

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

QUALCOMM INCORPORATED,
Patent Owner.

Case IPR2018-01250
Patent 8,447,132 B1

Before TREVOR M. JEFFERSON, DANIEL J. GALLIGAN, and
AARON W. MOORE, *Administrative Patent Judges*.

GALLIGAN, *Administrative Patent Judge*.

DECISION
Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Apple Inc. (“Petitioner”) filed a Petition requesting *inter partes* review of claims 1, 5–8, and 13 of U.S. Patent No. 8,447,132 B1 (“the ’132 patent,” Ex. 1001). Paper 2 (“Pet.”). Qualcomm Incorporated (“Patent Owner”) did not file a Preliminary Response. Under 37 C.F.R. § 42.4(a), we have authority to determine whether to institute review.

The standard for instituting an *inter partes* review is set forth in 35 U.S.C. § 314(a), which provides that an *inter partes* review may not be instituted unless the information presented in the Petition and the Preliminary Response, if one is filed, shows “there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.”

After considering the Petition and associated evidence, we institute an *inter partes* review as to all challenged claims and on all grounds raised in the Petition.

A. *Related Matters*

As required by 37 C.F.R. § 42.8(b)(2), each party identifies various judicial or administrative matters that would affect or be affected by a decision in this proceeding. Pet. 33; Paper 4, 1.

B. *The ’132 Patent and Illustrative Claim*

The ’132 patent generally relates to techniques for improving images. Ex. 1001, 1:19–39, 2:7–17. One example given in the ’132 patent is directed to improving the visibility of a face in an image. Ex. 1001, 2:7–17. The ’132 patent explains that, when a digital picture is taken of a person in a dark part of a room with a bright window in the background, “the image sensor may not be able to acquire both the details of the bright view coming

through the window and the details of the person's face.” Ex. 1001, 1:28–33. According to the '132 patent, conventional methods for improving the image, such as adjusting the exposure time or using dynamic range compression/enhancement methods, “still tend to produce images that lack details which are important to the end user.” Ex. 1001, 1:35–39. To address this purported problem, the '132 patent discloses identifying a physical object, such as a human face, in an image and applying some image correction or enhancement to that physical object. Ex. 1001, 2:51–64.

Of the challenged claims, claim 1 is the only independent claim and is reproduced below.

1. A method comprising:
 - determining whether a first portion of digital image data represents a physical object of a predetermined type;
 - determining a correction to apply to the first portion of the digital image data, based on a determination that the first portion of the digital image data represents a physical object of the predetermined type, wherein the determined correction is matched to the predetermined type;
 - applying the determined correction to the first portion of the digital image data to enhance a visual characteristic of the first portion of the digital image data, by applying a first amount of the correction to the first portion of the digital image data; and
 - applying a second amount of the correction to a second portion of the digital image data, wherein the first amount differs from the second amount, and wherein the first amount corresponds to a physical object of the predetermined type.

C. References

Petitioner relies upon the following references:

Needham	US 2002/0181801 A1	Dec. 5, 2002	Ex. 1004
Gallagher	US 6,891,977 B2	May 10, 2005	Ex. 1006

Nonaka	US 2008/0007634 A1	Jan. 10, 2008	Ex. 1005
Dvir	US 2008/0291287 A1	Nov. 27, 2008	Ex. 1007

D. Asserted Grounds of Unpatentability

Petitioner asserts claims 1, 5–8, and 13 of the '132 patent are unpatentable based on the grounds set forth in the table below.

Reference(s)	Basis ¹	Claim(s)
Needham	§ 102	1 and 5–7
Needham and Nonaka	§ 103	1 and 5–7
Needham and Dvir	§ 103	8
Needham, Nonaka, and Dvir	§ 103	8
Needham and Gallagher	§ 103	13
Needham, Nonaka, and Gallagher	§ 103	13

II. ANALYSIS

A. Claim Construction

Petitioner proposes a construction for the phrase “physical object of a predetermined type.” Pet. 3–4. For purposes of deciding whether to institute a trial, we do not find it necessary to construe expressly any claim terms. *See, e.g., Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (“[W]e need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

¹ The Leahy-Smith America Invents Act (“AIA”) included revisions to 35 U.S.C. §§ 102 and 103 that became effective after the filing of the application for the '132 patent. Therefore, we apply the pre-AIA versions of these sections.

B. Principles of Law

To establish anticipation, each and every element in a claim, arranged as recited in the claim, must be found in a single prior art reference. *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1371 (Fed. Cir. 2008). Although the elements must be arranged or combined in the same way as in the claim, “the reference need not satisfy an *ipsissimis verbis* test,” i.e., identity of terminology is not required. *In re Gleave*, 560 F.3d 1331, 1334 (Fed. Cir. 2009) (citing *In re Bond*, 910 F.2d 831, 832–33 (Fed. Cir. 1990)).

A patent claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) any secondary considerations, if in evidence. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

*C. Alleged Anticipation by Needham
(Claims 1 and 5–7)*

Petitioner contends claims 1 and 5–7 of the ’132 patent are unpatentable under 35 U.S.C. § 102(b) as anticipated by Needham. Pet. 2, 6–7, 10–16, 18, 20–22. For purposes of determining whether to institute, we focus on Petitioner’s contentions with respect to claim 1 in this ground.

1. Needham

Needham is directed to image correction and enhancement and, like the '132 patent, describes detecting a human face in an image and performing certain correction operations on the face in the image. Ex. 1004, [57], ¶ 17.

2. Independent Claim 1

Independent method claim 1 is reproduced above and recites “determining whether a first portion of digital image data represents a physical object of a predetermined type.” Petitioner contends Needham’s disclosure of detecting types of image features in an image, such as a human face, describes this limitation. Pet. 11 (citing Ex. 1004 ¶¶ 1, 17, 26, 28–30, Figs. 2–5). Needham discloses that “automated feature detection unit 250 detects, from the input image 110, the types of image features that are specified by the feature types 220” and also discloses that “a specified image feature may correspond to a human face, a building, an animal, etc.” Ex. 1004 ¶¶ 17, 26.

Petitioner further contends Needham describes the steps of “determining a correction to apply to the first portion of the digital image data, based on a determination that the first portion of the digital image data represents a physical object of the predetermined type, wherein the determined correction is matched to the predetermined type” and “applying the determined correction to the first portion of the digital image data to enhance a visual characteristic of the first portion of the digital image data, by applying a first amount of the correction to the first portion of the digital image data.” Pet. 12–15. In particular, Petitioner relies on Needham’s disclosure of performing correction operations on particular image features,

such as human faces. Pet. 13–14 (citing Ex. 1004 ¶¶ 19, 20, 24, 27, 31, 32, Fig. 7). For example, Needham discloses that, “[w]hen a correction operation is applied to an individual image feature, the correction performed on the image feature may be based on both the specified correction parameter(s) 240 as well as the feature weight 230 (if such weight is specified for the image feature).” Ex. 1004 ¶¶ 20, 27.

Petitioner contends Needham’s disclosure of applying different amounts of correction to different image features describes the step of “applying a second amount of the correction to a second portion of the digital image data, wherein the first amount differs from the second amount, and wherein the first amount corresponds to a physical object of the predetermined type.” Pet. 15–16 (citing Ex. 1004 ¶ 22). In particular, Needham discloses the following:

Different image features may also be considered with different importance. For example, human faces may be considered as more important than buildings in the input image 110. To accomplish this for example, weights may be assigned to different image features to specify their relative importance. Such weights may be used to control the correction parameter(s) during the correction. For instance, if the correction operation of maximizing intensity dynamic range is applied to both human faces and buildings and a human face feature has a higher weight than a building feature, the intensity dynamic range used for correcting human faces in an image may be larger (corresponding to higher contrast) than that used for correcting buildings in an image. In this way, the human faces may be corrected so that they become more visible than buildings.

Ex. 1004 ¶ 22.

On this record, we are persuaded Petitioner has shown sufficiently for purposes of institution that Needham describes the subject matter recited in

claim 1. Therefore, Petitioner has demonstrated a reasonable likelihood that it would prevail in showing that Needham anticipated claim 1.

3. Claims 5–7

We have reviewed Petitioner’s contentions as to alleged anticipation of claims 5–7 by Needham (Pet. 18, 20–21), and we are persuaded Petitioner’s arguments and evidence are sufficient to show a reasonable likelihood Petitioner would prevail in proving unpatentability of these claims.

*D. Remaining Grounds
(Claims 1, 5–8, and 13)*

We have reviewed Petitioner’s contentions as to the remaining grounds (Pet. 6–33), and we are persuaded Petitioner’s arguments and evidence are sufficient to show a reasonable likelihood Petitioner would prevail in proving unpatentability of the challenged claims on these grounds.

III. CONCLUSION

For the foregoing reasons, we determine that the information presented in the Petition establishes that there is a reasonable likelihood that Petitioner would prevail in challenging at least one of claims 1, 5–8, and 13 of the ’132 patent. At this stage of the proceeding, we have not made a final determination with respect to the patentability of these challenged claims or the construction of any claim term. Because Petitioner has satisfied the threshold for institution as to one claim, we institute *inter partes* review on all claims and all grounds raised in the Petition. *See SAS Institute, Inc. v. Iancu*, 138 S. Ct. 1348, 1359–60 (2018) (holding that a decision to institute under 35 U.S.C. § 314 may not institute on fewer than all claims challenged in the petition); *see also* “Guidance on the impact of SAS on AIA trial

proceedings”² (stating that, “if the PTAB institutes a trial, the PTAB will institute on all challenges raised in the petition”).

IV. ORDER

Accordingly, it is:

ORDERED that pursuant to 35 U.S.C. § 314(a) and 37 C.F.R. § 42.4, an *inter partes* review is hereby instituted as to all claims challenged (claims 1, 5–8, and 13 of the ’132 patent) and on all challenges raised in the Petition; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial, which will commence on the entry date of this decision.

² <https://www.uspto.gov/patents-application-process/patent-trial-and-appeal-board/trials/guidance-impact-sas-aia-trial>.

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