

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AMAZON.COM, INC., AMAZON.COM SERVICES LLC,
Petitioner,

v.

NOKIA TECHNOLOGIES OY,
Patent Owner.

IPR2024-00920

U.S. Patent No. 8,077,991

**REQUEST FOR DIRECTOR REVIEW OF
DECISION DENYING INSTITUTION OF *INTER PARTES* REVIEW**

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Pursuant to 37 C.F.R. § 42.71(d), Petitioner respectfully requests that the Director review the Board's decision denying institution of inter partes review.

I. INTRODUCTION

The Board denied institution of inter partes review of claims 22-24, 26, 29-33, 35, and 38 of U.S. Patent No. 8,077,991. Paper 10 (the "Decision"). The Director should correct the Board's clear error in misreading the Petition and institute inter partes review. The Board's ruling turned on its analysis of "spatial samples" and "spatial information" in claim 22, but was based on a clearly erroneous reading as to what the Petition argued satisfied those claim elements. Specifically, the Board found that the Petition mapped both "spatial samples" and "spatial information" to the prior art's teaching of a residual of the prediction error. Decision at 16. This was clearly erroneous because the Petition mapped: (1) the spatial samples to the residual, and (2) the spatial information to the output of a decoder that received the residual as its input. Pet. 42-44.

The error in the Board's fact finding is further demonstrated by the admission of Patent Owner's expert in a related proceeding. In the related proceeding, Petitioner demonstrated, and the ITC agreed, that claim 22 is rendered obvious based on the same Koga reference at issue in this proceeding. *See Certain Video Capable Elec. Devices, Including Computers, Streaming Devices, Televisions, & Components & Modules Thereof*, Inv. No. 337-TA-1380, 2024 WL

5424919 (Dec. 20, 2024) (Initial Determination) at *53-58. Relevant to limitation 22c, Patent Owner’s expert admitted that Koga receives encoded spatial samples and decodes the encoded spatial samples into spatial information, which is what limitation 22c requires. *Id.* at *56.

II. STANDARD OF REVIEW

The Director “may review any decision on institution under 35 U.S.C. 135, 314, or 324.” 37 C.F.R. § 42.75(a); *United States v. Arthrex, Inc.*, 594 U.S. 1, 4 (2021). Pursuant to section 2.B of the Director Review process, such review “shall be limited to decisions presenting (a) an abuse of discretion, (b) important issues of law or policy, (c) erroneous findings of material fact, or (d) erroneous conclusions of law.” “An abuse of discretion is found if [a] decision: (1) is clearly unreasonable, arbitrary, or fanciful; (2) is based on an erroneous conclusion of law; (3) rests on clearly erroneous fact finding; or (4) involves a record that contains no evidence on which the Board could rationally base its decision.” *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367 (Fed. Cir. 2016) (internal citation omitted).

III. ARGUMENT

A. The Board clearly erred in finding that Petitioner mapped “spatial samples” and “spatial information” to the same thing.

The Board’s decision to not institute inter partes review turned on its consideration of independent claim 22. As noted by the Board, limitation 22a

recites, in relevant part, “receiving a coded prediction error signal, the coded prediction error signal including . . . a plurality of spatial samples.” Limitation 22c further recites “decoding, by a processor, the plurality of spatial samples into decoded spatial information.” The Board stated that it was not persuaded by the Petition because the Petition mapped both the claimed spatial samples and the claimed spatial information to the residual of the prediction error:

We are not persuaded by Petitioner’s argument. Petitioner maps both spatial samples and spatial information to the residual of the prediction error. *Compare* Pet. 37 (referring to spatial samples as the residual of the prediction error), *with id.* at 44 (referring to spatial information as the residual of the prediction error). However, because spatial samples and spatial information cannot refer to the same thing, they cannot both be the residual of the prediction error.

Decision at 16.

The Board is correct that the Petition mapped the claimed spatial samples to Koga’s residual of the prediction error. Pet. 37-38. However, the Board clearly erred because it misapprehended or overlooked that the Petition mapped the claimed spatial information to **the output of a decoder** that receives the residual of the prediction error as its input. Pet. 42-44. In other words, the Board erroneously found that Petitioner mapped both the spatial samples and the spatial information

to the residual when in fact Petitioner mapped the claimed spatial information to the **decoded** residual.

In making this erroneous finding, the Board relies on an erroneous interpretation of the statement “[d]ecoder 501 decodes...the difference between the prediction error signal and the inverse orthogonal transformation . . . [,] i.e., the residual of the of prediction error,” from the passage in the Petition that the Board reproduced and italicized in its decision:

First, demodulator/demultiplexer 500 demultiplexes signal 3000 to produce the “difference between the prediction error and the result of the inverse orthogonal transformation (via a line 5056),” which is the residual of the prediction error. Ex-1004, 6:34–49; [Ex. 1003] ¶ 95. This signal, including the demultiplexed entropy-coded transform coefficients, is then applied to decoder 501 via delay circuit 506. Ex-1004, 6:59–7:2. “[D]ecoder 501 decodes...the difference between the prediction error signal and the inverse orthogonal transformation . . . [,]” i.e., *the residual of the prediction error*. Ex-1004, 7:4–9, 8:63–10:9. A POSITA would have understood that decoding the residual in this manner results in a decoded version of the spatial information that was encoded at the encoder, *therefore producing **decoded spatial information***.

Id. at 43–44 (italics added, bold in original, alterations in original).

Decision at 16 (quoting Pet. 43-44).

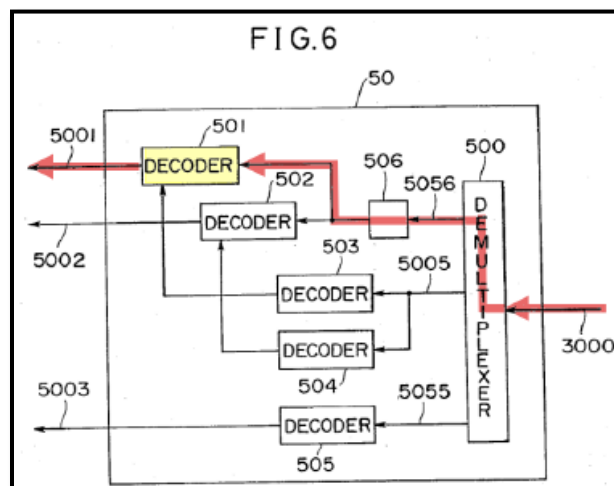
The Petition makes this statement to show that the decoder receives the residual of the prediction error as input. The Board misreads “i.e., the residual of the prediction error” to mean the decoder **produces** the residual of the prediction error. But that is a mistake because the “i.e.” only equates “the difference between

the prediction error signal and the inverse orthogonal transformation” with the residual of the prediction error.

The text surrounding this statement demonstrates that the Board’s interpretation is erroneous:

- The first sentence in the passage explains that the residual of the prediction error (which the Petition maps to the claimed spatial samples) is the output of the demultiplexer on line 5056 shown in

Figure 6:



- The second sentence explains that the residual of the prediction error is applied as input to decoder 501 shown in Figure 6.
- The last sentence explains that the decoder produces decoded spatial information.

The fact that the Petition mapped the spatial information to the output of the decoder is further confirmed by the sentence immediately preceding the passage

relied upon by the Board. That sentence mapped output signal 5001 of decoder 501 to the claimed spatial information: “[a] POSITA would have understood from Figure 6 that signal 5001 carries the decoded spatial information because decoder 501 decodes the spatial samples and feeds them to line 5001.” Pet. 43. The corresponding portions of Petitioner’s expert declaration further confirm that Petitioner mapped the claimed spatial information to the output of the decoder. Ex. 1003, ¶¶106-108.

The Petition’s mapping satisfies the correct reading of limitation 22c. Specifically, limitation 22c requires that what is mapped to the claimed spatial samples be decoded to produce the claimed spatial information: “decoding, by a processor, the plurality of spatial samples into decoded spatial information.” As shown above, this is exactly what the Petition contends – Koga’s residual of the prediction error is input to decoder 501, and the decoder’s output is the claimed spatial information.

For these reasons, the Board clearly erred in finding that Petitioner mapped the claimed spatial information to the residual of the prediction error when the Petition clearly and repeatedly mapped the claimed spatial information to the output of the decoder that received the residual of the prediction error as an input.

B. The Board's clear error is further demonstrated by testimony from the Patent Owner's expert.

The Board's clear error is further demonstrated by the fact that Patent Owner's expert in this IPR, Dr. Richard Orchard, admitted in a related proceeding that Koga receives encoded spatial samples and decodes the encoded spatial samples into spatial information, which shows that Petitioner's contention for limitation 22c is correct.

In the related ITC investigation, Petitioner demonstrated, and the ITC agreed, that claim 22 is rendered obvious by the same Koga reference and arguments. *See* 2024 WL 5424919 at *53-58. Patent Owner has not agreed to produce Dr. Orchard's ITC testimony in this proceeding. However, the public version of the Initial Determination quotes Dr. Orchard where he admitted that Koga receives encoded spatial samples that are decoded into spatial information:

Q. By your own diagram Koga has -- receives the coded -- receives a coded prediction error signal with spatial samples and it entropy decodes an output spatial information, right?

A. Yes, I agree.

Id. at *56 (citing Dr. Orchard's hearing testimony). The fact that Patent Owner's expert admitted that Koga receives encoded spatial samples that are decoded into spatial information further demonstrates that the Board clearly erred in concluding that Petitioner has not demonstrated that limitation 22c is rendered obvious by

Koga's teaching of decoding the residual of the prediction error to produce the claimed spatial information.

IV. CONCLUSION

Director review is warranted because the Board plainly erred in placing its decision to deny institution on a clearly wrong understanding of the Petition's arguments and evidence. As indicated by the decision and testimony in the related ITC investigation, the Petition's invalidity grounds warrant further review and full development of the evidentiary record. Alternatively, the denial of the institution decision should be delegated to a designated rehearing panel for reconsideration as the Director has ordered in similar cases to address clear error. *E.g., DK Crown Holdings Inc. v. Diogenes Ltd.*, IPR2023-00268, Paper 11.

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned certifies that true and correct copies of the Request for Director Review of Decision Denying Institution of *Inter Partes* Review of U.S.

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**CERTIFICATE OF COMPLIANCE WITH
TYPE-VOLUME LIMITATION, TYPEFACE REQUIREMENTS,
AND TYPE STYLE REQUIREMENTS**

This Request for Director Review complies with the Format and Length requirements of 37 CFR 42.75(c)(2), including the page limit of 15 pages (37 C.F.R. § 42.24(a)(1)(v)), comprising 8 pages, as counted using the Microsoft Word software that was used to prepare this paper, excluding the parts exempted by 37 C.F.R. § 42.24(a). It further complies with the general format requirements of 37 C.F.R. § 42.6(a) and has been prepared using Microsoft® Word in 14-point Times New Roman.

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