

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re *Inter Partes* Review of:)
U.S. Patent No. 11,082,055 B1)
Issued: August 3, 2021)
Application No.: 16/841,044)
Filing Date: Apr. 16, 2020)

For: **Beamforming Using Fractional Time Delay in Digitally Oversampled
Sensor Systems, Apparatuses, and Methods**

FILED VIA P-TACTS

**PETITIONERS' RANKING AND EXPLANATION FOR TWO PETITIONS
CHALLENGING U.S. PATENT NO. 11,082,055**

Petitioners Luxottica of America Inc. and Meta Platforms, Inc. (“Petitioners”) hereby respectfully submit this Paper in support of its Petitions for *inter partes* review of claims 1-18, 21-22, 34-35, 38-41, 46, and 48-50 of U.S. Patent No. 11,082,055 (Ex.1001, “’055 patent”), which is assigned to Solos Technology Limited (“PO”).

Petitioners have concurrently filed two Petitions for *inter partes* review: one challenging claims 1-10 (IPR2026-00412, “Petition I”) and the other challenging claims 11-18, 21-22, 34-35, 38-41, 46, and 48-50 (IPR2026-00420, “Petition II”). Pursuant to the Board’s Consolidated Trial Practice Guide (November 2019), Petitioners provide this separate paper to identify the difference between its two Petitions and need to file separate petitions regarding the ’055 patent. Petitioners request that the Director use its discretion to institute both Petitions.

I. RANKING OF PETITIONS

Petitioners request that the Director refer for consideration on the merits and institute both petitions because the petitions challenge different claim sets and are directed at different subject matter.

Pursuant to the Board’s direction to rank the petitions, Petitioners rank Petition I (on claims 1-10) above Petition II (on claims 11-18, 21-22, 34-35, 38-41, 46, and 48-50).

II. THE DIRECTOR SHOULD EXERCISE ITS DISCRETION TO INSTITUTE BOTH PETITIONS

Petitioners seek *inter partes* review of 30 claims of the '055 patent. Petitioners filed two distinct petitions to adequately address all 30 claims within the statutory word limits for petitions. See *Apple Inc. v. Smith Interface Tech., LLC*, IPR2024-01086, Paper 9 at 11 (“we agree with the parties that more than one petition is warranted given the number of claims at issue”); *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”).

Moreover, the need for two distinct petitions is especially important here because the challenged independent claims are directed to different subject matter. Specifically, in Petition I, the challenged independent claim 1 and its dependent claims are directed to code to perform beamforming using oversampled signals stored on a storage medium. In contrast, in Petition II, the four challenged independent claims 11, 22, 38, and 46 do not recite “beamforming” or a similar limitation. Instead, the challenged claims in Petition II are generally directed to systems to delay signals with specific and differing structures among them, respectively, including sensors, time delay elements, filters, controllers, modulators, decimation modules, and other nominal yet recited circuit components. See *Novartis*

Gene Therapies v. Genzyme Corp., IPR2023-01045, Paper 10 at 3 (Jan. 17, 2024) (instituting multiple petitions where patent included seven independent claims with differing features and scope); *Peloton Interactive, Inc v. iFit, Inc.*, IPR2022-00030, Paper 12 at 33-34 (Apr. 22, 2022) (finding “Petitioner’s filing of three petitions to challenge different claims of the ’062 patent...promotes efficiency” where the patent “include[s] five independent claims” that “differ[]...in various, potentially significant ways”).

Instituting both petitions will not unduly burden the Board or Patent Owner, as Petitioners have divided the challenged claims in a logical manner as shown below:

Petition	Grounds	Prior Art	Challenged Claims¹
I	1	Moquin and Swanson	1-2, 4-5, 7-9
	2	Moquin, Swanson, and Liu	3
	3	Moquin, Swanson, and Dean	10
	4	Liu	1-5, 7-10
	5	Liu and Andersen	6-10
	6	Liu and Swanson	1-5, 7-10
	7	Liu, Andersen, and Swanson	6-10
	8	Andersen and Swanson	1-2, 4-9
	9	Andersen, Swanson, and Liu	3
	10	Andersen, Swanson, and Noujaim	9

¹ Independent claims in bold.

	11	Andersen, Swanson, and Dean	10
II	1	Adams and Nguyen	11-18, 21, 22, 34, 38-39, 41, 46, 48-50
	2	Adams, Nguyen, and Noujaim	35, 40

Notably, no combination of prior art or claims is the same across both petitions due to the difference in claimed subject matter.

This logical, streamlined approach stands in contrast to cases in which petitioners presented overlapping challenges to the same claims across multiple petitions. *Cf. CrowdStrike, Inc. v. GoSecure, Inc.*, IPR2025-00068, Paper 25 (Director June 25, 2025) (informative) (remanding for the Board to institute at most one petition given the overlap in claims in two parallel petitions). And unlike circumstances in which multiple petitions could provide a petitioner with a tactical benefit from serial filing, Petitioners filed the two Petitions concurrently and have not sought “a timing advantage that might otherwise occur were the petitions filed serially.” *Samsung Elec. Co. Ltd., v. Ryan Hardin*, IPR 2022-01335, Paper 13, 22-23 (Feb. 8, 2023). Indeed, Petitioners filed even before receiving infringement contentions, further confirming that the two-petition structure reflects the distinct claim sets and the need to present the challenges within the applicable word limits, rather than an effort to obtain a tactical timing advantage.

Further, Petitioners have attempted to organize and consolidate its arguments to efficiently challenge the claims and to minimize any burden on the Board and the

Patent Owner. *Cf. Smith Interface*, IPR2024-01086, Paper 10 at 13 (denying certain parallel petitions that were not “sufficiently concise to support Petitioner’s argument”); *see also id.* at 12 n.10 (noting that the Consolidated PTAB Trial Practice Guide “discuss[es] the reasons for establishing word count limits and urg[es] parties to present ‘concise, well-organized, easy-to-follow arguments supported by readily identifiable evidence of record’”). For example, the petitions do not unnecessarily repeat analysis. In Petition I, rather than repeating analysis from independent claim 1, claim 2 refers back to that analysis and only explains how the discussed disclosure also meets the limitations of claim 2. *See* Petition I, § VII.B. Similarly, in Petition II, claim 13 refers back to the analysis of claim 12, which discusses how the prior art discloses both the limitations of claims 12 and 13.

III. CONCLUSION

In view of the materially different and completely non-overlapping claim sets, the number and scope of the challenged claims, and Petitioners’ efforts to organize the Petitions to avoid duplicative analysis, Petitioners respectfully request that neither Petition be discretionarily denied on parallel-petition grounds and that both Petitions be referred for consideration on the merits. Presenting all 30 challenged claims in a single petition is not practicable within the applicable word limit without sacrificing necessary claim-specific analysis.

U.S. Patent No. 11,082,055
Rankings and Explanation for Petitions

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Respectfully submitted,

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