disarms a security system to prevent false alarms. Ex. 1011, 1:7–9. Specifically, the system uses its Armed Stay Mode to distinguish between unwanted people entering the building and people leaving the building. *Id.* at 7:26–37. In Armed Stay Mode, motion detected inside an open door does not trigger an alarm. *Id.* at 7:47–66. Sharma also uses a Timed Exit Mode to allow people to leave without interacting with the system. *Id.* at 8:19–21. In Timed Exit Mode, the processor ignores a door-control signal or disables a door contact for some time before resetting the system to Armed Stay Mode. *Id.* at 8:14–21.

2. Claims 1 and 11

a. Timed Alarm Signal Limitations

Claim 1 recites, in part, “a transmitter for transmitting a *timed alarm signal* to a receiver associated with a security panel,” and instructions that cause the device to “transmit, via the transmitter, the *timed alarm signal* to the receiver.” Ex. 1001, 29:35–36, 29:50–51 (emphasis added). Similarly, claim 11 recites, in part, “transmitting by the barrier alarm device a *timed alarm signal* to the central security panel.” *Id.* at 30:58–59 (emphasis added). Patent Owner refers to these limitations as the “Timed Alarm Signal Limitations.” Prelim. Resp. 43.

Petitioner explains that Sharma’s processor 175 transmits signals to system control panel 102 to enter Timed Exit Mode. Pet. 67. The transmitted signals are timed alarm signals because the signals initiate a 30-second timer, according to the Petition. *See id.*

Patent Owner argues that Sharma’s signal to enter Timed Exit Mode is not a “timed alarm signal” under any construction. Prelim. Resp. 44. Patent Owner argues that Petitioner has not shown that Sharma transmits a

signal to system control panel 102 to enter Timed Exit Mode. *Id.* (citing Ex. 1011, 8:6–21, Fig. 5; Pet. 67, 76). That is, Patent Owner argues that the Timed Alarm Signal Limitations require the barrier alarm device to transmit the signal to a security panel. *Id.* at 45. Patent Owner argues that Petitioner has not shown that Sharma’s door sensing unit 104 (mapped to the “barrier alarm device”) transmits a signal to enter Timed Exit Mode to system control panel 102 (mapped to the “security panel”). *Id.* at 45–46. According to Patent Owner, unit 104 sends a signal to panel 102 to enter Disarmed Mode, but Sharma does not disclose or teach that unit 104 sends a signal to enter Timed Exit Mode. *Id.* at 46 (citing Ex. 1011, 7:52–8:21, 8:6–7, 8:10–13, Fig. 5).

We disagree with Patent Owner at this stage and on this record. Sharma’s Figure 2, with Petitioner’s annotations, is reproduced below. Pet. 69.

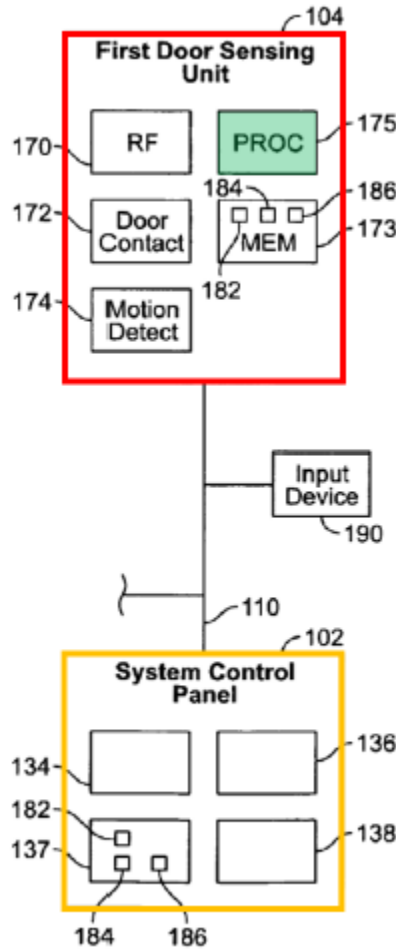


FIG. 2

Annotated Figure 2 shows door sensing unit 104 connected to system control panel 102 over network 110. *Id.* Petitioner sufficiently explains, at this stage, that an ordinarily skilled artisan would have recognized that communication over network 110 involves sending and receiving signals, or would have found it obvious to do so. *Id.* at 67 (citing Ex. 1003 ¶¶ 180–182).

Also, at this stage and on this record, Petitioner has adequately shown that the first door sensing unit 104 communicates signals to system control panel 102 to enter Timed Exit Mode. *See id.* at 67–68. Sharma’s system 100, not pictured in Figure 2 above, includes control panel 102. Ex. 1011, 2:60–61, Fig. 1. System control panel 102 resets the system and activates devices, among other things. *Id.* at 3:45–48, 7:38–42. Processor 175 in the door-

sensing unit 104 transmits signals to control panel 102. *Id.* at 7:61–64, 8:6–11, *cited in* Pet. 67–68. Petitioner explains that those signals cause the system to enter Timed Exit Mode. Pet. 67–68 (citing Ex. 1011, 8:6–13). At this stage and on this record, we agree because Sharma explains that Timed Exit Mode is one of the three alternative modes described in connection with the signal sent at step 266. *See* Ex. 1011, 8:6–13. Thus, at this stage and on this record, Petitioner has shown that processor 175 in door-sensing unit 104 transmits signals to system control panel 102, to arm, disarm, and set system 100’s mode, including Timed Exit Mode. *See* Pet. 67–68 (citing Ex. 1011, 1:64–67, 7:61–64, 8:6–11).

According to Patent Owner, the ’340 patent distinguishes a “bypass signal” that disarms the system from the claimed “timed alarm signal.” Prelim. Resp. 44 (citing Ex. 1001, 8:20–26, 10:53–61, 11:23–35, 12:58–63, 13:29–34, 13:45–61). Patent Owner argues that a signal that disarms a system does not fall within the scope of a timed alarm signal and reading the claim in that way renders meaningless the term “alarm.” *Id.* at 44–45 (citing Pet. 67–68; Ex. 1003 ¶¶ 181, 183, 194–195). In Patent Owner’s view, a signal that disarms the system is the opposite of claimed signal. *Id.* at 45 (citing Pet. 67–71; Ex. 1003 ¶¶ 181, 183, 194–195).

Patent Owner’s argument depends, at least in part, on its construction, which we disagree with at this stage and on this record. *See supra* § II.C (Claim Construction). Rather, at this stage and on this record, we determine that the ’340 patent does not define “timed alarm signal” with the reasonable clarity, deliberateness, and precision required for a patentee’s disavowal of signals that disarm the system. *See id.* For at least this reason, we disagree with Patent Owner’s arguments at this stage.

For this decision, we determine that “timed alarm signal” means a signal in an alarm system “for initiating a timer associated with the security panel.” *See supra* § II.C (Claim Construction). At this stage and on this record, Petitioner sufficiently explains that Sharma’s signal is a timed alarm signal because, as discussed above, Sharma’s system generates a signal to enter Timed Exit Mode in response to detecting an open door and motion (steps 254 and 256), which initiates a 30-second timer. Pet. 67–68.

Thus, at this stage and on this record, Petitioner shows that Sharma teaches or suggests the Timed Alarm Signal Limitations. *Id.*

b. Timer Limitations

Claim 1 recites, in part, “initiating a timer associated with the security panel.” Ex. 1001, 29:37–38. Claim 11 recites, in part, “initiating a timer associated with the *central* security panel.” *Id.* at 30:60–61 (emphasis added). Patent Owner refers to these limitations as the “Timer Limitations.” Prelim. Resp. 46.

Petitioner explains that Sharma’s processor 175 transmits signals to system control panel 102 to enter *Timed Exit Mode*, which initiates a 30-second timer. *See* Pet. 67–68.

Patent Owner argues that Petitioner has not shown that Sharma’s control panel 102 (mapped to the “security panel”) receives a signal that initiates an associated timer. Prelim. Resp. 45.

As with the Timed Alarm Signal Limitations, Patent Owner argues that Sharma’s door-sensing unit 104 (mapped to the “barrier alarm device”) does not transmit a signal to system control panel 102 (mapped to the “security panel”). *Id.* at 47 (citing Ex. 1011, 8:6–21). So Petitioner cannot demonstrate that Sharma discloses a signal from unit 104 to the system control panel 102 that initiates a timer, according to Patent Owner. *Id.* (citing

Ex. 1011, 8:6–21). At this stage and on this record, we disagree for the reason discussed in connection with the Timed Alarm Signal Limitations. *See supra* § II.E.2.a.

Also, Patent Owner argues that Sharma does not mention a timer—and to the extent that its devices keep time, the devices do so only for the first door-sensing unit 104 and the first disarm device 150. Prelim. Resp. 47–48 (citing Ex. 1011, 6:26–43, 8:13–15, 8:33–51). In Patent Owner’s view, Petitioner has not shown that Sharma’s system control panel 102 has a timer or time-keeping functions. *See id.* (citing Pet. 67–68).

At this stage and on this record, we disagree with Patent Owner’s argument. *Id.* at 47–48. Sharma discloses that the system 100 enters *Timed Exit Mode* for 30 seconds. Ex. 1011, 8:6–13, *cited in* Pet. 67. Sharma’s system 100 includes system control panel 102. *Id.* at 2:60–61, Fig. 1. System control panel 102 resets the system and activates devices, among other things. *Id.* at 3:45–48, 7:38–42. Petitioner has shown that processor 175 in door sensing unit 104 transmits signals to system control panel 102, to arm, disarm, and set system 100’s mode, including Timed Exit Mode and the associated 30-second timer. *See* Pet. 67–68 (citing Ex. 1011, 1:64–67, 7:61–64, 8:6–11). In at least this way, Petitioner has shown that a 30-second timer is associated with system control panel 102. *Id.*

c. Remaining Limitations

Apart from the arguments against this combination analyzed above, Patent Owner does not present separate arguments directed to the remaining limitations of claims 1 and 11. *See* Prelim. Resp. Even so, Petitioner has the burden to show that the challenged claims are unpatentable. *See Dynamic Drinkware*, 800 F.3d at 1378. Thus, we have reviewed Petitioner’s arguments and evidence submitted in connection with the remaining

limitations and find them sufficient at this stage and on this record. *See* Pet. 59–79.

Thus, on this record and at this stage, Petitioner has sufficiently shown that claims 1 and 11 would have been obvious.

III. CONCLUSION

Petitioner has shown a reasonable likelihood of prevailing as to the unpatentability of at least one of the challenged claims. Thus, we institute an *inter partes* review on all claims challenged in the petition and on all grounds in the petition.

IV. ORDER

It is

ORDERED that, under 35 U.S.C. § 314(a), an *inter partes* review of claims 1, 2, 6, 11, 12, and 16 of the '340 patent is instituted for all grounds in the Petition;

FURTHER ORDERED that Patent Owner must file, within one month of this decision, updated Mandatory Notices identifying each real party-in-interest, as required by 37 C.F.R. § 42.8(b)(1); and

FURTHER ORDERED that, under 35 U.S.C. § 314(a), *inter partes* review of the '340 patent is instituted on this Decision's entry date, and under 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is given of the trial's institution.

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Patent 10,692,340 B2

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