

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INTEL CORPORATION,
Petitioner

v.

INTERDIGITAL, INC.,
Patent Owner.

IPR2024-01441

U.S. Patent No. 9,674,556

PETITIONER'S PRELIMINARY REPLY

As authorized by the Board (Paper 8), Petitioner files this preliminary reply to explain why VC1 is not cumulative of H.264 and therefore Ground 3 is not subject to Section 325(d).

The '556 patent cites two versions of the H.264 standard on its face: ITU-T H264: “Advanced video coding for generic audiovisual services,” May 2005 and ITU-T H.264: Audiovisual and Multimedia Systems, Nov. 2007. Ex-1001, (56). PO argues in a conclusory fashion that VC1 is cumulative of these H.264 references. POPR, 66 (“VC1’s in-loop deblocking filter is also cumulative with H.264, which is cited on the face of the patent and discloses such a filter.”) (citing Ex-1001, at (56)).¹

It is unclear exactly how or why PO alleges VC1 is cumulative of H.264, beyond the fact that both teach a coding standard that includes a deblocking filter. *See id.* As an initial matter, that VC1 and H.264 both teach deblocking filters is insufficient to show the references are cumulative. The '556 patent acknowledges “[a]daptive deblocking filters have been studied in the past and some well-known deblocking filtering methods have been proposed and adopted in various standards

¹ Respectfully, the Order authorizing this preliminary reply incorrectly characterizes Exhibit 1018 as “H.264” (Paper 8, 4 n.8). Exhibit 1018, however, is not cited on the face of the '556 patent (*see* Ex-1001, at (56)), and is therefore, not the reference on which PO’s cumulativeness argument relies (POPR, 66).

[]such as...H.264.” Ex-1001, 1:23-31. The Challenged Claims all recite (1) “a deblocking filter” and (2) “an adaptive sparse de-noising filter,” that each perform specific functions. *Id.*, 18:24-19:8. Accordingly, in the Petition, Petitioner relied on prior art references that teach two filters, including filters of the recited types. In other words, Petitioner’s unpatentability grounds required references teaching a deblocking filter, and VC1 is not cumulative under Section 325(d) merely because it teaches a recited claim element (i.e., a deblocking filter).

To the extent PO’s argument is based on something else, no additional insight can be gleaned from the POPR (which includes only a single conclusory sentence) or the prosecution history which includes no substantive discussion of H.264 or VC1 (*see* Exs-1002, 1005; Pet. 70). Although H.264 is mentioned in the specification and was cited in an IDS during examination of the ’556 patent and its parent application, the Board has routinely found that mere listing of a reference on an IDS alone does not favor denying institution under Section 325(d). *E.g.*, *GMG Prods. LLC v. Traeger Pellet Grills LLC*, PGR2019-00024, Paper 17, 27 (July 17, 2019) (listing on an IDS alone “does not favor denying institution” because “the Examiner did not provide any detailed assessment of [the prior art, and], instead, only indicat[ed] the references had been considered”). The § 325(d) inquiry should end there for VC1.

In addition, although both VC1 and H.264 are video coding standards that use a deblocking filter (which is alone insufficient to show cumulateness), there are

material differences between them which are relevant to Ground 3. Specifically, in the Petition, Petitioner explains VC1 teaches (1) using two filtering operations in the decoding process (Pet. 55, 58, 60) and (2) loop-filtering that can be enabled or disabled at the sequence level (*id.*, 62 (discussing VC1's LOOPFILTER syntax element)). VC1 further includes a complete decoder block diagram. Ex-1009, Figs. 3-4 (cited at Pet. 55). PO does not address these teachings of VC1 in its cumulativeness argument (POPR 66), and they are not contained in H.264 where only a single deblocking filter is used and enabled/disabled with a different mechanism. PO also does not address how Petitioner combines VC1's teachings with Gulyeruz. Importantly, Gulyeruz itself notes difficulty with implementation of its filter with H.264 (Ex-1010, 4) but does not discuss any concerns about implementation with VC1. Therefore, VC1's teachings on which Petitioner relies in Ground 3 are not cumulative to H.264.

As noted in the Petition (Pet. 70), because step one of the *Advanced Bionics* framework is not satisfied, the Board need not evaluate step two. If the Board does evaluate step two, the Office erred in a manner material to the patentability as to Ground 3. In particular, under *Becton Dickinson* factor (c), as discussed above, neither VC1 nor H.264 were evaluated during examination, other than the Examiner initialing an IDS listing H.264. For factors (e) and (f), the Examiner erred by not considering VC1 (or H.264) in combination with Gulyeruz because the VC1-

Gulyeruz combination renders obvious the Challenged Claims as explained in the Petition (Pet. 55-68). Further, as explained above, Gulyeruz itself notes difficulty with implementation of its filter with H.264 (Ex-1010, 4), and thus, the Examiner erred by not considering Gulyeruz in combination with other popular video coding standards at the relevant time, such as VC1. The Board should consider this combination now.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on March 7, 2025 true and correct copies of the foregoing PETITIONER'S PRELIMINARY REPLY were served via electronic mail upon the following counsel of record for Patent Owner:

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