

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION**

INTELLECTUAL VENTURES II LLC,

Plaintiff,

v.

TESLA, INC.,

Defendant.

Civil Action No. 1:24-cv-884-ADA

JURY TRIAL DEMANDED

TESLA, INC.'S REPLY CLAIM CONSTRUCTION BRIEF

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I. INTRODUCTION

IV’s response to the antecedent basis issues in the ’639 and ’395 patents amounts to a judicial rewrite of the claims—a rewrite that fails to meet the standard for either an explicit or implicit revision. The Court should reject IV’s rewrites because they are not the sole reasonable constructions of the terms. For the ’805 patent, the limitations involve terms of degree, but the specification does not provide an objective standard for a POSITA to determine or measure the terms. Each of these terms is therefore indefinite. To attempt to avoid findings on its indefinite claim limitations, IV argues waiver—but Tesla complied with the scheduling order and put IV on notice of its indefiniteness theories before claim construction briefing started. IV cannot identify any prejudice. As to the ’416 patent, Tesla’s revised construction conforms to the intrinsic and extrinsic evidence and to IV’s position. The Court should reach the merits and adopt each of Tesla’s proposed constructions.

II. DISPUTED TERMS

A. “said target feature information” (’639 patent, claim 1) / “said feature information” (’639 patent, claim 7)

Tesla’s Proposed Construction	IV’s Proposed Construction
Indefinite	Plain and ordinary meaning. Not indefinite.

The term “said target feature information” is indefinite because it lacks antecedent basis and is reasonably open to two interpretations. Either (1) it refers to the previously recited “target specific feature information” (thus injecting the concept of “specific” into the disputed term), or (2) it introduces a category of information different than “target specific feature information” (requiring correction of “said” to “a”). Recognizing the claim’s error, IV does not dispute the plain language of the claim creates an antecedent basis issue, as “said target feature information” is

introduced without prior reference and argues instead “target feature information” means “target specific feature information.”

The fundamental problem with IV’s position is that it is asking the Court to re-write the claim to change “target feature information” into what IV wishes the claim said: “target *specific* feature information.”¹ The Court must “construe the claim as written, not as the patentees wish they had written it.” *Chef Am., Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371, 1374 (Fed. Cir. 2004). In substance and no matter how IV frames the issue, IV’s interpretation of plain and ordinary meaning amounts to either (i) a judicial correction, or (ii) a ruling that two plainly different phrases are interchangeable. Either resolution has a high bar that IV has not overcome.

1. An Explicit Re-Write, Such as Judicial Correction, Is Inappropriate.

IV fails to meet the stringent requirements for judicial correction. Such correction is permissible only if “(1) the correction is not subject to reasonable debate based on consideration of the claim language and the specification and (2) the prosecution history does not suggest a different interpretation of the claims.” *Novo Indus., L.P. v. Micro Molds Corp.*, 350 F.3d 1348, 1357 (Fed. Cir. 2003) (refusing to correct “a” to “and” because other possibilities existed). When two reasonable corrections exist, the Court should decline to rewrite the claim and instead find indefiniteness. In *Trusted Knight*, for example, the Federal Circuit refused to insert the word “is” because “the correction was subject to reasonable debate based on consideration of the claim language and the specification.” *Trusted Knight Corp. v. Int’l Bus. Machines Corp.*, 681 F. App’x 898, 904 (Fed. Cir. 2017). The court then affirmed the indefiniteness finding because “as the claim limitation stands uncorrected, it does not inform those skilled in the art about the scope of the invention with reasonable certainty.” *Id.* So too here.

¹ IV’s argument for claim 7 is even more problematic because it asks the Court to find “target feature” is also interchangeable with “target specific feature information.”

IV's proposed correction—which inserts the word “specific” into the term—is subject to reasonable debate because it is not the only reasonable way to fix the antecedent basis error. First, as IV argues, “target feature information” may refer to “target specific feature information” from a previous limitation. But there is another reasonable solution: “Target feature information” could instead introduce a category of information, distinct from “target specific feature information.” IV argues this second fix is “strained” or “legal semantics” but that ignores the plain language of the claim and the scope of the specification.

The language of the claim supports the interpretation that “target feature information” is different than “target specific feature information” because Claim 1 discusses target information and target specific information. Its limitations include steps for distinguishing “targets from background clutter” (preamble) and also “specific targets from background clutter.” The claim further requires “outputting target and background clutter information,” not “outputting *specific* target and background clutter information.” Importantly, the limitation introducing “target specific feature information” explicitly refers to “specific targets,” while the limitation introducing “target feature information” is more generalized.

The specification further reinforces a distinction. It describes that certain features of interest are used to distinguish targets from background while other features are used to distinguish between different targets. For example, the specification describes both “feature information” that can vary “target to background” (general target information) and “feature information” that can vary “target-to-target” (target-specific information). '639 patent at 1:33–42. Figure 11 is another example of distinguishing (i) general targets from the background and also (ii) specific targets from the background. There, an image with five targets (trees) was used for training and the “[t]argets in the training image represented different types of the target class.” *Id.* at 9:64–10:3.

In this example, the target class (trees) can be the “target feature information” while the individual trees, or even the different type of trees, can be the “target specific feature information.” Thus, “target feature information” is not necessarily limited to “target specific feature information.”

Because two reasonable corrections can each fix the error, the Court should decline to rewrite the claim and instead find it indefinite. *See Trusted Knight*, 681 F. App’x at 904.

2. An Implicit Rewrite Is Inappropriate.

To the extent IV argues judicial correction is unnecessary because “target feature information” and “target specific feature information” are interchangeable under their plain and ordinary meaning, this argument fails too. Any implicit rewrite disguised as “plain and ordinary” requires IV to overcome that “[d]ifferent claim terms are presumed to have different meanings.” *Bd. of Regents of the Univ. of Tex. Sys. v. BENQ Am. Corp.*, 533 F.3d 1362, 1371 (Fed. Cir. 2008). To be sure, a party “can rebut that presumption in the context of a particular patent” when “different terms in the same patent have the same meaning because they have been used interchangeably.” *Apple Inc. v. Omni MedSci, Inc.*, No. 2023-1034, 2024 WL 3084509, at *3 (Fed. Cir. June 21, 2024) (J. Albright, sitting by designation) (finding presumption not rebutted). Here, though, the patent never uses these terms interchangeably. To the contrary, as explained above, the claim language and the specification contemplate a distinction between the two plainly different terms. IV’s argument that the different terms are interchangeable improperly reads out “specific” from the claim and is thus unpersuasive. *See, e.g., 3G Licensing, S.A. v. Honeywell Int’l Inc.*, No. 2023-1137, 2024 WL 3594593, at *3 (Fed. Cir. July 31, 2024) (refusing to read out “Absolute” from “Enhanced Absolute Grant Channel” when specification distinguished between “Enhanced Absolute Grant Channel” and “Enhance[d] Relative Grant Access Channel”); *Cellular Commc’ns Equip. LLC v. AT&T, Inc.*, No. 2:15-cv576-RWS-RSP, 2016 WL 7364266, at *7 (E.D.

Tex. Dec. 19, 2016) (finding indefiniteness where patent did not use different terms interchangeably).

3. IV's Remaining Arguments Are Unavailing.

IV advances other arguments but each fails. First, IV argues there is no practical difference between “target specific feature information” and “target feature information.” This is wrong. A different showing for infringement and invalidity would be necessary if “target feature information” is different than “target specific feature information.” Second, IV faults Tesla’s statements made in the related IPR, but IV ignores that Tesla’s IPR petition stated it would “assume” the terms are the same “for purposes of the unpatentability grounds presented herein” and Tesla “reserve[d] the right to raise challenges under 35 U.S.C. § 112 in other forums.” Ex. 16 (’639 patent IPR petition). Lastly, IV faults Tesla for not challenging claim 9 as indefinite but claim 9 is unasserted here. The Court should disregard IV’s arguments.

B. “may at least partially describe a potential destination” (’805 patent, claim 1)

Tesla’s Proposed Construction	IV’s Proposed Construction
Indefinite	Plain and ordinary meaning.

The phrase “may at least partially describe a potential destination” is indefinite because it is a term of degree and the specification fails to provide a POSITA with clear guidance on how to measure or determine when this limitation is met. While IV points to various passages in the specification, none provide the necessary clarity:

- 2:37–41 and 3:39–43: These passages merely introduce the concept of similarity between geometric objects and potential destinations (“geometric object that *is similar* to a geometric form which, typically, at least partially describes a potential destination”), without explaining how much similarity is required to satisfy the “at least partially describe” limitation.

- 3:1–3: This section simply replaces “describe” with “typically correspond,” another term that offers no more clarity.
- 3:43–47: The example of a docking station “substantially corresponding” to a rectangle does not provide any new information about how to determine when the edge segments of analyzed image data “at least partially describe” a destination. If anything, it introduces further confusion as now it is unclear if the geometric object must “typically correspond” or “substantially correspond” with a potential destination (whatever those terms mean).
- 5:15–18: Identifying potential destinations as “mostly man-made architectural objects” with rectangular or round shapes does not explain how much of a rectangle or round shape must be present in the image data to meet the “at least partially describe” requirement.
- 6:2–5 and 7:21–55: These passages provide an example of identifying a trapezoid as describing a rectangular cargo door destination while discarding squares as “interference.” This example, though, fails to define the limits of acceptable distortion. Further, this lone and narrow example does not provide guidance about when this limitation is met for the full scope of what the claim allegedly covers, such as the complexity of real-world scenarios encountered by Tesla’s vehicles. *See, e.g., Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1373–74 (Fed. Cir. 2014) (finding indefiniteness because single inconclusive example is insufficient guidance). In any event, the analysis of discarding the squares (“interference”) because they are not trapezoids is irrelevant here because this step refers to a different limitation (“performing an additional acceptance analysis”).

Thus, the passages IV identified do nothing more than (i) substitute one unclear term of degree for another or (ii) provide a single, narrow example inapplicable to the full claim scope. And none provide a partial description of a potential destination as claimed.

IV attempts to deflect the indefiniteness argument by mischaracterizing Tesla’s position and citing inapposite case law. Tesla does not argue that the claim is indefinite simply because it contains terms of degree. Rather, the indefiniteness stems from the specification’s failure to provide adequate guidance on how to measure or determine the specific term of degree—“may at least partially describe.” *Niazi* supports Tesla’s positions, not IV’s. In *Niazi*, “resilient” was found not indefinite because the claims themselves and the specification provided numerous concrete examples and explanations, such as explaining “resilient” meant “shape memory,” “sufficient stiffness,” having a “braided design,” will “return to its original shape when undistorted,” and has “torque control and stiffness.” *Niazi Licensing Corp. v. St. Jude Med. S.C., Inc.*, 30 F.4th 1339, 1349–50 (Fed. Cir. 2022). In contrast, the specification here lacks such specific and comprehensive guidance. And the other cases cited by IV (*Webroot*, *Legacy*, *Keranos*, and *Kimberly-Clark*) have little bearing here because none construed a limitation with all the terms of degree—“at least,” “partially,” “describe,” and “potential.”

IV’s last argument fails. IV argues the examiner understood the terms and used the words when allowing the claim. The examiner’s notice of allowance amounts to nothing more than paraphrasing or even reciting the claim language, as examiners commonly do.

C. “potential geometric objects for plausibility using a matching algorithm so as to identify one or more plausible objects” (’805 patent, claim 1)

Tesla’s Proposed Construction	IV’s Proposed Construction
Indefinite	Plain and ordinary meaning.

The phrase “potential geometric objects for plausibility using a matching algorithm so as to identify one or more plausible objects” is also indefinite because it is a term of degree and the specification fails to provide a POSITA with clear guidance on how to measure or determine when

this limitation is met. Like the other term from the '805 patent, the dispute turns on whether the specification provides enough guidance to a POSITA. It does not.

IV's arguments fall flat. IV first directs the Court to the specification examples it identified for the other '805 patent term ("may at least partially describe"). These arguments relate to a different limitation and should be rejected. But even if they are relevant, Tesla explained above why those disclosures (and IV's arguments) are insufficient, as they do not provide any relevant guidance for determining the term of degree for either claim term. Next, IV identifies two passages in the specification that supposedly provide the requisite guidance, but neither passage helps:

- 3:43–47: This passage merely identifies a rectangular shape as representing a docking station, without explaining how the matching algorithm evaluates or determines a "plausible" match. It is silent on the algorithm's decision-making process.
- 7:22–30, 33–37: Discussing Figure 3, this passage identifies four potential destinations (32, 33, 34a, 34b), where two of the objects (34a and 34b) are discarded because they have the wrong shape. This disclosure, though, is silent on how the matching algorithm determined which shapes are plausible and which are not, or what level match satisfied "plausibility." Even if the disclosure discussed how or why the matching algorithm discarded the 34a and 34b, it would amount to a single, narrow example at best. But this is not enough. *Interval Licensing*, 766 F.3d at 1373–74.

Because neither disclosure provides a POSITA with the necessary objective criteria to determine when a matching algorithm produces a "plausible" outcome, the term is indefinite.

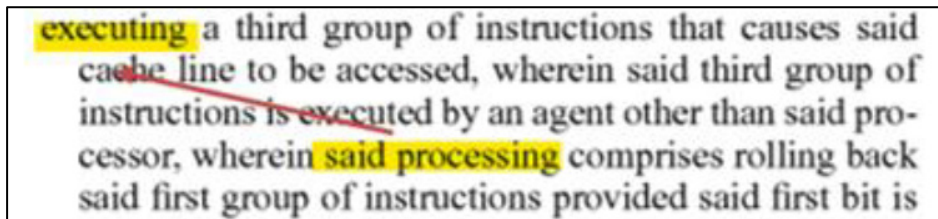
IV's remaining arguments fare no better. *Giesecke* is irrelevant because indefiniteness was not argued and so the court never analyzed whether the term was one of degree or indefinite.

Giesecke & Devrient GmbH v. United States, 163 Fed. Cl. 430, 473–76 (Fed. Cl. 2023). And like the other limitations, statements from the Tesla IPR do not move the needle.

D. “said processing” (’395 patent, claim 1)

Tesla’s Proposed Construction	IV’s Proposed Construction
Indefinite	Original: Plain and ordinary meaning. Not indefinite. Revised: “said executing”

As there is no antecedent basis in the claim for “said processing,” IV instead proposes to save the term by rewriting it as “said executing.” IV Resp. at 20 (arguing “‘said processing’ simply refers back to the immediately preceding processing step, *i.e.*, ‘executing a third group of instructions . . .’”); *see also id.* at 21 (showing a red arrow from the highlighted “said processing” to the highlighted “executing”) (excerpted below). IV’s proposal appears to be an attempt to resolve the three ambiguities identified by Tesla. *See* Tesla Br. at 19–20.²



executing a third group of instructions that causes said cache line to be accessed, wherein said third group of instructions is executed by an agent other than said processor, wherein said processing comprises rolling back said first group of instructions provided said first bit is

By construing “said *processing*” as “said *executing*,” IV attempts to avoid indefiniteness by rewriting the claim to clarify which one of multiple potential structures performs “said processing” (*i.e.*, the agent) and which one of several potential groups of instructions is the subject of “said processing” (*i.e.*, the third group of instructions). Specifically, IV argues “the claim term [‘said processing’] refers back to” the step of “executing a third group of instructions . . . by an agent other than said processor.” IV Resp. at 20. Accordingly, IV concludes “the agent can be

² To the extent IV argues deferring construction “until the summary judgment stage so experts may weigh in,” IV Resp. at 10 n.5, Tesla notes the competing constructions of this limitation are supported by declarations from the parties’ experts. The Court should construe it now.

performing “[said] processing” and “the claim term simply adds to what happens in the execution step” with the third group of instructions. *Id.*

IV’s proposed construction also attempts to resolve the third ambiguity raised by Tesla as to the timing at which “said processing” occurs by rewriting the claim to require that “the external agent is responsible for the roll back described in the ‘said processing’ step.” IV Resp. at 22. Specifically, when the agent performs “rolling back said first [and second] group[s] of instructions,” then the agent can ensure the roll back is done “before allowing an instruction in said third group to access said cache line,” as required by claim 1. In support, IV states that “rollback using a separate agent provides . . . an additional effective error check.” *Id.* at 22–23 (arguing “said processing” by the agent would “effectuate such a purpose”).

IV’s proposed rewrite of the limitation as “said executing [of the third group of instructions] comprises rolling back [by the agent] said first group of instructions . . . and rolling back said second group of instructions . . .”—if adopted by the Court as the claim construction—would make this claim definite. It is not, however, the only reasonably ascertainable correction for the lack of antecedent basis in “said processing.” Ex. 17 (Herlihy Reply Decl.) ¶¶ 19-20. Another reasonably ascertainable interpretation of the limitation is “said processing [of the first group and the second group of instructions] comprises rolling back [by the processor] said first group of instructions . . . and rolling back said second group of instructions . . .” *Id.* IV’s brief does not address this alternative interpretation and thus concedes the existence of the ambiguity.

As Tesla’s opening brief explained, the remainder of the limitation after “said processing” concerns the first group and the second group of instructions, which are executed by the processor in both the earlier-recited method steps and in the later-recited “processing” step. Tesla Br. at 21. Indeed, the “processing” step is the only other place that “processing” appears in claim 1:

executing a third group of instructions that causes said cache line to be accessed, wherein said third group of instructions is executed by an agent other than said processor, wherein **said processing** comprises rolling back said first group of instructions provided said first bit is set and rolling back said second group of instructions provided said second bit is set before allowing an instruction in said third group to access said cache line, and otherwise granting said access; and **processing** said first group and said second group of instructions according to a value of said indicator.

That the “processing” step is recited after the “said processing” limitation is an artifact of the prosecution process. *See* Tesla Br. at 22–24 (showing how an amendment to incorporate two dependent claims into the independent claim changed the order of these “processing” limitations). IV does not substantively address that amendment, which contradicts IV’s proposed construction that said processing refers only to the third group of instructions. *Cf.* IV Resp. at 22 n.7. Instead, IV identifies the Board’s Decision on Appeal *affirming* the Examiner’s final rejection, but that decision is not informative because the issues there were narrow and did not involve an agent, a third group of instructions, or roll back. IV Resp. Ex. H at 3–4 (describing the only issue on appeal as whether the prior art of record teaches *the same processor* executing both a first group of instructions and a second group of instructions).

Finally, IV does not address the added objective uncertainty that its proposed construction for claim 1 would inflict on its dependent claim 2, which recites “*said processing* further comprises.” *See* Tesla Br. at 22; Ex. 17 (Herlihy Reply Decl.) ¶ 21. Instead, IV focuses on unasserted independent claim 7. IV Resp. at 20–22. But that claim is not informative because it also suffers from an objective uncertainty of where “said instructions” derives its antecedent basis: Is it from “*instructions to execute* a third group” (as IV’s annotation suggests)? Or is it from

instructions comprising the “third group of *instructions*”? Or is it from one of the four earlier limitations reciting different “*instructions* to execute” or “*instructions* to set”? *See* Ex. 17 (Herlihy Reply Decl.) ¶ 22. Simply put, claim 7 is unhelpful for construing “said processing” at least because it is not reasonably ascertainable to a POSITA which instructions are the true subject of “said instructions” in that claim. *See id.*

In sum, absent a rewrite of the claims, the “said processing” limitation is indefinite.

E. “broadcast information” (’416 patent, claim 1)

Tesla’s Proposed Construction	IV’s Proposed Construction
Original: Plain and ordinary meaning, which is “information that is <u>received</u> via a broadcast transmission to all UEs within a base station’s coverage area.” Revised: Plain and ordinary meaning, which is “information that is <u>transmitted</u> via a broadcast transmission to all UEs within a base station’s coverage area.”	Original: Plain and ordinary meaning Revised: Plain and ordinary meaning, which is “information that is <u>transmitted</u> via a broadcast.”

IV’s only objection to Tesla’s proposed construction is the word “received”—IV argues instead the plain and ordinary meaning of the term is “information that is transmitted via a broadcast” (despite initially offering no construction). *See* IV Resp. at 23. But “received” is not integral to Tesla’s construction. Tesla was simply reusing a term from the actual claim language (“the receiver configured to receive broadcast information . . .”). ’416 Pat. at cl. 1. Regardless, to narrow the dispute, Tesla adopts IV’s terminology and proposes that the term be construed as “information that is transmitted via a broadcast transmission to all UEs within a base station’s coverage area.” The only question that remains is whether the information is transmitted “to all UEs within a base station’s coverage area” as Tesla’s construction contends.

To begin, IV does not explicitly dispute that this is simply a basic feature about broadcast information. In fact, many of IV’s statements suggest agreement. *See, e.g., id.* at 23 (“[a] broadcast occurs when information is transmitted to a broad group of UEs”), 24 (“[a broadcast] transmission is intended for a broad audience”). This is unsurprising because it is unquestionably true that for a transmission to be considered a “broadcast” it must be transmitted “to all UEs within a base station’s coverage area.” For example, the ’416 patent distinguishes “broadcast” messages sent to “all UEs in a cell” from communications “targeted” to particular UEs. Ex. 4 (’416 patent) at 11:16–26 (“[T]he indicator bits may be either broadcast to all UEs in a cell, or transmitted to a targeted group of one or more UEs in a cell.”). Moreover, this basic fact about broadcast information is also reflected throughout the intrinsic detailed in Tesla’s opening claim construction brief. (*See* D.I. 26 at 25–26 (reviewing the ’865, ’909, and ’849 patent file histories).) Finally, the best available extrinsic evidence—the official 3GPP Specifications Vocabulary upon which the ’416 patent relies—is clear that a “broadcast” is “unidirectional distribution to all users.” (*Id.* at 27 (citing Ex. 15 at TESLAIV000022278).) Thus, Tesla’s proposed construction is consistent with both the intrinsic and extrinsic evidence, as well as IV’s revised construction.

III. TESLA DID NOT WAIVE ITS INDEFINITENESS THEORIES

Tesla identified each of the four disputed terms as indefinite in invalidity contentions, in claim construction exchanges, or both. Tesla’s preliminary invalidity contentions identified three of the terms as being indefinite: “said target feature information” (Term 1A), “may at least partially describe a potential destination” (Term 2), and “said processing” (Term 4). Ex. 18; *see also* IV Resp. at 9 (conceding that including “the word ‘said’” is a fair notice of an antecedent basis issue). Tesla’s disclosure complies with this Court’s order, which does not require further identification of specific indefiniteness ground. (D.I. 25 at 1 (requiring “an *identification of any limitations* the defendant contends are indefinite” (emphasis added)).) Further, for three of the terms Tesla also

identified the specific indefiniteness ground *before* the parties exchanged proposed claim constructions, even though Tesla was not required to do so. Ex. 19 at December 4, 2024 email (identifying Term 1A, “said feature information” (Term 1B), and Term 4 as indefinite for lack of antecedent basis). Tesla then identified all disputed terms as indefinite in its claim construction exchange, Ex. 20, and Tesla supplemented its invalidity contentions to further identify all disputed terms as indefinite, Ex. 21.

As to sufficiency of disclosure, IV identified no case from this District allegedly supporting its position, and Tesla is aware of none. Cases interpreting the Eastern District’s local patent rule 3-3, which is similar to the requirement here,³ support Tesla. For example, in *Coolpad*, the disclosure requirement was satisfied by “perfunctory invalidity contentions” that “identified 131 terms as allegedly invalid for indefiniteness.” *Am. Pats. v. Coolpad Grp. Ltd.*, No. 4:19-cv-877, 2020 WL 5534482, at *2 (E.D. Tex. Sept. 15, 2020) (holding defendants “do not need to” do more, such as providing a “thorough” explanation why section 112 is violated).⁴

As to timing of disclosure, Tesla put IV on notice of its indefiniteness theories before claim construction briefing started. IV’s argument that Tesla’s disclosures were too late fails because IV was on notice of Tesla’s indefiniteness theory for each term by either (i) October 24, 2024 (Tesla’s preliminary invalidity contentions) or, at the very latest, (ii) December 5, 2024 (during the parties’ claim construction exchanges). Both dates are more than a month before Tesla filed its opening claim construction brief on January 9, 2025.

³ EDTX Patent Rule 3-3(d) states invalidity contentions must contain “[a]ny grounds of invalidity based on indefiniteness under 35 U.S.C. § 112 ¶ 2 or enablement or written description under 35 U.S.C. § 112 ¶ 1 of any of the asserted claims.”

⁴ IV’s waiver argument faults Tesla for serving voluminous invalidity contentions, but the breadth of Tesla’s contentions is a “natural result” of IV asserting 55 claims across 12 patents. *See Coolpad*, 2020 WL 5534482, at *2 (finding “the breadth of Defendants’ invalidity contentions is not a proxy for deficiency, and is a natural result of Plaintiff asserting 86 claims” (cleaned up)).

IV's reliance on *Seven Networks*, *Auxilium*, and *Finisar* is misplaced. None of these cases required defendant to disclose the specific grounds for indefiniteness, nor did they find waiver based on the timeline here. In *Seven Networks*, the court struck indefiniteness arguments first raised five months after the deadline for invalidity contentions. *Seven Networks, LLC v. Google LLC*, No. 2:17-cv-00442-JRG, 2018 WL 4501952, at *3 (E.D. Tex. July 11, 2018). In *Auxilium*, the defendant tried to add indefiniteness theories after most claim construction exchanges and just one week before the parties filed their joint claim construction statement. *Auxilium Pharms., Inc. v. Watson Lab'ys, Inc.*, No. 12-cv-3084-JLL, 2014 WL 2624780, at *5 (D.N.J. June 12, 2014). In *Finisar*, the court struck invalidity references raised for the first time in defendant's final invalidity contentions served *after* the court issued its claim construction order. *Finisar Corp. v. DirecTV Grp., Inc.*, 424 F. Supp. 2d 896, 901–02 (E.D. Tex. 2006). By contrast, Tesla's disclosures came much sooner—either by or within 6 weeks of the preliminary invalidity contentions deadline. None of the concerns or timing issues from these cases apply here because Tesla identified its indefiniteness theories well before filing its opening claim construction brief and IV has not identified any prejudice.⁵ The Court should reject IV's waiver argument and reach the merits.

IV. CONCLUSION

For these reasons and those explained in Tesla's opening brief (D.I. 26), the Court should adopt (i) the agreed constructions and (ii) Tesla's proposed constructions for the disputed terms.

⁵ Contrary to IV's argument now, after Tesla identified its lack of antecedent basis arguments in December 2024, and asked IV to identify the antecedent basis for the terms, IV argued that the "court's schedule for disclosing positions" does not require IV to disclose its view of the antecedent basis before claim construction briefing. (D.I. 26-6 at 2.)

Dated: March 3, 2025

Respectfully Submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing document was filed electronically in compliance with Local Rule CV-5(a) on March 3, 2025, and was served via CM/ECF on all counsel of record.

/s/ Daniel R. Gopenko

Daniel R. Gopenko

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION

INTELLECTUAL VENTURES II LLC,

Plaintiff,

v.

TESLA, INC.,

Defendant.

Civil Action No. 1:24-cv-884-ADA

JURY TRIAL DEMANDED

**DECLARATION OF DANIEL R. GOPENKO IN SUPPORT OF
TESLA'S REPLY CLAIM CONSTRUCTION BRIEF**

I, Daniel R. Gopenko, declare as follows:

1. I am an attorney at the law firm of Fish & Richardson P.C. I make this declaration on behalf of my client, Tesla, Inc. and in support of Tesla's Reply Claim Construction Brief. I have personal knowledge of the matters stated in this declaration and would testify truthfully to them if called upon to do so.

2. Attached hereto as **Exhibit 16** is a true and correct highlighted copy of excerpts from the Petition for Inter Partes Review of U.S. Patent No. 6,894,693, IPR2025-00340, dated January 9, 2025.

3. Attached hereto as **Exhibit 17** is a true and copy of the Declaration of Dr. Maurice Herlihy, dated March 3, 2025.

4. Attached hereto as **Exhibit 18** is a true and correct highlighted copy of excerpts from Tesla's Preliminary Invalidity Contentions, dated October 2, 2024.

5. Attached hereto as **Exhibit 19** is a true and correct highlighted copy of a chain of email correspondence between Counsel for Tesla and Counsel for Intellectual Ventures, between December 4, 2024 and December 11, 2024.

6. Attached hereto as **Exhibit 20** is a true and correct highlighted copy of Tesla's Disclosure of Proposed Claim Constructions, dated December 5, 2024.

7. Attached hereto as **Exhibit 21** is a true and correct highlighted copy of excerpts of Tesla's Second Amended Preliminary Invalidity Contentions, dated January 9, 2025.

I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct. Executed at Washington, DC this 3rd day of March, 2025.

/s/ Daniel R. Gopenko
Daniel R. Gopenko

EXHIBIT 16

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TESLA, INC.,
Petitioner

v.

INTELLECTUAL VENTURES II LLC,
Patent Owner.

IPR2025-00340
U.S. Patent No. 6,894,639

**PETITION FOR *INTER PARTES* REVIEW
UNDER 35 U.S.C. § 312 AND 37 C.F.R. § 42.104**

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PETITIONER’S EXHIBIT LIST

Ex.1001	U.S. Patent No. 6,894,639 to Katz (“’639 patent”)
Ex.1002	Prosecution File History of U.S. Patent No. 6,894,639
Ex.1003	Declaration of Jeffrey J. Rodriguez, Ph.D. under 37 C.F.R. § 1.68
Ex.1004	<i>Curriculum Vitae</i> of Jeffrey J. Rodriguez, Ph.D.
Ex.1005	U.S. Patent No. 5,027,413 to Barnard (“Barnard”)
Ex.1006	PCT Application Publication WO 90/16038 to Lawrence (“Lawrence”)
Ex.1007	U.S. Patent No. 5,341,439 to Hsu (“Hsu”)
Ex.1008	U.S. Patent No. 5,341,142 to Reis et al. (“Reis”)
Ex.1009	“Bayesian and neural network pattern recognition : a theoretical connection and empirical results with handwritten characters” (“Lee”)
Ex.1010	IV’s Complaint, <i>Intellectual Ventures II, LLC v. Tesla, Inc.</i> , No. 6:24-cv-188-ADA (WDTX)
Ex.1011	Proposed Scheduling Order, <i>Intellectual Ventures II, LLC v. Tesla, Inc.</i> , No. 6:24-cv-188-ADA (WDTX)
Ex.1012	Statistics on District Court Timing
Ex.1013	Interim Procedure for Discretionary Denials in AIA Parallel District Court Litigation, June 21, 2022
Ex.1014	IV’s Preliminary Infringement Contentions, <i>Intellectual Ventures II, LLC v. Tesla, Inc.</i> , No. 6:24-cv-188-ADA (WDTX)
Ex.1015	“Artificial Neural Networks for Automatic Target Recognition” (“Rogers”), Published in Proceedings of SPIE Conference on Applications of Artificial Neural Networks, Orlando, Florida April 1990 (Paper Number 1294-01)

IPR2025-00340 Petition
Inter Partes Review of 6,894,639

Ex.1016	U.S. Patent No. 4,881,270 (“Knecht”)
Ex.1017	U.S. Patent No. 5,010,512 (“Hartstein”)

I. INTRODUCTION

U.S. Patent No. 6,894,639 (“the ’639 patent,” Ex.1001) is directed to a method of distinguishing targets from background clutter in images. As the title and specification of the ’639 patent indicate, the disclosed method is based on a particular implementation of Hebbian learning. However, the Challenged Claims of the ’639 patent do not require Hebbian learning, which is the heart of the disclosed method. Instead, the Challenged Claims recite an obvious combination of well-known image processing steps that had long been used to distinguish targets from background clutter.

Accordingly, pursuant to 35 U.S.C. §§ 311, 314(a), and 37 C.F.R. § 42.100, Tesla, Inc. (“Petitioner”) respectfully requests that the Board review and cancel as unpatentable under (pre-AIA) 35 U.S.C. §103(a) claims 1-7 (the “Challenged Claims”) of the ’639 patent.

[1.3] (c) *generating said target feature information*³ from said data statistics;

Barnard discloses or renders obvious [1.3]. Ex.1003, ¶¶78-87.

The '639 patent describes “generating target specific feature information” includes “generat[ing] a set of distinguishing target characteristics pertinent to the classification and separation of targets from background clutter in automatic target recognition applications.” Ex.1001, 5:59-62; Ex.1003, ¶80.

Similarly, as explained below, Barnard discloses generating, based on data statistics, the target specific feature information used to distinguish specific targets from background clutter. Ex.1003, ¶81. More specifically, Barnard discloses generating the set of selected features and associated target detection threshold for distinguishing specific targets from background clutter based on data statistics calculated from the input image data. *Id.*

³ As Dr. Rodriguez explains, [1.3] recites “*target feature information*,” not “*target **specific** feature information*” as used in [1.2]. Ex.1003, ¶79. Consistent with Dr. Rodriguez, the Petition assumes, for purposes of the unpatentability grounds presented herein, that “*said target feature information*” recited in [1.3] is the “*target **specific** feature information*” recited in [1.2], as well as [1.4] and [1.5]. Petitioner reserves the right to raise challenges under 35 U.S.C. § 112 in other forums.

X. CONCLUSION

Petitioner has established a reasonable likelihood that the Challenged Claims are unpatentable.

Respectfully submitted,

Dated: January 17, 2025
HAYNES AND BOONE, LLP
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Customer No. 27683

/Jonathan R. Bowser/
Jonathan R. Bowser
Registration No. 54,574
Lead Counsel for Petitioner

XI. MANDATORY NOTICES**A. Real party-in-interest**

Pursuant to 37 C.F.R. § 42.8(b)(1), Petitioner certifies that the real party-in-interest is Tesla, Inc.

B. Related matters

Pursuant to 37 C.F.R. § 42.8(b)(2), to the best knowledge of the Petitioner, the '743 patent is or was involved in the following cases:

Case Heading	Number	Court	Filed
<i>Intellectual Ventures II LLC v. Tesla, Inc</i>	<i>WDTX-1-24-cv-00390</i> (terminated)	WDTX	Apr. 11, 2024
<i>Intellectual Ventures II LLC v. Tesla, Inc.</i>	<i>WDTX-6-24-cv-00188</i> (pending)	WDTX	Apr. 12, 2024
<i>Intellectual Ventures II LLC v. Tesla, Inc.</i>	<i>WDTX-1-24-cv-00884</i> (transferred)	WDTX	Apr. 12, 2024

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Please address all correspondence in this proceeding to lead and back-up counsel. Petitioner consents to service in this proceeding by email at the addresses above.

CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. § 42.24(d), Petitioner hereby certifies, in accordance with and reliance on the word count provided by the word-processing system used to prepare this Petition, that the number of words in this paper is 12,381. Pursuant to 37 C.F.R. § 42.24(d), this word count excludes the table of contents, table of authorities, mandatory notices under § 42.8, certificate of service, certificate of word count, appendix of exhibits, and any claim listing.

Dated: January 17, 2025

/Jonathan R. Bowser/

Jonathan R. Bowser
Lead Counsel for Petitioner
Registration No. 54,574

CERTIFICATE OF SERVICE

The undersigned certifies that, in accordance with 37 C.F.R. § 42.6(e) and 37 C.F.R. § 42.105, service was made on Patent Owner as detailed below.

Date of service January 17, 2025

Manner of service FEDERAL EXPRESS

Documents served Petition for *Inter Partes* Review Under 35 U.S.C. § 312 and 37 C.F.R. § 42.104 of U.S. 6,894,639;
Petitioner's Power of Attorney;
Petitioner's Exhibit List; and
Exhibits 1001-1017.

Persons served Kowert, Hood, Munyon, Rankin & Goetzel, P.C.
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/Jonathan R. Bowser/
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EXHIBIT 17

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION**

INTELLECTUAL VENTURES II LLC,

Plaintiff,

v.

TESLA, INC.,

Defendant.

Civil Action No. 1:24-cv-884-ADA

**DECLARATION OF MAURICE HERLIHY, PH.D. IN SUPPORT OF
TESLA'S REPLY CLAIM CONSTRUCTION BRIEF**

I, Maurice Peter Herlihy, hereby declare as follows:

1. I have been retained as an expert witness on behalf of Tesla, Inc. in the above-referenced litigation.

2. I have prepared this declaration to provide my response to the Declaration of Dr. David Kaeli in support of Plaintiff's Claim Construction Brief ("Kaeli Declaration").

3. I am being compensated for my time in connection with this declaration at my standard consulting rate of \$400 per hour. My compensation is in no way dependent on the outcome of this matter.

4. In addition to the materials identified in my opening declaration, I have now additionally considered IV's Response to Tesla's Opening Claim Construction Brief and the Kaeli Declaration to support my analysis for this reply declaration.

5. In forming the opinions expressed in this declaration, I continue to rely upon my education and experience in the relevant field of the art and have considered the viewpoint of a person having ordinary skill in the relevant art as of 2005. My background and qualifications are set forth in my opening declaration.

I. DISCUSSION

6. I have read the Kaeli Declaration and provide the following responses thereto.

A. Priority Date and Level of Ordinary Skill in the Art

7. Dr. Kaeli applied the "priority date and definition of a POSITA" as set forth in my opening declaration. Kaeli Declaration ¶¶ 16-17 ("I am assuming Tesla's definition"). Accordingly, there is no dispute as to these issues.

B. The '395 Patent and Its Prosecution History

8. Dr. Kaeli does not rebut my summary of the '395 patent, which is at paragraphs 20-26 of my opening declaration. Dr. Kaeli does, however, dispute portions of my recitation of the

'395 patent prosecution history. I disagree with Dr. Kaeli's criticisms. My analysis of the prosecution history is neither "unclear" nor "confused." Kaeli Declaration ¶¶ 22.

9. Before the Applicant's June 30, 2014 amendment, there was no limitation in claim 33 relating to a third group of instructions or an agent other than the recited processor.¹ Herlihy Declaration ¶¶ 27-30. Claim 34, which depended from claim 33, recited "executing a third group of instructions that causes said cache line to be accessed." That step of executing the third group of instructions, as recited in claim 34, could be performed by either the processor recited in claim 33 or by an external agent. Herlihy Declaration ¶ 30. Indeed, it was not until after Applicant's June 17, 2010 amendment that claim 35, which depended from claim 34, was amended to recite "an agent other than said processor."

10. At issue in claim 1 is the limitation "said processing." Before the Applicant's June 17, 2010 amendment, the term "processing" did not appear in claims 33-35. Herlihy Declaration ¶¶ 27-30. After amendment, that term appeared first in claim 34.² As recited in claim 33, "a processor" was responsible for "executing an instruction in a first group of instructions" and "said processor" was responsible for "executing an instruction in a second group of instructions." *Id.* ¶ 29. Accordingly, a POSITA would understand that "processing said first group and said second group of instructions" in claim 34 could be performed by said processor. Further, the term "processing" appeared second in claim 35.³ There, "**said** processing" (in claim 35) is recited **after** "processing" (in claim 34) and refers back to that earlier limitation. *Id.* ¶ 31.

¹ Claim 33 was renumbered after allowance and is now claim 1 of the '395 patent.

² Claim 34 was amended to recite: "processing ~~handling~~ said first group and said second group of instructions according to a value of said indicator ~~said result~~." Herlihy Declaration ¶ 29.

³ Claim 35 was amended to recite: "said processing ~~handling~~ comprises rolling back said first group of instructions . . . and rolling back said second group of instructions" Herlihy Declaration ¶ 29.

11. Understanding the prosecution history is important because issued claim 1 is a combination of the claim limitations prosecuted as claims 33, 34, and 35:

Issued Claim 1	Claims 33-35 after June 17, 2010 Amendment		
1[pre] A method of managing memory in a computer system, said method comprising:	33[pre] A method of managing memory in a computer system, said method comprising:	34[pre] The method of Claim 33 further comprising:	35[pre] The method of Claim 34
1[a] setting a first bit of an indicator associated with a cache line in a cache memory if said cache line has been accessed in response to a processor executing an instruction in a first group of instructions;	33[a] setting a first bit of an indicator associated with a cache line in a cache memory if said cache line has been accessed in response to a processor executing an instruction in a first group of instructions; and		
1[b] setting a second bit of said indicator while said first bit remains set if said cache line has also been accessed in response to said processor executing an instruction in a second group of instructions;	33[b] setting a second bit of said indicator while said first bit remains set if said cache line has also been accessed in response to said processor executing an instruction in a second group of instructions.		
1[c][1] executing a third group of instructions that causes said cache line to be accessed,		34[a] executing a third group of instructions that causes said cache line to be accessed; and	
1[c][2] wherein said third group of instructions is executed by an agent other than said processor,			35[a] wherein said third group of instructions is executed by an agent other than said processor,
1[c][3] wherein said processing comprises rolling back said first group of instructions provided said first bit is set and rolling back said second group of instructions provided said second bit is set before allowing an instruction in said third group to access said cache line, and otherwise granting said access; and			35[b] wherein said processing comprises rolling back said first group of instructions provided said first bit is set and rolling back said second group of instructions provided said second bit is set before allowing an instruction in said third group to access said cache line, and otherwise granting said access.
1[d] processing said first group and said second group of instructions according to a value of said indicator.		34[b] processing said first group and said second group of instructions according to a value of said indicator.	

12. The Applicant argued that “claim 33 is amended to incorporate the subject matter of allowable claim 35 and intervening claim 34,” but in implementing that amendment the “said processing” limitation was added *before* the “processing” limitation. Herlihy Declaration ¶¶ 36-37. This amendment introduced the further uncertainty over the scope of the claim that would not be reasonably ascertainable to a POSITA. *Id.* ¶ 37.

13. Dr. Kaeli attempts to dismiss this prosecution history. For example, he argues that the June 17, 2010 amendment that added “processing” to claim 34 and “said processing” to claim 35 “is not relevant, as the amendment did not address the term [‘said processing’] when it was issued within Claim 1.” Kaeli Declaration ¶ 23. I disagree. I understand that a POSITA is aware of all the communications and arguments made during patent prosecution process.

14. Dr. Kaeli argues that I “assume[d] that the examiner indicated that claim 35 would be allowable if it included ‘all of the limitations of the base claim [and any intervening claims].’” Kaeli Declaration ¶ 24.⁴ This is neither an “assumption” nor is it “baseless.” *Id.* It is exactly what the Examiner said in the August 26, 2010 Final Rejection, which is what that paragraph is about:

Allowable Subject Matter

18. Claims 35-38, 40, 43-46 and 51-54 are rejected for double patenting, but would be allowable if the double patenting rejection is overcome and if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As I explained, amended claim 33 includes all of the limitations of claims 34 and 35, but the amendment did not rewrite claim 35 in independent form; instead, amended claim 33 changed the order of limitations previously presented in claims 34 and 35. Herlihy Declaration ¶ 36.

⁴ The text Dr. Kaeli is quoting comes from ¶ 33 of my declaration, and it includes the text shown in square brackets. It is not clear why Dr. Kaeli omitted that language in his declaration.

15. Dr. Kaeli argues that I “surmise[d] that some limitations were included, while others were not included” in the amendment to claim 33. Kaeli Declaration ¶ 25. That is not true. I showed that *all* the limitations of claims 34 and 35 were included in amended claim 33 when the dependent claims were canceled. Herlihy Declaration ¶ 36 (explaining “the yellow-highlighted text was amended claim 35 and the purple-highlighted text was amended claim 34”). The highlighted text visually shows that the amendment caused the “said processing” limitation to appear before the “processing” limitation—which is opposite to how they appeared in the claims before this amendment.

16. Dr. Kaeli argues that I “disagree[] with the record, instead of reading it at face value.” Kaeli Declaration ¶ 26. That is also not true. The Examiner indicated that claim 35 would be allowable if rewritten in independent form including all of the limitations of the base claim (claim 33) and any intervening claim (claim 34). As explained above and in my opening declaration, the amendment of claim 33 did not rewrite claim 35 in independent form. To the extent the argument in Applicant’s June 30, 2014 Amendment suggests otherwise, I disagree with that characterization of the amendment.

17. While Dr. Kaeli acknowledges it is important to review the file history “in context,” his two-sentence summary entirely ignores the years-long prosecution history before the final amendment. Kaeli Declaration ¶ 28. By doing so, Dr. Kaeli fails to reconcile the meaning of “said processing” between the June 17, 2010 Amendment (when that limitation was first added in claim 35, and “processing” was simultaneously added in claim 34) and the June 30, 2014 Amendment (where the order of the “processing” limitations in claims 34 and 35 was flipped). Given Dr. Kaeli’s ultimate opinion that “said processing” in claim 1 “is simply adding on more to what that *executi[ng]* step does” as opposed to, e.g., what the *processing* step does, Kaeli Declaration

¶ 33, perhaps Dr. Kaeli’s failure to fully analyze the earlier prosecution history is intentional.

Notably, the June 17, 2010 Amendment is excerpted below:

34. (Currently Amended) The method of Claim 33 further comprising:
~~executing~~ a third group of instructions that causes said cache line to be accessed;
~~using a value of said indicator to determine whether said cache line has been read and generating a result thereof; and~~
~~processing~~ handling said first group and said second group of instructions according to a value of said indicator ~~said result~~.

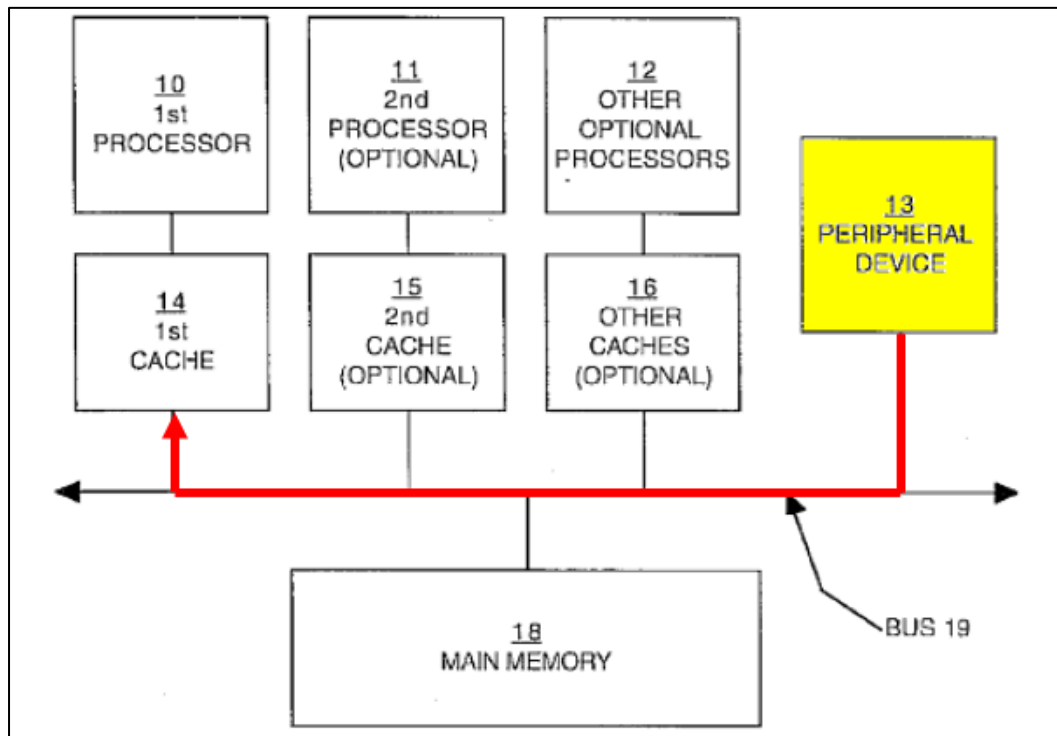
35. (Currently Amended) The method of Claim 34 wherein said third group of instructions is executed by an agent other than said processor, wherein ~~said processing~~ handling comprises rolling back said first group of instructions provided said first bit is set and rolling back said second group of instructions provided said second bit is set before allowing an instruction in said third group to access said cache line ~~granting said access provided said indicator indicates said cache line has been read~~, and otherwise granting said access ~~without rolling back said first group and said second group of instructions~~.

C. “Said Processing” (Claim 1)

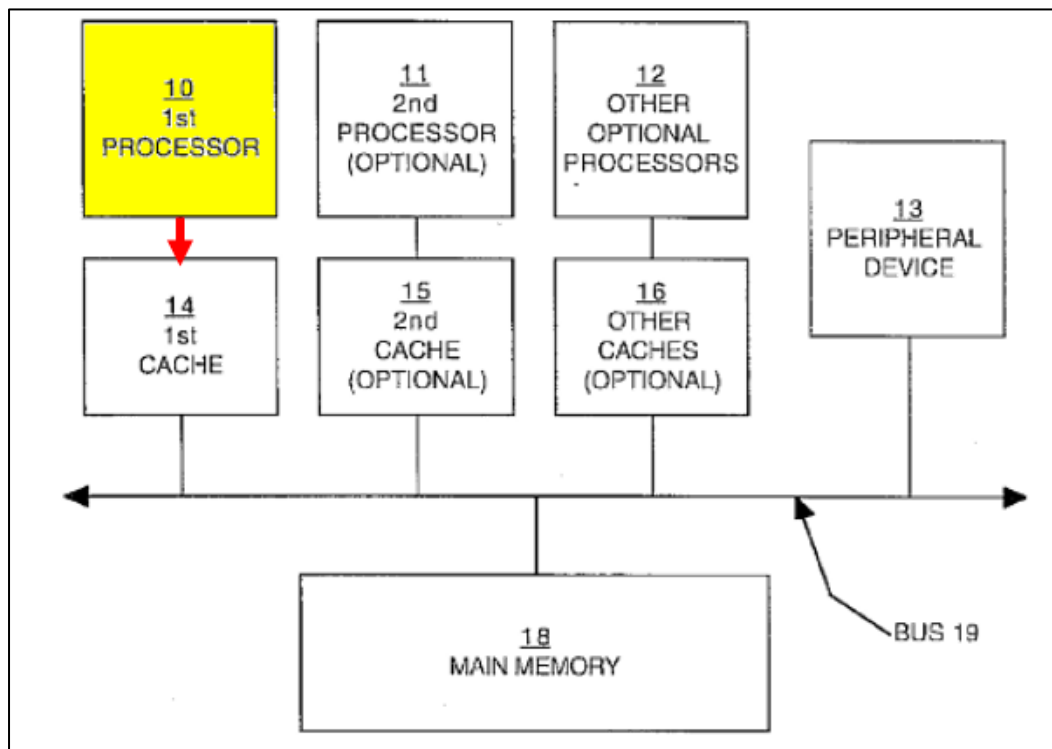
Tesla’s Proposed Construction	IV’s Proposed Construction
Indefinite	Original: Plain and ordinary meaning. Not indefinite. Revised: “said executing”

18. It continues to be my understanding that a limitation lacking antecedent basis is indefinite if there is no clear correction for that lack of antecedent basis. Herlihy Declaration ¶ 42. Dr. Kaeli does not identify an antecedent basis for “said processing”; instead, he opines the limitation is definite because it can be rewritten as “said executing.” Kaeli Declaration ¶¶ 31-36.

19. Dr. Kaeli opines that “‘said processing’ simply refers back to the immediately preceding processing step” of “executing a third group of instructions . . . by an agent other than said processor.” Kaeli Declaration ¶ 33. Dr. Kaeli opines that this construction would resolve the ambiguities that I identified. Specifically, Dr. Kaeli opines that the structure performing “said processing” is “an agent other than said processor” (e.g., an external agent **13** in Figure 1) and the instruction group being processed by “said processing” is “said third group of instructions.” *Id.* ¶¶ 33-34. Accordingly, under Dr. Kaeli’s proposed rewrite, the claim requires “said executing [of said third group of instructions] comprises rolling back [by said agent] said first group of instructions . . . and rolling back [by said agent] said second group of instructions” This is illustrated below in an annotation of Figure 1 showing with a red arrow the external agent handling the roll back of the instruction groups in the cache as described in the “said processing” step. *Id.* ¶ 34 (explaining Dr. Kaeli’s “understanding” is “the external agent is responsible for the roll back described in the ‘said processing step’”).



20. However, Dr. Kaeli’s rewrite is not the only reasonably ascertainable correction for the lack of antecedent basis in “said processing.” A POSITA would understand that another reasonably ascertainable interpretation of the limitation is “said processing [of said first group and said second group of instructions] comprises rolling back [by said processor] said first group of instructions . . . and rolling back [by said processor] said second group of instructions” This is illustrated below in an annotation of Figure 1 showing with a red arrow the processor handling the roll back of the instruction groups in the cache as described in the “said processing” step. *See also* ’395 patent at 8:18-47 (describing a potential embodiment for replacing a cache line wherein all of the processes and steps of flowchart 50 are executed by processor 10).



Dr. Kaeli does not directly address this alternative interpretation. Moreover, his discussion of the specification is ambiguous as to which structure performs “said processing.” Kaeli Declaration ¶ 37 (“affecting how *the system* handles the first group of instructions” (emphasis added)), ¶ 38 (“*Step 43* rolls back the first instruction group” (emphasis added)).

21. Dr. Kaeli also does not address the added objective uncertainty that his proposed construction for claim 1 would have on dependent claim 2. *See* Herlihy Declaration ¶ 46.

22. Finally, although Dr. Kaeli does not address independent claim 7, it is discussed in IV's Response to Tesla's Opening Claim Construction Brief. Claim 7 suffers from an objective uncertainty of where "**said instructions**" derives its antecedent basis:

- Is it from "**instructions to execute** a third group"?
- Is it from instructions comprising the "**third group of instructions**"?
- Is it from one of the four earlier limitations reciting different "**instructions to execute**" or "**instructions to set**"?

instructions to execute a first group of instructions using said processor, wherein said first group of instructions includes an instruction that causes a cache line of said cache memory to be read;

instructions to set a first bit of an indicator associated with said cache line to indicate that said cache line has been read;

instructions to execute a second group of instructions using said processor, wherein said second group of instructions includes an instruction that causes said cache line to be read;

instructions to set a second bit of said indicator while said first bit remains set to indicate said cache line has been accessed by both said first group of instructions and said second group of instructions;

instructions to execute a **third group of instructions** that causes said cache line to be accessed, wherein said third group of instructions is for execution by an agent other than said processor, wherein **said instructions** further comprise instructions to roll back said first group of instructions provided said first bit is set and to roll back said second group of instructions provided said second bit is set before allowing an instruction in said third group to access said cache line, wherein otherwise said access is granted; and

instructions to process said first group and said second group of instructions according to a value of said indicator.

Accordingly, claim 7 is unhelpful for construing “said processing” at least because it is not reasonably ascertainable to a POSITA which instructions are the true subject of “said instructions” in that claim. Moreover, whereas the word “instructions” appears 21 times in claim 7, the word “processing” appears just 2 times in claim 1:

1. A method of managing memory in a computer system, said method comprising:
 setting a first bit of an indicator associated with a cache line in a cache memory if said cache line has been accessed in response to a processor executing an instruction in a first group of instructions;
 setting a second bit of said indicator while said first bit remains set if said cache line has also been accessed in response to said processor executing an instruction in a second group of instructions;
 executing a third group of instructions that causes said cache line to be accessed, wherein said third group of instructions is executed by an agent other than said processor, wherein said **processing** comprises rolling back said first group of instructions provided said first bit is set and rolling back said second group of instructions provided said second bit is set before allowing an instruction in said third group to access said cache line, and otherwise granting said access; and
processing said first group and said second group of instructions according to a value of said indicator.

*

*

*

I hereby declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Date: March 3, 2025

By: Maurice Herlihy
 Maurice Herlihy, Ph.D.

EXHIBIT 18

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION**

INTELLECTUAL VENTURES II LLC,

Plaintiff,

v.

TESLA, INC.,

Defendant.

Civil Action No. 1:24-cv-00884-ADA

DEFENDANT’S PRELIMINARY INVALIDITY CONTENTIONS

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I. INTRODUCTION

Pursuant to the Proposed Scheduling Order (Dkt. No. 25), Defendant Tesla, Inc. (“Tesla”) hereby provides its Preliminary Invalidity Contentions (“Invalidity Contentions”) and supporting document production.

Plaintiff Intellectual Ventures II LLC, (“Intellectual Ventures”) served its Preliminary Infringement Contentions on August 1, 2024 (“Infringement Contentions”). Intellectual Ventures’ Infringement Contentions assert that Tesla infringes the following patents and claims, and Tesla’s corresponding invalidity contentions are as follows:

Asserted Patent	Infringement Contention Ex.	Asserted Claims	Invalidity Contention Exs.
6,894,639 (the “’639 Patent)	Ex. 10	1, 2, 3, 4, 5, 7	A1-A4
7,181,743 (the “’743 Patent)	Ex. 9	10, 11, 14, 16, 18	B1-B7
7,336,805 (the “’805 Patent)	Ex. 1	1, 6, 7, 8, 9, 10, 11	C1-C6
7,916,180 (the “’180 Patent)	Ex. 7	22, 28, 30	D1-D7
8,898,395 (the “’395 Patent)	Ex. 5	1, 2, 5	E1-E5
9,232,158 (the “’158 Patent)	Ex. 8	1, 8	F1-F8
9,706,500 (the “’500 Patent)	Ex. 2	11, 12, 13, 14, 16	G1-G14
10,136,416 (the “’416 Patent)	Ex. 6	1, 2, 4, 5, 6	H1-H9
10,292,138 (the “’138 Patent)	Ex. 3	1, 2, 3, 4, 5, 6	I1-I10
10,952,153 (the “’153 Patent)	Ex. 4	1, 2, 3, 4, 5	J1-J13
11,206,670 (the “’670 Patent)	Ex. 11	1, 2, 3, 4, 5	K1-K6
11,664,889 (the “’889 Patent)	Ex. 12	1, 2, 4	L1-L7

These patents are collectively referred to as the “Asserted Patents” and these claims are collectively referred to as the “Asserted Claims.”

Intellectual Ventures’ Infringement Contentions are vague and incomplete, fail to provide the specificity required, and fail to comply with the Court’s guidance requiring plaintiffs to provide a “chart setting forth where in the accused product(s) each element of the asserted claim(s) are

found.”¹ For example, claim 11 of the ’805 Patent recites “[a] method for assisting guidance of a motor vehicle on the basis of image data.” But Intellectual Ventures’ Infringement Contentions do not identify any evidence and merely state, “On information and belief, the Tesla Automotive Vehicles perform the step of [insert claim element].” As another example, claim element 10(e) of the ’743 Patent requires a “function which determines required allocation and reallocation actions needed to maintain a plurality of Quality of Service (QoS) requirements.” Intellectual Ventures’ Infringement Contentions, however, do not assert that this function exists within the accused product, nor do they identify where this element might be found. Moreover, Intellectual Ventures’ Infringement Contentions include no conception and reduction to practice documents as required by the Court’s OGPP and identify no priority date other than what is stated on the face of each Asserted Patent. As a result, Tesla has no indication as to how it allegedly practices such claims, how they are being construed, or what Intellectual Ventures contends to be the priority date.

II. RESERVATIONS

Consistent with the Court’s Rules and Orders in this case, Tesla reserves the right to amend these Invalidity Contentions. The information and documents that Tesla produces are provisional and subject to further revision as follows.

To the extent the Invalidity Contentions reflect interpretations of claims consistent with, or implicit in, Intellectual Ventures’ Infringement Contentions, no inference is intended nor should any be drawn that Tesla agrees with Intellectual Ventures’ contentions or interpretations. Tesla’s Invalidity Contentions should not be interpreted as suggesting that Intellectual Ventures’ reading of the Asserted Patents is correct or as an admission that any Accused Instrumentality infringes the Asserted Claims. Tesla offers these Invalidity Contentions in response to Intellectual Ventures’

¹ Order Governing Patent Proceedings, version 4.4 (OGPP), § II.2.

Asserted Patent's claimed invention and thus, adding it to any one or more of the references provided in Exhibits L1-L7 would have amounted to applying a known technique to a known device ready for improvement to yield predictable results.

V. LIMITATIONS THAT ARE INDEFINITE OR LACK WRITTEN DESCRIPTION

The following contentions are subject to revision and amendment pursuant to Federal Rule of Civil Procedure 26(e), the Orders of record in this matter, further investigation and discovery regarding the defenses and prior art, the Court's construction of the Asserted Claims, or the review and analysis of expert witnesses.

Tesla offers these contentions in response to Intellectual Ventures' Infringement Contentions and without prejudice to position taken with respect to claim construction issues. To the extent the following contentions reflect constructions of claim limitations consistent with or implicit in Intellectual Ventures' Infringement Contentions, no inference is intended nor should any be drawn that Tesla agrees with any claim construction implied by those Contentions, and Tesla expressly reserves the right to contest such claim constructions. Tesla further incorporates by reference the terms identified in the parties' forthcoming claim construction briefing and Joint Claim Construction Statement.

A. Indefiniteness Under 35 U.S.C. § 112, ¶ 2 and 112(b)

Subject to the reservation of rights above, Tesla provides below an identification of Asserted Claims along with an identification of the specific limitations that are invalid pursuant to 35 U.S.C. § 112 ¶ 2 or 112(b) as indefinite. Specifically, at least the following terms are not explained in the specifications of the Asserted Patents such that a POSITA would be able to determine their meaning and scope with reasonable certainty:

1. The '639 Patent

Claim(s)	Claim Language
1[b]	"calculating data statistics from said data and using said data statistics to select target specific feature information to distinguish specific targets from background clutter"
1[c]	"generating said target feature information from said data statistics"
1[d]	"extracting said target specific feature information from said data"

2. The '743 Patent

Claim(s)	Claim Language
10	"reasoning and decision making capabilities"

3. The '805 Patent

Claim(s)	Claim Language
1[c]	"calculating at least one trajectory describing an optimized travel path using the positional parameters so as to assist a subsequent vehicle guidance for at least one of the potential destinations"
1[d]	"performing an edge detection and edge segmentation on the image data so as to break down the image data into a plurality of edge segments and storing interrelationships of the plurality of edge segments in a mathematical tree structure"
1[e]	"analyzing the plurality of edge segments for the presence of a geometric object associated with a geometrical form that may at least partially describe a potential destination so as to identify one or more potential geometric objects"
1[g]	"performing an additional acceptance analysis so as to identify at least one accepted object, the additional acceptance analysis including analyzing a shape of the image formation of each object in the image data based on knowledge of at least one imaging property of the imaging sensor relative to the surrounding field"
11[b]	"selecting a new most proximate destination when the most proximate destination is no longer easily reachable"

4. The '180 Patent

Claim(s)	Claim Language
22[a]	"configuring a first optics component relative to a first image sensor to form a first channel having a first field of view (FOV) that comprises a first angular width of a scene"

22[b]	“configuring a second optics component relative to a second image sensor to form a second channel having a second FOV that comprises a second angular width of the scene, wherein the first and second angular widths are different”
22[d]	“combining data received during the frame from one or more of the first and second channels to provide an image”
28	“wherein the third FOV is different from one or more of the first FOV and the second FOV”
30	“wherein the fourth FOV is different from one or more of the first FOV, the second FOV and the third FOV”

5. The '395 Patent

Claim(s)	Claim Language
1, 2	“said cache line”
1	“said processor”
1	“agent”
1	“said processing”

6. The '158 Patent

Claim(s)	Claim Language
1[b]	“a plurality of optics components, wherein each optics component of the plurality of optics components is configured to pass light to a sensor of the plurality of sensors”

7. The '500 Patent

Claim(s)	Claim Language
11	“a multi-level transmit power control (TPC) command”
11	“a plurality of potential values for the multi-level TPC command”
11	“the processor is further configured to determine a transmission power level based on a value of the multi-level TPC command out of a plurality of potential values for the multi-level TPC command”
11	“the plurality of potential values for the multi-level TPC command includes at least two values up or at least two values down”
12	“wherein the processor is further configured to receive an indication as to whether accumulation of TPC commands is enabled”
13	“wherein the processor is further configured to accumulate the TPC command with another TPC command in response to enablement of accumulation of TPC commands”
16	“wherein the single physical channel is associated with a spreading factor or a code division multiple access (CDMA) code”

8. The '416 Patent

Claim(s)	Claim Language
1	“broadcast information”
1, 6	“signaling information”
1	“signal[ed] channels”
1	“shared channel”
2	“shared frame”
5	“powers down”

9. The '138 Patent

Claim(s)	Claim Language
1	“cause the circuitry to receive parameters associated with a plurality of radio bearers”
1	“each of the plurality of buffer occupancies is associated with one or more radio bearers”
1	“cause the transmitter to transmit a message including the plurality of buffer occupancies to a network”
1	“cause the circuitry to receive a single allocation of uplink resources”
1	“select data from the plurality of radio bearers for transmission using the single allocation of uplink resources”
1	“the data is selected from a subset of the plurality of radio bearers based on the received parameters”
1	“the selection of the data is based on buffered data for respective radio bearers”
2	“wherein the plurality of radio bearers are associated with a plurality of channels”

10. The '153 Patent

Claim(s)	Claim Language
1	“an indication that transmit power control (TPC) command accumulation is enabled”
1	“a multi-level TPC command”
1	“the processor is configured to cause: the receiver to receive, from a network device, an indication that transmit power control (TPC) command accumulation is enabled”
1	“the processor is configured to cause: ...

	the receiver to receive, from the network device, on a single physical channel, scheduling information and power control information that includes a multi-level TPC command”
1	“the processor is configured to cause: ... the transmitter to transmit, to the network device, an uplink signal based on the received scheduling information and the multi-level TPC command”
5	“wherein the multi-level TPC command includes a set of values that includes at least two values up or at least two values down”

11. The '670 Patent

Claim(s)	Claim Language
1, 2, 3	“first portion of the cell bandwidth”
3	“not in other portions of the cell bandwidth”
4, 5	“plurality of bandwidth portions”
1	“additional system information”
1, 3, 4	“control information”

12. The '889 Patent

Claim(s)	Claim Language
1	“control message”
1	“power control information”
1	“power control bits”
2	“code sequence[s]”
4	“a signal”
4	“random access channel”
5	“time synchronized”

B. Enablement and Written Description under 35 U.S.C. § 112, ¶ 1 and 112(a)

The Asserted Patents are invalid under 35 U.S.C. § 112, ¶ 1 or 112(a) because they do not describe or enable the full scope of the asserted claims. In addition, to the extent that the accused features of the Accused Instrumentalities are deemed to fall within the scope of the asserted claims, the Asserted Patents do not describe or enable the accused features. Subject to the reservation of

Dated: October 24, 2024

Respectfully submitted,

FISH & RICHARDSON P.C.

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***Counsel for Defendant
Tesla, Inc.***

CERTIFICATE OF SERVICE

The undersigned hereby certifies that all counsel of record who are deemed to have consented to electronic service are being served with a copy of this document via electronic mail this 24th day of October, 2024.

/s/ Aamir A. Kazi
Aamir A. Kazi

EXHIBIT 19

From: John Downing <JDowning@kasowitz.com>
Sent: Wednesday, December 11, 2024 12:08 PM
To: Matt Colvin; Charles A. Naggar; Kate Quisenberry; Intellectual Ventures; msiegmund@cjsjlaw.com
Cc: Aamir Kazi; Michael Ellis; Daniel Gopenko; David Hoffman; Bernard Cryan; Rodeen Talebi; alehanna@tesla.com
Subject: RE: Tesla/Intellectual Ventures - Claim Construction

Matt,

Thank you for your email. It is IV's position that Tesla was required to disclose antecedent basis invalidity theories in its invalidity contentions and cannot raise new theories as part of claim construction. While we appreciate receiving notice that Tesla was raising antecedent basis positions one-day before our claim constructions were due, we do not believe this is sufficient under the rules and should have been provided earlier or updated according to the Court's guidelines. We understand from your email that Tesla disagrees.

Regarding Tesla's core technical document theories, we will send a follow up with more details.

Regards,

John

From: Matt Colvin <colvin@fr.com>
Sent: Monday, December 9, 2024 6:50 PM
To: John Downing <JDowning@kasowitz.com>; Charles A. Naggar <CNaggar@kasowitz.com>; Kate Quisenberry <quisenberry@fr.com>; Intellectual Ventures <IntellectualVentures@kasowitz.com>; msiegmund@cjsjlaw.com
Cc: Aamir Kazi <kazi@fr.com>; Michael Ellis <ellis@fr.com>; Daniel Gopenko <gopenko@fr.com>; David Hoffman <Hoffman@fr.com>; Bernard Cryan <cryan@fr.com>; Rodeen Talebi <talebi@fr.com>; alehanna@tesla.com
Subject: RE: Tesla/Intellectual Ventures - Claim Construction

John,

Neither the OGP nor scheduling order support what we understand to be IV's position. Is it IV's position that Tesla had to identify in its preliminary invalidity contentions not just the terms it contends are indefinite, but also further disclose its argument that those terms are indefinite for lacking antecedent basis? If that's IV's position, then please provide specific authority in support, to allow for a meaningful meet and confer, as we do not see that requirement in the OGP or scheduling order nor has IV cited as much.

As to Tesla's document production as served concurrently with its preliminary invalidity contentions, Tesla believes it has complied with its production obligation. That said, Tesla can be available to meet and confer. Please let us know if there is any particular accused instrumentality that you would like to speak about so that we can coordinate the availability of the right team members on our side for a meet and confer.

Thanks,

Matt

From: John Downing <JDowning@kasowitz.com>

Sent: Monday, December 9, 2024 3:52 PM

To: Matt Colvin <colvin@fr.com>; Charles A. Naggar <CNaggar@kasowitz.com>; Kate Quisenberry <quisenberry@fr.com>; Intellectual Ventures <IntellectualVentures@kasowitz.com>; msiegmund@cjsjlaw.com

Cc: Aamir Kazi <kazi@fr.com>; Michael Ellis <ellis@fr.com>; Daniel Gopenko <gopenko@fr.com>; David Hoffman <Hoffman@fr.com>; Bernard Cryan <cryan@fr.com>; Rodeen Talebi <talebi@fr.com>; alehanna@tesla.com

Subject: RE: Tesla/Intellectual Ventures - Claim Construction

Matt,

The deadline is in the OGP at 2 and the scheduling order (D.I. 25 at 1). For context, the email below was in response to Tesla's disclosure of antecedent basis claim construction positions. These positions were disclosed the day before the claim constructions were due and are late since we do not see antecedent basis positions in Tesla's invalidity contentions. Tesla's invalidity contention deadline is coupled with Tesla's deadline to disclose core technical documents that show the operation of the accused products. We reviewed Tesla's core documents and do not believe that Tesla has complied with this deadline.

Do you have time to meet and confer this week regarding these issues.

Thank you in advance,

John

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From: Matt Colvin <colvin@fr.com>

Sent: Friday, December 6, 2024 5:17 PM

To: Charles A. Naggar <CNaggar@kasowitz.com>; Kate Quisenberry <quisenberry@fr.com>; Intellectual Ventures <IntellectualVentures@kasowitz.com>; msiegmund@cjsjlaw.com

Cc: Aamir Kazi <kazi@fr.com>; Michael Ellis <ellis@fr.com>; Daniel Gopenko <gopenko@fr.com>; David Hoffman <Hoffman@fr.com>; Bernard Cryan <cryan@fr.com>; Rodeen Talebi <talebi@fr.com>; alehanna@tesla.com

Subject: RE: Tesla/Intellectual Ventures - Claim Construction

Charles,

Your original email stated Tesla violated the OGPs. Now you refer to the parties' scheduling order, and even still your email remains vague as to what specific limitations you are referencing. To the extent we understand IV's emails, we disagree that Tesla's disclosure is untimely.

If IV believes Tesla's disclosure was late for some term, please identify the specific term and any resulting prejudice. Of course, if there is some issue, we would be amenable to providing IV additional time to amend or modify its claim construction disclosures.

Thanks,

Matt

From: Charles A. Naggar <CNaggar@kasowitz.com>

Sent: Friday, December 6, 2024 2:59 PM

To: Kate Quisenberry <quisenberry@fr.com>; Intellectual Ventures <IntellectualVentures@kasowitz.com>; msiegmund@cjsilaw.com

Cc: Aamir Kazi <kazi@fr.com>; Michael Ellis <ellis@fr.com>; Matt Colvin <colvin@fr.com>; Daniel Gopenko <gopenko@fr.com>; David Hoffman <Hoffman@fr.com>; Bernard Cryan <cryan@fr.com>; Rodeen Talebi <talebi@fr.com>; alehanna@tesla.com

Subject: RE: Tesla/Intellectual Ventures - Claim Construction

Hi Kate,

In the scheduling order, Tesla was required to disclose an identification of any limitations the Defendant contends are indefinite. While some of the limitations are identified, others are not and there is no explanation regarding why these limitations are indefinite that would allow IV to understand Tesla's position.

Additionally, the same deadline requires Tesla to produce software to show the operation of the accused products, which we do not believe Tesla has done. We are concerned based on the core technical document production that information sufficient to show the operation of the Accused Products is being withheld because there is no Protective Order in place. On this note, we have not received any further comments on the Protective Order for many weeks now.

We would like to resolve these issues as the holidays are around the corner.

Regards,
Charles

From: Kate Quisenberry <quisenberry@fr.com>

Sent: Thursday, December 5, 2024 7:29 PM

To: Charles A. Naggar <CNaggar@kasowitz.com>; Intellectual Ventures <IntellectualVentures@kasowitz.com>; msiegmund@cjsilaw.com

Cc: Aamir Kazi <kazi@fr.com>; Michael Ellis <ellis@fr.com>; Matt Colvin <colvin@fr.com>; Daniel Gopenko <gopenko@fr.com>; David Hoffman <Hoffman@fr.com>; Bernard Cryan <cryan@fr.com>; Rodeen Talebi <talebi@fr.com>; alehanna@tesla.com

Subject: Re: Tesla/Intellectual Ventures - Claim Construction

Charles,

Tesla disagrees that this disclosure is belated. Tesla identified its claim terms for construction on November 14, in accordance with the proposed schedule. See attached. Tesla was merely identifying certain of its proposed constructions ahead of today's deadline, given its proposed constructions may impact IV's proposed constructions. Please identify any authority on which IV is relying in stating Tesla's disclosure is belated.

Best,

Kate

From: "Charles A. Naggar" <CNaggar@kasowitz.com>
Date: Thursday, December 5, 2024 at 5:27 PM
To: Kate Quisenberry <quisenberry@fr.com>, Intellectual Ventures <IntellectualVentures@kasowitz.com>, "msiegmund@cjsilaw.com" <msiegmund@cjsilaw.com>
Cc: Aamir Kazi <kazi@fr.com>, Michael Ellis <ellis@fr.com>, Matt Colvin <colvin@fr.com>, Daniel Gopenko <gopenko@fr.com>, David Hoffman <Hoffman@fr.com>, Bernard Cryan <cryan@fr.com>, Rodeen Talebi <talebi@fr.com>, "alehanna@tesla.com" <alehanna@tesla.com>
Subject: RE: Tesla/Intellectual Ventures - Claim Construction

[This email originated outside of F&R.]

Counsel,

Thank you for letting us know. Under the scheduling order it appears that this was due several weeks ago. Tesla's belated disclosure is untimely under the OGP. IV reserves all rights.

Charles

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From: Kate Quisenberry <quisenberry@fr.com>
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Subject: Tesla/Intellectual Ventures - Claim Construction

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Counsel:

Tesla’s position is that the terms “said processing” in claim 1 of the ’395 patent, “said target feature information” in claim 1 of the ’639 patent, and “said feature information” in claim 7 of the ’639 patent are indefinite for lack of antecedent basis. Tesla is providing that information ahead of the upcoming deadline to exchange proposed constructions, given it may impact IV’s proposed constructions.

In addition, Tesla is no longer pursuing a construction for the term “selection of the data is based on buffered data for respective radio bearers” in claim 1 of the ’138 patent.

Best,
Kate

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EXHIBIT 20

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION**

INTELLECTUAL VENTURES II LLC,

Plaintiff,

v.

TESLA, INC.,

Defendant.

Civil Action No. 1:24-cv-884-ADA

TESLA’S DISCLOSURE OF PROPOSED CLAIM CONSTRUCTIONS

Pursuant to the Proposed Scheduling Order (Dkt. No. 25), Defendant Tesla, Inc. (“Tesla”) hereby identifies the following proposed claim constructions for the terms that the parties have proposed for construction. Tesla’s identification of claim terms and proposed constructions are based on information currently available. Tesla reserves the right to supplement, amend, or modify its disclosures should additional information become available through discovery or for any other reason, consistent with the Court’s rulings and Scheduling Order, to facilitate the preparation of the Joint Claim Construction Statement, and in light of arguments made or positions taken by Plaintiff as the case proceeds. Tesla further reserves the right to amend the identification of claim terms for construction and its proposed constructions based on Plaintiff’s disclosure, including, but not limited to, identifying additional portions of the claim related to the terms identified by the Plaintiff.

U.S. PATENT NO. 6,894,639

Claim No.	Claim Term	Tesla's Proposed Construction
1	"target feature information"	Indefinite
7	"feature information"	Indefinite

U.S. PATENT NO. 7,181,743

Claim No.	Claim Term	Tesla's Proposed Construction
10	Preamble	Limiting

U.S. PATENT NO. 7,336,805

Claim No.	Claim Term	Tesla's Proposed Construction
1	"may at least partially describe a potential destination"	Indefinite
1	"potential geometric objects for plausibility using a matching algorithm so as to identify one or more plausible objects"	Indefinite

U.S. PATENT NO. 8,898,395

Claim No.	Claim Term	Tesla's Proposed Construction
1	"said processing"	Indefinite

U.S. PATENT NO. 9,232,158¹

Claim No.	Claim Term	Tesla's Proposed Construction
1, 8	"integration time"	"the time the image sensor collects and integrates signal from the scene"
1	"an image capture device"	"a device including a plurality of sensors, where two or more of the plurality of sensors each capture an overlapping portion of the same scene"

¹ The '158 Patent terms were identified by Intellectual Ventures in their November 14, 2024, disclosure of proposed terms.

U.S. PATENT NO. 9,706,500

Claim No.	Claim Term	Tesla's Proposed Construction
11	"multi-level transmit power control (TPC) command" / "multi-level TPC command"	Indefinite

U.S. PATENT NO. 10,136,416

Claim No.	Claim Term	Tesla's Proposed Construction
1	"broadcast information"	"information that is received via a broadcast transmission to all UEs within a base station's coverage area"

U.S. PATENT NO. 10,952,153

Claim No.	Claim Term	Tesla's Proposed Construction
1	"multi-level TPC command"	Indefinite

Dated: December 5, 2024

Respectfully submitted,

By: /s/ Kathryn A. Quisenberry

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that all counsel of record who are deemed to have consented to electronic service are being served with a copy of this document via electronic mail this 5th day of December, 2024.

/s/ Kathryn A. Quisenberry
Kathryn A. Quisenberry

EXHIBIT 21

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION**

INTELLECTUAL VENTURES II LLC,

Plaintiff,

v.

TESLA, INC.,

Defendant.

Civil Action No. 1:24-cv-00884-ADA

**DEFENDANT’S SECOND SUPPLEMENTAL PRELIMINARY
INVALIDITY CONTENTIONS**

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I. INTRODUCTION

Pursuant to the Proposed Scheduling Order (Dkt. No. 25), Defendant Tesla, Inc. (“Tesla”) hereby provides its Supplemental Preliminary Invalidity Contentions (“Invalidity Contentions”) and supporting document production.

Plaintiff Intellectual Ventures II LLC, (“Intellectual Ventures”) served its Preliminary Infringement Contentions on August 1, 2024 (“Infringement Contentions”). Tesla timely served its Preliminary Invalidity Contentions on October 24, 2024. Intellectual Ventures’ Infringement Contentions assert that Tesla infringes the following patents and claims, and Tesla’s corresponding invalidity contentions are as follows:

Asserted Patent	Infringement Contention Ex.	Asserted Claims	Invalidity Contention Exs.
6,894,639 (the “’639 Patent)	Ex. 10	1, 2, 3, 4, 5, 7	A1-A7
7,181,743 (the “’743 Patent)	Ex. 9	10, 11, 14, 16, 18	B1-B7
7,336,805 (the “’805 Patent)	Ex. 1	1, 6, 7, 8, 9, 10, 11	C1-C11
7,916,180 (the “’180 Patent)	Ex. 7	22, 28, 30	D1-D7
8,898,395 (the “’395 Patent)	Ex. 5	1, 2, 5	E1-E7
9,232,158 (the “’158 Patent)	Ex. 8	1, 8	F1-F8
9,706,500 (the “’500 Patent)	Ex. 2	11, 12, 13, 14, 16	G1-G15
10,136,416 (the “’416 Patent)	Ex. 6	1, 2, 4, 5, 6	H1-H9
10,292,138 (the “’138 Patent)	Ex. 3	1, 2, 3, 4, 5, 6	I1-I12
10,952,153 (the “’153 Patent)	Ex. 4	1, 2, 3, 4, 5	J1-J15
11,206,670 (the “’670 Patent)	Ex. 11	1, 2, 3, 4, 5	K1-K6
11,664,889 (the “’889 Patent)	Ex. 12	1, 2, 4	L1-L8

These patents are collectively referred to as the “Asserted Patents” and these claims are collectively referred to as the “Asserted Claims.”

Intellectual Ventures’ Infringement Contentions are vague and incomplete, fail to provide the specificity required, and fail to comply with the Court’s guidance requiring plaintiffs to provide a “chart setting forth where in the accused product(s) each element of the asserted claim(s) are

found.”¹ For example, claim 11 of the ’805 Patent recites “[a] method for assisting guidance of a motor vehicle on the basis of image data.” But Intellectual Ventures’ Infringement Contentions do not identify any evidence and merely state, “On information and belief, the Tesla Automotive Vehicles perform the step of [insert claim element].” As another example, claim element 10(e) of the ’743 Patent requires a “function which determines required allocation and reallocation actions needed to maintain a plurality of Quality of Service (QoS) requirements.” Intellectual Ventures’ Infringement Contentions, however, do not assert that this function exists within the accused product, nor do they identify where this element might be found. Moreover, Intellectual Ventures’ Infringement Contentions include no conception and reduction to practice documents as required by the Court’s OGPP and identify no priority date other than what is stated on the face of each Asserted Patent. As a result, Tesla has no indication as to how it allegedly practices such claims, how they are being construed, or what Intellectual Ventures contends to be the priority date.

II. RESERVATIONS

Consistent with the Court’s Rules and Orders in this case, Tesla reserves the right to amend these Invalidity Contentions. The information and documents that Tesla produces are provisional and subject to further revision as follows.

To the extent the Invalidity Contentions reflect interpretations of claims consistent with, or implicit in, Intellectual Ventures’ Infringement Contentions, no inference is intended nor should any be drawn that Tesla agrees with Intellectual Ventures’ contentions or interpretations. Tesla’s Invalidity Contentions should not be interpreted as suggesting that Intellectual Ventures’ reading of the Asserted Patents is correct or as an admission that any Accused Instrumentality infringes the Asserted Claims. Tesla offers these Invalidity Contentions in response to Intellectual Ventures’

¹ Order Governing Patent Proceedings, version 4.4 (OGPP), § II.2.

signals over physical and/or random access channels were well-known in the art by the time of the Asserted Patent's claimed invention and thus, adding it to any one or more of the references provided in Exhibits L1-L8 would have amounted to applying a known technique to a known device ready for improvement to yield predictable results.

V. LIMITATIONS THAT ARE INDEFINITE OR LACK WRITTEN DESCRIPTION

The following contentions are subject to revision and amendment pursuant to Federal Rule of Civil Procedure 26(e), the Orders of record in this matter, further investigation and discovery regarding the defenses and prior art, the Court's construction of the Asserted Claims, or the review and analysis of expert witnesses.

Tesla offers these contentions in response to Intellectual Ventures' Infringement Contentions and without prejudice to position taken with respect to claim construction issues. To the extent the following contentions reflect constructions of claim limitations consistent with or implicit in Intellectual Ventures' Infringement Contentions, no inference is intended nor should any be drawn that Tesla agrees with any claim construction implied by those Contentions, and Tesla expressly reserves the right to contest such claim constructions. Tesla further incorporates by reference the terms identified in the parties' forthcoming claim construction briefing and Joint Claim Construction Statement.

A. Indefiniteness Under 35 U.S.C. § 112, ¶ 2 and 112(b)

Subject to the reservation of rights above, Tesla provides below an identification of Asserted Claims along with an identification of the specific limitations that are invalid pursuant to 35 U.S.C. § 112 ¶ 2 or 112(b) as indefinite. Specifically, at least the following terms are not explained in the specifications of the Asserted Patents such that a POSITA would be able to determine their meaning and scope with reasonable certainty:

1. The '639 Patent

Claim(s)	Claim Language
1[c]	“generating said target feature information from said data statistics”
7	“said feature information is further used to distinguish two target classes or a plurality of target classes from one another”

2. The '805 Patent

Claim(s)	Claim Language
1[e]	“analyzing the plurality of edge segments for the presence of a geometric object associated with a geometrical form that may at least partially describe a potential destination so as to identify one or more potential geometric objects”
1[f]	“analyzing the one or more potential geometric objects for plausibility using a matching algorithm so as to identify one or more plausible objects”

3. The '395 Patent

Claim(s)	Claim Language
1	“said processing”

B. Enablement and Written Description under 35 U.S.C. § 112, ¶ 1 and 112(a)

The Asserted Patents are invalid under 35 U.S.C. § 112, ¶ 1 or 112(a) because they do not describe or enable the full scope of the asserted claims. In addition, to the extent that the accused features of the Accused Instrumentalities are deemed to fall within the scope of the asserted claims, the Asserted Patents do not describe or enable the accused features. Subject to the reservation of rights above, Tesla provides below an identification of Asserted Claims along with an identification of the specific limitations that are invalid pursuant to 35 U.S.C. § 112, ¶ 1 or 112(a) as lacking written description or enablement support. Specifically, the specifications of the Asserted Patents do not enable or describe the full scope of at least the following terms:

1. The '639 Patent

Claim(s)	Claim Language
----------	----------------

Dated: January 9, 2025

Respectfully Submitted,

FISH & RICHARDSON P.C.

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**COUNSEL FOR DEFENDANT,
TESLA, INC.**

CERTIFICATE OF SERVICE

The undersigned hereby certifies that all counsel of record who are deemed to have consented to electronic service are being served with a copy of this document via electronic mail this 9th day of January, 2025.

/s/ Aamir A. Kazi

Aamir A. Kazi