

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of: Xiadong Li et al.
U.S. Patent No.: 10,447,450
Issue Date: October 15, 2019
Appl. Serial No.: 15/676,421
Filing Date: August 14, 2017
Title: METHOD AND SYSTEM FOR MULTI-CARRIER PACKET
COMMUNICATION WITH REDUCED OVERHEAD

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**PETITIONERS' NOTICE RANKING AND EXPLAINING MATERIAL
DIFFERENCES BETWEEN PETITIONS FOR *INTER PARTES* REVIEW
OF U.S. PATENT NO. 10,447,450**

Petitioners are filing two joinder petitions (IPR2023-00962 and IPR2023-00963) challenging U.S. Patent No. 10,447,450 (the “’450 Patent”). Pursuant to the November 2019 Trial Practice Guide Update (hereinafter “TPG”), this paper provides: “(1) a ranking of the petitions in the order in which [Petitioner] wishes the Board to consider the merits, if the Board uses its discretion to institute any of the petitions, and (2) a succinct explanation of the differences between the petitions, why the issues addressed by the differences are material, and why the Board should exercise its discretion to institute additional petitions.” TPG, 59-61.

I. Ranking of Petitions

Although Petitioners believe that both petitions are meritorious and justified, Petitioners request that the Board consider the petitions in the following order:

Rank	Petition	Challenged Claims	Primary Ref.
1	IPR2023-00963	1-14	Vijayan089 or Vijayan475
2	IPR2023-00962	7 and 11	Park

Notably, IPR2023-00963 (the “963 Petition”) is a copycat petition of the IPR2022-01567 petition (the “VW Petition”), which Petitioners have requested to join and which has been instituted. IPR2023-00962 (the “962 Petition”) is a copycat petition of the IPR2023-00763 petition (the “Ford Petition”), which Petitioners have requested to join and for which no institution decision has been issued. Because the 963 Petition addresses 14 claims (as opposed to two claims

challenged by the 962 Petition) and because the VW Petition has already been instituted, Petitioners rank the 963 Petition first.

II. Circumstances in Which the Board has Instituted Multiple Petitions

The Board has recognized “that there may be circumstances in which more than one petition may be necessary.” TPG, 59. Among these circumstances, the Board has previously recognized that two petitions may warrant institution if the petitions include different claim constructions resulting in a different manner of applying prior art. *Comcast Cable Communications Inc. v. Veveo, Inc.*, IPR2019-00237, Pap. 15 at 14 (PTAB Jul. 5, 2019) (“claim construction arguments resulting in different manner of application of the prior art are material differences between the submitted Petitions, and these differences warrant institution of *inter partes* review of a second petition.”) The Board has also previously instituted two petitions when the claims are addressed by different prior art references that result in no overlap of issues, and thereby present materially different grounds challenging a patent. *Solaredge Technologies Ltd. v. SMA Solar Technology AG*, IPR2019-01224, Paper 10 at 11-13 (PTAB Jan 23, 2020)

III. Material Differences Between the Petitions

Petitioners request the Board to institute the 963 and 962 Petitions because, like the circumstances noted above, the 963 and 962 Petitions include different claim constructions resulting in a different manner of applying prior art. *See*

Comcast v Veveo, Pap. At 15. And like in *Solaredge*, the two petitions present entirely different prior art and consequently have little or no overlap of issues, and are thus materially different.

Specifically, the 963 Petition (and VW Petition) does not offer any construction and uses the ordinary and customary meaning of the claims terms. 963 Petition at 21-22. In contrast, the 962 Petition (and Ford Petition) include constructions of terms that the parties agreed to in the co-pending litigation after the VW Petition was filed. Ford Petition at 52, 8; 962 Petition at 8-9. The terms for which constructions were agreed upon by the parties include “configured to” (meaning “designed to”), “time-frequency coordinate” (meaning “one-dimensional time-frequency coordinate”) and “wherein modular coding is applied” (meaning ““wherein a modular coding scheme is applied...””). Ford Petition at 8. A disputed construction of the term “time-frequency resource unit” was also presented in the 962 and Ford Petitions. Ford Petition at 9; 962 Petition at 9.

As explained in the Ford Petition, “both of VW’s grounds allege the claimed time-frequency coordinate is satisfied by two-parameter teachings. *Volkswagen Grp. of Am., Inc. v. Neo Wireless, LLC*, IPR2022-01567 (Patent 10,447,450), Paper 2 (Petition) at 45-47 (Sept. 27, 2022).” Ford Petition at 50. “In contrast, Ford’s petition presents Park as its primary reference. Park teaches this missing claim element, and explains why it would have been obvious to modify 802.16-2004 to

encode the starting point *as a single, one-dimensional time-frequency coordinate rather than separate time and frequency coordinates*. ... Accordingly, *the Board has never been presented with the art and arguments herein.*” (Emphasis added). Ford Petition at 51.

The above-noted claim construction differences, and particularly, the difference in constructions of “time-frequency resource units” and “time-frequency resource coordinates,” resulted in the application of entirely different set of prior art references being asserted in the 962/Ford Petition, thus creating material differences between the 962/Ford and 963/VW Petitions. In particular, the 962 Petition includes a single ground challenging claims 7 and 11 as being obvious over Park and 802.16-2004. 962 Petition at 10. In contrast, the 963 Petition includes four grounds based on different combinations of Vijayan089, Laroia, Vijayan475, Wu, and Choi. 963 Petition at 10. And because the ground(s) and art in both petitions are entirely different, the issues in both proceedings will be different.

The two petitions here are not premised on an attempt to assert as many different grounds to invalidate the '450 patent. Rather, genuine differences in claim constructions have given rise to the need to apply different art in the two petitions, and because a final written decision has not issued for either the VW or Ford petition, the issue of claim construction remains unresolved at the time of the

filing of the 962 and 963 Petitions. Thus, to preserve their right to challenge the validity of the '450 patent in the most suitable manner, Petitioners believe filing, and ultimately, institution of the 962 and 963 Petitions would be in the interests of justice. At the same time, this parallel filing of petitions would not consume significant Board resources because both petitions are copycat petitions with requests to join the VW and Ford proceedings.

Although the Ford Petition has not yet instituted, the Board's rules related to discretionary denial discourage Petitioners from taking a wait-and-see approach and dictate the need to file both IPR petitions concurrently. Specifically, Petitioners could wait for several months until an institution decision is issued for the Ford Petition. However, because an institution decision on the Ford Petition is not expected until about November 17, 2023, the *Fintiv* and *General Plastics* factors could negatively impact Petitioners' chances of institution if Petitioners wait another 5 months.

For at least the above-noted reasons, Petitioners request that the Board institute trial on both the 963 and 962 Petitions.

Respectfully submitted,

Dated June 5, 2023

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(Control Nos. IPR2023-00962 and IPR2023-00963)

CERTIFICATE OF SERVICE

Pursuant to 37 CFR §§ 42.6(e)(4)(i) et seq. and 42.105(b), the under-signed certifies that on June 5, 2023, a complete and entire copy of this Notice Ranking Petitions was provided by Federal Express, to the Patent Owner by serving the correspondence address of record as follows:

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