

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

UNITED SERVICES AUTOMOBILE ASSOCIATION,
Petitioner,

v.

AUTO TELEMATICS LTD.,
Patent Owner.

IPR2023-00519
Patent 9,633,487 B2

Before GEORGE R. HOSKINS, FRANCES L. IPPOLITO, and
SEAN P. O'HANLON, *Administrative Patent Judges*.

IPPOLITO, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
35 U.S.C. § 314(a)

I. INTRODUCTION

United Services Automobile Association (“Petitioner”) filed a Petition (Paper 3, “Pet.”) requesting *inter partes* review of claims 1–13 of U.S. Patent No. 9,633,487 B2 (Ex. 1001, “the ’487 patent”). Petitioner also filed a paper ranking two Petitions¹ filed against the ’487 patent. Paper 2. Auto Telematics Ltd. (“Patent Owner”) filed a Preliminary Response. Paper 6 (“Prelim. Resp.”).

Under 35 U.S.C. § 314(a), an *inter partes* review may not be instituted unless the information presented in the Petition and any response thereto shows “there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.”

Upon consideration of the Petition, Preliminary Response, and the evidence of record, we determine that the information presented in the Petition does not establish a reasonable likelihood that Petitioner would prevail in showing the unpatentability of at least one of the challenged claims. Accordingly, we do not institute *inter partes* review of challenged claims 1–13 as raised in the Petition.

A. Related Matters

According to the parties, the ’487 patent is the subject of a civil action in *Auto Telematics Ltd. v. United Services Automobile Association*, 6:22-cv-00474-ADA-DTG (W.D. Tex.), filed May 11, 2022. Pet. 81; Paper 5, 1. The ’487 patent is also the subject of a petition in IPR2023-00518 involving the same parties. Pet. 81; Paper 4, 1.

¹ This Petition and the Petition in IPR2023-00518.

B. The '487 Patent (Ex. 1001)

The '487 patent relates generally to “a mobile device adapted for installation to a vehicle and configured to log . . . driving information, for example, video footage associated with how the vehicle is driven.”

Ex. 1001, 1:21–24. This information may be utilized “to determine the cause of an event such as an accident, to modify driver behaviour and/or to determine insurance premiums.” *Id.* at 1:24–27.

The '487 patent describes that “data logging devices exist for road vehicles,” and can be used “to determine the cause of traffic accidents or other vehicle-related events, whether these stem from a vehicle malfunction or driver negligence.” *Id.* at 1:38–45. However, these devices are often “integrated with the car data network,” and are “difficult and costly to install.” *Id.* at 1:38–50.

The '487 patent thus proposes a “mobile telecommunications device adapted for installation to a vehicle and configured to log driving information associated with the vehicle when driven.” *Id.* at 1:61–2:11. According to the '487 patent, “the use of a mobile telecommunication device enables a data logging device to be conveniently and inexpensively retrofitted to a vehicle.” *Id.* at 2:13–15.

To log the data, the adapted device operates by “registering the start of the driving period during which the mobile device is installed to the vehicle and the vehicle is being driven by the driver.” *Id.* at 3:20–22. This prevents logging information needlessly. *Id.* at 3:23–24. Preferably, the registration is “in response to an initialisation input,” such as user input, or automatic, “in response to the mobile device being installed to the vehicle and/or the vehicle being driven.” *Id.* at 3:31–38. “For example, if the sensor

data reflects a detected speed above a predetermined threshold—for example, 20 kilometers per hour—then this can be used to trigger the start of the driving period.” *Id.* at 3:41–44.

Figure 2, reproduced below, shows a schematic presentation of an automobile with a mobile device installed for logging. *Id.* at 12:57–59.

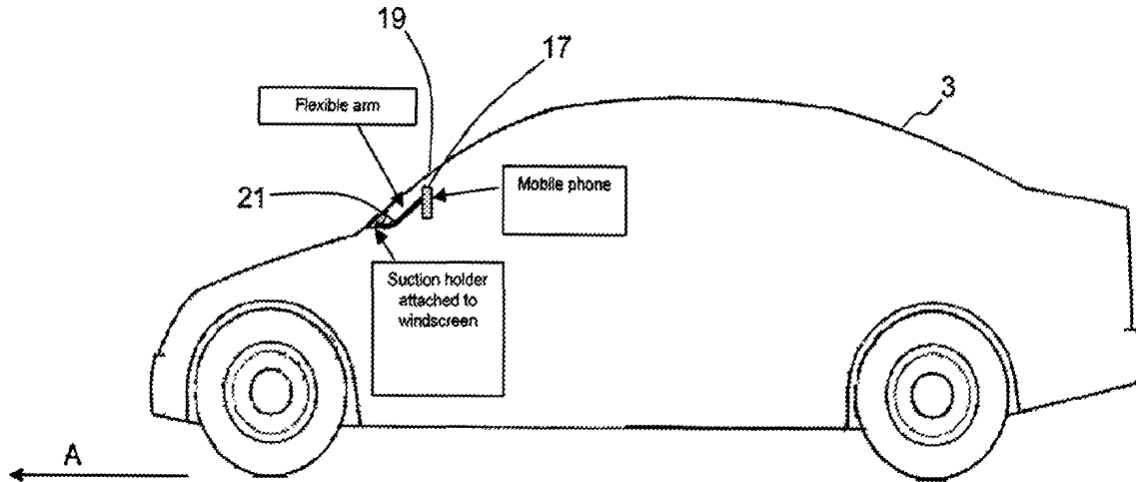


Figure 2, reproduced above, shows a preferred arrangement of the mobile telecommunications device 17 within the automobile 3. *Id.* at 15:1–4.

C. Challenged Claims

Petitioner challenges claims 1–13. Pet. 1. Claim 1 is the sole independent claim, and is reproduced below with Petitioner’s indentations and bracketed identifications:

1. [1.1] A mobile telecommunications device configured to log driving information associated with a vehicle,
[1.2] the mobile telecommunications device comprising:
a sensor set comprising an image sensor, an audio sensor, an accelerometer or a positioning module, or a combination thereof;
[1.3] a user interface;
[1.4] a processor; and

- [1.5] a memory;
- [1.6] the mobile telecommunications device configured to:
determine, based on the inputs received by the user interface
and sensor data from the device's sensor set, a start of a
driving period during which the mobile device is
removably attached to the vehicle and the vehicle is in
use;
- [1.7] process the sensor data from the sensor set during the
driving period to derive driving information associated
with how the vehicle is driven;
- [1.8] store a selection of the driving information to the
memory;
- [1.9] wherein the driving information is derived without data
from vehicle sensors, and
- [1.10] the mobile telecommunications device is controlled by
a downloaded application to control the mobile device to
detect occurrence of a predetermined event and in
response take at least one predetermined action.

Ex. 1001, 31:42–67; Pet. xii.

D. Alleged Grounds of Unpatentability

Petitioner asserts the following grounds of unpatentability:²

| Claim(s) Challenged | 35 U.S.C. § | References/Basis |
|----------------------------|--------------------|---|
| 1, 2, 5, 8, 9, 11–13 | 103(a) | Peng ³ , Chatterjee ⁴ |

² The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), amended 35 U.S.C. §§ 103 and 112. These amendments do not affect the outcome of the present Decision. Therefore, we cite to the pre-AIA versions of these statutes. We would reach the same result even if the post-AIA versions of these statutes apply.

³ U.S. Patent Application Pub. No. 2011/0307188 A1, published December 15, 2011 (Ex. 1005) (“Peng”).

⁴ U.S. Patent Application Pub. No. 2010/0131691 A1, published May 27, 2010 (Ex. 1006) (“Chatterjee”).

| | | |
|---------|--------|--|
| 3, 6, 7 | 103(a) | Peng, Chatterjee, Katayama ⁵ |
| 4 | 103(a) | Peng, Chatterjee, Katayama, Balachandran ⁶ |
| 10 | 103(a) | Peng, Chatterjee, Tamir ⁷ |

Pet. 1–2. In addition to the references listed above, Petitioner relies on the Declaration of Dr. William R. Michalson (Ex. 1003). *See, e.g.*, Pet. 1.

II. ANALYSIS

The '487 patent issued from Patent Application No. 15/061,910 (“the '910 Application”). Ex. 1001, code (21). The '910 Application has a filing date of March 4, 2016, and is a continuation of Application No. 13/994,455, which was filed as a national stage application of Patent Cooperation Treaty (PCT) Application No. PCT/GB 2011/052491 on December 15, 2011 and issued as U.S. Patent No. 9,311,271. *Id.*, codes (22), (63). The '487 patent further claims priority to:

- Patent Application No. 1021292.6 filed in Great Britain on December 15, 2010 (Ex. 1503, “P1”);
- Patent Application No. 1101259.8 filed in Great Britain on January 25, 2011 (Ex. 1504, “P2”);

⁵ European Patent Application Publication No. EP 1,914,691 A1, published April 23, 2008 (Ex. 1024) (“Katayama”).

⁶ U.S. Patent No. 6,073,004, issued June 6, 2000 (Ex. 1007) (“Balachandran”).

⁷ U.S. Patent No. 7,821,421 B2, issued October 26, 2010 (Ex. 1012) (“Tamir”).

- Patent Application No. 1109759.9 filed in Great Britain on June 10, 2011 (Ex. 1505, “P3”)⁸; and
- Patent Application No. 1118777.0 filed in Great Britain on October 31, 2011.⁹

Id. at code (30).

In the Petition, Petitioner relies on Peng for each of its unpatentability challenges. Pet. 1–2. As indicated on its face, Peng was published on **December 15, 2011**, and issued from an application filed on June 29, 2011. Ex. 1005, codes (22), (43) (emphasis added). Therefore, Petitioner’s reliance on Peng as prior art to the ’487 patent is premised upon the assertion that the three priority documents, P1–P3, fail to provide written description support for claims 1–13 of the ’487 patent. *See* Pet. 6–12.

In response, Patent Owner contends that Peng is not a prior art reference because the challenged claims of the ’487 patent have a priority date no later than P3’s filing date of **June 10, 2011**, which predates Peng. Prelim. Resp. 13–26. Patent Owner contends that all of Petitioner’s unpatentability challenges must therefore fail because each relies on Peng, which is not prior art. *Id.*

Based on our review of the parties’ arguments and evidence, we agree with Patent Owner. We address the parties’ arguments and evidence below with a focus on the parties’ arguments regarding P3.

⁸ For convenience, we refer to these documents as P1, P2, and P3, which is the notation adopted by the parties.

⁹ We do not address this application in this Decision, for two reasons. First, Petitioner dismisses its applicability, so it cannot support institution of review. *See* Pet. 6 n.3. Second, as discussed below, the central issue presented by the parties for us to decide is whether P3 provides written description support for claim 1 of the ’487 patent.

A. *Legal Standards – Priority*

In an *inter partes* review, the burden of persuasion is on the petitioner to prove unpatentability by a preponderance of the evidence, and that burden never shifts to the patent owner. *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015).

For a claim in a later-filed U.S. patent application to be entitled to the filing date of an earlier U.S. or foreign patent application, the earlier application must, among other requirements, provide written description support under 35 U.S.C. § 112 for the claimed subject matter in the later-filed U.S. application. *In re Ziegler*, 992 F.2d 1197, 1200 (Fed. Cir. 1993) (“A foreign patent application must meet the requirements of 35 U.S.C. §112, first paragraph, in order for a later filed United States application to be entitled to the benefit of the foreign filing date under 35 U.S.C. § 119.”); *Anascape, Ltd. v. Nintendo of Am. Inc.*, 601 F.3d 1333, 1335 (Fed. Cir. 2010) (To obtain the benefit of a parent application’s filing date under section 120, “the claims of the later-filed application must be supported by the written description in the parent ‘in sufficient detail that one skilled in the art can clearly conclude that the inventor invented the claimed invention as of the filing date sought.’” (quoting *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997))). 35 U.S.C. § 112. “To satisfy the written description requirement, a patent’s specification must ‘reasonably convey[] to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.’” *Novartis Pharms. Corp. v. Accord Healthcare, Inc.*, 38 F.4th 1013, 1016 (Fed. Cir. 2022) (quoting *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc)). “For negative claim limitations, . . . there is adequate written

description when, for example, ‘the specification describes a reason to exclude the relevant [element].’” *Id.* (quoting *Santarus, Inc. v. Par Pharm., Inc.*, 694 F.3d 1344, 1351 (Fed. Cir. 2012)).

B. Independent Claim 1

1. Limitation 1.6

Claim 1 requires that the recited mobile telecommunications device is configured to “determine, based on the inputs received by the user interface and sensor data from the device’s sensor set, a start of a driving period during which the mobile device is removably attached to the vehicle and the vehicle is in use.” Ex. 1001, 13:51–56.

a) Petitioner’s Contentions

Petitioner contends that P1, P2, and P3 do not provide adequate written description support for limitation 1.6. Pet. 9–11.

With respect to P3, Petitioner argues that, contrary to the language in limitation 1.6, “P3 appears to disclose that the mobile device determines a start of a driving period without inputs received by the user interface.” *Id.* at 11 (citing Ex. 1505, 19–20; Ex. 1003 ¶¶ 83–85). Petitioner contends that P3 discourages activation by the user because “it would not be beneficial from the perspective of the insurance company if the user could choose when to enable the application” and “if a user could choose to disable the application when speeding then the effectiveness of the application would be reduced.” *Id.* (quoting Ex. 1505, 19:30–34); *see also* Ex. 1505, 19:36–37 (“Accordingly, the application may include measures to guarantee that the application is enabled whenever a given insured vehicle is being driven.”).

Petitioner further contends that P3 “fails to describe how sensor data from the device’s sensor set is used to determine a start of a driving period

during vehicle usage.” Pet. 11 (citing Ex. 1003 ¶¶ 81–85, 89). Petitioner argues that though “P3 describes tracking distances from the Witness application and the vehicle odometer,” P3 fails to disclose “how the distance is calculated, let alone determination of the start of a driving period based on sensor data from the mobile device itself.” *Id.* (citing Ex. 1505, 20; Ex. 1003 ¶¶ 84–85, 89). Additionally, Petitioner claims that P3 discloses “the use of a smart-holster,” but does not describe “the determination of a driving period based on inputs received by the user interface and sensor data . . . from the sensor set *of the mobile device*” as required of limitation 1.6. *Id.* at 12 (citing Ex. 1505, 20; Ex. 1003 ¶¶ 84–85, 89).

b) Patent Owner’s Contentions

Patent Owner disputes Petitioner’s assertion that P3 does not disclose limitation 1.6. Prelim. Resp. 14–19. Patent Owner contends that P3 discloses receiving inputs “by the user interface and sensor data from the device’s sensor set” and using those inputs to determine the driving period. *Id.*; Ex. 2001 ¶¶ 24–26, 28–30.

To start, Patent Owner asserts that P3 describes receiving user input via a touch screen to start and stop “the recording of driving data” on a “Recording Screen.” Prelim. Resp. 14–15 (citing Ex. 1505, 10:22, 10:33, 5:35, Fig. 1; Ex. 2001 ¶ 24). Patent Owner explains that a POSITA would understand that the device receives user input to start a recording by pressing the appropriate button on the screen. *Id.* at 15 (citing Ex. 2001 ¶ 25). Thus, Patent Owner argues, “P3 explicitly discloses that one of the inputs to determine the start of a driving period may comprise a user pressing the ‘Start/Stop’ button on the touch screen.” *Id.* at 15–16.

Next, Patent Owner contends that P3 discloses receiving input from sensor data from the device's sensor set. Prelim. Resp. 16. Patent Owner asserts that P3 "makes clear that the invention can detect the speed at which a vehicle is being driven using GPS." *Id.* (citing Ex. 1015, 8:35). Patent Owner asserts that P3 describes obtaining the "date, time, speed, forward/backward G-forces, latitude, longitude and heading information," which "will typically change depending on the behavior of the vehicle, as recorded by the mobile device." *Id.* (citing Ex. 1505, 12:18–21). Patent Owner argues that, therefore, "P3 discloses an application collecting inputs from . . . sensors on the mobile device." *Id.* (citing Ex. 2001 ¶ 26).

Patent Owner further argues that P3 describes the above inputs are used "to determine the start of a driving period." Prelim. Resp. 16. Patent Owner states that P3 illustrates this through a safety feature that allows "the application to switch from displaying a video feed on the mobile device's screen to a map once the vehicle has reached a predesignated speed." *Id.* at 16–17 (citing Ex. 1505, 14:34–15:9, Fig. 8). Patent Owner notes that the "user can set this predetermined speed" and "a person of ordinary skill in the art would have known that the application could" determine when "to switch from a live video feed to a map view." *Id.* at 17–18 (citing Ex. 1505, Fig. 8). Patent Owner contends that "[i]t is at the 'start of a driving period' (as determined by the vehicle's speed crossing a pre-determined threshold) wherein this safety feature could be activated." *Id.* at 18 (citing Ex. 2001 ¶ 28).

c) Discussion

Based on our review of the record, Patent Owner has the better-supported position.

As Patent Owner observes, P3 discloses “a mobile device loaded with an application – a ‘mobile app’ – which is arranged to record and document the events surrounding an incident involving the vehicle such as a vehicle crash.” Ex. 1505, 5. P3 further teaches that the mobile app, referred to as “Witness,” is arranged to record a number of inputs from sensors such as accelerometers and GPS modules. *Id.* at 5–6.

As an example of operation, P3 discloses that the mobile device is mounted adjacent the vehicle windscreen so that a camera on the phone can see the road ahead. *Id.* at 5. This allows the user to select the record button that starts a video feed from the mobile device camera, while the camera can see the road. *Id.* at 10.

In addition, the user may “define more settings via a More Settings Screen.” Ex. 1505, 14:29–30. P3 explains that

it is possible for the user to select speed units and also select whether the map should be displayed during recording, and at which speed it should be displayed in favour of the video feed. *This is a safety feature of the Witness application that hides the video feed during recording when the vehicle is detected as travelling above a predetermined speed.* The video feed is replaced by a map of the location of the vehicle – as is typical with in-vehicle GPS devices. *Note that although the on-screen video feed is replaced with a map, video recording continues in the background.*

Id. at 14–15 (emphases added).

Based on this disclosure, we agree with Patent Owner that selecting “record” by the user on the touch screen provides written description support for the limitation that an input received by the user interface determines the start of a driving period. Moreover, at that stage, the user may also define various settings that may impact the driving period determination. Ex. 1505,

14:29–30, Fig. 8. For example, the user may use GPS to determine when to toggle from the video feed to a map, based on defined parameters such as a predetermined speed. Ex. 1505, 14–15. In this way, P3 also adequately describes that the start of the driving period is further determined by sensor data (e.g., speed) from the mobile device’s sensor set (e.g., GPS, accelerometers). Moreover, as discussed, P3 discloses that the mobile device may be mounted adjacent the vehicle windscreen to allow the camera to see the road. This disclosure provides support for the requirement that the mobile telecommunication device is “removably attached to the vehicle and the vehicle is in use,” which is also recited in limitation 1.6.

Petitioner directs us to alternative embodiments described in P3 where the user may not choose to enable or disable the application. *See* Pet. 11 (citing Ex. 1505, 19:30–37). Petitioner argues that P3 discloses the mobile device determines the start of a driving period without inputs from the user interface because “the application may include measures to guarantee that the application is enabled whenever a given insured vehicle is being driven.” *Id.* (citing Ex. 1505, 19). Petitioner further relies on the testimony of Dr. Michalson who testifies that

P3 provides disclosure that contradicts the claimed limit[a]tions of claim 1. For example, P3 describes that the user should not be allowed to selectively activate the application in noting, “[I]t would not be beneficial from the perspective of the insurance company if the user could choose when to enable the application. For example, if a user could choose to disable the application when speeding then the effectiveness of the application would be reduced.”

Ex. 1003 ¶ 83 (second alteration in original) (citing Ex. 1505, 19).

First, we note that this cited disclosure is from a section titled, “Embodiment alternatives and extensions,” in P3. Ex. 1505, 17:14. That

being so, we do not agree with Petitioner or Dr. Michalson that the disclosure in this section contradicts P3's disclosure of other embodiments where the user selects the video recording option and sets up predefined parameters (e.g., speed) as discussed above. Rather, the embodiments described on page 19 of P3 are "alternatives and extensions" that supplement the disclosure provided elsewhere in P3.

Second, read in its entirety, we understand P3 to disclose that in some embodiments the Witness app may include measures to guarantee that the application is enabled whenever a given insured vehicle is being driven. Be that as it may, Petitioner has not explained why this disclosure detracts from P3's other explicit disclosure that the user may also activate the video recording features while the application is enabled. Patent Owner's expert, Mr. Wilson, explains this with a "real-world example" where a user enters her vehicle, removably attaches her smart phone to the car, and presses the user interface button to begin recording. Ex. 2001 ¶ 29. Mr. Wilson explains that

[t]he recording starts once the user presses the start button, however, there is little concern for distraction of the driver being caused by the video display during the period of time where the user is reversing out of her garage and getting up to driving speed. *However, once the vehicle reaches a predetermined speed (e.g., 10 mph) as determined by the sensor set, then the driving period during which a distracted driver may be a real safety concern is initiated.* Accordingly, both the user interface input and sensor data are used together to determine the "start of a driving period."

Ex. 2001 ¶ 29 (emphasis added). In this scenario, the application is already enabled, but the driving period does not start until the user begins recording and a predetermined parameter is met. *See* Ex. 1505, 14:29–30, Fig. 8.

On the whole, we find that P3’s disclosure reasonably conveys to one skilled in the art that the inventor had possession of limitation 1.6 of claim 1 that requires determining a start of a driving period based on the inputs received by the user interface and sensor data from a mobile device’s sensor set.

2. *Limitation 1.9*

Claim 1 further recites that the mobile telecommunication device is configured to process the sensor data from the sensor set during the driving period to derive driving information associated with how the vehicle is driven [1.7], wherein the driving information is derived without data from vehicle sensors [1.9]. Ex. 1001, 31:57–59, 31:62–63.

a) *Petitioner’s Contentions*¹⁰

Petitioner contends that limitation 1.9 is a negative limitation and that P3 does not provide adequate written description support for “wherein the driving information is derived without data from vehicle sensors.” Pet. 12–13; Ex. 1001, 31:62–63.

More specifically, Petitioner contends that “nowhere does P3 exclude the use of other sensor information or provide reasoning for why one would exclude such use” despite the fact that “P3’s detailed description makes clear that [Patent Owner] intended the mobile device to work with other sensors.” Pet. 12 (citing Ex. 1505, 20; Ex. 1003 ¶¶ 86–87, 89). Furthermore,

¹⁰ Petitioner also contends that the ’487 patent’s specification lacks written description support under 35 U.S.C. § 112 for limitation 1.9. Pet. 13–14. The scope of unpatentability arguments in an *inter partes* review only extend to 35 U.S.C. §§ 102 and 103. See 35 U.S.C. § 311(b). Thus, we consider Petitioner’s written description arguments only in regards to the priority dispute, not the ’487 patent’s specification disclosure. See *Dynamic Drinkware*, 800 F.3d at 1379.

Petitioner argues that P3 “expressly discloses the *advantages* of connecting the mobile device to a smart-holster system in order to connect the mobile device to the engine management system” and “excludes ‘statements in the specification expressly listing the disadvantages of using’ per *Santarus*.” *Id.* at 12–13 (citing Ex. 1003 ¶¶ 88, 90).

b) *Patent Owner’s Contentions*

In its Preliminary Response, Patent Owner agrees that limitation 1.9 should be treated as a negative limitation. Prelim. Resp. 7 n.3, 19 n.7.

For written description support, Patent Owner argues that P3 describes the advantages of using mobile data because “it will be appreciated that a more sophisticated telephone (*e.g.*, a smart phone) has a *richer* sensor set with which to record and determine the occurrence of an incident.” *Id.* 19–20 (quoting Ex. 1505, 5:20–21. Patent Owner argues that because “richer sensor set” “is a comparative term” and P3 “does not expressly identify the sensor set which is less rich than the mobile device’s sensor set,” a POSITA would understand “the less rich sensor set would be that of the vehicle as the vehicle’s sensor set is the only other sensor set that reasonably could have been used as part of the disclosed invention.” *Id.* at 20 n.8 (citing Ex. 2001 ¶ 32). Patent Owner asserts P3 “makes clear that the sensor set on which the invention is relying to gather driving data is that of the smart-phone, and not sensors that are included in some other component with a ‘less rich’ sensor set (*i.e.*, vehicle sensors).” *Id.* at 20 (citing Ex. 2001 ¶ 32).

Patent Owner further argues that P3 discloses an application gathering a list of sensor inputs that are “common to modern smart phones” and “that the application ‘is arranged to record a number of *these sensor inputs*

continuously.” *Id.* at 20–21 (citing Ex. 1505, 5:25–35, 6:1–2; Ex. 2001 ¶ 33). Patent Owner claims that the “references to the mobile phone sensor set would make clear to a person of ordinary skill in the art that the Witness application disclosed in P3 was designed to rely on inputs received from the sensor set of the mobile phone.” *Id.* at 21. Patent Owner alleges that this disclosure coupled with P3’s “teaching that the smart-phone’s sensor set is ‘richer’ than any other sensor set that could be utilized . . . makes clear that . . . the claim limitation of deriving driving information without data from the ‘less rich’ vehicle sensors is clearly disclosed in P3.” *Id.* (citing Ex. 2001 ¶ 34).

Patent Owner further asserts that P3 discloses the use of vehicle sensors (e.g., an odometer) that are “used to confirm that the application is accurately tracking the beginning and end of each driving period.” Prelim. Resp. 22–23 (citing Ex. 1505, 19:31–20:14) (“[M]easures may involve matching data recorded by the Witness application with that recorded independently by the vehicle. . . . If the distance recorded by the Witness application does not correlate with the difference between odometer readings, then the discrepancy will be flagged.”). Patent Owner contends that “the inventors contemplated the use of data from a vehicle sensor to supplement data derived from the mobile phone’s sensors.” *Id.* at 7–8 n.3 (citing Ex. 1001, 9:59–10:4).

Patent Owner also argues that “[w]hile any negative limitation included in a claim must have a basis in the disclosure, that basis may be met, among other means, if alternative elements are positively recited in the specification and then explicitly excluded in the claims.” Prelim. Resp. 23 (citing *In re Johnson*, 558 F.2d 1008, 1019 (CCPA 1977); *Ex parte*

Grasselli, 231 USPQ 393 (Bd. App. 1983), *aff'd mem.*, 738 F.2d 453 (Fed. Cir. 1984)). Patent Owner asserts that “the use of data from the mobile device’s sensor set, as well as from the vehicle’s sensor set, to derive driving information is disclosed as an alternative embodiment in P3.” *Id.* Thus, Patent Owner claims, “like in *Johnson*, the claim’s exclusion of data from one of those sensor sets, *i.e.*, the vehicle’s sensor set, is also disclosed and supported” as P3 “necessarily described the use of data only from the mobile device’s sensors” after “[h]aving described the use of data from both vehicle and mobile device sensors.” *Id.*

c) *Discussion*

As an initial matter, we note that there is no dispute between the parties that limitation 1.9 is a negative limitation that excludes a particular feature. Pet. 7; Prelim. Resp. 7 n.3, 19 n.7. For the purposes of this Decision, we consider the parties arguments and evidence under this undisputed claim construction adopted by both Petitioner and Patent Owner.

Our reviewing court has explained that “[n]egative claim limitations are adequately supported when the specification describes a reason to exclude the relevant limitation.” *Santarus*, 694 F.3d at 1351. The Federal Circuit noted that such support need not rise to the level of disclaimer and that it is possible to support both the inclusion and exclusion of the same element. *Id.* In *Inphi Corp. v. Netlist, Inc.*, 805 F.3d 1350 (Fed. Cir. 2015), the Federal Circuit expanded on the discussion of negative limitations, noting “that properly described alternative features are sufficient to satisfy the written description standard of § 112, paragraph 1 for negative claim limitations.” *Inphi*, 805 F.3d at 1357; *see also* Manual of Patent Examining Procedure (“MPEP”) § 2173.05(i) (9th ed., Rev. 07.2022, Feb. 2023)

(stating that, “[i]f alternative elements are positively recited in the specification, they may be explicitly excluded in the claims”).

We agree with Patent Owner that P3 provides support for the limitation in question sufficient to satisfy the written description requirement of 35 U.S.C. § 112. In particular, P3 discloses the use of the Witness application on a mobile device and the Witness application receives sensor data “typical for modern smart-phones.” Ex. 1505, 5:25–35. These sensor/data inputs include G-force/accelerometer, GPS module (speed, location, elevation, direction, etc.), 3D compass, and camera. *Id.*

Additionally, P3 discloses the processing of mobile phone sensor data to derive driving information such as the driving speed and G-force. P3 discloses that

[a]nother setting that can be controlled in the Settings Screen is the G-force threshold at which the Witness application will assume that a crash has taken place. It is expected that different vehicles and driving styles will need different G-force thresholds to be set to ensure a reasonable sensitivity to crash forces whilst also prevent crash detection false positives.

Ex. 1505, 14:19–23. Similarly, as discussed, P3 discloses that “the application may be arranged to detect the vehicle speed, and at a particular speed, switch off the screen entirely. It should be understood that the device will continue to record video, telemetry and other information even when the screen is switched off.” *Id.* at 15:5–8.

Further, P3 discloses that vehicle odometers collect data independently from the mobile device sensors. Ex. 1505, 19:31–20:14. As such, this information can be used to confirm that the Witness application is accurately tracking the driving period. Ex. 2001 ¶ 35 (“In P3, the odometer, which itself is a vehicle sensor, is used to confirm that the application is

accurately tracking the beginning and end of each driving period.”). P3 states that

if a user could choose to disable the application when speeding then the effectiveness of the application would be reduced.

Accordingly, the application may include measures to guarantee that the application is enabled whenever a given insured vehicle is being driven.

Such measures may involve matching data recorded by the Witness application with that recorded independently by the vehicle. For example, the Witness application records the distance travelled during every journey. To ensure the summed distances of all journeys tracked by the Witness application tally with the total travelled distance of the vehicle, the user may be prompted to enter the odometer mileage periodically.

If the distance recorded by the Witness application does not correlate with the difference between odometer readings, then the discrepancy will be flagged to the user and/or the insurance company. A substantial discrepancy will typically indicate that the Witness application has not been monitoring all vehicle journeys and the appropriate action can be taken (e.g. the user can be warned, insurance premium may be raised etc).

Ex. 1505, 19:31–20:14 (emphases added). In this instance, P3 discloses that the mobile device sensors *may or may not* be used with the vehicle sensors (e.g., odometer) as an alternative embodiment to derive the driving information. Thus, read as a whole, P3 properly discloses alternative embodiments that provide a reason to exclude deriving driving information with the vehicle sensors, such as when the vehicle sensor data is not compared to check the accuracy of the Witness application. *See* Ex. 1505, 19:31–20:14.

Based on, at least, this disclosure, we determine that P3 provides sufficient written description for limitation 1.9. “Negative claim limitations are adequately supported when the specification describes a reason to

exclude the relevant limitation.” *Inphi Corp. v. Netlist, Inc.*, 805 F.3d 1350, 1355 (Fed. Cir. 2015) (quoting *Santuarus*, 694 F.3d at 1351). “[P]roperly describing alternative features – without articulating advantages or disadvantages of each feature – can constitute a ‘reason to exclude.’” *Id.* Moreover, “[i]f alternative elements are positively recited in the specification, they may be explicitly excluded in the claims.” *Inphi Corp.*, 805 F.3d at 1356; *see also In re Johnson*, 558 F.2d 1008, 1019 (CCPA 1977) (“The notion that one who fully discloses, and teaches those skilled in the art how to make and use, a genus and numerous species therewithin, has somehow failed to disclose, and teach those skilled in the art how to make and use, that genus minus two of those species, and has thus failed to satisfy the requirements of § 112, first paragraph, appears to result from a hypertechnical application of legalistic prose relating to that provision of the statute.”).

3. *Conclusion as to Claim 1*

Petitioner does not dispute P3 discloses the remaining limitations in claim 1. As such, the Petition fails to establish that P3 does not provide sufficient written description support for claim 1. Thus, the Petition fails to satisfy Petitioner’s burden to establish that Peng qualifies as prior art. And because Peng forms the basis of all the Petition’s challenges, this deficiency is fatal to the Petition.

C. *Claims 2–13*

Petitioner does not separately dispute P3 discloses the limitations in claims 2–13. Therefore, the Petition fails to establish that P3 does not provide sufficient written description support for any one of these claims,

and so fails to satisfy Petitioner's burden to establish that Peng qualifies as prior art.

III. CONCLUSION

For the reasons stated above, based on this record, we determine that Petitioner has not demonstrated a reasonable likelihood of showing that Peng qualifies as prior art to the '487 patent. Therefore, we determine Petitioner has failed to demonstrate a reasonable likelihood of prevailing on its challenge of claims 1–13 on Grounds 1 through 4, all of which are based on Peng.

We deny institution of *inter partes* review of the '487 patent.

IV. ORDER

Upon consideration of the record before us, it is:

ORDERED that the Petition is denied as to all challenged claims of the '487 patent, and no *inter partes* review is instituted.

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