Trials@uspto.gov
571-272-7822

Paper 17
Entered: November 8, 2019

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

RED.COM, LLC,
Patent Owner.

IPR2019-01065
Patent 9,245,314 B2

Before BRIAN J. McNAMARA, J. JOHN LEE, and JASON M. REPKO
Administrative Patent Judges.

REPKO, *Administrative Patent Judge*.

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

I. INTRODUCTION

Apple Inc. ("Petitioner") filed a petition to institute *inter partes* review of claims 1–30 of U.S. Patent No. 9,245,314 B2 (Ex. 1001, "the '314 patent"). Paper 2 ("Pet."). RED.COM, LLC ("Patent Owner") filed a Preliminary Response. Paper 6 ("Prelim. Resp.").

To institute an *inter partes* review, we must determine "that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314(a). For the reasons discussed below, Petitioner has not shown a reasonable likelihood that it would prevail in showing that any challenged claim is unpatentable. Thus, we deny the Petition and do not institute an *inter partes* review.

A. Related Matters

The parties do not identify any related litigation involving the '314 patent. *See* Pet. 1; Paper 4. According to Petitioner, "the '314 patent has been asserted in *Red.com, Inc. v. Sony Corp. of America*, Case No. 2:16-cv-00937-RSP (E.D. Tx. Aug. 24, 2016) and *Red.com, Inc. v. Nokia USA Inc.*, Case No. 8:16-cv-00594-MWF-JC (C.D. Ca. Mar. 30, 2016)." Pet. 1. Both cases have terminated. *Id.* According to Patent Owner, there are no judicial or administrative proceedings that could affect, or be affected by, a decision in this proceeding. Paper 4.

In IPR2019-01064, Petitioner is seeking *inter partes* review of U.S. Patent No. 9,230,299 B2, which is related to the '314 patent.

B. The '314 Patent

The '314 patent generally relates to a digital video camera with on-board compression. *See* Ex. 1001, 1:33–45. According to the specification, on-board compression in digital video cameras at the time of the invention eliminated too much raw image data to be acceptable for major motion

pictures and television media, which traditionally use film. *Id.* at 1:23–45. The digital camera in the '314 patent, however, applies mathematically lossy compression to the data "in a way that provides a visually lossless output." *Id.* at 9:39–43.

In particular, the camera can capture images with a complimentary metal-oxide semiconductor (CMOS) sensor and a Bayer-pattern filter. *Id.* at 5:3–5, 30–31. Figure 3, below, shows that the Bayer pattern has two green pixels for every blue and red pixel. *Id.* at 11:18–19.

FIG. 3

	m-3	m-2	m-1	m	m+1	m+2	m+3	m+4
n-3	$B_{m-3,n-3}$	$G_{m-2,n-3}$	$B_{m-1,n-3}$	$G_{m,n-3}$	$B_{m+1,n-3}$	$G_{m+2,n-3}$	$B_{m+3,n-3}$	$G_{m+4,n-3}$
n-2	$G_{m-3,n-2}$	$R_{m-2,n-2}$	$G_{m-1,n-2}$	$R_{m,n-2}$	$G_{m+1,n-2}$	$R_{m+2,n-2}$	$G_{m+3,n-2}$	$R_{m+4,n-2}$
n-1	$B_{m-3,n-1}$	$G_{m-2,n-1}$	$B_{m-1,n-1}$	$G_{m,n-1}$	$B_{m+1,n-1}$	$G_{m+2,n-1}$	$B_{m+3,n-1}$	$G_{m+4,n-1}$
n	$G_{m-3,n}$	$R_{m-2,n}$	$G_{m-1,n}$	$R_{m,n}$	$G_{m+1,n}$	$R_{m+2,n}$	$G_{m+3,n}$	$R_{m+4,n}$
n+1	$B_{m-3,n+1}$	$G_{m-2,n+1}$	$B_{m-1,n+1}$	$G_{m,n+1}$	$B_{m+1,n+1}$	$G_{m+2,n+1}$	$B_{m+3,n+1}$	$G_{m+4,n+1}$
n+2	$G_{m-3,n+2}$	$R_{m-2,n+2}$	$G_{m-1,n+2}$	$R_{m,n+2}$	$G_{m+1,n+2}$	$R_{m+2,n+2}$	$G_{m+3,n+2}$	$R_{m+4,n+2}$
n+3	$B_{m-3,n+3}$	$G_{m-2,n+3}$	$B_{m-1,n+3}$	$G_{m,n+3}$	$B_{m+1,n+3}$	$G_{m+2,n+3}$	$B_{m+3,n+3}$	$G_{m+4,n+3}$
n+4	$G_{m-3,n+4}$	$R_{m-2,n+4}$	$G_{m-1,n+4}$	$R_{m,n+4}$	$G_{m+1,n+4}$	$R_{m+2,n+4}$	$G_{m+3,n+4}$	$R_{m+4,n+4}$

Figure 3, above, shows a Bayer pattern with green, blue, and red pixels. *Id.* at 11:11–19.

To create a final image, the raw pixel data must be demosaiced by interpolation, for example. *See, e.g.*, *id.* at 10:25–28, 14:17–21. Before demosaicing, the disclosed camera processes and compresses the original raw data. *See id.* at 13:12–31.

Specifically, the camera can pre-emphasize or pre-process the raw data in various ways. *Id.* at 11:43–44; *see also id.*, Fig. 8, 54 (pre-emphasize data), 56 (transform red and blue picture elements). Reversible processes are used so that all, or substantially all, the original raw data can be recovered. *See, e.g.*, *id.* at 12:47–50.

Next, a module compresses the image data. *Id.* at 9:33–47. The compression module can be configured to produce an image that, when compared side-by-side with the original image on the same display, one would not be able to tell the difference from only a visual inspection. *Id.* at 9:55–60. According to the Specification, the resulting video quality is acceptable for the major motion-picture market. *Id.* at 1:39–42.

C. Claims

Of the challenged claims, claims 1 and 16 are independent and reproduced below:

> 1. A video camera comprising:
> a portable housing having an opening through which light emanating from outside the portable housing enters the portable housing;
> a memory device supported by the portable housing;
> an image sensor comprising first, second, and third pluralities of light sensitive devices arranged with respect to one another in a plane defined by the image sensor such that the first, second, and third pluralities of light sensitive devices are intermingled, defining an intermingled pattern, the first, second, and third pluralities of light sensitive devices being configured to detect first, second, and third colors, respectively, the first, second, and third colors being different from each other, the image sensor being configured to convert light entering the portable

housing through the opening into raw mosaiced image data comprising one data value for each of the light sensitive devices included in the first, second, and third pluralities of light sensitive devices, the image sensor being configured to output the raw mosaiced image data at a resolution of at least 2 k and at a frame rate of at least about 23 frames per second; and

electronics having an image processing module and a compression module implemented therein,

the image processing module connected between the image sensor and the memory device, the image processing module configured to process the raw mosaiced image data from the image sensor and output processed image data based on the raw mosaiced image data from the image sensor, the processed image data including less than three data values for each of the light sensitive devices included in the first, second, and third pluralities of light sensitive devices, and

the compression module connected between the image sensor and the memory device, the compression module configured to compress the processed image data with a mathematically lossy compression technique into compressed processed image data such that the compressed processed image data can be decompressed and demosaiced into a substantially visually lossless image of at least 2 k resolution,

wherein the memory device receives the compressed processed image data at a rate of at least about 23 frames per second.

Ex. 1001, 15:42–16:18.

16. A method of recording motion video with a camera, the method comprising:

receiving light with an image sensor of a camera, the image sensor comprising first, second, and third pluralities of light sensitive devices arranged with respect to one another in a plane defined by the image sensor such that the first, second, and third pluralities of light sensitive devices are intermingled, defining an intermingled pattern, the first, second, and third pluralities of light sensitive devices being configured to detect first, second,

and third colors, respectively, the first, second, and third colors being different from each other;

converting the light received by the image sensor into mosaiced image data at a resolution of at least 2 k and at a frame rate of at least about 23 frames per second, the mosaiced image data comprising one data value for each of the light sensitive devices included in the first, second, and third pluralities of light sensitive devices;

with electronics of the camera, processing the mosaiced image data from the image sensor and outputting processed image data based on the mosaiced image data from the image sensor, the processed image data including less than three data values for each of the light sensitive devices included in the first, second, and third pluralities of light sensitive devices;

with electronics of the camera, compressing the processed image data with a mathematically lossy compression technique into compressed processed image data such that the compressed processed image data can be decompressed and demosaiced into a substantially visually lossless image of at least 2 k resolution; and

recording the compressed processed image data onto a memory device of the camera at a rate of at least about 23 frames per second.

Id. at 17:43–18:9.

D. References and Evidence

Reference	Issued Date	Exhibit No.
US 7,349,574 B1 to Sodini	Mar. 25, 2008	1013
US 7,656,561 B2 to Mølgaard	Feb. 2, 2010	1006
US 8,170,402 B2 to Frost-Ruebling ("Frost")	May 1, 2012	1014
US 9,565,419 B2 to Presler	Feb. 7, 2017	1005

Petitioner also relies on the Declaration of Cliff Reader, Ph.D. Ex. 1003.

E. Asserted Grounds

Petitioner asserts that claims 1–30 are unpatentable on the following grounds.

Claims Challenged	35 U.S.C. §	References
1–10, 12, 13, 15–26, 28, 29	103	Presler, Mølgaard
11, 27	103	Presler, Mølgaard, Sodini
14, 30	103	Presler, Mølgaard, Frost

II. ANALYSIS

A. Level of Ordinary Skill in the Art

According to Petitioner, "a person of ordinary skill in the art ('POSITA') would include someone who had, at the priority date of the '314 patent (i) a Bachelor's degree in Computer Science, Electrical Engineering, or equivalent training, as well as (ii) approximately three years of experience in designing and/or manufacturing video capture, processing, and display systems." Pet. 6. "Such a person would have also had experience in data compression." *Id.* (citing Ex. 1003, 9–10). Patent Owner does not propose a definition. For purposes of this decision, we apply Petitioner's proposed definition, taking into account the level of skill reflected in the asserted references.

B. Claim Construction

For petitions filed on or after November 13, 2018, we use the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b), including construing the claim in accordance with the ordinary and customary meaning of the claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent. *See* Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal

Board, 83 Fed. Reg. 51,340, 51,340, 51,358 (Oct. 11, 2018) (amending 37 C.F.R. § 42.100(b) effective November 13, 2018) (now codified at 37 C.F.R. § 42.100(b) (2019)). The Petition was filed on May 6, 2019. Paper 2. So we apply the claim construction standard from *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc).

Under the *Phillips* standard, claim terms are generally given their ordinary and customary meaning as would be understood by one with ordinary skill in the art in the context of the specification, the prosecution history, other claims, and even extrinsic evidence. *Id.* at 1312–17. But extrinsic evidence is "less significant" than the intrinsic record. *Id.* at 1317. The specification is the "single best guide" to a disputed term's meaning. *Id.* at 1315. It "may reveal a special definition given to a claim term." *Id.* at 1316. Or it may reveal "an intentional disclaimer, or disavowal, of claim scope." *Id.*

Only those claim terms that are in controversy need to be construed, and only to the extent necessary to resolve the controversy. *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017).

Petitioner proposes constructions for "raw mosaiced image data," "demosaiced motion video data," "substantially visually lossless," and "memory device." Pet. 7–10. We need only construe "substantially visually lossless" for the purposes of this decision.

We agree with Petitioner that "the '314 patent defines the term 'visually lossless.'" *Id.* at 9. In particular, the specification states,

> As used herein, the term "visually lossless" is intended to include output that, when compared side by side with original (never compressed) image data on the same display device, one of ordinary skill in the art would not be able to determine which

> image is the original with a reasonable degree of accuracy, based only on a visual inspection of the images.

Ex. 1001, 9:55–60.

Petitioner asserts that the term "substantially visually lossless" should be construed "to include 'sets of data that are substantially visually similar from the point of view of one of ordinary skill in the art.'" Pet. 9 (citing Ex. 1001, 9:55–60; Ex. 1003, 20). For purposes of institution, Patent Owner does not dispute Petitioner's proposed claim construction. Prelim. Resp. 28.

Petitioner's construction of "substantially visually lossless" omits features from the specification's definition of "visually lossless." *See* Pet. 9. Petitioner's construction refers to the similarity of "sets of data." *Id.* But the specification's definition requires a comparison with the "original (never compressed) image data"—not data sets or image sets, generally. Ex. 1001, 9:55–60. Also, the specification's definition explains that the comparison is performed "on the same display device" (*id.*), but Petitioner's construction does not address how the comparison is made (Pet. 9). Petitioner's construction also includes a different standard for evaluating that comparison. In particular, the specification's definition requires "a reasonable degree of accuracy, based only on a visual inspection of the images." Ex. 1001, 9:55–60. Petitioner's construction, however, simply requires that the data sets are "substantially visually similar." Pet. 9. Petitioner does not explain how or why these standards are different. *See id.* Thus, Petitioner's construction of "substantially visually lossless" differs significantly from the specification's definition of "visually lossless."

Petitioner has not provided a reason for such a significant departure. *See id.* Although "visually lossless" is modified by the word "substantially" in the claims, we find no reason why the basis for the comparison, i.e., the

original image data, should be omitted when a term of degree, "substantially," is added as a modifier. Thus, we determine that Petitioner's construction is incomplete and insufficiently supported.

Based on the available evidence and for purposes of this decision, we construe "substantially visually lossless" as "substantially indistinguishable from the original (never compressed) image, to a reasonable degree of accuracy, when compared side by side on the same display device by a person of ordinary skill, based only on a visual inspection of the images."

Although Patent Owner did not argue in its Preliminary Response that the Petition is deficient in this way, it is Petitioner's burden to demonstrate a reasonable likelihood of prevailing, and we conclude Petitioner did not meet that burden.

C. Ground based on Presler and Mølgaard

Petitioner asserts that the subject matter of claims 1–10, 12, 13, 15–26, 28, and 29 would have been obvious over Presler and Mølgaard. Pet. 12–67. Petitioner has not shown a reasonable likelihood that it would prevail on this ground because (1) Petitioner does not sufficiently explain how Presler teaches or suggests "a substantially visually lossless image," (2) Petitioner does not apply its own proposed claim construction, and (3) Petitioner's obviousness rationale is unclear and lacks sufficient reasoning even under the plausible interpretations.

1. Presler[1]

Presler teaches a portable digital camera, which is shown in Figure 8, below. Ex. 1005, 5:19–23.

[1] Although Patent Owner argues that Presler does not qualify as prior art (*see, e.g.*, Prelim. Resp. 32–63), we assume that it is prior art for the purposes of this decision.

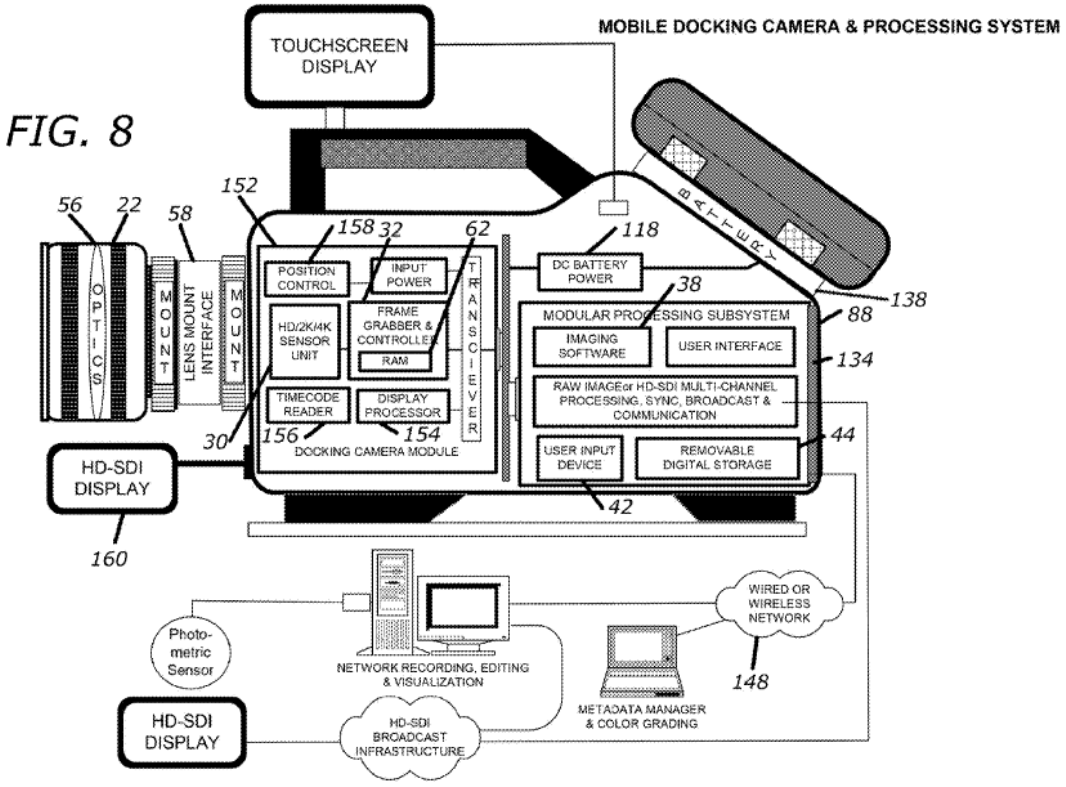

Figure 8, above, is a diagram of a digital-camera system, a mobile docking camera, and processing system. *Id.* at 5:1–3.

Presler's camera records "high definition raw images at film or video rates for HD, 2K and 4K, cinema quality production." *Id.* at 6:21–22. The camera's sensor can be a complimentary metal-oxide semiconductor (CMOS) active-pixel image sensor, for example. *Id.* at 6:26–32. Presler's system uses software 38 to perform image processing functions, including interpolation. *Id.* at 13:30–45. Also, software 38 can be used to select a demosaic method for Bayer image sources. *Id.* at 14:37–39.

2. Mølgaard

Mølgaard relates to "lossless or reversible, near-lossless, and lossy compression and decompression of digital image data." Ex. 1006, 1:6–8. According to Mølgaard, "Image data which have not been processed prior to compression, e.g. by color interpolation, give smaller image data files which

can be compressed and stored or transmitted faster." *Id.* at 2:49–52. So "the compression section 10 is optimized to handle raw image data coming straight from the analog-digital converter 14 in a digital imaging front-end." *Id.* at 8:26–28. Mølgaard's image sensor uses a Bayer pattern as the color-filter pattern, for example. *Id.* at 8:30–31.

3. Claim 1

Claim 1 recites, in part, "the compression module configured to compress the processed image data with a mathematically lossy compression technique into compressed processed image data such that the compressed processed image data can be decompressed and demosaiced into a *substantially visually lossless image* of at least 2 k resolution." Ex. 1001, 16:9–15 (emphasis added). As discussed above, we construe "a substantially visually lossless image" as "substantially indistinguishable from the original (never compressed) image, to a reasonable degree of accuracy, when compared side by side on the same display device by a person of ordinary skill, based only on a visual inspection of the images." *See supra* § II.B.

Petitioner asserts that Presler decompresses data into a substantially visually lossless image. Pet. 42 (citing Ex. 1003, 59). Petitioner also asserts that Presler's video camera combined with Mølgaard's compression method renders the recited compression module obvious. *Id.* at 43.

Patent Owner argues that Petitioner has not sufficiently explained how or why Mølgaard would be combined with Presler to arrive at the "substantially visually lossless" limitation. Prelim. Resp. 68–69. We agree with Patent Owner.

a) Presler and the recited "substantially visually lossless image"

Petitioner asserts that Presler's video camera has the claimed compression module. Pet. 33; *see also id.* at 38–39 (discussing Presler's

compression software). Petitioner asserts that "Presler further teaches that compressed data can be decompressed and demosaiced into a substantially visually lossless image of at least 2k resolution." *Id.* at 42 (citing Ex. 1003, 59). Apart from this conclusory statement, Petitioner does not explain how Presler's decompressed and demosaiced image is "substantially visually lossless." *Id.* For instance, Petitioner does not discuss (1) a side-by-side comparison with original (never compressed) image data on the same display device or (2) why one of ordinary skill in the art would not be able to determine which image is the original with a reasonable degree of accuracy, under our construction. *See supra* § II.B. Nor does Petitioner discuss its proposed construction (Pet. 9), which is based on visual similarity of data sets. *See id.* at 42.

In support of the conclusion that Presler teaches the recited "substantially visually lossless image," Petitioner cites Dr. Reader's declaration. *Id.* (citing Ex. 1003, 59). Yet the cited part of Dr. Reader's declaration offers little support. *See* Ex. 1003, 59. In fact, on the cited page, Dr. Reader states, "The combination of Presler and Mølgaard renders this limitation[, i.e., the compression module,] obvious." *Id.* The statement is followed by a discussion of another limitation. *Id.* Apart from this, Dr. Reader's declaration does not further discuss "a substantially visually lossless image" on page 59. *Id.*

The remainder of the cited section from Dr. Reader's declaration does not add much, if any, support for Petitioner's assertion. *Id.* at 60. Rather, Dr. Reader merely discusses how Presler's camera system compresses the image data:

> For example, Presler teaches that its camera system includes a processor 36 that executes software 38 (i.e., the image processing

> mode) that "perform[s] compression and can employ a full-frame temporal wavelet transform codec to eliminate 'block artifacts' that are often present when using DCT compression."

Id. (citing Ex. 1005, 13:46–49). At most, Dr. Reader discusses eliminating block artifacts. *See id.* But Dr. Reader does not explain how this compression produces a substantially visually lossless output. *Id.* Nor is it apparent from the passage quoted from Presler. Ex. 1005, 13:46–49. The discussion concludes with Dr. Reader reproducing a passage from Presler on decompression without further explanation. Ex. 1003, 60 (citing Ex. 1005, 26:8–23). Here, Dr. Reader's analysis lacks, for example, a discussion about a comparison with an original (never compressed) image with the image from Presler's software 38, as required by the claim under our construction. *See supra* § II.B. Also, in this analysis, Dr. Reader does not discuss the concept of visual similarity from Petitioner's proposed construction. *See* Ex. 1003, 60.

On this record, Petitioner has not shown a reasonable likelihood that it would prevail in showing that Presler "teaches that compressed data can be decompressed and demosaiced into a substantially visually lossless image of at least 2k resolution" under its proposed construction. Pet. 42 (citing Ex. 1003, 59).

b) The Presler-Mølgaard combination

Petitioner also asserts that Presler's video camera combined with Mølgaard's compression method renders obvious the recited compression module. Pet. 43. In particular, Petitioner asserts that "[a] POSITA would have also understood that the image data produced by Presler's video camera system and processed and compressed using [Mølgaard's] compression techniques to be 'substantially visually lossless.'" *Id.* That is, Petitioner

asserts that (1) Presler produces a substantially visually lossless image (*id.* at 42) and (2) applying Mølgaard's compression to Presler also produces a substantially visually lossless image (*id.* at 43).

We agree with Patent Owner that Petitioner has not adequately explained how Mølgaard would be combined with Presler. *See* Prelim. Resp. 68–69. Instead, we are left to speculate about Petitioner's proposed combination and how Petitioner believes the Presler-Mølgaard combination produces a substantially visually lossless image.

(1) First Interpretation

One possible interpretation is that Petitioner is proposing adding Mølgaard's processing after Presler's. *See* Pet. 43. Support for this interpretation is found on page 40 of the Petition. Here, Petitioner asserts that it would have been obvious to use Mølgaard's compression schemes "to compress the processed image data produced with the Presler's imaging software 38 (i.e., 'compression module')." *Id.* at 40. Petitioner also states that Mølgaard's compression would produce better results than "Presler's compression alone." *Id.* at 41. This statement suggests that Mølgaard's compression would be applied *in addition to* Presler's in Petitioner's proposed combination. *See id.*

Under this rationale, Petitioner presumably asserts that Presler produces a substantially visually lossless image (discussed *supra* § II.C.3(a)), and Mølgaard, in turn, does not affect that image. *See id.* at 43. So by Petitioner's reasoning, the resulting image must remain "substantially visually lossless" after Mølgaard's compression. *See id.*

This rationale fails for the same reasons that we discussed in § II.C.3(a). Specifically, Petitioner has not shown that Presler's compression produces a substantially visually lossless image to begin with. *See supra*

§ II.C.3(a). Thus, even assuming that Mølgaard's processing does not affect the image at all, Petitioner has not shown that the proposed input to Mølgaard's compression—i.e., Presler's output—is substantially visually lossless image with respect to the original, never-compressed image.

The original image is significant here because we construe "substantially visually lossless" to require a comparison with the original, never-compressed image. *See supra* § II.B. And Petitioner has not adequately explained how the Presler-Mølgaard combination satisfies this requirement.

(2) Second Interpretation

Another possible interpretation of Petitioner's rationale on page 43 is that Petitioner is proposing to replace Presler's compression with Mølgaard's. *See* Pet. 43. But this is problematic for at least two reasons.

First, much of Petitioner's analysis of Presler's compression is unnecessary if the proposed combination is based on Mølgaard's compression instead of Presler's. For instance, Petitioner discusses how "Presler's video camera can compress processed image data" and how Presler's decompression produces a substantially visually lossless image. *Id.* at 42. Also, Petitioner discusses Presler's "full-frame temporal Wavelet transform codec." *Id.* at 39 (citing Ex. 1005, 13:46–49). If Petitioner is proposing replacing Presler's compression with Mølgaard's, it is unclear how this discussion supports the obviousness conclusion. *See id.* at 39, 42.

Second, Petitioner has not explained how Mølgaard's compression satisfies all the compression limitations. For example, claim 1 requires a "compression module connected between the image sensor and the memory device." Ex. 1001, 16:8–9. Petitioner labels this limitation as 1.6.0. Pet. 38–39. As for this limitation, Petitioner states, "Presler further teaches that its

compression module is 'connected between' the image sensor and the removable memory because" the data link between frame grabber 32 and processor 36 can transfer the image data at variable speeds, which may be below, at, or above image sensor unit 30's readout rate. *Id.* (citing Ex. 1005, 9:45–52). But Petitioner does not explain sufficiently how Mølgaard's compression would replace Presler's compression module and still satisfy limitation 1.6.0 or how it would function in such a configuration. *See id.* at 38–40. If Petitioner intends to replace Presler's compression with Mølgaard's, then at least limitation 1.6.0 is insufficiently addressed under this rationale.

In sum, Petitioner's obviousness challenge is unclear and incomplete if we interpret Petitioner's proposed combination as replacing Presler's compression with Mølgaard's.

c) Conclusion

In general, Petitioner mixes features from the references in a way that leads to multiple contradictory interpretations of the obviousness rationale. And even under the plausible interpretations described above, Petitioner's challenge either fails to account for all limitations or lacks adequate reasoning. Apart from these problems, Petitioner has not explained how Presler teaches the recited "substantially visually lossless image" even under its own proposed construction. Thus, Petitioner has not shown a reasonable likelihood that it would prevail in establishing that the subject matter of claim 1 would have been obvious over Presler and Mølgaard.

4. Claim 16

Like claim 1, claim 16 recites "compressed processed image data can be decompressed and demosaiced into a substantially visually lossless image." Ex. 1001, 18:4–6. Also, Petitioner's analysis for claim 16 refers to

the analysis of claim 1. *See* Pet. 57–61. So all the deficiencies in Petitioner's obviousness rationale that we discussed above for claim 1 (*see supra* § II.C.3) apply to the obviousness rationale for claim 16. Thus, Petitioner has not shown a reasonable likelihood that it would prevail in establishing that the subject matter of claim 16 would have been obvious over Presler and Mølgaard.

5. The Dependent Claims

Claims 2–15 and 17–30 depend from claims 1 or 16, and the corresponding challenge incorporates the same deficiency as discussed above. So for the same reasons discussed in connection with claims 1 and 16, Petitioner has not demonstrated a reasonable likelihood that it would prevail in establishing the unpatentability of challenged claims 2–15 and 17–30.

III. CONCLUSION

Petitioner has not shown a reasonable likelihood that it would prevail in establishing that any of the challenged claims 1–30 are unpatentable.

IV. ORDER

It is ORDERED that the Petition is *denied* and that no *inter partes* review is instituted for any challenged claim on any ground of unpatentability.

FOR PETITIONER:

Michael S. Parsons
Andrew S. Ehmke
Jordan Maucotel
HAYNES AND BOONE, LLP
michael.parsons.ipr@haynesboone.com
andy.ehmke.ipr@haynesboone.com
jordan.maucotel.ipr@haynesboone.com

FOR PATENT OWNER:

Joseph R. Re
Douglas G. Muehlhauser
KNOBBE, MARTENS, OLSON & BEAR, LLP
2jrr@knobbe.com
2dgm@knobbe.com