

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

**PETITIONER'S AUTHORIZED REPLY
TO PATENT OWNER'S PRELIMINARY RESPONSE**

In its Preliminary Response (“POPR”) (Paper 8), Patent Owner improperly seeks to avoid the prior art by narrowly interpreting the claims to require limitations contrary to the explicit claim language and that would omit a preferred embodiment of the '639 patent from the scope of the claims. The Board should institute review.

I. The prior art teaches “*target specific feature information to distinguish specific targets from background clutter*” as claimed.

A. Patent Owner's unduly narrow interpretation of “*target specific feature information to distinguish specific targets from background clutter*” is not supported by the claim language.

In an attempt to avoid the prior art, Patent Owner implicitly construes the claim term “*target specific feature information to distinguish specific targets from background clutter*” in claim 1 to require “distinguishing among different types of targets based on tailored feature selection” including “an ability to discriminate among different types or classes of targets.” POPR, 27. This interpretation directly contradicts the explicit claim language and the specification of the '639 patent.

First, Patent Owner ignores the fact the claim language recites “*target specific feature information to distinguish specific targets from background clutter*,” not “to distinguish specific targets from other targets.” The '639 patent indicates the “*target specific feature information*” may be “contrast-based and texture-based,” just as Barnard uses. Ex.1001, 1:39-40; Pet., 20-21 (citing Ex.1005, 4:46-5:3; Fig. 5; Ex.1003, ¶74). There is no definition in the specification or prosecution disclaimer to support Patent Owner's position and, as discussed below, such an approach omits

a preferred embodiment of the '639 patent. Thus, there is no reason to deviate from the express language of claim 1. *See Thorner v. Sony Computer Ent. Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012) (claims are to be interpreted according to their plain and ordinary meaning unless “a patentee sets out a definition and acts as his own lexicographer,” or “the patentee disavows the full scope of the claim term either in the specification or during prosecution.”).

Second, claim differentiation confirms that “*target specific feature information to distinguish specific targets from background clutter*” as recited in claim 1 does not require “distinguishing among different types of targets.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005) (“[T]he presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.”). Claim 7, which depends from and further limits claim 1, recites “*wherein said feature information is **further used to distinguish two target classes or a plurality of target classes from one another.***” Ex.1001, 12:28-30. Under the doctrine of claim differentiation, independent claim 1 does not require distinguishing between two or more target classes because that is precisely what dependent claim 7 recites. Instead, consistent with the explicit language used in claim 1, “*target specific feature information to distinguish specific targets from background clutter*” requires target specific feature information for distinguishing specific targets from background clutter, not other targets.

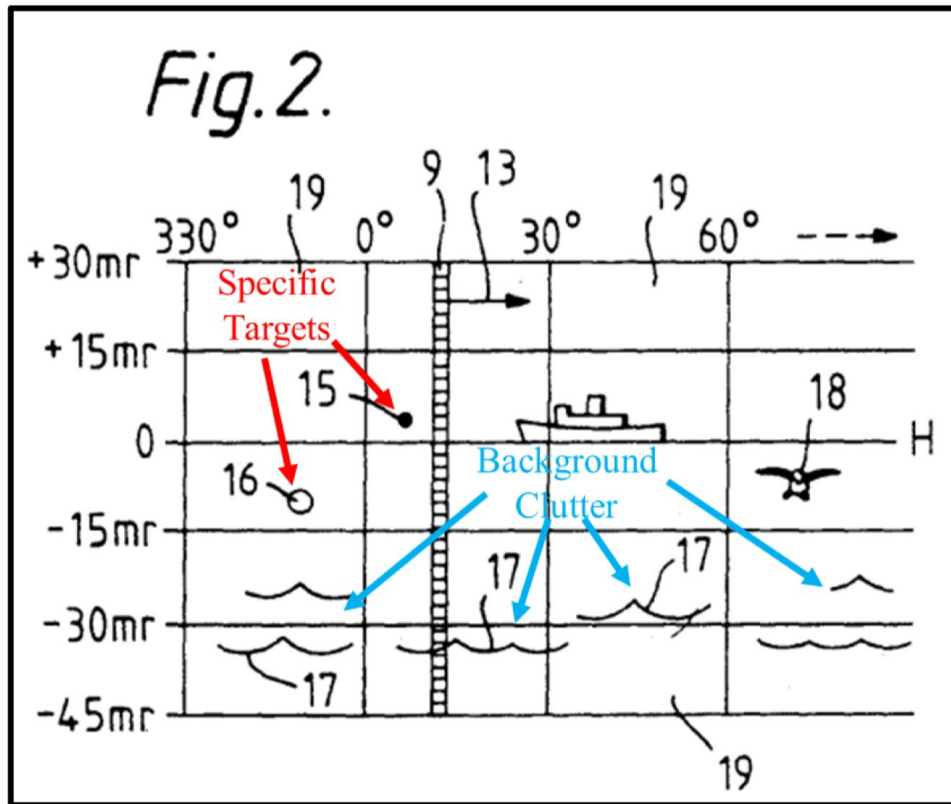
B. Patent Owner's unduly narrow interpretation of “*target specific feature information to distinguish specific targets from background clutter*” omits a preferred embodiment described in the specification of the '639 patent from the scope of the claims.

The '639 patent explicitly describes that “*target specific feature information*” may be used for “one-class, two-class, or multi-class classification procedures.” Ex.1001, 5:28-29, 5:48-49. In a one-class system, “*target specific feature information*” is only used to distinguish the specific targets associated with the single class from background clutter, not from other targets because there is only one class of targets. Patent Owner's implicit construction would improperly exclude the one-class embodiment from the scope of independent claim 1 without any basis. It is well established that “a claim interpretation that excludes a preferred embodiment from the scope of the claim is rarely, if ever, correct.” *Accent Packaging, Inc. v. Leggett & Platt, Inc.*, 707 F.3d 1318, 1326 (Fed. Cir. 2013).

C. Barnard teaches “*target specific feature information to distinguish specific targets from background clutter*” in the same manner claimed by the '639 patent.

The Petition repeatedly references how Barnard describes that “[a] **selection of features** can usually be found in which it is possible to ... **effectively separate[] target objects from background objects.**” *See, e.g.*, Pet., 18, 24, 27, 29 (citing Ex.1005, 5:13-17). As shown in Fig. 2 below, the selected features and associated target detection threshold are utilized in Barnard to distinguish specific targets (e.g., a point source 15 and a sea-skimming missile 16) from background clutter (e.g.,

wave crests 17) in the same manner claimed in the '639 patent, and to distinguish the specific targets "from other potential targets—such a seagull 18 or a ship." See Pet., 16-33; *see also id.*, 31 (citing Ex.1005, 1:24-36, 3:34-41; Ex.1003, ¶¶99).



Barnard, Fig. 2 (annotated).

In response, Patent Owner argues—based on its implicit claim construction—that Barnard fails to disclose the selection of target-specific feature information because “Barnard describes a uniform approach that treats all potential targets the same, without adapting its feature selection based on target identity or category.” POPR, 16. This is wrong. As the Petition makes clear, Barnard selects features “to effectively separate” the point source and the sea-skimming missile from

background clutter (e.g., the wave crests) as well as other potential targets (e.g., the ship and/or the seagull). Pet. 31 (citing Ex.1005, 1:24-36, 3:34-41, Fig. 2; Ex.1003, ¶¶99). Contrary to Patent Owner's argument, Barnard does not treat all potential targets the same. This is clear from the example of Barnard's Fig. 2, where potential targets such as the seagull 18 and the ship are not detected as targets, but the point source and the sea-skimming missile are detected. Ex.1005, 1:24-36, 3:34-41; Ex.1003, ¶¶99. Clearly, Barnard is not "taking a uniform approach that treats all potential targets the same," as Patent Owner incorrectly alleges. POPR, 16.

The Board should decline Patent Owner's invitation to redraft the claims, particularly here where Patent Owner is attempting to redraft the claims in a manner that contradicts the explicit claim language and excludes a preferred embodiment described in the specification. *See Rembrandt Data Techs., LP v. AOL, LLC*, 641 F.3d 1331, 1339 (Fed. Cir. 2011) (the Federal Circuit "repeatedly and consistently has recognized that courts may not redraft claims."). Because Patent Owner's implicit claim construction is improper and Barnard teaches "*target specific feature information to distinguish specific targets from background clutter*" in the same manner claimed by the '639 patent, the Board should institute review.

II. Petitioner is not taking inconsistent claim construction positions.

Patent Owner alleges "Petitioner withheld that it took an inconsistent claim construction position in the district court." POPR, 9. More specifically, Patent

Owner asserts that “[d]espite maintaining an indefiniteness theory in district court, Petitioner failed to disclose that position to the Board in this proceeding.” POPR, 10. Patent Owner is wrong. Petitioner is not taking inconsistent claim construction positions and expressly informed the Board how Petitioner—supported by the testimony of Dr. Rodriguez—is interpreting the claim terms according to their plain and ordinary meaning in compliance with 37 C.F.R. § 42.104(b)(3), while reserving the right to raise indefiniteness challenges in other forums.

In the Petition, Petitioner construed all claim terms according to their plain and ordinary meaning. Pet., 10 (citing Ex.1003, ¶¶ 38-39). In the parallel litigation, Petitioner contends that the term “said target feature information” in claim 1 and the term “said feature information” in dependent claim 7 are indefinite for lack of antecedent basis. Ex.1060, 2; Ex.1070, 8-11; POPR, 10 (citing Ex.2004, 227-228). These positions are not inconsistent because Petitioner cannot raise indefiniteness challenges in this IPR. *See* 35 U.S.C. § 311(b) (a petitioner may challenge claims in an IPR “only on a ground that could be raised under section 102 or 103....”); *Samsung Elecs. Am., Inc. v. Prisia Eng’g Corp.*, 948 F.3d 1342, 1350 (Fed. Cir. 2020) (“[T]he Board may not cancel claims for indefiniteness in an IPR proceeding.”). Petitioner is simply pursuing a claim construction position in district court that is statutorily prohibited in this IPR.

Further, even if Petitioner’s claim construction positions are viewed as

“inconsistent,” the Board has made clear that its “rules do not necessarily prohibit petitioners from taking inconsistent claim construction positions before the Board and a district court.” *Cambridge Mobile Telematics, Inc. v. Sfara, Inc.*, IPR2024-00952, Paper 12 at 8 (Dec. 13, 2024) (designated informative Mar. 20, 2025). Rather, *Cambridge* provides that if a petitioner is taking different claim construction positions in the IPR and parallel litigation, the petitioner should explain “why the inconsistent positions are warranted.” *Id.* Petitioner did that here, explicitly explaining how the claim terms of [1.3] and claim 7 were being interpreted “for purposes of the unpatentability grounds presented [in the Petition].” Pet., 23 n.3; 36 n.4. Notably, Patent Owner ignores these explanations as well as the accompanying statements in the Petition explicitly informing the Board that “Petitioner reserves the right to raise challenges under 35 U.S.C. § 112 in other forums.” *See generally* POPR, 9-11; Pet., 23 n.3, 36 n.4.

Respectfully submitted,

Date: July 18, 2025

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

Petitioner’s Authorized Reply to Patent Owner’s Preliminary Response
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Ex.1018- Ex.1052	Reserved
Ex.1053	Statistics on District Court Timing (Mar. 31, 2025)
Ex.1054	WDTX 2024 Statistical Public Report, available at https://www.txwd.uscourts.gov/court-information/district-statistics/
Ex.1055	Amended Order Assigning the Business of the Court (Judge Moses, Jan. 31, 2025)
Ex.1056	LexMachina docket report
Ex.1057	LexMachina docket report
Ex.1058	“Albright Worried Multipatent Trials Ask Too Much Of Jurors,” Law360 (Dec. 18, 2020), at https://www.law360.com/articles/1337976/albright-worriedmultipatent-trials-ask-too-much-of-jurors
Ex.1059	Bifurcation Order – Videolabs, Inc. v. Asustek Computer, Inc. 6:22-cv-00720-ADA (WDTX)
Ex.1060	Joint Claim Construction Statement, <i>Intellectual Ventures II, LLC v. Tesla, Inc.</i> , 1:24-cv-884-ADA, ECF No. 37 (WDTX) (March 28, 2025)
Ex.1061	“The economic contributions of Tesla to the California economy, 2018–2021,” IHS Markit (Oct. 2022), available at https://digitalassets.tesla.com/tesla-contents/image/upload/Tesla-California-Economic-Impact-Final-Report-October-2022
Ex.1062	“Tesla’s ‘American-made’ cars won’t get hit as hard by the auto tariffs,” CNN.com, https://www.cnn.com/2025/03/29/cars/american-made-cars-tesla-auto-tariffs/index.html , retrieved Apr. 14, 2025
Ex.1063	“An Assessment of the Impact of the Inter Partes Review Process

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	under the Patent Trial and Appeal Board on the US Economy,” The Perryman Group, available at https://www.perrymangroup.com/publications/report/2021/9/23/an-assessment-of-the-potential-impact-of-expanding-inter-partes-review-ipr-under-the-america-invents-act-on-the-us-economy/
Ex.1064	'639 Patent Assignment Recordation
Ex.1065	“Tesla’s California Footprint,” https://www.tesla.com/blog/teslas-california-footprint (retrieved Apr. 25, 2025)
Ex.1066	“FAQs for Interim Processes for PTAB Workload Management,” available at https://www.uspto.gov/patents/ptab/faqs/interim-processes-workload-management (retrieved May 13, 2025).
Ex.1067	Notice of <i>Sotera</i> Plus Stipulation for Defendant Tesla, Inc., <i>Intellectual Ventures II, LLC v. Tesla, Inc.</i> , 1:24-cv-884-ADA, ECF No. 66 (WDTX) (June 24, 2025)
Ex.1068	Order Granting Motion to Extend Time to File Infringement Contentions, <i>Intellectual Ventures II, LLC v. Tesla, Inc.</i> , 1:24-cv-884-ADA, ECF No. 60 (WDTX) (May 27, 2025)
Ex.1069	Judge Albright Patent FAQ, available at https://www.txwd.uscourts.gov/for-attorneys/judge-albright-courtroom-faq/ (retrieved June 2, 2025)
Ex.1070	Tesla, Inc.’s Opening Claim Construction Brief, <i>Intellectual Ventures II, LLC v. Tesla, Inc.</i> , 1:24-cv-884-ADA, ECF No. 26 (WDTX) (January 9, 2025)

CERTIFICATE OF SERVICE

The undersigned certifies, under 37 C.F.R. § 42.6, that service was made on the Patent Owner as detailed below.

Date of service July 18, 2025

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