

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NISSAN NORTH AMERICA, INC.,
Petitioner,

v.

JOAO CONTROL & MONITORING SYSTEMS, LLC,
Patent Owner.

Case IPR2015-01508
Patent 6,542,076 B1

Before STACEY G. WHITE, JASON J. CHUNG, BETH Z. SHAW,
Administrative patent Judges.

WHITE, *Administrative patent Judge.*

FINAL WRITTEN DECISION

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

I. INTRODUCTION

Nissan North America, Inc. (“Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting *inter partes* review of claims 3, 20, 65, 73, 93, 103, 104, 108, and 205 of U.S. patent No. 6,542,076 B1 (Ex. 1001, “the ‘076 patent”) pursuant to 35 U.S.C. §§ 311–319. Joao Control & Monitoring Systems, LLC, (“Patent Owner”) filed a Preliminary Response. (Paper 9, “Prelim. Resp.”). Based on our review of these submissions, we instituted *inter partes* review of claims 3, 20, 65, 73, 93, 103, 104, 108 and 205 of the ‘076 patent on the proposed grounds of unpatentability under 35 U.S.C. §§ 102, 103. Paper 10 (“Dec.”). Specifically, we authorized this *inter partes* review to proceed as to the following grounds:

Reference(s)	Basis	Claim(s) Instituted
Frossard ¹	§ 102	3, 20, 73, 103, and 205
Frossard and Pagliaroli ²	§ 103	65
Frossard and Drori ³	§ 103	93
Frossard and LeBlanc ⁴	§ 103	104
Frossard and Simms ⁵	§ 103	108
Pagliaroli ⁶	§ 102	3, 20, 65, 73, 93, and 205
Pagliaroli and Frossard	§ 103	103

¹ EP 0505266 A1 (Ex. 1004); English translation (Ex. 1005) (“Frossard”).

² U.S. patent No. 5,276,728 (Ex. 1006) (“Pagliaroli”).

³ U.S. patent No. 5,081,667 (Ex. 1008) (“Drori”).

⁴ U.S. patent No. 6,236,365 B1 (Ex. 1009) (“LeBlanc”).

⁵ U.S. patent No. 5,334,974 (Ex. 1007) (“Simms”).

⁶ The Institution Decision included claim 103 in the list of claims asserted to be anticipated by Pagliaroli. Dec. 26. This was a typographical error. The Petition did not allege that claim 103 was anticipated by Pagliaroli. See *generally* Pet. 10–22

Reference(s)	Basis	Claim(s) Instituted
Pagliaroli and LeBlanc	§ 103	104
Pagliaroli and Simms	§ 103	108

Id. at 25–26.

Patent Owner filed a Patent Owner’s Response (Paper 21, “PO Resp.”), and Petitioner filed a Reply (Paper 25, “Reply”). An oral hearing was conducted on October 20, 2016. A transcript of the oral hearing is included in the record. Paper 30 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons discussed below, Petitioner has demonstrated by a preponderance of the evidence that claims 3, 20, 65, 73, 93, 103, 104, 108, and 205 of the ‘076 patent are unpatentable.

A. Related Proceedings

The parties inform us that the ‘076 patent is at issue in approximately one dozen lawsuits pending in courts around the country. Paper 20, Pet. 1, Ex. 1019. In addition, *ex parte* reexamination No. 90/013,302 was filed with respect to the ‘076 patent and has been stayed in light of this proceeding. Paper 24. The ‘076 patent also is the subject of a co-pending petition for *inter partes* review (IPR2015-01610).

B. The ‘076 patent

The ‘076 patent describes a control, monitoring, and/or security apparatus and method for vehicles. Ex. 1001, 1:25–32. The apparatus described in the ‘076 patent allows an owner, occupant, or other authorized individual to control or to perform various monitoring and security tasks in regards to a vehicle from a remote location and at any time. *Id.* at 3:5–11.

An embodiment of the apparatus of the '076 patent includes a transmitter system which is “a remote system, which may or may not be physically connected to the remainder of the apparatus. Further, the transmitter system is not located in the [vehicle] . . . , but rather, is located external from, and/or separate and apart from, the vehicle.” *Id.* at 3:50–56. The apparatus also includes a CPU that is connected electrically and/or linked to one or more vehicle equipment systems (e.g., vehicle ignition or anti-theft systems). *Id.* at 4:35–37; 4:61–5:14. The vehicle equipment systems may be activated, de-activated, reset, or controlled by the apparatus. *Id.* at 5:15–18. This activation or control may be achieved by a user entering a code on the transceiver of the transmitter system. *Id.* at 6:30–36. The code is transmitted to the CPU and then the CPU communicates with the appropriate vehicle equipment system. *Id.* at 7:16–21.

C. Illustrative Claim

As noted above, we instituted *inter partes* review of claims 3, 20, 65, 73, 93, 103, 104, 108, and 205 of the '076 patent, of which claims 3, 73, and 205 are independent. Claim 3 is illustrative of the instituted claims and is reproduced below:

3. A control apparatus, comprising:

a first control device, wherein the first control device at least one of generates a first signal and transmits a first signal for at least one of activating, de-activating, disabling, and re-enabling, at least one of a vehicle system, a vehicle equipment system, a vehicle component, a vehicle device, a vehicle equipment, and a vehicle appliance, of a vehicle, wherein the first control device is located at the vehicle,

wherein the first control device at least one of generates the first signal and transmits the first signal in response to a second

signal, wherein the second signal is at least one of generated by a second control device and transmitted from a second control device, wherein the second control device is located at a location which is remote from the vehicle, wherein the second signal is transmitted from the second control device to the first control device, wherein the second signal is automatically received by the first control device, and further wherein the second control device at least one of generates the second signal and transmits the second signal in response to a third signal,

wherein the third signal is at least one of generated by a third control device and transmitted from a third control device, wherein the third control device is located at a location which is remote from the vehicle and remote from the second control device, wherein the third signal is transmitted from the third control device to the second control device, and further wherein the third signal is automatically received by the second control device.

II. CLAIM CONSTRUCTION

As acknowledged by the parties, the '076 patent has expired. *See* Pet. 9; PO Resp. 8. We construe expired patent claims according to the principles set forth in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). *See In re Rambus*, 694 F.3d 42, 46 (Fed. Cir. 2012). “In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence.” *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17). A patentee may act as a lexicographer by giving a term a particular meaning in the specification with “reasonable clarity, deliberateness, and precision.” *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

A. Term Preliminarily Construed in the Decision to Institute

For purposes of the Decision to Institute, we construed the term “control device.” Dec. 10–11. Neither party raised any concerns regarding this construction during trial. See PO Resp. 10–11; Reply 1. Based on our review of the full record, we discern no reason to modify or further discuss in this Final Written Decision our construction for this claim term. For convenience, the claim construction is reproduced in the table below.

Term	Citations	Construction
Control Device	Ex. 2002, 6	A device or a computer, or that part of a device or a computer, which performs an operation, an action, or a function, or which performs a number of operations, actions, or functions.

B. First, Second, and Third Signal Terms

Patent Owner provides proposed constructions for the first, second, and third signal terms. PO Resp. 11–12. Specifically, Patent Owner asserts that the “first signal” is “a signal sent by a first device;” the “second signal” is “a signal sent by a second device;” and the “third signal” is “a signal sent by a third device.” *Id.* at 12.

We agree that a first signal is sent by a first device. For example, claim 3 recites, in relevant part, that the “first control device” generates and transmits the first signal. The parties’ dispute, however, is directed to whether there may be an intermediate device between the transmitting device (e.g., second device) and the signal’s destination (e.g., first device). In Patent Owner’s view, there may not be an intermediate device. See PO Resp. 19–20.

As part of our analysis, we note that the Applicant provided an express definition of the term “signal” in the First Remarks filed on

November 23, 2007, during prosecution of the patent application that issued as the U.S. patent No. 7,397,363 (“the ’363 patent”) (Ex. 2002). The ’076 patent and the ’363 patent each descend from U.S. patent Application No. 08/622,749. *See* Ex. 1001, at [63]⁷. Patent Owner relied upon this same filing in support of its arguments regarding the construction of “remote,” “control device,” and “located at.” *See* Dec. 6–7. The Applicant provided this definition several years after the issuance of the ’076 patent. *See* Ex. 1001, at [45] (Apr. 1, 2003 issuance date). As the Federal Circuit has noted, however, “[a] statement made during prosecution of related patents may be properly considered in construing a term common to those patents, regardless of whether the statement pre- or post-dates the issuance of the particular patent at issue.” *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 789 F.3d 1335, 1343 (Fed. Cir. 2015) (citing *Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1350 (Fed. Cir. 2004)).

In that 2007 filing, the term “signal” was defined as “an indication, or an indication having or conveying data, information, or a message, or a conveyor of data, information, or a message, or an indication representing data or information.” Ex. 2002, 11. We are persuaded that this definition is instructive to understanding the proper scope of these claim terms. Thus, a first signal, for example, is an “an indication, or an indication having or conveying data, information, or a message, or a conveyor of data, information, or a message, or an indication representing data or information that is sent by a first device.”

⁷ This information was modified by a Certificate of Correction issued July 1, 2003. *See* Ex. 1001, 95.

We have not been directed to evidence in the specification sufficient to show that the Applicant desired to narrow this very broad definition of signal in a manner that would exclude signals that pass through intermediaries. As defined by the Applicant, a signal may be an indication, information, or a message and we are not persuaded that it is impermissible for an intermediary to pass this information on and to add further data to the information that it received.

For the foregoing reasons, we construe the term “first signal” to be “a signal sent by a first device;” “second signal” to be “a signal sent by a second device;” and “third signal” to be “a signal sent by a third device.” The recited signals all are construed to be “an indication, or an indication having or conveying data, information, or a message, or a conveyor of data, information, or a message, or an indication representing data or information.” Finally, we are not persuaded that these terms exclude signals that may pass through an intermediary.

III. ANALYSIS

A. Qualifications of Mr. David McNamara

Patent Owner asserts that we should accord little or no weight to the testimony of Mr. David McNamara.⁸ PO Resp. 15. Patent Owner’s

⁸ Mr. McNamara acknowledged the highest level of education that he completed was “a “Master of Engineering degree in Solid State Physics from the University of Florida in 1976.” Ex. 1003 ¶ 2; *see also* Pet. 7. Although Patent Owner refers to Mr. McNamara as Dr. McNamara, because Petitioner and Mr. McNamara do not proffer evidence of Mr. McNamara achieving a PhD or equivalent and it is not clear from the record that Mr. McNamara attained a PhD or equivalent, we, therefore, refer to Petitioner’s declarant as “Mr. McNamara.”

objections are twofold. First, Patent Owner argues that Mr. McNamara did not review the prosecution history of the '076 patent. *Id.* at 12–13. Second, Patent Owner contends that Mr. McNamara has an erroneous understanding of the standards of claim construction. *Id.* at 13–15.

1. *Prosecution History*

Patent Owner argues Mr. McNamara's testimony is flawed fatally because during cross-examination, Mr. McNamara testified that he had not reviewed the prosecution history of the '076 patent. PO Resp. 16–17 (citing Ex. 2005, 153:11–22 (In response to Patent Owner's questions "you did not review the prosecution histories for the four JCMS patents [including the '076 patent] at issue correct" and "you did not apply the, any definitions that may have been provided by Mr. Joao during prosecution of those patents, correct," Mr. McNamara answers "[t]hat's correct.")).

In reply, Petitioner argues that Mr. McNamara states in his declaration that he read the '076 patent and its prosecution history. Reply 2 (citing Ex. 1003 ¶ 14). According to Petitioner, Patent Owner improperly focuses Mr. McNamara's testimony that he did not read the prosecution history while ignoring other statements to the contrary. *Id.* Petitioner argues Mr. McNamara's testimony, however, was approximately nine months after Mr. McNamara signed his declaration. Reply 2 (citing Ex. 2005, 153:11–15). According to Petitioner, Mr. McNamara's inconsistent testimony, at best, illustrates a lapse in memory during a lengthy deposition. Reply 3.

Petitioner argues that Mr. McNamara reviewed and considered relevant portions of the prosecution history such as the definitions identified in Exhibit 1012. *Id.* at 4. Exhibit 1012 includes prosecution history

definitions of the '363 patent and the '010 patent. *Id.* (citing Ex. 1003 ¶¶ 14 and 23). During the cross-examination, Mr. McNamara re-affirmed that he reviewed these definitions. *Id.* In response to the question ““with respect to Paragraphs 14 through 25, through 24, other than the information that is referenced in 25, is that a complete list of the information that you considered in reaching the opinions or conclusions expressed in Exhibit 1?,” Mr. McNamara answered “[t]hat is correct.” *Id.* (quoting Ex. 2005, 154:11–20).

We are not persuaded that Mr. McNamara’s statements on cross examination are sufficient to accord his testimony little or no weight. The prosecution history is an important element in understanding the claims of a patent. We, however, are persuaded that the statements made during cross examination appear to be misstatements as to Mr. McNamara’s review of the patent and its underlying prosecution history. Mr. McNamara signed his declaration under penalty of perjury and he has made other statements consistent with his testimony under oath stating that he reviewed the prosecution history. *See* Ex. 1003 ¶ 14; Ex. 2005, 154:11–20. In addition, we have reviewed the relevant prosecution history and we are in the position to evaluate whether Mr. McNamara’s testimony is at odds with the evidence in this case, which include the relevant prosecution history.

Accordingly, we are not persuaded Mr. McNamara’s testimony should be accorded little or no weight due to the statements he made during cross-examination regarding his review of the prosecution history.

2. *Correct Claim Construction Standards*

Mr. McNamara stated that he applied the ordinary and customary meaning as understood by a person having ordinary skill in the art. Ex. 1003 ¶ 10. During cross-examination, Mr. McNamara re-affirmed his position by stating “I used the same standard through all of the four patents [including the ’076 patent]. I used the one of ordinary and customary understanding.” Ex. 2005, 152:15–18.

In response, Patent Owner argues Mr. McNamara acknowledged during cross-examination that he used the wrong claim construction standard when construing the claims in a related *inter partes* review brought by the same Petitioner. PO Resp. 13–14 (citing Ex. 2005, 151:14–152:18 (Mr. McNamara acknowledged that he used “the broadest reasonable construction in light of the specification of the [’076] patent.” However, in response to Patent Owner’s questions “[a]re you aware that the PTAB has indicated or stated that that is, in fact, the wrong standard for the 363’ patent” and “[h]ow does the use of the wrong claim construction standard affect your opinions in this case,” Mr. McNamara answers “I don’t think I used the wrong standard because I used the same standard through all of the four patents [including the ’076 patent]. I used the one of ordinary and customary understanding.”)). Patent Owner further argues that Mr. McNamara acknowledged that he cannot discern the difference between claims in an expired patent and claims in an unexpired patent and uses the same claim construction standard (i.e., plain and ordinary meaning) for both expired and unexpired patents. PO Resp. 14–15 (citing Ex. 2005, 152:19–25).

In reply, Petitioner argues Mr. McNamara stated that he applied the plain and ordinary meaning as understood by a person having ordinary skill

in the art. Reply 5 (citing Ex. 1003 ¶ 10; Ex. 2003, 152:15–18). Petitioner further argues Patent Owner’s reliance on Mr. McNamara being unable to differentiate between the “broadest reasonable construction” and the “ordinary and customary understanding” is misplaced because the difference between the two standards is a legal question. Reply 5. Petitioner also argues Patent Owner fails to demonstrate how Mr. McNamara’s claim construction is incorrect, why Mr. McNamara’s claim construction is different from the plain and ordinary meaning, or that his opinion and conclusion are based on an incorrect standard. *Id.* According to Petitioner, at best, Patent Owner illustrates that Mr. McNamara failed to explain the difference between the “broadest reasonable construction” and the “plain and ordinary meaning.” *Id.*

Petitioner also argues Mr. McNamara’s declaration is consistent with the Board’s construction of “control device” and the remaining claim terms, which were given their plain and ordinary meaning. *Id.* at 5–6 (citing Dec. 5–11; Ex. 1003 ¶ 10). Regarding the claim term “control device,” as an example, Petitioner refers to Mr. McNamara’s statement that “Frossard further states that the receiver-decoder means ‘decodes this message’ that it received and ‘addresses the corresponding commands to equipment 3 itself, causing an immediate or deferred shutdown depending on the application under consideration.’” *Id.* at 6 (quoting Ex. 1003 ¶ 42). Petitioner argues Frossard performing numerous operations such as decoding and addressing is consistent with the Board’s construction of “control device” that includes performing “a number of operations.” *Id.* Petitioner also argues another example of Mr. McNamara’s consistency with the Board is disclosed in Mr. McNamara’s statement that “the CPU 4 is acting as a control device as it is

performing actions and operations on the ignition system and fuel pump.”
Id. (quoting Ex. 2005, 164:16–18). Petitioner further argues Mr. McNamara also states “I agree with the PTAB’s construction that control device is generally something that performs an operation or function or action; the transmitter is, yes, the transmitter is performing an operation.” *Id.* (quoting Ex. 2005, 166:11–15).

We are not persuaded that Mr. McNamara’s statements regarding the appropriate claim construction standard merit according his testimony little or no weight. Mr. McNamara stated that he applied the plain and ordinary meaning as understood by a person having ordinary skill in the art. Ex. 1003 ¶ 10; Ex. 2003, 152:14–18. We agree with Petitioner that Patent Owner’s reliance on Mr. McNamara being unable to differentiate between the “broadest reasonable construction” and the “ordinary and customary understanding” is misplaced because the difference between the two standards is a legal question. Mr. McNamara’s testimony is presented for the purpose of providing “scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue.” Fed. R. Evid. 702. We do not look to Mr. McNamara as an expert or even as a purported expert on legal issues. Moreover, we agree with Petitioner that Patent Owner’s argument fails to demonstrate how Mr. McNamara’s claim construction is incorrect or why Mr. McNamara’s claim construction is different from the plain and ordinary meaning.

Accordingly, we deny Patent Owner’s request that we accord Mr. McNamara’s testimony little or no weight. We will analyze Mr. McNamara’s testimony as part of our analysis of all of the evidence

presented in this proceeding and we will accord his statements the appropriate weight.

B. Analysis of Asserted Grounds Based on Frossard (Ex. 1005)

1. Overview of Frossard

Frossard describes a system for controlling shutdown of movable or mobile equipment and locating the movable or mobile equipment. Ex. 1005,

2. Figure 1 is reproduced below.

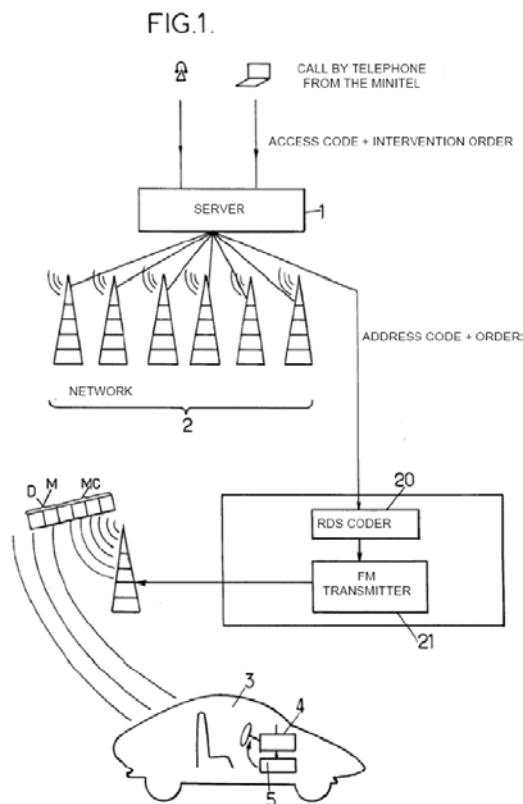


Figure 1 illustrates movable or mobile equipment 3 containing receiver-decoder circuits 4 for an order message to shutdown movable or mobile equipment 3. *Id.* at 5. The specification describes a scenario in which equipment 3 is stolen and the owner or authorized person calls server 1 to communicate a shutdown order of equipment 3. *Id.* at 9. After server 1 validates the shutdown order, the shutdown order is transmitted to receiver-

decoder circuits of equipment 3. *Id.* at 3, 9. Figure 2, which is reproduced below, depicts the details of receiver-decoder 4, which is used to shutdown equipment 3.

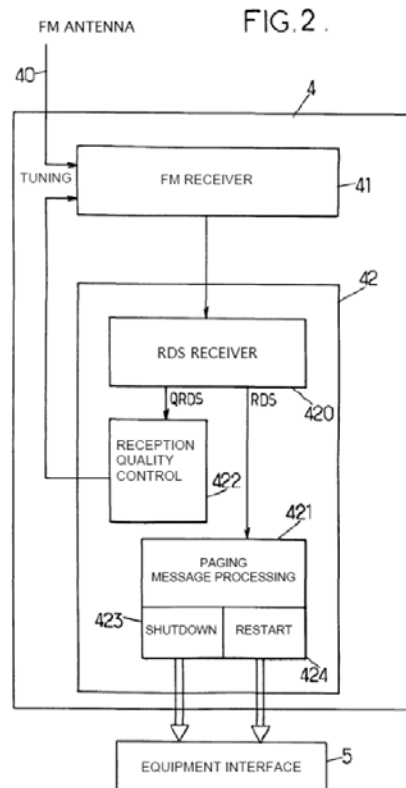


Figure 2 illustrates receiver-decoder circuits 4 and equipment interface 5 from Figure 1. *Id.* at 3, 7. Shutdown circuit 423 controls immediate or deferred shutdown of equipment 3. *Id.* at 9–10. When shutdown of equipment 3 occurs, an electrical contact that activates the starter is broken. *Id.* at 10, 14.

2. Analysis of Asserted Ground of Anticipation by Frossard

Petitioner asserts that claims 3, 20, 73, 103, and 205 of the '076 patent are unpatentable under 35 U.S.C. § 102 as anticipated by Frossard. Pet. 10–22. Petitioner relies on claim charts showing how this reference allegedly discloses the claimed subject matter. *Id.* Petitioner further relies on a declaration from David McNamara. Ex. 1003. For the reasons discussed

below, we conclude that Petitioner has established by a preponderance of the evidence that claims 3, 20, 73, 103, and 205 of the '076 patent are anticipated by Frossard.

a. Independent Claims 3, 73, and 205

Each of the challenged independent claims (3, 73, and 205) recites a first, second, and third control device. In claims 3 and 73, the “first control device is located at the vehicle.” Ex. 1001, 106:49–50; 122:8–9. Similarly, in claim 205, the “third control device is located at the vehicle.” *Id.* at 141:37–38. All three independent claims recite that “the second control device is located at a location which is remote from the vehicle.” *Id.* at 106:56–57; 122:14–15; 141:32–33. In addition, claims 3 and 73 recite that “the third control device is located at a location which is remote from the vehicle and remote from the second control device.” *Id.* at 106:66–107:1; 122:24–26. Similarly, claim 205 recites that the “first control device is located at a location remote from the second control device and remote from a vehicle.” *Id.* at 141:17–19. Thus, all of the independent claims require three control devices, one of which is located at the vehicle and two other control devices that are located at two other places that are remote from the vehicle.

Petitioner argues that Frossard discloses these control devices⁹ and their associated signals through its discussion and depiction of receiver-

⁹ Petitioner’s arguments regarding the first control device of claims 3 and 73 correlates to the arguments espoused for the third control device of claim 205; similarly Petitioner’s arguments as to the second control device of claim 205 correlates to the second control device of claims 3 and 73; and Petitioner’s arguments in regards to the third control device of claim 205

decoder 4 (first control device) (Pet. 11), resource 2 and server center 1 (collectively the second control device) (*id.* at 15), and a phone or Minitel (third control device) (*id.*). Frossard's receiver-decoder 4 sends an "order message to shut down the equipment." *Id.* at 11 (citing Ex. 1005, 3); Ex. 1005, 5. The receiver-decoder circuit is installed within the vehicle itself. Ex. 1005, Abstract. Frossard's receiver-decoder "addresses the corresponding commands to equipment 3 itself, causing immediate or deferred shutdown depending on the application under consideration." Pet. 11 (citing Ex. 1005, 9). Resource 2 is argued to be "the network that the server center uses to transmit the second signal to the first control device." *Id.* at 15 (citing Ex. 1003 ¶ 52). Petitioner contends that a telephone or Minitel may be used to transmit the "access code and the corresponding intervention order." *Id.* at 14 (citing Ex. 1005, 4). Petitioner asserts that "Frossard discloses that the server center and network (collectively the second control device) generates and transmits the second signal (message M) in response to the third signal (access code and corresponding intervention order)." *Id.* at 15 (citing Ex. 1003 ¶ 53.)

Patent Owner argues that the claimed second control device is not met by Frossard's resource 2 and server center 1 because they "are actually at least two separate devices." PO Resp. 17. In Patent Owner's view

correlates to those for the first control device of claims 3 and 73. Petitioner relies on the same disclosures in Frossard for each of the corresponding devices in claims 3, 73, and 205. *Compare* Pet. 10–16 (combined arguments for claims 3 and 73) *with* Pet. 17–22 (argument for claim 205). Thus, our analysis of Frossard's disclosures applies to each of the independent claims. For convenience, unless otherwise indicated, we shall use the terms first, second, and third control device to refer to the control devices as described in claim 3.

Frossard's system is not one with three control devices; instead Frossard has at least four control devices and thus, the devices and signals in Frossard do not disclose the claimed three signal/three device system. *Id.* at 16–21; *see also* Tr. 36:1–38:19.

In Frossard, server center 1 may be accessed by a subscriber upon presentation of an access code. Ex. 1005, 4. Codes are sent to server center 1 by a subscriber in order to generate a request to shutdown equipment 3. *Id.* at 5. Resource 2 transmits the shutdown message to equipment 3. *Id.* at 4. According to Mr. McNamara “person of ordinary skill in the art would understand that Frossard discloses that the server center and its network (second control device) generates and transmits the second signal (message M) in response to the third signal (i.e. access code and corresponding intervention order).” Ex. 1003 ¶ 52.

Patent Owner's dispute with Petitioner's characterization of Frossard is based, in part, upon a disagreement as to whether there may be an intermediate device located between Frossard's server 1, which generates the shutdown signal and receiver-decoder circuits 4 that receive the shutdown signal. PO Resp. 19. According to Patent Owner, resource 2 is an intermediate device that receives the second signal (the shutdown message) from server 1 and then generates a third signal, which is transmitted to the receiver-decoder circuits 4. *Id.* at 19–20. Patent Owner's arguments, however, depend on its proposed construction of “second signal” as limited to a signal received directly from a first device, a construction which we have not adopted.

Petitioner responds by directing us to the construction of control device that is found in the prosecution history and has been adopted for this

proceeding. Reply 8. Pursuant to that construction, which is not contested, a control device is “[a] device or a computer, or that part of a device or a computer, which performs an operation, an action, or a function, or which performs a number of operations, actions, or functions.” *See supra* § II.B. According to Petitioner, because the “control device” can comprise “part of a device,” it follows that a device can comprise multiple parts. Reply 8. Petitioner also explains because a “control device” is a type of device, a “control device” can include necessarily multiple parts. *Id.*

Petitioner is correct in arguing that Patent Owner improperly attempts to limit “control device” in a way that contradicts the construction of the term. We agree with Petitioner that Frossard’s server center 1 *and* resource 2 may disclose the claimed “second control device” because by definition a “control device” can comprise “part of a device”; therefore, it follows that if something may be “part of a device” then it is permissible for that device to have multiple parts. Thus, a “control device,” which necessarily is a type of device, can include multiple parts. Therefore, the question is whether the cited elements of Frossard (server center 1 and resource 2) reasonably can be interpreted to be the parts of the second control device.

To that end, Petitioner compares the combination of Frossard’s server center 1 and resource 2 with the ’076 patent’s combination of server 952 and transmitter 957. *Id.* at 9. It is Petitioner’s contention that “Frossard’s server 1 corresponds to server 952 of the ’076 patent because both generate a signal for remote control. Frossard’s resource 2 corresponds to transmitter 957 of the ’076 patent because both transmit the signal.” *Id.* at 12. According to Petitioner, “[t]he specification describes that, in response to a command received by the server receiver 953, the server 952 sends a control signal via

the transmitter 957.” *Id.* at 9 (citing Ex. 1001, 58:41–48, 5:55–58). Further, Petitioner asserts that “[a]ll of the described second devices use transmitters (e.g., server 952 uses transmitter 957 in Fig. 11B).” *Id.* at 10. Thus, in Petitioner’s view, Patent Owner’s argument that the control device may not be the combination of a server and transmitter is not supported by the specification. *Id.* We agree and find that Frossard discloses the claimed second control device.

We also determine that because Patent Owner acknowledged, in its own definition, that “control device” means “a device *or* a computer, *or* that part of a device *or* a computer, which performs an operation, an action, *or* a function, *or* which performs a number of operations, actions, *or* functions” (emphases added), it necessarily follows that the “or” implies that a control device can include multiple parts. Tr. 36:1–38:19. Thus, a “control device” that is both “[1] a device *and* [2] a computer” would fall within the scope of the construed claim term because the term “or” is broad enough to include a variant that has both of the listed options. *Id.* Here, we determine Frossard’s server center 1 and resource 2 discloses a control device (i.e., “a device *or* a computer”).

Patent Owner also asserts that receiver-decoder circuits 4 do not disclose the claimed first control device. PO Resp. 16. According to Petitioner, receiver-decoder circuits 4 are “merely an interface as taught by the specification of the ’076 patent and not a ‘control device.’” *Id.* We note, that contained within Frossard’s receiver-decoder 4 is “an interface circuit, which is interconnected, as shown in Fig. 2, with paging message processing module 421.” Ex. 1005, 8. In other words, Frossard’s interface circuit is a subcomponent of receiver-decoder circuits 4. *Id.* Thus, Petitioner

persuasively asserts that “receiver/decoder circuits 4 are a control device that utilizes equipment interface 5 to interface with the vehicle systems.” Reply 15. Thus, for the foregoing reasons we determine that Frossard’s receiver-decoder 4 is a control device and not merely an interface.

Based on our review of the full record, we find persuasive Petitioner’s arguments and evidence and we adopt them as the basis for our determination that Frossard discloses the limitations of claims 3, 73, and 205. *See* Pet. 10–22. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence the unpatentability of independent claims 3, 73, and 205 over the disclosures of Frossard.

b. Dependent Claims 20 and 103

Claims 20 and 103 respectively depend from claims 3 and 73. We have reviewed Petitioner’s assertions regarding these claims and we determine that Petitioner has demonstrated by a preponderance of the evidence that these claims also are anticipated by Frossard. *See* Pet. 16–17. For example, claim 20 depends from claim 3 and further recites “wherein the apparatus provides at least one of an immediate control of and a deferred control of the at least one of a vehicle system, a vehicle component, a vehicle device, a vehicle equipment, a vehicle equipment system, and a vehicle appliance.” Ex. 1001 109:25–30. In its arguments directed to this claim, Petitioner relies upon Frossard’s disclosure that the receiver-decoder “addresses the corresponding commands to equipment 3 itself, causing *immediate or deferred* shutdown depending on the application under consideration.” Pet. 16 (citing Ex. 1005, 9). Patent Owner stands on the arguments proffered in relation to the independent claims and does not make

additional arguments directed to these dependent claims. PO Resp. 22. We disagree with those arguments for the reasons described above.

Based on our review of the full record, we find persuasive Petitioner's arguments and evidence and we adopt them as the basis for our determination that Frossard discloses the limitations of claims 20 and 103. *See* Pet. 16–17. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence the unpatentability of claims 20 and 103 over the disclosures of Frossard.

3. *Analysis of Asserted Grounds of Obviousness over Frossard*

Petitioner asserts that claims 65, 93, 104, and 108 of the '076 patent are unpatentable under 35 U.S.C. § 103 as obvious over Frossard as combined respectively with Pagliaroli, Drori, LeBlanc, and Simms. Pet. 22–36. Petitioner relies on claim charts showing how these references allegedly teach the claimed subject matter. *Id.* Petitioner further relies on a declaration from David McNamara. Ex. 1003.

a. Overview of Pagliaroli

Pagliaroli describes enabling or disabling remotely an automobile. Ex. 1006, Abstract. When an automobile owner realizes their vehicle has been stolen, the owner dials a telephone number to disable the automobile. *Id.* Figure 1 is reproduced below.

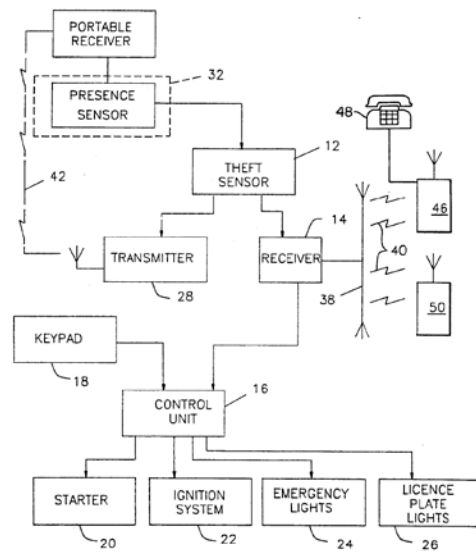


FIG. 1

Figure 1 is a block diagram illustrating Pagliaroli's remote disabling system. *Id.* at 3:10–11. In this system, a user connects to receiver 14 by dialing telephone 48. *Id.* at 4:53–5:1. In addition, Figure 1 shows telephone 48 connects to receiver 14 via transmitter 46. *Id.* Receiver 14 receives signal code 40 and forwards this code to control unit 16. *Id.* at 5:30–33. When a disabling signal is sent, control unit 16 disables starter 20 and ignition system 22 stops the operation of the automobile and sends a signal activating emergency lights 24 of the automobile. *Id.* at 5:44–55. License plate lights 26 may change colors or flash to identify to police that the automobile is stolen. *Id.* at 5:55–58. In addition, theft sensors 12 monitor the vehicle. *Id.* at 4:22–23. “If triggered by theft or tampering, the theft sensor 12 enables the receiver 14.” *Id.* at 4:23–25.

b. Analysis of Asserted Ground of Obviousness over Frossard and Pagliaroli

Claim 65 depends from claim 205. We have reviewed Petitioner's assertions regarding this claim and we are persuaded that it would have been obvious over Frossard and Pagliaroli. *See* Pet. 22–25. Claim 65 further

recites “providing information regarding at least one of apparatus status, vehicle operation status, and status of the at least one of a vehicle system, a vehicle component, a vehicle device, a vehicle equipment, a vehicle equipment system, and a vehicle appliance.” In its arguments directed to this claim, Petitioner relies upon Pagliaroli’s description of “theft sensors 12 monitor[ing] the condition of the automobile. If triggered by theft or tampering, the theft sensor 12 enables the receiver 14.” *Id.* at 22 (citing Ex. 1006, 4:22–24). In addition, Petitioner notes that Pagliaroli describes theft sensors 12 as transmitting a signal that generates an audio/visual signal that will inform the vehicle owner of tampering or theft. *Id.* at 23 (citing Ex. 1006, 4:46–52). Patent Owner stands on the arguments proffered in relation to the claim 205 and does not make additional arguments directed to claim 65. PO Resp. 22. We disagree with those arguments for the reasons described above.

Based on our review of the full record, we find persuasive Petitioner’s arguments and evidence and we adopt them as the basis for our determination that Frossard and Pagliaroli teach the limitations of claim 65. *See* Pet. 22–25. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence the unpatentability of claim 65 over the teachings of Frossard and Pagliaroli.

c. Analysis of Asserted Ground of Obviousness over Frossard and Drori

Claim 93 depends from claim 73. We have reviewed Petitioner’s assertions regarding this claim and we are persuaded that it would have been obvious over Frossard and Drori. *See* Pet. 25–27. Claim 93 further recites “wherein the first control device determines an operating status of the at least one of a vehicle system, a vehicle equipment system, a vehicle

component, a vehicle device, a vehicle equipment, and a vehicle appliance.” In its arguments directed to this claim, Petitioner relies upon Drori’s discussion of “means for starting the vehicle engine and verifying the engine’s status from any direct dial telephone anywhere in the world.” Pet. 25 (citing Ex. 1008, 2:25–28). In addition, Petitioner notes that Drori’s system allows users to “output an external signal to an accessory of the user’s choice, receive engine (off/running) status, request tracking data to identify the location of the vehicle, issue a command to disable the engine and communicate directly with any occupant of the vehicle (e.g., an intruder).” *Id.* at 26 (citing Ex. 1008, 16:57–65.).

Patent Owner contends that “substantial redesign of the Frossard system would be required to add Drori’s functionality of sending the on/off status of the engine to a user of the Frossard system.” PO Resp. 23. According to Patent Owner a redesign would be required because, Frossard’s receiver-decoder circuits “are designed to only *receive* signals and decode those signals. *Put simply, the receiver/decoder circuits 4 are not designed to transmit signals from the vehicle.*” *Id.*

Petitioner responds by arguing that Patent Owner ignores the teachings of Frossard’s FIG. 4: the receiver/decoder circuits 4 transmit data upstream to server 1 via a transmitter 61. (*Id.* pp. 11–12). Thus, the capability of informing the user is already in place in Frossard (e.g., engine status received from the engine through equipment interface 5 and transmitted upstream via transmitter 61).

Reply 25. Figure 5A shows the details of receiver-decoder 4, which includes transmitter 61, and Figure 5B shows the format of a message sent by receiver-decoder 4. Ex. 1005, 4. Transmitter 61 is a conditional radio beacon signal transmitter that transmits upon receipt of the shutdown

message. *Id.* at 11, 13. Thus, we do not agree with Patent Owner’s characterization of the teachings of Frossard and we are persuaded that Frossard’s receiver-decoder 4 can transmit signals from the vehicle. Further, Mr. McNamara testifies that a person of ordinary skill “could have applied the improvement of Drori to the system for controlled vehicle shutdown in Frossard to achieve the predictable result of determining the status of the vehicle’s engine.” Ex. 1003 ¶ 82. He testified that

[a] person of ordinary skill in the art would recognize that it would be advantageous to determine whether the engine is on or off before and/or after sending a shutdown signal. A person of skill in the art would therefore look to Drori’s means for verifying the engine’s status. For example, a person of ordinary skill in the art would be motivated to make this modification to provide the user with the benefit of determining whether the command to shut down the engine was successful. A person of ordinary skill in the art would know how to combine Frossard and Drori by, for example, adding the means for verifying the engine’s status to the receiver-decoder means on vehicle disclosed in Frossard.

Id. We find Mr. McNamara’s testimony to be reasonable and persuasive. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 401 (2007).

Based on our review of the full record, we find persuasive Petitioner’s arguments and evidence and we adopt them as the basis for our determination that Frossard and Drori teach the limitations of claim 93. *See* Pet. 25–27. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence the unpatentability of claim 93 over the teachings of Frossard and Drori.

d. Analysis of Asserted Ground of Obviousness over Frossard and LeBlanc

Claim 104 depends from claim 103. We have reviewed Petitioner's assertions regarding this claim and we are persuaded that it would have been obvious over Frossard and LeBlanc. *See* Pet. 28–31. Claim 104 further recites “wherein the apparatus utilizes at least one of an intelligent agent, a software agent, and a mobile agent.” In its arguments directed to this claim, Petitioner relies upon LeBlanc's discussion of “a system and method for Parametric-driven, intelligent agent-based location services,” in which “[p]arameters may include time, location, and user-specific and/or group specific criteria.” *Id.* at 28 (citing Ex. 1009, 8:21–24). Patent Owner stands on the arguments proffered in relation to the claim 73 and does not make additional arguments directed to claim 104. PO Resp. 24. We disagree with those arguments for the reasons described above.

Based on our review of the full record, we find persuasive Petitioner's arguments and evidence and we adopt them as the basis for our determination that Frossard and LeBlanc teach the limitations of claim 104. *See* Pet. 28–31. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence the unpatentability of claim 104 over the teachings of Frossard and LeBlanc.

e. Analysis of Asserted Ground of Obviousness over Frossard and Simms

Claim 108 depends from claim 73. We have reviewed Petitioner's assertions regarding this claim and we are persuaded that it would have been obvious over Frossard and Simms. *See* Pet. 31–35. Claim 108 recites, in relevant part, additional limitations directed to a global positioning device and a database containing digital map data. In its arguments directed to this

claim, Petitioner relies upon Simms's discussion of a position locator which "may be a conventional global positioning system receiver (GPS)' that 'is used to determine and supply accurate location coordinate data to the mobile unit 32.'" Pet. 31 (citing Ex. 1007, Abstract, 10:4–10). In addition, Petitioner relies upon Simms's description of a central dispatch station that processes and displays data including "symbol[s, which] appear[] superposed on a digitized map at a position which corresponds to the location of the mobile entity." *Id.* at 32 (citing Ex. 1007, 7:36–38).

Patent Owner argues that combining Frossard and Simms would require a "drastic redesign" of receiver-decoder circuits 4 and server 1. PO Resp. 26. According to Patent Owner, receiver-decoder circuits 4 would need to be redesigned to include an interface with GPS or LORAN C location function hardware and server 1 would need to be redesigned to include a manned vehicle position monitoring station. *Id.* Thus, Patent Owner argues the combination of Frossard and Simms is so drastic that it would only be the product of impermissible hindsight. *Id.* Patent Owner directs us to testimony from Mr. McNamara where he describes the modifications that would need to be made to Frossard in order to support the combination of Frossard and Simms. *Id.* at 25–26 (quoting Ex. 2006, 324:7–22, 329:7–12). Patent Owner argues that Mr. McNamara's testimony shows the substantial redesign that would be required to achieve this combination. *Id.* at 25.

Petitioner responds by noting that server center 1 as described in Frossard already includes a "manned central station" because the server may be operated by a user. Reply 26–27. As to receiver-decoder 4, Petitioner asserts that Mr. McNamara's testimony describes the "simple

implementation for combining Simms' positioning device with Frossard's systems." *Id.* at 25–26.

We are not persuaded that the necessary changes would be outside of the abilities of one of ordinary skill in the art or that the changes are so drastic that hindsight would be the only motivation to make such changes. We credit Mr. McNamara's testimony (Ex. 1003 ¶¶ 95–98) that one of ordinary skill in the art would have known how to make necessary modifications to Frossard. We also credit Mr. McNamara's testimony that "[a] person of ordinary skill in the art would have known to modify Frossard's system to utilize a security system to determine the position or location of the vehicle, as described in Simms." *Id.* ¶ 92.

Based on our review of the full record, we find persuasive Petitioner's arguments and evidence and we adopt them as the basis for our determination that Frossard and Simms teach the limitations of claim 108. *See* Pet. 31–35. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence the unpatentability of claim 108 over the teachings of Frossard and Simms.

C. Analysis of Asserted Grounds Based on Pagliaroli

1. Analysis of Asserted Ground of Anticipation by Pagliaroli

Petitioner asserts that claims 3, 20, 65, 73, 93, and 205 of the '076 patent are unpatentable under 35 U.S.C. § 102 as anticipated by Pagliaroli. Pet. 36–53. Petitioner relies on claim charts showing how this reference allegedly discloses the claimed subject matter. *Id.* Petitioner further relies on a declaration from David McNamara. Ex. 1003.

a. Independent Claims 3, 73, and 205

Petitioner’s arguments as to the independent claims may be summarized as follows: Petitioner argues that Pagliaroli discloses the three recited control devices¹⁰ through its discussion and depiction of receiver 14 and control unit 16 (collectively the first control device) (Pet. 36), mobile telephone signal transmitter (second control device) (*id.* at 41), and a telephone (third control device) (*id.* at 43). Pagliaroli’s “control unit 16 is coupled to either the electrical circuits or the electromechanical components that selectively control the operation of the starter 20, ignition system 22 and emergency lights 24” *Id.* at 37 (citing Ex. 1006, 3:53–63). Mobile telephone signal transmitter 46 is argued to transmit signal code 40, which includes the dialed phone number and a disabling code used to control a component of the vehicle. *Id.* at 39–40 (citing Ex. 1006, 5:1–4, 5:9–14; Ex. 1003 ¶ 107). Petitioner argues that a telephone may be used to transmit the dialed phone number to the mobile telephone signal transmitter. *Id.* at 43–44 (citing Ex. 1003 ¶ 115).

Patent Owner argues that Pagliaroli fails to teach the second control device. PO Resp. 27. According to Patent Owner, Pagliaroli’s mobile telephone signal transmitter 46 “is merely a relay in a communication network, and not a ‘control device.’” *Id.* Petitioner asserts that “Pagliaroli’s

¹⁰ As with Frossard, Petitioner espouses similar analysis of the first control device of claims 3 and 73 and the third control device of claim 205; as well as for the second control device of all three claims; and the third control device of claims 3 and 73 and the first control device of claim 205. Thus, our analysis of Pagliaroli’s disclosures applies to each of the independent claims. For convenience, unless otherwise indicated, we shall use the terms first, second, and third control device to refer to the control devices as described in claim 3.

mobile telephone signal transmitter 46 generates and transmits a signal code that is different from the dialed phone number that it receives.” Reply 23 (citing Ex. 1006, 4:65–5:4, 5:9–14). “In other words, the mobile telephone signal transmitter is not merely transmitting a dialed phone number. Instead, the mobile telephone signal transmitter at least provides a signal code that includes the dialed phone number and a disabling code.” Pet. 39.

According to Petitioner, this signal code is used to control a component of the vehicle. *Id.* at 39–40. We find Petitioner’s argument to reasonable and we are persuaded by this characterization of Pagliaroli’s teachings.

Therefore, we adopt Petitioner’s argument as the basis for our determination that Pagliaroli’s mobile telephone signal transmitter 46 is a control device and not merely an interface.

Patent Owner also disputes Petitioner’s contention that Pagliaroli discloses the claimed first control device. PO Resp. 28–33. As noted above, Petitioner relies upon Pagliaroli’s receiver 14 and control unit 16 to disclose the claimed first control device. Similar to the argument put forth in regards to Frossard, Patent Owner argues that receiver 14 and control unit 16 are at least two separate and distinct devices. *Id.* at 29. For reasons discussed above in § II.B.2.a, we have determined that the control device may be composed of multiple parts. Therefore, the question is whether the cited elements of Pagliaroli (receiver 14 and control unit 16) reasonably can be interpreted to disclose the parts of the first control device.

Petitioner compares the combination of Pagliaroli’s receiver 14 and control unit 16 with the ’076 patent’s combination of receiver 3 and CPU 4. Reply 17–18. Petitioner asserts that the first control device described in the specification of the ’076 patent “includes two illustrated parts: a receiver 3

and a central processing unit (CPU) 4.” *Id.* at 17. As described in the ’076 patent, receiver 3 “receive[s] the signals which are transmitted by the transmitter system 2.” Ex. 1001, 22:45–46. CPU 4 “is electrically connected with the receiver 3.” *Id.* at 23:48–49. “CPU 4 upon receiving an appropriate signal from the receiver 3 . . . may issue an electrical [signal] . . . to the vehicle ignition system 7.” *Id.* at 24:42–47. This is comparable to Pagliaroli. *See* Reply 21. In Pagliaroli, receiver 14 receives signal code 40 and forwards this code to control unit 16. Ex. 1006, 5:30–33. When a disabling signal is sent control unit 16 disables starter 20 and ignition system 22 stops the operation of the automobile and sends a signal activating emergency lights 24 of the automobile. *Id.* at 5:44–55. Thus, Petitioner argues that Pagliaroli’s receiver 14 and control unit 16 operate in the manner contemplated by the specification and recited in the claims. Reply 21–22. For the foregoing reasons, we find that the Pagliaroli discloses first control device.

As discussed above in reference to anticipation over Frossard, we also determine that the construction of “control device” implies that a control device can include multiple parts. Tr. 36:1–38:19. As such, we determine that a “control device” that is both “[1] a device and [2] a computer” would fall within the scope of the construed claim term because the term “or” is broad enough to include a variant that has both of the listed options. *Id.* Here, we determine Pagliaroli’s receiver 14 and control unit 16 disclose a control device (i.e., “a device or a computer”).

Based on our review of the full record, we find persuasive Petitioner’s arguments and evidence and we adopt them as the basis for our determination that Pagliaroli discloses the limitations of claims 3, 73, and

205. *See* Pet. 36–52. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence the unpatentability of independent claims 3, 73, and 205 over the disclosures of Pagliaroli.

b. Dependent Claims 20, 65, 93

Claim 20 depends from claim 3; claim 93 depends from 73; and claim 65 depends from claim 205. We have reviewed Petitioner’s assertions regarding these claims and we are persuaded that these claims also are anticipated by Pagliaroli. *See* Pet. 44–45, 52–53. For example, claim 20 depends from claim 3 and further recites “wherein the apparatus provides at least one of an immediate control of and a deferred control of the at least one of a vehicle system, a vehicle component, a vehicle device, a vehicle equipment, a vehicle equipment system, and a vehicle appliance.” In its arguments directed to this claim, Petitioner relies upon Pagliaroli’s disclosure of stopping the operation of the automobile and preventing the automobile from being restarted after the receipt of the codes described in Pagliaroli. Pet. 44–45 (citing Ex. 1006, 4:44–45, 4:66–5:7, 5:44–58). Petitioner reasonably characterizes these disclosures as being directed to the “immediate control” of the subject vehicle. *See id.* Patent Owner stands on the arguments proffered in relation to the independent claims and does not make additional arguments directed to dependent claims 20 and 65. PO Resp. 33–34. We disagree with those arguments for the reasons described above.

As to claim 93, Patent Owner argues that Pagliaroli fails to disclose all of the recited elements. Claim 93 further recites “wherein the first control device determines an operating status of the at least one of a vehicle system, a vehicle equipment system, a vehicle component, a vehicle device,

a vehicle equipment, and a vehicle appliance.” According to Petitioner, “[Pagliaroli’s] theft sensors monitor whether courtesy lights and trunk lamp are lit and, similarly, other operating statuses of other vehicle components because the theft sensors are coupled to such components in order to monitor conditions of the vehicle.” *Id.* at 53 (citing Ex. 1003 ¶ 139.)

Patent Owner argues that claim 93 requires the first control device to determine operating status and that Petitioner argues that receiver 14 and control unit 16 are the first control device thus, Petitioner’s argument fails because it asserts that theft sensors 12 and not those elements disclose this limitation. PO Resp. 34. Patent Owner’s argument mischaracterizes how Petitioner applies Pagliaroli. Specifically, Petitioner does not argue that Pagliaroli’s theft sensor 12 is a control device nor does Petitioner argue for replacing Pagliaroli’s receiver 14 and control unit 16 with Pagliaroli’s theft sensor 12. *See* Pet. 52–53. Rather, Petitioner argues that Pagliaroli’s “first control device” (i.e., Pagliaroli’s receiver 14 and control unit 16) monitors the condition of the vehicle via theft sensor 12. We find this argument to be persuasive and we agree with Petitioner’s argument that Pagliaroli discloses the functionality required by claim 93. *Id.*; *see also* Ex. 1006, 4:22–24.

Based on our review of the full record, we find persuasive Petitioner’s arguments and evidence and we adopt them as the basis for our determination that Pagliaroli anticipates the limitations of claims 20, 65, and 93. *See* Pet. Pet. 44–45, 52–53. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence the unpatentability of claim 20, 65, and 93 over Pagliaroli.

2. Analysis of Asserted Grounds of Obviousness over Pagliaroli

Petitioner asserts that claims 103, 104, and 108 of the '076 patent are unpatentable under 35 U.S.C. § 103 as obvious over Pagliaroli as combined respectively with Frossard, LeBlanc, and Simms. Pet. 53–60. Petitioner relies on claim charts showing how these references allegedly teach the claimed subject matter. *Id.* Petitioner further relies on a declaration from David McNamara. Ex. 1003.

a. Claim 103

Claim 103 depends from claim 73 and further recites “wherein the apparatus is programmed for at least one of automatic activation, self-activation, automatic operation, and self-operation.” Petitioner relies upon Frossard’s discussion of a shutdown order being executed “in a totally automatic manner.” Pet. 53–54, 16–17 (citing Ex. 1005, 4; Ex. 1003 ¶ 57). We find Petitioner’s arguments to be persuasive. Patent Owner stands on the arguments proffered in relation to the claim 73 and does not make additional arguments directed to claim 103. PO Resp. 35–36. We disagree with those arguments for the reasons described above.

Based on our review of the full record, we find persuasive Petitioner’s arguments and evidence and we adopt them as the basis for our determination that Frossard and Pagliaroli teach the limitations of claim 103. *See* Pet. 53–54, 16–17. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence the unpatentability of claim 103 over the teachings of Frossard and Pagliaroli.

b. Claim 104

Petitioner’s arguments in regards to claim 104 rely upon the combined teachings of Pagliaroli and LeBlanc. Pet. 56–58. Claim 104, however,

depends from claim 103 and both of Petitioner's asserted ground of unpatentability directed to claim 103 rely, at least in part, upon Frossard. Thus, Patent Owner argues that Petitioner cannot prevail against claim 104 because this asserted ground does not include Frossard. PO Resp. 36. Petitioner asserts that its failure to include Frossard in the asserted ground was a typographical error. Tr. 18:3–18. Further, Petitioner asserts that because its Petition explains why claim 103 is unpatentable its allegations directed to claim 104 are proper because they are directed to the additional limitations recited by claim 104. Reply 27.

The preferred procedure would have been to list Frossard as part of the prior art in support of this asserted ground. *Cf. In re Hoch*, 428 F.2d 1341, 1342 n.3 (CCPA 1970) (“[w]here a reference is relied on to support a rejection, whether or not in a ‘minor capacity,’ there would appear to be no excuse for not positively including the reference in the statement of rejection.”). Petitioner, however, did not do this and we are left to consider whether Patent Owner had proper notice as to the allegations against claim 104. *See* 35 U.S.C. § 312(a)(3) (“the petition identifies, in writing and with particularity, each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds”); 37 C.F.R. § 42.104(b)(4) (“The petition must specify where each element of the claim is found in the prior art patents or printed publications relied upon.”). It is improper to rely upon argument or evidence “sufficiently distinct” from that previously articulated in this matter. *See In re NuVasive, Inc.*, 841 F.3d 966, 972 (Fed. Cir. 2016). Here, we have specific allegations regarding the unpatentability of claim 103 as anticipated by Frossard and as obvious over Pagliaroli and Frossard. We also have specific allegations as to the

unpatentability of claim 104 over Frossard and LeBlanc and over Pagliaroli and LeBlanc. We, however, do not have a specific allegation as to how and why the teachings of all three references, Frossard, LeBlanc, and Pagliaroli, may be combined. Thus, we are not persuaded that Patent Owner has had proper notice of the specific allegations against claim 104 in regards to the alleged unpatentability over the combined teachings of Frossard, Pagliaroli, and LeBlanc. Therefore, we decline to import the allegations regarding Frossard into our analysis of this ground. We are then left with a dependent claim that includes all of the limitations as to its independent claim, but we do not have the necessary allegations regarding the limitations found in that independent claim. *See* 37 C.F.R. § 1.75(c) (“Claims in dependent form shall be construed to include all the limitations of the claim incorporated by reference into the dependent claim.”). As such, we are not persuaded that Petitioner has met its burden to establish the unpatentability of claim 104 over Pagliaroli and LeBlanc.

c. Claim 108

Petitioner’s arguments in regards to claim 108 rely upon the combined teachings of Pagliaroli and Simms. Pet. 58–60. Petitioner relies upon similar teachings from Simms as discussed above in reference to the asserted combination of Frossard and Simms. *See* § III.A.3.e.

As discussed above in regards to the combination of Frossard and Simms, Patent Owner also argues that a substantial redesign of Pagliaroli would be required to combine the functionality of Pagliaroli and Simms. PO Resp. 36–38. Patent Owner’s argument relies upon the same testimony from Mr. McNamara that is discussed above in regards to the combination of Frossard and Simms. *Id.* Patent Owner argues that this testimony applies

because Pagliaroli's mobile telephone signal transmitter 46 is even more rudimentary than the sophisticated server 1 of Frossard. *Id.* at 37. We, however, credit Mr. McNamara's testimony that one of ordinary skill in the art

could have applied the improvement of Simms to the system in Pagliaroli to achieve the predictable result of locating the vehicle and displaying the location information on a digital map to assist in the recovery of the vehicle by either the police or the vehicle owner. A person of ordinary skill in the art would recognize that it would be advantageous to use GPS and digital maps in order to locate a vehicle.

Ex. 1003 ¶ 162. We also credit Mr. McNamara's testimony that "a person of ordinary skill in the art would know how to combine Pagliaroli and Simms by, for example, adding the mobile security assembly to the vehicle and incorporating the central dispatch station into a server accessible to the police or the vehicle owner." *Id.*

Based on our review of the full record, we find persuasive Petitioner's arguments and evidence and we adopt them as the basis for our determination that Pagliaroli and Simms teach the limitations of claim 108. *See* Pet. 58–60. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence the unpatentability of claim 108 over the teachings of Pagliaroli and Simms.

IV. CONCLUSION

Based on the arguments in the Petition, as well as the evidence of record, we determine that Petitioner has demonstrated by a preponderance of the evidence that claims 3, 20, 73, 103, and 205 of the '076 patent are anticipated by Frossard; claim 65 would have been obvious over Frossard and Pagliaroli; claim 93 would have been obvious over Frossard and Drori;

claim 104 would have been obvious over Frossard and LeBlanc; and claim 108 would have been obvious over Frossard and Simms. We further determine that Petitioner has demonstrated by a preponderance of the evidence that claims 3, 20, 65, 73, 93, and 205 are anticipated by Pagliaroli; claim 103 would have been obvious over Pagliaroli and Frossard; and claim 108 would have been obvious over Pagliaroli and Simms. We are not persuaded that claim 104 would have been obvious over Pagliaroli and LeBlanc.

V. ORDER

For the reasons given, it is

ORDERED that claims 3, 20, 65, 73, 93, 103, 104, 108 and 205 of the '076 patent are held unpatentable;

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.

IPR2015-01508
Patent 6,542,076 B1

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