

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AMAZON.COM SERVICES LLC,

Petitioner

v.

INTERDIGITAL, INC.,

Patent Owner.

IPR2026-00192
U.S. Patent No. 12,143,606

PETITIONER'S REQUEST FOR DIRECTOR REVIEW

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37 C.F.R. § 42.75	1
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EXHIBIT LIST

No.	Exhibit
1001	U.S. Patent No. 12,143,606 (“’606 patent”)
1002	File History of the ’606 patent
1003	Declaration of Dr. Joseph P. Havlicek, Ph.D. (“Havlicek”)
1004	Curriculum Vitae of Dr. Joseph P. Havlicek, Ph.D.
1005	U.S. Patent Pub. No. 2008/0170615 (“Sekiguchi”)
1006	Enlarging MB size for high fidelity video coding beyond HD (“VCEG-AJ21”), available at https://www.itu.int/wftp3/av-arch/video-site/0810_San/VCEG-AJ21.zip
1007	WO2006/026903 (“Xiong”)
1008	Certified English Translation of WO2006/026903
1009	Iain E. Richardson, The H.264 Advanced Video Compression Standard, Second Edition (“Richardson”)
1010	ITU-T Recommendation H.264 (Nov. 2007) (“H.264”)
1011	Editing State of Text Relating to ITU-T Rec. H.264 ISO/IEC 14496-10 Amendments 1 and 2 (“ITU-T H.264 Draft”)
1012	Declaration of Dr. Clifford Reader (“Reader”)
1013	Declaration of June Ann Munford (“Munford”)
1014	Mathias Wien, Variable Block-Size Transforms for H.264/AVC (“Wien”)
1015	ITU-T Recommendation H.264 (March 2005) (“H.264 (03/2005)”)
1016	Recommendation H.264 (2005) Amendment 1 (06/06) (Munford, Appendix H26402) (“Amendment 1”)
1017	Recommendation H.264 (2005) Amendment 2 (04/07) (Munford, Appendix H26403) (“Amendment 2”)
1018	Fu et al., Fast Intra Prediction Algorithm in H.264/AVC, Proceedings 7th International Conference on Signal Processing, 2004. Proceedings. ICSP '04. 004., Beijing, 2004, pp. 1191-1194 vol.2, doi: 10.1109/ICOSP.2004.1441537 (“Fu”)

1019	Pan et al., Fast Mode Decision for Intra Prediction (“JVT-G013” or “Pan”) (Mar. 2003)
1020	<i>InterDigital, Inc. et al. v. Amazon.com Services LLC</i> , No. 2:25-cv-822-AWA-DEM, ECF No. 1 (E.D. Va., Dec. 18, 2025)
1021	Stipulation Letter, dated February 23, 2026
1022	Docket Navigator Motion Success for Stay Pending IPR statistics for Judge Arenda L. Wright Allen
1023	Order Granting Google’s Motion to Stay Pending IPR, <i>Soundclear Techs. LLC v. Google LLC</i> , No. 2:24-cv-321, D.I. 84 (E.D. Va., Mar. 31, 2025)
1024	Order Granting Google’s Motion to Stay Pending IPR, <i>Soundclear Techs. LLC v. Amazon.com, Inc.</i> , No. 2:24-cv-320, D.I. 56 (E.D. Va., Jul. 1, 2025)
1025	Docket <i>InterDigital, Inc. v. Amazon.com Services LLC</i> , No. 2:25-cv-822-AWA-DEM
1026	Docket Navigator Motion Pendency statistics for Motion to Dismiss before Judge Arenda L. Wright Allen
1027	Docket Navigator Time to Milestone statistics for Judge Arenda L. Wright Allen
1028	Memorandum in Support of Amazon.com Services LLC’s Motion to Dismiss Under Rule 12(b)(6), <i>InterDigital, Inc. v. Amazon.com Services LLC</i> , No. 2:25-cv-822, (E.D. Va. Mar. 13, 2026), D.I. 35
1029	InterDigital 10-K (Fiscal Year 2022)
1030	Docket Navigator Time to Milestone statistics for Judges Mark S. Davis, Arenda L. Wright Allen, Elizabeth W. Hanes, and Jamar K. Walker

I. INTRODUCTION

Pursuant to 37 C.F.R. § 42.75, Petitioner Amazon.com Services LLC respectfully requests Director review of the institution denial of IPR2026-00192 challenging U.S. Patent No. 12,143,606 (“the ’606 patent”). Review is necessary (1) to address an apparent inconsistency in the disposition of this IPR compared to that of co-pending IPR2026-00193 (challenging U.S. Patent No. 11,936,876 (“the ’876 patent”)), which the Director instituted, and (2) because PO’s unsupported arguments in the preliminary reply ignore or mischaracterize the Petition and, even if accepted at face value, still fall short for the same reasons that they fell short at the discretionary stage of this proceeding and in IPR2026-00193.

The ’606 and ’876 patents share five inventors and have claims that substantially overlap in relevant part. Petitioner therefore presented similar invalidity grounds in both IPRs: a primary reference from inventor Xiong in combination with VCEG-AJ21 (and further combined with H.264 for certain dependent claims). Petition, 3; IPR2026-00193, Petition, 2. And in preliminary responses to both petitions, Patent Owner (“PO”) presented many of the same arguments, including that VCEG-AJ21 does not disclose the claimed intra prediction and that Petitioner “improperly relies on expert testimony to supply” the corresponding claim limitation. *See* Paper 11, 30-31; *see also* IPR2026-00193, Paper 13, 28-29. But as Petitioner explained in both proceedings, there was no

improper gap filling; rather, Petitioner's expert properly explained in this proceeding, for example, that a POSITA would have understood the prediction modes in VCEG-AJ21 to include a subset usable for intra prediction. Paper 12, 17-20; *see also* IPR2026-00193, Paper 14, 3-4. PO offered no expert testimony to the contrary. Nevertheless, while the Director apparently accepted Petitioner's explanation of VCEG-AJ21 when instituting IPR2026-00193, the Director apparently rejected that explanation when denying institution of IPR2026-00192. Petitioner therefore requests that the Director reverse the non-institution decision in IPR2026-00192.

II. TECHNOLOGY BACKGROUND

The '606 patent—like the '876 patent from the same inventors—purports to build upon the H.264 standard using intra prediction to encode and decode different sizes of video macroblocks. Petition, 1, 4; *see also* IPR2026-00193, Petition, 1, 7-10. Intra prediction exploits spatial redundancy within a frame, predicting macroblocks (small rectangular regions partitioned from the frame) in the frame based on nearby macroblocks in that same frame that have already been encoded or decoded. Petition, 1, 4; *see also* IPR2026-00193, Petition, 3-4. The independent claims of the '606 patent require, among other things, performing intra prediction with multiple partition types for chroma encoding, the multiple partition types comprising a set of chroma partition types of sizes 16×16, 8×8, and 4×4. '606 patent,

claim 1[b]. And the independent claims of the '876 patent similarly require, among other things, performing intra prediction for blocks equal to or larger than 32x32 using “split signaling” to indicate whether each block is to be split into smaller sub-blocks. '876 patent, claim 1[a-b].

As the Petitions in IPR2026-00192 and IPR2026-00193 demonstrated, however, these claim requirements already existed in the prior art, including in the Xiong and VCEG-AJ21 references. *See* IPR2026-00192 Petition, 63-73; IPR2026-00193 Petition, 22-34.

III. PROCEDURAL BACKGROUND

Petitioner challenged both the '606 patent (IPR2026-00192) and the '876 patent (IPR2026-00193) using invalidity grounds that included a primary reference from inventor Xiong in combination with VCEG-AJ21 (Ground 2A in IPR2026-00192 and Ground 1A in IPR2026-00193) and H.264 (Ground 2B in IPR2026-00192 and Ground 1B in IPR2026-00193).¹ PO requested discretionary denial of both

¹ The Petition in IPR2026-00192 additionally included Grounds 1A (Sekiguchi in view of VCEG-AJ21) and 1B (Sekiguchi in view of VCEG-AJ21 and H.264). PO's preliminary response presented the same arguments regarding VCEG-AJ21 for those grounds as well (Paper 11, 30), and those arguments fail for the same reasons discussed herein for Ground 2.

petitions because, according to PO, Petitioner “relies on conclusory expert testimony” to “bridge a fundamental gap in the prior art” disclosure of “intra prediction.” Paper 8, 19; *see also* IPR2026-00193, Paper 10, 14. In response, Petitioner explained that when “the Petition and expert testimony are viewed in context...it is clear they explain how a POSITA would have understood the teachings of the references and are not improper gap-filling.” Paper 12, 18; IPR2026-00193, Paper 12, 19. Apparently rejecting PO’s argument and accepting Petitioner’s response, the Director referred both petitions for consideration on the merits. Paper 13.

PO presented the same “gap-filling” argument in its preliminary responses to both Petitions. *See* Paper 11, 30-31 (accusing Petitioner of “improperly...rel[ying] on Dr. Havlicek’s testimony to stretch VCEG-AJ21’s applicability onto intra prediction,” which “amounts to improperly using expert testimony to fill a gap in the prior art and supply a missing limitation”); IPR2026-00193, Paper 13, 32 (accusing Petitioner of relying “on the conclusory testimony of Dr. Acton to bridge the technical gaps in the prior art”—including VCEG-AJ21—relating to intra prediction). And PO further argued that “VCEG-AJ21 is exclusively directed to inter prediction and explicitly does not apply to intra prediction.” IPR2026-00192,

Paper 11, 30; IPR2026-00193, Paper 13, 36 (emphases omitted).² Notably, PO did not provide an expert declaration in support of either preliminary response. Petitioner thereafter submitted a preliminary reply in IPR2026-00193 reiterating Dr. Havlicek’s now un rebutted expert opinion (in his declaration in IPR2026-00192) “that VCEG-AJ21 *does* disclose intra prediction modes.” IPR2026-00193, Paper 14, 3-4. Despite this argument appearing in both IPRs, however, the Director instituted IPR2026-00193 but denied institution of IPR2026-00192. Paper 14.

IV. ARGUMENT

A. This IPR should be instituted for the same reasons that IPR2026-00193 was instituted.

As noted above, the petition for IPR2026-00192 included similar invalidity grounds as IPR2026-00193, and PO’s preliminary responses in both proceedings included similar arguments against those grounds, even going so far as to point to the declaration from Petitioner’s expert in IPR2026-00192 to support PO’s arguments for IPR2026-00193—despite Petitioner offering a separate declaration from a different expert (Dr. Acton) in IPR2026-00193. For example, PO’s preliminary response in IPR2026-00193 asserted that, “in a parallel proceeding

² In support of this argument in IPR2026-00193, PO cited statements that Petitioner’s expert (Dr. Havlicek) offered in his declaration in IPR2026-00192—further indicating the overlap in PO’s arguments between the two IPR proceedings.

[IPR2026-00192], Petitioner’s declarant admits that ‘VCEG-AJ21 is focused on enlarged macroblocks for inter prediction,’ that its teachings ‘are explicitly for inter prediction,’ and that intra prediction is not addressed.” IPR2026-00193, Paper 13, 36. And after Petitioner’s preliminary reply in IPR2026-00193 clarified Dr. Havlicek’s opinion (in IPR2026-00192) that a POSITA would have understood the partition types in VCEG-AJ21 to apply to both inter and intra prediction (IPR2026-00193, Paper 14 at 3-4), PO’s sur-reply once again focused on Dr. Havlicek’s analysis of VCEG-AJ21 in IPR2026-00192, calling it “a generic technical observation” that “cannot simply bridge this evidentiary gap” to show disclosure of intra prediction (IPR2026-00193, Paper 16 at 3-4).

Thus, both Petitioner’s grounds and PO’s arguments in the parallel IPRs substantially overlapped, but unlike Petitioner, PO did not offer any expert testimony to support its opposition to either IPR. Yet while PO’s unsupported arguments appear to have failed in one IPR (IPR2026-00193), they nevertheless appear to have succeeded in the other (IPR2026-00192). IPR2026-0093, Paper 17 at 2. This apparent inconsistency should be remedied by instituting IPR2026-00192 so that the Board can properly consider whether Petitioner’s grounds meet the overlapping “intra prediction” requirements in both the ’606 and ’876 patents. *See, e.g., Vicor Corp. v. SynQor, Inc.*, 869 F.3d 1309, 1321 (Fed. Cir. 2017) (finding the Board’s decision “erroneous because the Board reached inconsistent conclusions regarding

the weight to be accorded” evidence presented in *inter partes* reexaminations of two “similar patents”); *see generally Revvo Techs., Inc. v. Cerebrum Sensor Techs., Inc.*, IPR2025-00632, Paper 20 at 4 (Nov. 3, 2025) (precedential) (recognizing that inconsistency “does not further the Office’s goal of providing greater predictability and certainty in the patent system.”) (internal quotation marks omitted) (citing 83 Fed. Reg. at 51,342-43).

B. PO did not even dispute that the prior art teaches the core concept of the ’606 patent.

Furthermore, PO’s arguments in this IPR are facially deficient. For example, PO has never disputed that Xiong (the primary reference of Grounds 2A and 2B) discloses image prediction based on intra-frame coding that improves upon the H.264 standard by using different sized chroma blocks for intra prediction—exactly as claimed in the ’606 patent. Petition, 60; Paper 11, 49-51 (PO’s arguments on Grounds 2A and 2B focused solely on VCEG-AJ21). Xiong alone thus teaches the key limitations (and the core concept) of the ’606 patent.

PO’s only arguments as to Ground 2 concern the limitation that requires “performing intra prediction with multiple partition types for chroma encoding of the block, the multiple partition types comprising a set of multiple chroma partition types of sizes 16×16, 8×8, 4×4.” Paper 11, 49-51. And even there, PO does not dispute that Xiong discloses intra prediction using 8×8 and 4×4 chroma partitions; the only question is whether, as Petitioner contends, VCEG-AJ21 further discloses

intra prediction using the claimed 16×16 chroma partition. *Id.*, 50; *see also id.*, 33-34. To address this question, Petitioner's expert (Dr. Havlicek) presented a detailed analysis of how a POSITA would understand VCEG-AJ21's disclosure of prediction modes, and he concluded "that it would have been understood to a POSITA that the accompanying partition types for intra prediction would be exactly the square ones listed in the last row (the '32x32 MB size' row) of Table 2 of VCEG-AJ21, or: 32x32, 16x16, 8x8, and 4x4." EX-1003, ¶¶71-73.³ This expert opinion stands *unrebutted* on the current record since PO offered no expert testimony of its own⁴—

³ In particular, Dr. Havlicek explained that H.264 (for which VCEG-AJ21 was a proposed extension) disclosed both inter prediction partition types (16×16 , 16×8 , 8×16 , 8×8 , 8×4 , 4×8 , and 4×4) and intra prediction types (16×16 , 8×8 , 4×4) such that "the partition types available for intra prediction are a subset of the types available for inter prediction consisting exactly of the square partition types." EX-1003, ¶73. And he further opined that "a POSITA would have understood that all square partition types available for motion estimation (ME) and motion compensated (MC) inter prediction would be equivalently available for intra prediction." *Id.*

⁴ PO also rehashes the same "improper gap filling" argument under 37 C.F.R. §42.104(b)(4) that appeared in PO's discretion briefing. *See* Paper 11, 30-31; Paper 8, 19. That argument is wrong now for the same reason that it was wrong then (and

which strongly supports institution on the merits here. *See, e.g., WSOU Invs. LLC v. Arista Networks, Inc.*, No. 2023-2231, 2025 WL 751114, at *2 (Fed. Cir. Mar. 10, 2025).

C. PO rehashes arguments that the Director already rejected at the discretion stage.

PO's only other argument against Ground 2—i.e., that there would be no motivation to combine because Xiong discloses intra prediction, while VCEG-AJ21 is purportedly limited to inter prediction (Paper 11, 51-53)—fails for the same reason that it failed in IPR2026-00193: because it ignores the clear testimony of Petitioner's expert and rehashes arguments that appeared in PO's discretion briefing (Paper 8, 19-20). For example, PO once again asserts in the preliminary response that "Petitioner improperly conflates intra prediction optimization with an inter prediction framework," and because "VCEG-AJ21 is a motion-estimation (inter

for the same reason that it was wrong when PO raised it in IPR2026-00193): Dr. Havlicek properly explained how a POSITA would understand VCEG-AJ21 to teach both inter prediction and intra prediction types. EX-1003, ¶¶71-73; Paper 12, 17-20. *See Stryker Corp. v. Osteomed LLC*, IPR2022-00191, Paper 11, 22-24 (Jun. 1, 2022) (rejecting PO's gap-filling argument because "[e]xpert testimony may shed light on what a skilled artisan would reasonably understand or infer from a prior art reference").

prediction) reference that expressly states that intra prediction is ‘not yet addressed,’” Petitioner allegedly failed to explain “why a POSITA would have been motivated to merge Xiong’s intra prediction optimization method with the inter prediction macroblock expansion described in VCEG-AJ21.” IPR2026-00192, Paper 11, 51-52.

PO made the same assertion in IPR2026-00193 (Paper 13, 36-38) and also at the discretionary stage in this proceeding (Paper 8, 19). In each instance, however, PO ignored the clear, unrebutted explanation from Petitioner’s expert that because VCEG-AJ21 teaches both inter and intra prediction modes, a POSITA would have been motivated to combine the Xiong reference and VCEG-AJ21 in a straightforward manner—particularly since both build upon H.264 and present overlapping, compatible concepts (e.g., enhancing the efficiency of H.264 by providing a correspondence between a luma block and a chroma block). EX-1003, ¶¶71-73. In particular here, Dr. Havlicek explained that applying Xiong’s separate intra prediction for luma and chroma to VCEG-AJ21’s larger macroblock size would allow for more efficient encoding. Petition, 61-62 (citing EX-1003, ¶¶176-177). PO did not substantively engage with Dr. Havlicek’s explanation at all, which is fatal to PO’s arguments. *See WSOU Invs.*, 2025 WL 751114, at *2.

V. CONCLUSION

For each of the foregoing reasons, the Director should review and reverse the

institution denial of IPR2026-00192.

Dated: July 1, 2026

Respectfully submitted,
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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true copy of Petitioner's Request for
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