

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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SAMSUNG ELECTRONICS CO., LTD.; AND  
SAMSUNG ELECTRONICS AMERICA, INC.  
Petitioners

v.

IMAGE PROCESSING TECHNOLOGIES, LLC  
Patent Owner

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IPR2017-01218  
Patent 8,983,134 B2

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Before JONI Y. CHANG, MIRIAM L. QUINN, and  
SHEILA F. McSHANE, *Administrative Patent Judges*.

McSHANE, *Administrative Patent Judge*.

FINAL WRITTEN DECISION  
*Inter Partes* Review  
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

## I. INTRODUCTION

We have jurisdiction to hear this *inter partes* review under 35 U.S.C. § 6. This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons discussed herein, we determine that Petitioner has shown, by a preponderance of the evidence, that claim 3 of U.S. Patent No. 8,983,134 B2 (Ex. 1001, “the ’134 patent”) is unpatentable, and Petitioner has not shown, by a preponderance of the evidence, that claims 4–6 of the ’134 patent are unpatentable.

### A. Procedural Background

Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (“Petitioner”) filed a Petition requesting *inter partes* review of claims 3–6 (“the challenged claims”) of the ’134 patent pursuant to 35 U.S.C. §§ 311–319. Paper 2 (“Pet.”). The supporting Declaration of Dr. John C. Hart (“Hart Declaration”) was filed. Ex. 1002. Image Processing Technologies, LLC (“Patent Owner”) filed a Preliminary Response to the Petition. Paper 8 (“Prelim. Resp.”). Pursuant to 35 U.S.C. § 314(a), on October 3, 2017, we instituted *inter partes* review on the following grounds:

- whether claim 3 would have been obvious under 35 U.S.C. § 103(a) in view of Gerhardt<sup>1</sup> and Bassman<sup>2</sup>; and
- whether claim 3 would have been obvious under 35 U.S.C. § 103(a) in view of Gilbert<sup>3</sup>, Gerhardt, and Hashima<sup>4</sup>.

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<sup>1</sup> U.S. Patent No. 5,481,622 (issued January 2, 1996) (Ex. 1013).

<sup>2</sup> U.S. Patent No. 6,044,166 (issued March 28, 2000) (Ex. 1014).

<sup>3</sup> Alton L. Gilbert, *A Real-Time Video Tracking System*, PAMI-2, No. 1, IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE, January, 1980. (Ex. 1005).

<sup>4</sup> U.S. Patent No. 5,521,843 (issued May 28, 1996) (Ex. 1006).

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See Paper 11 (“Inst. Dec.” or “Dec.”). Subsequent to institution, Patent Owner filed a Patent Owner Response (Paper 15, “PO Resp.”). Petitioner filed a Reply (Paper 22, “Pet. Reply”) to the Patent Owner Response.

On April 24, 2018, the Supreme Court held that a final written decision in an *inter partes* review must decide the patentability of all claims challenged in the petition. *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1359–60 (2018) (“SAS”). Pursuant to SAS, on May 3, 2018, we instituted *inter partes* review on the following additional grounds:

- whether claims 4–6 would have been obvious under 35 U.S.C. § 103(a) in view of Gerhardt and Bassman; and
- whether claims 4–6 would have been obvious under 35 U.S.C. § 103(a) in view of Gilbert, Gerhardt, and Hashima.

See Paper 25; see also *PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1360–61 (Fed. Cir. 2018) (reading “the SAS opinion as interpreting the statute to require a simple yes-or-no institution choice respecting a petition, embracing all challenges included in the petition”); *Guidance on the Impact of SAS on AIA Trial Proceedings* (April 26, 2018) (available at <https://www.uspto.gov/patents-application-process/patent-trial-and-appealboard/trials/guidance-impact-sas-aia-trial>) (“[I]f the PTAB institutes a trial, the PTAB will institute on all challenges raised in the petition.”). The parties were requested to advise the Board if they wished to change the case schedule or submit further briefing in light of the institution on additional claims and grounds. Paper 25, 1. Petitioner requested additional supplemental briefing, and the request was granted. Paper 26, 4–5. Leave for additional supplemental briefing for both parties was also granted. Paper 31. Petitioner filed a Supplemental Reply (Paper 29, “Pet. Supp. Reply”).

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Patent Owner filed a Response to Petitioner’s Supplemental Brief (Paper 34, “PO Supp. Resp.), and Petitioner filed a Reply to Patent Owner’s Supplemental Response (Paper 35, “Pet. Supp. Resp.).

An oral hearing was held on June 29, 2018. A transcript of the hearing is included in the record. Paper 39 (“Tr.”).

### *B. Related Proceedings*

The parties indicate that a related matter is *Image Processing Technologies LLC v. Samsung Elecs. Co.*, No. 2:16-cv-00505-JRG (E.D. Tex.) (“the district court case”). Pet. 1, Paper 5, 1. Petitioner also indicates that it filed Case IPR2017-00353 against other claims of the ’134 patent. Pet. 2, 5–6. In Case IPR2017-00353, *inter partes* review was instituted. See *Samsung Electronics Co., Ltd. v. Image Processing Tech. LLC*, Case IPR2017-00353 (PTAB May 25, 2017) (Paper 12) (“the ’353 IPR”). A Final Written Decision issued in that *inter partes* review, with the determination that claims 1 and 2 of the ’134 patent are unpatentable. *Samsung Electronics Co., Ltd. v. Image Processing Tech. LLC*, Case IPR2017-00353 (PTAB May 9, 2018) (Paper 37) (“’353 Final Written Decision”).

### *C. The ’134 Patent*

The ’134 patent is entitled “Image Processing Method,” and issued on March 17, 2015 from an application filed on March 17, 2014. Ex. 1001, [22], [45], [54]. The ’134 patent claims priority to application FR 96 09420, dated July 26, 1996. *Id.* at [30]. The ’134 patent also claims priority to the following applications: (1) U.S. Patent Application No. 12/620,092, filed on November 17, 2009—now U.S. Patent No. 8,805,001; (2) U.S. Patent Application No. 11/676,926, filed on February 20, 2007—now U.S. Patent No. 7,650,015; (3) U.S. Patent Application No. 09/792,294, filed on

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February 23, 2001—now U.S. Patent No. 7,181,047; (4) U.S. Patent Application No. 09/230,502, filed on July 22, 1997—now U.S. Patent No. 6,486,909; and (5) Application No. PCT/EP98/05383, filed on August 25, 1998. *Id.* at [60].

The '134 patent is directed to an image processing system that identifies and localizes moving objects. Ex. 1001, 1:35–39. The input signal used in the system has “a succession of frames, each frame having a succession of pixels.” *Id.* at 3:31–34. Figure 14a of the '134 patent is reproduced below.

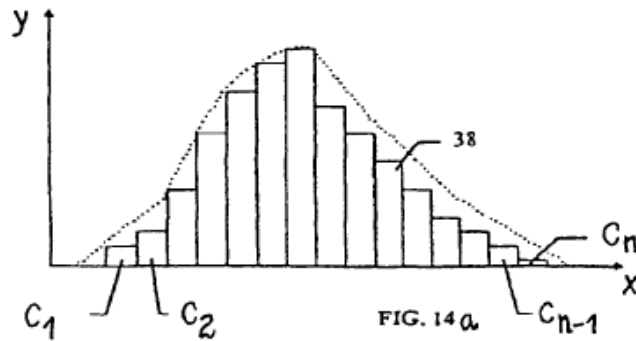


Figure 14a, above, depicts a velocity histogram, with classes  $C_1$ – $C_n$  representing a particular velocity. Ex. 1001, 20:49–54. Figures 16 and 17 of the '134 patent are reproduced below.

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