

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of: Jian-Hong Zeng
U.S. Patent No.: 10,877,534
Issue Date: December 29, 2020
Appl. Serial No.: 15/952,224
Filing Date: April 12, 2018
Title: POWER SUPPLY APPARATUS

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Patent Trial and Appeal Board
U.S. Patent and Trademark Office
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**PETITIONER'S NOTICE RANKING AND EXPLAINING MATERIAL
DIFFERENCES BETWEEN PETITIONS FOR *INTER PARTES* REVIEW
OF U.S. PATENT NO. 10,877,534**

Petitioner is filing two petitions (IPR2024-00706 and IPR2024-00715) challenging U.S. Patent No. 10,877,534 (the “534 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 Petitioner believes that both petitions are meritorious and justified, Petitioner requests that the Board consider the Petitions in the following order:

Rank	Petition	Challenged Claims	Primary Ref.
1	IPR2024-00706 (“706 Petition)	1-8 and 10-12	Vinciarelli 218, Zeng, Park
2	IPR2024-00715 (“715 Petition)	13-19	Vinciarelli 218, Park, Vinciarelli-664

Each petition addresses a different set of claims. Thus, both petitions are necessary to challenge all the claims at issue for the reasons described below.

Petitioner requests institution of both Petitions. Nonetheless, Petitioner ranks the IPR2024-00706 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. The Board has previously instituted two petitions when the claims are addressed by different prior art references, 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).

The 18 challenged claims across the two Petitions represent the claims of the ’534 Patent that Patent Owner has asserted against Petitioner in litigation, or which Petitioner reasonably believes Patent Owner may assert in the litigation.

III. Material Differences Between the Petitions

Because of the significant differences in claim scope and priority date between the challenged claims of the ’706 Petition and the ’715 Petition, different prior art grounds are used in the two petitions, as set forth in the table below.

Petition I: IPR2024-00706	1-8, 10-12	103: U.S. Pat. App. Pub. No. 2014/0355218 (Vinciarelli-218) in view of 2009/0175014 (Zeng-014)
	1-8, 10-12	102: Zeng-014
	1-8, 10-12	103: Zeng-014 alone, and, if necessary, in view of U.S. Pat. App. Pub. No. 2005/0098874 (Jun)
	1-3, 5-8	102: U.S. Pat. App. Pub. No. 2015/0116891 (Park)
	1-3, 5-8	103: Park, alone, and, if necessary, in view of Jun

	4, 10-12	103: Park in view of Zeng-014
	1-8, 10-12	103: Vinciarelli-218 in view of Park
	4, 10-12	103: Vinciarelli-218 in view of Park and Zeng-014
Petition II: IPR2024-00715	13-19	103: Vinciarelli-218 in view of Zeng-014
	13-15, 17, 19	102: Park
	13-15, 17, 19	103: Park, alone, and, if necessary, in view of Jun
	13-15, 17, 19	103: Vinciarelli-218 in view of Park
	13-19	102: U.S. Pat. No. 10,264,664 (Vinciarelli-664)
	13-19	103: Vinciarelli-664

The material differences between the two petitions lie in (i) their mutually exclusive claim sets, (ii) the significant differences in claim scope between claims of the two claim sets, (iii) the use of different prior art combinations to better address the differences in claim scope, and (iv) the use of materially different priority dates between the two petitions.

For example, IPR2024-00706 challenges only claims 1-8 and 10-12 of the '534 patent based on the claimed priority date (September 2, 2014) of those claims. Accordingly, it asserts grounds presenting: (1) obviousness over Vinciarelli-218 in combination with multiple embodiments of Zeng-014 and/or Park; (2) anticipation by two embodiments of Zeng-014; and (3) obviousness over two embodiments of

Zeng-014 alone and in combination with Jun; (4) anticipation by Park; and (5) obviousness over Park alone and in combination with Jun or Zeng-014.

In contrast, IPR2024-00715 challenges only claims 13-19 of the '534 patent based on both the claimed priority date (September 2, 2014) and filing date of the '534 patent (April 18, 2018). Accordingly, because of the priority date issue and the different scope of claims 13-19, the petition for IPR2024-00715 presents six grounds, but two of the six grounds would apply only if the '534 is not entitled to the earlier priority date. The grounds relying on the April 18, 2018 priority date are (a) anticipation by Vinciarelli-664 and (b) obvious over Vinciarelli-664.

Furthermore, the scope of claims 1-8 and 10-12 is materially different from the scope of claims 13-19. For example, unlike claims 1-8 and 10-12, claims 13-19 require “at least one pin electrically connected to the bearing plate and contacting at least part of the insulation material, wherein [wherein the bearing plate is embedded in the insulation material to form a cuboid body, and] ***the pin covers at least part of a lower surface, at least part of an upper surface of the insulation material and at least part of two lateral sides of the bearing plate.***”

The petitions are not redundant, duplicative, or substantially similar. Rather, each petition compellingly demonstrates the unpatentability of different sets of claims, without repeating the same theory. The ability to completely address the Challenged Claims with meaningfully different references and priority dates

highlights the overbreadth of the Challenged Claims and the appropriateness of two petitions.

IV. The Board Should Institute Both Petitions

Petitioner filed two petitions to adequately address all 18 challenged claims within the statutory word limits for petitions. *See Microsoft Corp. v. IPA Techs. Inc.*, No. IPR2019-00810, Paper 12 at 13-14 (Oct. 16, 2019) (finding multiple petitions reasonable when “[f]aced with word count limitations and a large number of challenged claims”). Notably, the number of challenged claims in the instant petitions is 20% higher than the average. *See* “PTAB Trial Statistics,” United States Patent and Trademark Office, https://www.uspto.gov/sites/default/files/documents/ptab__aia_fy2022_roundup.pdf (last visited March 11, 2024), at 4, 14 (indicating an average of 15 challenged claims per petition, based on 20,614 challenged claims in 1,367 petitions).

In view of the material differences shown above, the Board should exercise its discretion to institute both Petitions. Both Petitions are necessary to show the breadth of prior art that reads on the overly broad claims and to address the priority date issue in IPR2024-00715.

To be clear, this is not a situation in which all challenges should reasonably be included in a single petition, but rather involves a detailed explanation of why claims 13-19 lack written description support in any priority application with

corresponding grounds based on the later priority date. Appropriately addressing these issues necessitates additional analysis amounting to more than 3200 words.

Additionally, given the overlap in the analysis of the '534 patent, its file history, and the common prior art references (Vinciarelli-218, Zeng-014, Park, and June), consideration of a second petition does not present undue burden on the Board or Patent Owner. Instead, two petitions facilitate clarity in the presentation of the issues. Moreover, Petitioner has purposefully used the Vinciarelli-218, Zeng-014, Park, and Jun references with respect to common elements in the two petitions, streamlining review and minimizing additional burden on the Board and Patent Owner.

Finally, each Petition provides a strong showing of unpatentability. Instituting on only one Petition would give Patent Owner an unfair advantage, allowing Patent Owner to allege infringement of the non-instituted claims and/or strategically attempt to distinguish its claims over the instituted prior art. Indeed, the overbreadth of the claims is highlighted by the compelling showing of unpatentability based on different types of device applications. Institution of both IPR petitions would prevent the unjust result of otherwise strong invalidity grounds being dismissed for procedural reasons. In addition, Petitioner requests consolidation of the two proceedings, as permitted by 35 U.S.C. §§ 315(d) and 325(d) to simplify the complexity of the proceedings.

Petitioner respectfully requests that the Board institute trial on both petitions.

Respectfully submitted,

Dated: March 25, 2024

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CERTIFICATE OF SERVICE

Pursuant to 37 CFR §§ 42.6(e)(4)(i) et seq. and 42.105(b), the undersigned certifies that on March 25, 2024, 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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