

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE, INC.,

Petitioner

v.

APEX BEAM TECHNOLOGIES LLC,

Patent Owner

Case IPR2025-00904

U.S. Patent No. 11,626,904

**PETITIONER'S NOTICE RANKING PETITIONS
FOR *INTER PARTES* REVIEW OF U.S. 11,626,904**

I. INTRODUCTION

The PTAB previously considered two petitions filed by Samsung¹ on U.S. Pat. No. 10,951,271, the parent of the '904 patent challenged here, and resolved to institute both based on priority considerations and that apply equally to the instant petitions and that therefore drive submission by Petitioner of the same. EX1029 (Institution Decision, IPR2023-00747, Paper 10, (PTAB, Nov. 13, 2023)), EX1030 (Institution Decision, IPR2023-00571, Paper 10 (PTAB, Nov. 13, 2023)). The grounds advanced by the Samsung petitions, while instituted, did not reach resolution, as Patent Owner settlement inspired termination prior to FWD. Here, petitions (IPR2025-00904 and IPR2025-00923) challenging the validity of claims 1-20 of U.S. Patent No. 11,626,904 (“the '904 patent”) based on the same primary combinations of references.

II. RANKING OF THE 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	Primary Reference
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¹ *Samsung Electronics Co., Ltd. et al. v. Apex Beam Technologies LLC*, IPR2023-00571 (PTAB), filed March 29, 2023; *Samsung Electronics Co., Ltd. et al v. Apex Beam Technologies LLC*, IPR2023-00747 (PTAB), filed March 29, 2023.

1	IPR2025-00923	<i>Liu, Park, Ng</i>
2	IPR2025-00904	<i>Kim and Chen</i>

III. FACTORS SUPPORTING INSTITUTION, INCLUDING MATERIAL DIFFERENCES BETWEEN THE PETITIONS

The two petitions differ materially, substantively and with respect to priority. As to the later, both rely on printed publication evidence that qualifies as prior art relative to the U.S. patent application filing date (Dec. 30, 2020) and yet, Kim and Chen alone were published more than a year before the earliest claimed priority date of the '904 patent. The '904 patent claims priority to a Chinese Application filed December 28, 2016. Park was filed as International Application No. PCT/KR2016/001177 on February 3, 2016. The PTAB previously acknowledged the potential priority dispute relative to the '271 patent when previously endorsing and instituting the second petition (Kim-Chen). EX1030, 9-10.

The Trial Practice Guide identifies “a dispute about priority date” as one of two expressly enumerated scenarios in which two petitions may be appropriate. TPG, 59. More, the Board specifically endorsed the appropriateness of two petitions on the same grounds and same patent for this very reason, instituting petitions directed to Liu-Park (IPR2023-00571) and Kim-Chen (IPR2023-00747). EX1029, Institution Decision, IPR2023-00747, Paper 10, 6-10 (PTAB, Nov. 13, 2023), EX1030. Those proceedings advanced to oral hearing and were terminated prior to

Final Written Decision.

The obviousness grounds also contain material differences, and uniquely present strong showings of unpatentability, such that instituting on only one Petition would give Patent Owner an unfair advantage, allowing Patent Owner to strategically attempt to distinguish its claims over instituted art even if those same arguments would effectively show invalidity over the non-instituted prior art.

Although each combination of references discloses every claim element, they do not present the same theories of obviousness or use identical language. In particular, for the combination of Liu and Park, Park is used to teach calculating a proportional sequence of RSRP ratios and the RSRP-to-max(RSRP) calculation of elements [1d5] and [1d9]. The combination of Liu and Park also addresses, as an alternative, Patent Owner's interpretation that a decibel (dB) subtraction is the equivalent of the claimed ratio, which is expressly taught by Park.

In contrast, for the combination of Kim and Chen, Kim teaches every element of the independent claims, including the RSRP proportional sequence, but does not expressly disclose that the first signaling is used to determine the target threshold for the RSRP-to-max(RSRP) calculation of elements [1d1] and [1d7], which are taught by Chen.

Accordingly, the petitions have different starting points and rationales for why the challenged claims are obvious, making them materially different and

highlighting the overbreadth of the claims.

IV. THE BOARD SHOULD INSTITUTE BOTH PETITIONS

As noted above, the PTAB acknowledged the potential priority dispute when previously endorsing and instituting the second petition (Kim-Chen) in the '271 proceedings. EX1030, 9-10. Because no tribunal has decided the prior art status of *Park*, both petitions are necessary to address the possible outcomes. Furthermore, because of the material differences described above, the Board should exercise its discretion to institute both Petitions. For example, no tribunal has determined whether interpretation that a decibel (dB) subtraction satisfies the “ratio” limitations, previously asserted by Patent Owner is appropriate or proper, but this technique is taught by *Park* and raised as an alternative basis in the *Liu* petition, but not raised in the combination of *Kim* and *Chen*. Kim and Chen provides unique teachings directly relevant to elements [1.d1] and [1.d5], elements Patent Owner previously tried to distinguish over *Liu-Park*. Institution of both IPR petitions would prevent the unjust result of otherwise strong invalidity grounds being dismissed for procedural reasons. Any burden is a product of Patent Owner’s decisions and not something that should benefit them, which would amount to discretionary denial. 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.

Instituting on only one petition would give Patent Owner an unfair advantage,

allowing Patent Owner to strategically not address the prior art status of *Park* before institution, but then address it once the combination of *Kim* and *Chen* is no longer available to Petitioner (as a result of the *Kim* petition being denied) despite *Kim* and *Chen* being earlier prior art references.

Each Petition also provides a strong showing of unpatentability, and both petitions show what was well known to POSITAs, but *none* of the references were before the Examiner during prosecution. Thus, the strength of the petitions also counsels in favor of instituting both. Petitioner has filed only two petitions, each based on a combination of references with materially different teachings. Moreover, the claims' length makes it impossible to address both grounds in a single petition. Merely reciting the language of claims 1-5 (1/4 of the claim challenged claims) amounts to nearly 750 words.

V. CONCLUSION

Institution of two petitions was previously endorsed by the Board, and nothing warrants a deviation from the Board's prior analysis. The same priority concerns, unique merits of each ground, and the unjust result if Patent Owner was able to present arguments against one set of art without addressing the other, institution of both petitions is likewise appropriate here.

Dated: May 2, 2025

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CERTIFICATE OF SERVICE

Pursuant to 37 CFR § 42.6(e)(4), the undersigned certifies that on May 2, 2025, a complete and entire copy of this Notice of Ranking of Petitions were provided via Federal Express, to the Patent Owner by serving the correspondence address of record as follows:

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