UNITED STATES PATENT AND TRADEMARK OFFICE
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BEFORE THE PATENT TRIAL AND APPEAL BOARD
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UNIVERSAL REMOTE CONTROL, INC.,
Petitioner,

v.

UNIVERSAL ELECTRONICS, INC.,[1]
Patent Owner.
_____

Case IPR2014-01084
Patent 7,126,468 B2
_____

Before HOWARD B. BLANKENSHIP, SALLY C. MEDLEY, and
LYNNE E. PETTIGREW, *Administrative Patent Judges*.

PETTIGREW, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

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[1] Patent Owner represents that the owner of the patent and real party-in-interest is Universal Electronics, Inc. Paper 4. Office assignment records indicate, however, that U.S. Bank National Association is the owner of the patent. Patent Owner should update Office assignment records to be consistent with its representations made in Paper 4 of this proceeding.

I. INTRODUCTION

We have jurisdiction to hear this *inter partes* review under 35 U.S.C. § 6(c). This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons discussed herein, Petitioner has shown by a preponderance of the evidence that claims 27, 28, 33, 35, 45, and 49 of U.S. Patent No. 7,126,468 B2 are unpatentable.

A. *Procedural History*

Petitioner, Universal Remote Control, Inc., filed a Petition for *inter partes* review of claims 1, 2, 11, 27–29, 33, 35, 45, 46, and 49 of U.S. Patent No. 7,126,468 B2 (Ex. 1001, "the '468 patent"). Paper 1 ("Pet."). Patent Owner, Universal Electronics, Inc., filed a Preliminary Response. Paper 8. On January 9, 2015, we instituted an *inter partes* review of claims 27, 28, 33, 35, 45, and 49 of the '468 patent on one asserted ground of unpatentability, pursuant to 35 U.S.C. § 314. Paper 9 ("Dec.").

Subsequent to institution, Patent Owner filed a Patent Owner Response (Paper 16, "PO Resp."), and Petitioner filed a Reply (Paper 18, "Pet. Reply"). An oral hearing was held on September 2, 2015, and a transcript of the hearing is included in the record (Paper 25, "Tr.").

B. *Related Matters*

According to the parties, the '468 patent is involved in the following lawsuit: *Universal Electronics, Inc. v. Universal Remote Control, Inc.*, No. SACV 13-00984-AG-JPR (C.D. Cal.). Pet. 1; Paper 4, 2.

C. *The '468 Patent*

The '468 patent relates to a system and method for monitoring remote control transmissions. Ex. 1001, 1:15–17. The system includes a command receiver that monitors remote control transmissions for the purpose of

updating state tables for one or more remotely controllable appliances.
Id. at 2:5–7, 4:25–28. The command receiver may be a device separate from the appliances, or it may be integrated into one or more appliances. *Id.* at 4:28–31. The state tables may be maintained in the command receiver or at a location physically separate from the command receiver, such as a personal computer. *Id.* at 5:20–26. The state tables store parameters representative of one or more states of the appliances. *Id.* at 4:64–66. Figure 4 of the '468 patent illustrates examples of state tables for controllable appliances:

TV device (function)	State
power	1 ("on")
volume	6 ("volume up activated 6Xs")
mute	0 ("off")
. . .	

VCR device (function)	State
power	0 ("off")
play	1 ("on")
FF	0 ("not active")
. . .	.

FIGURE 4

As shown in Figure 4, a "state table attempts to reflect the state of an appliance by storing parameters that are indicative of the transmission of commands to an appliance." *Id.* at 4:67–5:3. State tables may be queried to determine the present state of an appliance. *Id.* at 2:7–9.

D. Illustrative Claim

Claims 27 and 35 are independent. Claims 28 and 33 depend from claim 27, and claims 45 and 49 depend from claim 35. Claim 27 is illustrative of the claimed subject matter:

27.   A method of updating a data representative of a current state of an intended target appliance, comprising:

receiving a transmission from a remote control; and

comparing the transmission from the remote control to a plurality of commands to determine if the transmission from the remote control is one for commanding an operation of the intended target appliance and to update the data to represent the current state of the intended target appliance which will result from the intended target appliance performing the operation commanded.

Id. at 14:55–64.

E. Ground of Unpatentability

We instituted an *inter partes* review of claims 27, 28, 33, 35, 45, and 49 on the sole ground of anticipation by Cohen[2] under 35 U.S.C. § 102(b). Dec. 10–13, 17–18.

II. ANALYSIS

A. Claim Construction

In an *inter partes* review, we construe claim terms in an unexpired patent according to their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b). Consistent with the broadest reasonable construction, claim terms are presumed to have their ordinary and customary meaning as understood by a person of ordinary skill in the art in the context of the entire patent disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). An inventor may provide a meaning for a term that is different from its ordinary meaning by defining the term in the specification with

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[2] U.S. Patent No. 5,235,414, issued Aug. 10, 1993 (Ex. 1005, "Cohen").

reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

We construe the claim terms below in accordance with these principles. No other terms require express construction for purposes of this Final Written Decision.

1. *"update"*

The term "update" appears in independent claims 27 and 35 in connection with updating data to represent the current state of a target appliance that will result when the target appliance performs an operation specified by a command. *See* Ex. 1001, 14:61–64, 15:23–26. In our Decision on Institution, we determined that the broadest reasonable construction of "update" is "bring up to date," based on the term's ordinary and customary meaning. Dec. 7 (citing THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE 1889 (4th ed. 2006)). In so doing, we rejected Patent Owner's argument that the term should be construed to mean "rewrite." *Id.*

Patent Owner does not challenge our construction of "update" in its Patent Owner Response, nor does Petitioner challenge the construction in its Reply. For this Final Written Decision, after considering the complete record, we maintain our construction of "update" as "bring up to date."

2. *"state"*

Claim 27 is directed to a method of updating "data representative of a state of a target appliance" and recites "updat[ing] the data to represent the current state of the intended target appliance which will result from the intended target appliance performing the operation commanded" by a "transmission from the remote control." Ex. 1001, 14:55–56, 14:59–64.

Claim 35 similarly recites "updat[ing] data whereby the updated data reflects a state of the intended target appliance which will result from the intended target appliance performing the operation" commanded by a "transmission from the remote control." *Id.* at 15:21–26. Petitioner does not propose an express construction for "state" in the Petition, but argues that channel selection is a "state" of a target appliance (e.g., a television) as recited in the claims. Pet. 26, 28. In its Response, Patent Owner does not propose an express construction either, but implicitly construes "state" when it argues that Petitioner has not met its burden of showing that channel selection, as described in Cohen, is a "state" of a target appliance. PO Resp. 7. In order to determine whether Cohen anticipates the challenged claims, we must construe the claim term "state" and, more specifically, decide whether "state" encompasses channel selection.

We begin with the language of the claims, which refers to a state of an intended target appliance that will result from the appliance performing an operation commanded by a transmission from a remote control. Ex. 1001, 14:62–63, 15:24–26. Thus, according to the claim language, remote control transmissions may affect the state of an appliance. This is consistent with the written description of the '468 patent, which discloses a system that monitors remote control transmissions for the purpose of tracking the state of an appliance. *Id.* at 2:3–7. The '468 patent further describes a state table that reflects the state of an appliance by storing parameters that are indicative of the transmission of commands to the appliance. *Id.* at 4:67–5:3, Fig. 4. For example, as shown in Figure 4, state parameters may include power, volume, and mute for a television, and power, play, and fast forward for a VCR. *Id.* at 5:3–19, Fig. 4.

Based on this disclosure, and in response to Patent Owner's argument that channel selection is not a "state," Petitioner argues that a "state" as used in the claims of the '468 patent is a parameter indicative of the transmission of commands to an appliance. Pet. Reply 6; Tr. 9:17–21, 10:15–18. Petitioner further asserts that the broadest reasonable interpretation of "state" encompasses the channel to which an appliance is tuned. Pet. Reply 6. In contrast, Patent Owner suggests that channel selection does not qualify as a "state" because the '468 patent does not specifically describe it as such. PO Resp. 7.

We agree with Petitioner's construction of "state." Based on the claims and written description of the '468 patent, a state of an appliance is a parameter or set of parameters indicative of transmissions of remote control commands to the appliance. We also agree with Petitioner that this broadest reasonable construction of "state" encompasses channel selection. Although channel selection is not one of the states shown in Figure 4 of the '468 patent, the state tables in that figure are merely exemplary. *See* Ex. 1001, 2:31–32. Moreover, the channel of an appliance (e.g., a television) can be selected using a remote control, and thus the selected channel is indicative of transmissions of remote control commands to the appliance. Finally, Patent Owner has not identified, nor do we see, anything in the '468 patent that excludes channel selection from the scope of the claim term "state."

B. Anticipation by Cohen

Petitioner contends that claims 27, 28, 33, 35, 45, and 49 are unpatentable under 35 U.S.C. § 102(b) as anticipated by Cohen. Pet. 25–34. In its Petition, Petitioner explains how Cohen discloses each and every

limitation of the challenged claims. *Id.* Petitioner also relies on a Declaration of James T. Geier to support the assertions made in connection with the Petition. Ex. 1008.

In response, Patent Owner alleges that the United States Patent and Trademark Office considered Cohen during examination of the '468 patent and urges us not to "disturb the Patent Office's prior determination that the claims of the '468 patent are patentable over Cohen." PO Resp. 3–4. On the merits, Patent Owner contends that Cohen fails to disclose certain limitations of the challenged claims.

Having considered the parties' contentions and supporting evidence, we determine that Petitioner has demonstrated by a preponderance of the evidence that Cohen anticipates claims 27, 28, 33, 35, 45, and 49 of the '468 patent.

1. *Preliminary Matters*

At the outset, we address Patent Owner's argument that the Office previously considered Cohen. *See* PO Resp. 3–4. The Background section of the '468 patent cites Cohen as an example of a prior art system that unobtrusively monitors the tuning of a home entertainment center. Ex. 1001, 18–29. Cohen, however, does not appear on the face of the '468 patent in the list of references cited. *Id.*, at [56]. Nor does the prosecution history indicate Cohen was cited by the applicant in an Information Disclosure Statement or expressly considered by the Examiner. *See* Pet. 11–12; Pet. Reply 2; Ex. 1002. Based on the evidence in the record, we are not persuaded the Office considered the entire disclosure of Cohen during prosecution. Moreover, although in determining whether to institute an *inter partes* review we may take into account whether a prior art

reference was presented previously to the Office and have discretion to deny a petition on that basis, *see* 35 U.S.C. § 325(d), Patent Owner offers no basis for finding Petitioner failed to establish unpatentability by a preponderance of the evidence simply because the prior art was previously before the Office.

Patent Owner also argues as a preliminary matter that the Geier Declaration does not provide any support or analysis that would assist us in determining whether Cohen anticipates the challenged claims. PO Resp. 5. According to Patent Owner, "Petitioner's reliance on the Geier Declaration is perfunctory and unhelpful." *Id.* This argument goes to weight rather than admissibility of the Declaration. To the extent Mr. Geier's testimony is conclusory or unsupported, we weigh it accordingly in our patentability analysis. *See Velander v. Garner*, 348 F.3d 1359, 1371 (Fed. Cir. 2003) (holding it is within the Board's discretion to assign appropriate weight to each item of evidence); 37 C.F.R. § 42.65(a). We note that Patent Owner elected not to cross-examine Mr. Geier, and further note that Patent Owner provides no expert testimony of its own in support of its substantive arguments.

2. Cohen

Cohen describes a system for monitoring the channel tuning of different components in a home entertainment center. Ex. 1005, 1:5–15. The disclosed system receives a digital command from a remote control, transfers it to the appropriate component of the entertainment center, and stores for later retrieval information reflecting which component was in use and its channel tuning information. *Id.* at 2:57–62.

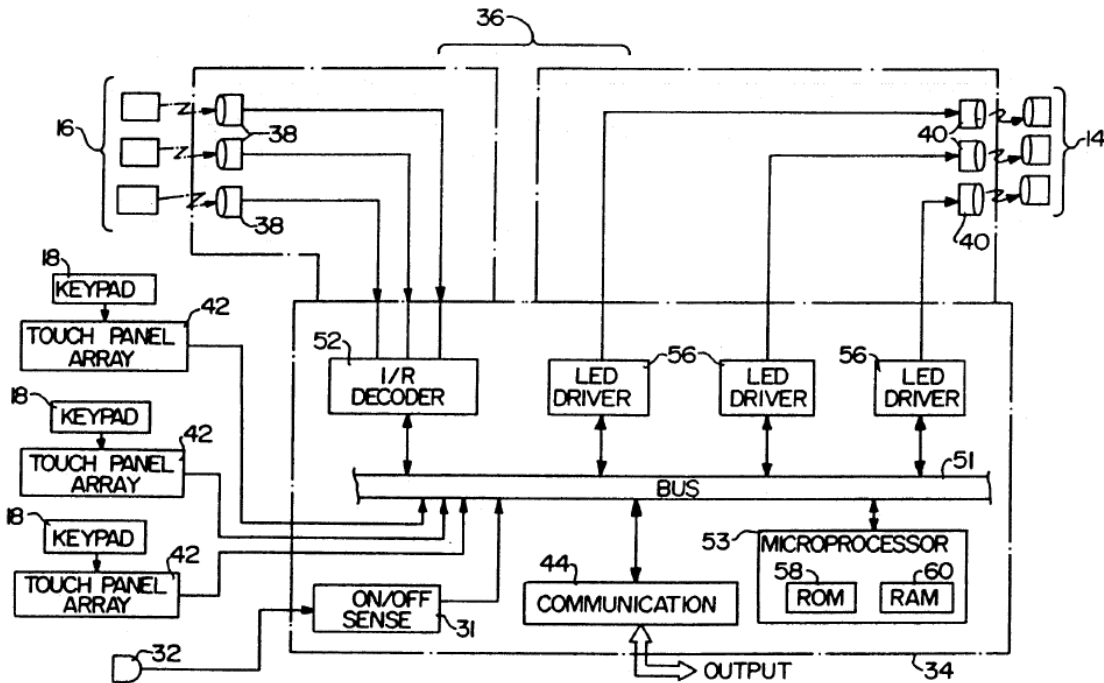Figure 2 of Cohen is reproduced below:

FIG. 2

Figure 2 is a block diagram of the disclosed monitoring system. *Id.* at 3:38–40. As shown in Figure 2, each remote control unit 16 emits infrared ("IR") signals received by receiver 38. *Id.* at 4:50–51. IR decoder 52 in monitor 34 translates the IR signals to signals indicating the component being operated on and in what manner. *Id.* at 4:51–55. For example, when a remote control for a television is used to change channels, IR decoder 52 transfers the command through bus 51 to microprocessor 53. *Id.* at 4:55–58. Microprocessor 53 in monitor 34 decodes the input signal and directs a corresponding signal toward transmitter section 40, which transmits an appropriate signal to the television. *Id.* at 4:55–61. As shown in Figure 2, microprocessor 53 includes random access memory ("RAM") 60, which stores both information regarding the tuning of the entertainment system for

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later retrieval and the functions of different remote control signals that have
been learned by the system during a learning phase. *Id.* at 4:4–5, 5:1–25.

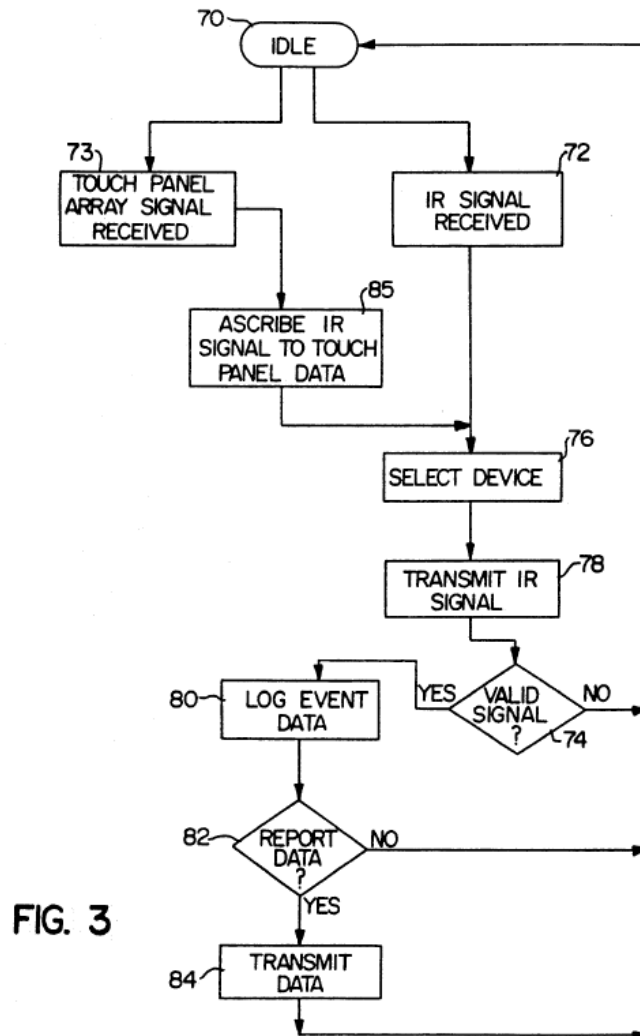Figure 3 of Cohen is reproduced below:

FIG. 3

Figure 3 is a flowchart illustrating the remote control monitoring performed
by the apparatus shown in Figure 2. *Id.* at 3:41–43. In step 74,
microprocessor 53 determines whether the IR signal received from remote
control 16 in step 72 is valid (i.e., intended for a device being monitored) so
that the event should be logged in step 80. *Id.* at 5:61–64. Event data

corresponding to valid IR signals are stored in RAM 60, to be retrieved later and reported to a host system. *Id.* at 6:9–11.

3. *Analysis*

Petitioner provides detailed analysis showing where Cohen discloses each limitation of the challenged claims. Pet. 25–34. Beginning with independent claim 27, Petitioner contends that Cohen discloses the step of "receiving a transmission from a remote control" (i.e., receiver 38 receiving infrared signals from remote control units 16). *Id.* at 26 (citing Ex. 1005, 4:50–51). Petitioner also contends that Cohen discloses the step of "comparing the transmission from the remote control to a plurality of commands to determine if the transmission from the remote control is one for commanding an operation of the intended target appliance." Specifically, Petitioner asserts that Cohen's monitor stores functions (a plurality of commands) that correspond to the transmission of signals from remote controls and compares transmissions from a remote control against the commands maintained within the monitor to check the validity of the transmissions. *Id.* at 27 (citing Ex. 1005, 5:8–19, 5:61–64). We are persuaded by Petitioner's arguments that Cohen discloses the "receiving" and "comparing" limitations of claim 27.

The parties dispute whether Cohen discloses the remaining limitation of claim 27, which requires "updat[ing] . . . data to represent the current state of [an] intended target appliance which will result from the intended target appliance performing the operation commanded." Petitioner submits that Cohen meets this limitation because monitor 34, shown in Figure 2, stores channel tuning information in RAM 60 for later retrieval and updates that channel tuning information (i.e., data representing a current state) when a

remote control is used to select a channel. Pet. 28 (citing Ex. 1005, 4:4–5, 5:22–25). In response, Patent Owner argues that Cohen's monitor 34 does not perform the updating operation recited in the claim and that Petitioner has not shown channel selection is a state of a target appliance. PO Resp. 5–7. We address Patent Owner's arguments in turn.

First, Patent Owner contends that to the extent any device in Cohen updates data representing the state of an appliance, it is not monitor 34, but instead is the "outside world" central host computer to which Cohen's system transmits data in step 84 of Figure 3. *Id.* at 6. Patent Owner explains that the host computer "analyzes and interprets the remote control signal data received from monitor 34 to determine what the viewer is watching." *Id.* (citing Ex. 1005, 6:39–42, 6:57–61). As Patent Owner's counsel acknowledged at oral hearing, however, the claim language does not require analyzing and interpreting data—it merely requires updating data to represent the current state of an appliance. *See* Tr. 19. Notably, Patent Owner does not dispute that the monitor in Cohen performs an updating operation when it stores channel tuning information for later transmission to the host computer. *See* PO Resp. 6–7; Pet. Reply 5. Thus, we are not persuaded by Patent Owner's argument that the only device in Cohen that performs an updating operation is the host computer, and not the monitor.[3]

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[3] We need not, and do not, consider Petitioner's argument, raised for the first time in its Reply, that Cohen discloses the updating operation of claim 27 because the claim does not require any particular device to perform the recited updating operation, and Patent Owner admits that Cohen's host computer performs updating. *See* Pet. Reply 5. The Petition asserts only that Cohen's monitor performs the updating operation. Pet. 28.

Patent Owner also argues that Petitioner has not shown channel selection is a state of a target appliance. PO Resp. 7. As explained in Section II.A.2, however, the broadest reasonable construction of "state" as used in the claims of the '468 patent encompasses channel selection as disclosed in Cohen. It is immaterial that Cohen itself does not describe channel selection as a "state," as Patent Owner argues. *See* PO Resp. 7.

At oral hearing, Patent Owner argued for the first time that Cohen does not disclose updating data representing a state of a target appliance because Cohen's system only logs remote control transmissions or signals without context that is necessary to determine the state of an appliance. *E.g.*, Tr. 16:7–21, 17:6–22, 19:3–9, 19:19–21, 22:2–4. Parties are not permitted to raise new arguments at oral hearing. Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,768 (Aug. 14, 2012). In any event, Patent Owner does not provide any citation to the '468 patent supporting the notion that "state" as used in the challenged claims includes a "context" element. Nor do the claims require determining the state of an appliance. *See* Pet. Reply 8 (responding to argument in the Patent Owner Response with respect to claim 33 that Cohen does not "determine" appliance states (PO Resp. 8)).

As for Patent Owner's contention that Cohen's system merely logs remote control transmissions or signals, rather than updating data to represent the current state of an appliance (PO Resp. 6; Tr. 17:8–22, 19:5–6, 19:19–21), we disagree. Cohen explains that "[d]ata pertinent to viewing preference is date and time stamped and the information is stored in RAM 60 at step 80 [in Figure 3], to be later retrieved and reported to a host system." Ex. 1005, 6:9–11. Cohen also indicates that channel tuning information is information stored in RAM 60 for later retrieval. *Id.* at 5:22–

25. Furthermore, Figure 3 shows that Cohen's monitor logs event data in step 80 and transmits the data to a host computer in step 84. *Id.* at Fig. 3. Thus, notwithstanding references in Cohen to logging signals, Cohen specifically discloses logging, or updating, channel tuning information, which is data representative of a current state (i.e., selected channel) of a target appliance, as required by claim 27. *See* Pet. Reply 8.

Claim 28 depends from claim 27 and further recites the step of "supplementing the data with information obtained directly from the intended target appliance." Ex. 1001, 14:65–67. Petitioner shows that in Cohen's system, On/Off sense 31 (shown in Figure 2) receives information from a system component that has been turned on or off and communicates this information to microprocessor 53 for storage in RAM 60. Pet. 28 (citing Ex. 1005, 5:26–30). Patent Owner does not dispute that this feature of Cohen satisfies the "supplementing" step of claim 28. *See* PO Resp. 8.

Claim 33 also depends from claim 27 and requires the data representing a state of the intended target appliance to be "maintained locally within a device which receives the transmission." Ex. 1001, 15:10–12. Patent Owner asserts that Cohen does not disclose this claim limitation because the "outside world" host computer stores appliance states. PO Resp. 8–9. As discussed above, however, we are not persuaded by Patent Owner's argument that the host computer, rather than monitor 34, updates data representing a current state of the target appliance.

For the foregoing reasons, based on the record before us, Petitioner has shown by a preponderance of the evidence that Cohen discloses all of the limitations of method claims 27, 28, and 33. Independent claim 35 is directed to "a readable media having instructions for monitoring remote

control transmissions" in a "transmission monitoring device," with "the instructions performing steps" substantially similar to the steps in claim 27. Claims 45 and 49 depend from claim 35 and recite limitations similar to those in claims 28 and 33, respectively. Accordingly, for the same reasons discussed above, Petitioner has shown by a preponderance of the evidence that Cohen discloses all of the limitations of media claims 35, 45, and 49.

III. CONCLUSION

Based on the evidence and arguments, Petitioner has demonstrated by a preponderance of the evidence that claims 27, 28, 33, 35, 45, and 49 of the '468 patent are unpatentable under 35 U.S.C. 102(b) as anticipated by Cohen.

IV. ORDER

Accordingly, it is:

ORDERED that claims 27, 28, 33, 35, 45, and 49 of U.S. Patent No. 7,126,468 B2 have been shown to be unpatentable; and

FURTHER ORDERED that, because this is a final written decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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