

NOTE: This disposition is nonprecedential.

**United States Court of Appeals
for the Federal Circuit**

ATOS, LLC, DBA RIDEMETRIC,
Appellant

v.

ALLSTATE INSURANCE COMPANY,
Cross-Appellant

2023-1621, 2023-1849

Appeals from the United States Patent and Trademark
Office, Patent Trial and Appeal Board in No. IPR2021-
01449.

Decided: May 23, 2025

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P. KOH.

Before LOURIE, REYNA, and CUNNINGHAM, *Circuit Judges*.

REYNA, *Circuit Judge*.

ATOS, LLC appeals from an inter partes review final written decision of the Patent Trial and Appeal Board holding claim 5 of U.S. Patent No. 9,846,174 is unpatentable. Allstate Insurance Company cross-appeals the Board's holding that claims 1–4 were not shown to be unpatentable. We affirm the Board's decision as to claims 1, 2, and 5. We vacate and remand the Board's decision as to claims 3 and 4.

BACKGROUND

ATOS, LLC (“Atos”) owns U.S. Patent No. 9,846,174 (the “’174 patent”). J.A. 3. The ’174 patent discloses methods for using sensors on a portable device (e.g., a cell phone) for detecting vehicle dependent movement, such as accidents and acceleration, and “vehicle independent movement of the phone,” such as a user handling the phone. J.A. 58, 1:12–18. Claims 1–4 refer to methods for detecting a condition of a vehicle, such as turning or a change in speed. J.A. 59–60, 4:58–5:11. Claim 5 relates to a method for utilizing onboard sensors of a portable device to determine changes in the operational state of a vehicle. J.A. 60, 5:12–24.

On October 20, 2020, Atos sued Allstate Insurance Company (“Allstate”) for infringing the ’174 patent, as well as two other patents not at issue in this appeal, in the United States District Court for the Northern District of Illinois. *See Atos, LLC v. Allstate Ins. Co. et al.*, No. 1:20-cv-06224 (N.D. Ill. Oct. 20, 2020), ECF No. 1. Atos's action also included non-patent claims. *Id.* Allstate moved to dismiss the patent infringement claims, arguing the patents are directed to patent ineligible subject matter under 35 U.S.C. § 101. *Id.* at ECF No. 30. The district court

granted the motion. The non-patent claims remain pending in district court.¹

On August 31, 2021, Allstate filed a petition for inter partes review of the '174 patent. J.A. 82. The Patent Trial and Appeal Board (the “Board” or “PTAB”) instituted review and then issued a final written decision, finding claim 5 is anticipated and that Allstate failed to show claims 1–4 were unpatentable. J.A. 52–53.

Atos appeals the Board’s decision that claim 5 is anticipated. J.A. 83. Allstate cross-appeals the Board’s finding that claims 1–4 were not shown to be unpatentable. *Id.* We have jurisdiction under 35 U.S.C. § 141(c) and 28 U.S.C. § 1295(a)(4)(A).

DISCUSSION

I. Atos’s Appeal

Atos challenges the Board’s finding that claim 5 is anticipated, arguing that the Board’s finding rests on two erroneously construed claim terms. *See* Appellant Br. 5–6. We address each construction in turn.

This Court “review[s] the Board’s claim constructions de novo and review[s] any underlying factual determinations for substantial evidence.” *Kamstrip A/S v. Axioma Metering UAB*, 43 F.4th 1374, 1381 (Fed. Cir. 2022). “[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention[.]”

¹ Following the district court’s dismissal of Atos’s patent infringement claims, Atos filed a motion for entry of partial final judgment, seeking to appeal the Section 101 decision. *See Atos, LLC v. Allstate Ins. Co. et al.*, No. 1:20-cv-06224 (N.D. Ill. Apr. 17, 2023), ECF No. 110. The motion remained pending before the district court as of the issuance of this opinion. *Id.* at ECF No. 133.

Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). “[T]he person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” *Id.*

A.

Claim 5 requires the step of “monitoring at least one *operation indicator* . . . wherein the . . . *operation indicator* is created by an onboard component[.]” J.A. 60, 5:14–16 (emphases added). Atos argues the Board’s construction of “operation indicator” as “a sensor measurement determined from signals from the environment” is incorrect. Appellant Br. 7; J.A. 20. According to Atos, an “operation indicator” is “[i]nformation derived by converting sensing device output determined from signals from the environment.” Appellant Br. 7. In other words, because the operation indicator is “created by” an onboard component, an “operation indicator” is “converted” from signals from the environment “into new information.” According to Atos, Allstate’s construction, which the Board adopted, effectively reads out this conversion step such that the claim is satisfied if any signal is merely detected by the on-board component and not converted into new information. Appellant Reply Br. 6.

Atos’s argument mischaracterizes the Board’s construction. The Board’s construction accounts for conversion. The Board stated that an operation indicator is a “sensor measurement” which is “*determined from* signals from the environment.” J.A. 20 (emphasis added). The Board did not say that an operation indicator is merely signals from the environment. Rather, the determination step in the Board’s construction captures the conversion of a “signal” to a “measurement.” This is all the claim requires of an “operation indicator.” See J.A. 60, 5:14–18.

Supporting the Board's construction is the specification of the related '140 patent.² The specification discloses that an output sensor "may measure forces over time (i.e. the signals) and convert them into a number of vibrations measured per second (operation indicators)." J.A. 75, 3:52–55. In other words, the vibrations measured per second (operation indicators) are determined from the forces over time (signals). To the extent Atos argues that an "operation indicator" must be further converted into "information" other than sensor measurements, the '140 specification discloses that no further conversion is required.

We conclude that the Board did not err in its construction of "operation indicator."

B.

Atos next argues that the Board misconstrued the "vehicle independent states" limitation of claim 5. Appellant Br. 17. The Board construed this term to mean "a state triggered when the portable device is moved independently of the movement of the vehicle," whether that portable device is inside or outside of the vehicle. J.A. 24. According to Atos, this construction is incorrect because "vehicle independent states" only refers to a device's movement when it is solely within the vehicle. Appellant Br. 18. As support for its proposed construction, Atos relies on an earlier portion of claim 5 and what the parties refer to as "Limitation 5(a)." Appellant Br. 18–19. Limitation 5(a) refers to a portable device "located inside a vehicle." J.A. 60, 5:17–18.

² The '174 patent does not define the term "operation indicator," but it does incorporate by reference U.S. Patent No. 8,527,140 (the "'140 patent") and "relies on terminology" found in the '140 patent. J.A. 58, 1:18–28. Thus, we refer to the specification of the '140 patent.

Limitation 5(a)'s location requirement, however, cannot be read as requiring the portable device to remain in the vehicle for the remainder of the steps disclosed in claim 5. Rather, when read as a whole, claim 5 supports the Board's construction of "vehicle independent states." Claim 5 provides:

5. The method of performing one or more actions on a portable device carried by an individual, comprising:

a. monitoring at least one operation indicator transparently to the individual, wherein the at least one operation indicator is created by an on-board component of the device when the portable device is located inside a vehicle; [Limitation 5(a)]

b. detecting when the at least one operation indicator meets one or more predetermined criteria:

c. determining entirely or in part the following states based on the one or more predetermined criteria: [Limitation 5(c)]

i. one or more vehicle independent states;

ii. one or more vehicle dependent states.

J.A. 60, 5:12–24. While Limitation 5(a)'s creation of the on-board component occurs when the device is in the vehicle, there is no similar requirement that the device be in the vehicle for Limitation 5(c)'s determination of a "vehicle independent state[]." Additionally, the claim does not require that Limitation 5(a)'s creation step occur

simultaneously with Limitation 5(c)'s determination step, such that the device necessarily remains in the vehicle.

Confirming the Board's construction is the '174 specification, and by incorporation, the '140 specification. The '174 patent broadens the invention's application beyond mere braking and acceleration detection to circumstances where the user is outside the vehicle. *See* J.A. 59, 4:39–52. For example, the '174 patent notes that “as described in the” '140 patent, the “instant invention” covers methods for detecting whether a vehicle has stopped driving. J.A. 59, 4:39–43. This detection method is a “useful feature” for “finding parked vehicles.” J.A. 59, 4:48–50. The '140 patent then describes that the embodiments concerning finding parked vehicles include instances where the “user with *the portable device is outside the car[.]*” J.A. 77, 7:53–54 (emphasis added). Because the '174 patent incorporates the '140 patent by reference, it is logical to conclude that the claimed invention also contemplates such embodiments. Thus, “vehicle independent states” extends to instances where the portable device is outside the vehicle. Absent any evidence that the inventor intended to exclude such embodiments, it would be improper to construe “vehicle independent states” as limited to circumstances where the device remains in the vehicle. *See, e.g., Oatey Co. v. IPS Corp.*, 514 F.3d 1271, 1276–77 (Fed. Cir. 2008).

Atos argues that the purpose of the invention, which is to eliminate chances of erroneous driving events from being registered, supports construing a “vehicle independent state[]” as one where the device remains in the vehicle. *See* Appellant Br. 20. We agree with Atos that the purpose of the invention is to reduce erroneous driving events from being registered. The '174 patent notes that:

[I]t is important to be able to detect vehicle dependent states such as cornering, accelerating and braking, while also recognizing vehicle independent event (movement caused by

the user handling the phone, phone falling to the ground, etc.) *in order to eliminate or significantly reduce the chances of erroneous driving events being registered.*

J.A. 58, 1:39–45 (emphasis added). However, we disagree that this purpose necessarily excludes scenarios where the device is outside of the car. The disclosure is broadly written so that a “vehicle independent event” encompasses “movement caused by the user handling the phone,” such as the “phone falling to the ground.” J.A. 58, 1:42–43. Thus, this would encompass a user (a) dropping the phone to the ground within the car and (b) dropping the phone outside of the car, such as accidentally dropping the phone from the car window. Atos agrees that the former falls within the scope of the claim because it is movement that is independent of the vehicle and that could be confused with a vehicle dependent event, such as braking. *See* Appellant Br. 21. But Atos presents no logical reason as to why the latter must be excluded from the scope of the claim. In both scenarios, the phone falls to the ground and thus arguably could be confused with a vehicle abruptly braking. We reject Atos’s argument that the invention’s purpose requires a narrow reading of “vehicle independent states.”

In sum, the Board properly construed claim 5’s “operation indicator” and “vehicle independent states.” We affirm the Board’s holding that claim 5 is anticipated.

II. Allstate’s Cross Appeal

Allstate raises two challenges on appeal. First, Allstate argues the Board’s determination that claims 1 and 2 were not shown to be obvious rests on an improper construction of “rotation vector.” Cross-Appellant Br. 46. Second, Allstate argues that the Board’s determination that claims 3 and 4 were not shown to be obvious rests on an improper construction of “movement vector.” *Id.* at 53. We address each argument in turn.

A.

Allstate challenges the Board's finding that it failed to show the "rotation vector" limitation in claims 1 and 2 was obvious. Cross-Appellant Br. 46. According to Allstate, this finding is flawed because the Board deviated from its original construction of rotation vector, i.e., a "vector that describes a motion of a body that is rotating around a point," when analyzing the prior art reference, "Kleppner."³ *Id.* at 47–48. Allstate argues the Board imposed additional requirements on a rotation vector, such as requiring it to have a "point of origin," or a specific unit of measurement, when considering Kleppner's disclosures. *See id.* 49–52.

Allstate misreads the Board's opinion. The Board observed differences between Kleppner's angular momentum vector and a rotation vector, such as the former being described in units of $\text{kg} \cdot \text{m}^2 / \text{sec}$ and having a point of origin. J.A. 30–31. However, these observations do not detract from the Board's ultimate and supported determination that Kleppner's angular momentum vector is not a rotation vector under the original construction of this claim term. *Id.* The Board determined that Kleppner's angular momentum vector was not a "vector that describes the motion of a body *that is rotating around a point*" because angular momentum cannot be used to detect a vehicle turning. *Id.* (emphasis added). The Board rested this conclusion on two findings. *Id.* First, angular momentum does not differentiate between an object turning and an object moving in a straight line. J.A. 30 (citing Atos's expert testimony). Second, angular momentum is not inherent to an object and thus has no physical meaning in the context of vehicle motion. J.A. 30–31 (citing Atos's expert testimony). These

³ The "Kleppner" reference is a college physics textbook on Newtonian mechanics, titled "An Introduction to Mechanics." J.A. 1058–1115.

findings are supported by substantial evidence in the form of expert testimony. We thus affirm the Board's holding that Allstate failed to show claims 1 and 2 are unpatentable as obvious.

B.

Finally, Allstate challenges the Board's determination that it failed to show claims 3 and 4 were unpatentable. Cross-Appellant Br. 53. According to Allstate, the Board's determination rests on an incorrect construction of a "movement vector." We agree. The Board erred in concluding that Atos acted as its own lexicographer when construing "movement vector."

"A patentee is free to be his own lexicographer." *Mentor Graphics Corp. v. EVE-USA, Inc.*, 851 F.3d 1275, 1294 (Fed. Cir. 2017). However, "[t]o act as its own lexicographer, a patentee must clearly set forth a definition of the disputed claim term other than its plain and ordinary meaning." *Thorner v. Sony Computer Ent. Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012) (internal quotations omitted). A patentee may not "simply disclose a single embodiment or use a word in the same manner in all embodiments" but rather "must clearly express an intent to redefine the term." *Id.* (internal quotations omitted). The standard for lexicography is exacting. *See id.* at 1366.

Here, the specification provided that "[t]he movement vector *can be* derived from the cross product between the centrifugal force and rotation vector[.]" J.A. 58, 2:29–31 (emphasis added). The Board determined this statement to be Atos acting as a lexicographer and thus construed a "movement vector" as "a vector derived from the cross product of the centrifugal force vector and the rotation vector." J.A. 16. This was error for two independent reasons.

First, the specification's description of a movement vector is permissive and thus not definitional. The specification discloses that the "movement vector *can be* derived" in

a particular manner, not that it *must be*. J.A. 58, 2:29–31 (emphasis added). The term “can” is non-limiting. *See i4i Ltd. P’ship v. Microsoft Corp.*, 598 F.3d 831, 844 (Fed. Cir. 2010), *aff’d*, 564 U.S. 91 (2011). This permissive language does not clearly indicate that “movement vector” is limited to a vector derived by the specific cross product of the centrifugal force vector and the rotation vector.

Second, the specification’s description of a movement vector is not definitional when considered with the remainder of the specification. When Atos wanted to define a term, it did so clearly and explicitly. *See, e.g.*, J.A. 58, 2:64–65 (“As used herein, the term ‘real-time’ means . . .”); J.A. 59, 3:19–20 (“As used herein, the terms ‘dynamic(ly)’ and ‘automatically’ mean . . .”). However, Atos used no clear definitional statement for “movement vector,” indicating that Atos did not intend to redefine that term. *See Medicines Co. v. Mylan, Inc.*, 853 F.3d 1296, 1306 (Fed. Cir. 2017) (holding that a statement in the specification was not definitional when it did not “accord with the linguistic formula used by the patentee to signal the designation of other defined terms”). For these reasons, Atos did not act as a lexicographer, and thus, the Board’s construction of “movement vector” is incorrect.

“In the absence of an express intent to impart a novel meaning to the claim terms, the words are presumed to take on the ordinary and customary meanings attributed to them by those of ordinary skill in the art.” *Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1298 (Fed. Cir. 2003). While Allstate requests that we construe “movement vector” according to its ordinary and customary meaning, we decline to do so in the first instance. *See MyMail, Ltd. v. ooVoo, LLC*, 934 F.3d 1373, 1380 (Fed. Cir. 2019); *Wavetronix LLC v. EIS Elec. Integrated Sys.*, 573 F.3d 1343, 1355 (Fed. Cir. 2009). On remand, and with more fulsome briefing by the parties, the Board shall construe “movement vector” in accordance with its ordinary and customary meaning.

CONCLUSION

We have considered the parties' remaining arguments but find them unpersuasive. For the foregoing reasons, we affirm the Board's decision as to claims 1, 2, and 5. We vacate the Board's decision as to claims 3 and 4 and remand for further proceedings consistent with this opinion.

**AFFIRMED IN PART, VACATED IN PART, AND
REMANDED**

COSTS

No costs.