

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LG ELECTRONICS, INC., and
LG ELECTRONICS U.S.A., INC.,
Petitioner,

v.

TOSHIBA SAMSUNG STORAGE TECHNOLOGY KOREA
CORPORATION,
Patent Owner.

Case IPR2015-01644
Patent 6,785,065 B1

Before KALYAN K. DESHPANDE, MICHAEL R. ZECHER, and
TREVOR M. JEFFERSON, *Administrative Patent Judges*.

ZECHER, *Administrative Patent Judge*.

DECISION

Institution of *Inter Partes* Review
35 U.S.C. § 314(a) and 37 C.F.R. § 42.108

I. INTRODUCTION

Petitioner, LG Electronics, Incorporated and LG Electronics U.S.A., Incorporated (collectively, “LG”), filed a Petition requesting an *inter partes* review of claims 1–9 of U.S. Patent No. 6,785,065 B1 (“the ’065 patent,” Ex. 1001). Paper 1 (“Pet.”). Patent Owner, Toshiba Samsung Storage Technology Korea Corporation (“Toshiba”), timely filed a Preliminary Response. Paper 7 (“Prelim. Resp.”).

We have jurisdiction under 35 U.S.C. § 314(a), which provides that an *inter partes* review may not be instituted unless the information presented in the Petition shows “there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” Taking into account the arguments presented in Toshiba’s Preliminary Response, we conclude that the information presented in the Petition establishes that there is a reasonable likelihood that LG will prevail in challenging claims 1–9 of the ’065 patent as unpatentable under 35 U.S.C. § 103(a). Pursuant to § 314, we hereby authorize an *inter partes* review to be instituted as to these claims of the ’065 patent.

A. *Related Matters*

The ’065 patent is involved in the following district court cases: (1) *LG Electronics, Inc. v. Toshiba Samsung Storage Technology Korea Corp.*, No. 1:12-cv-01063 (LPS) (D. Del.); (2) *Toshiba Samsung Storage Technology Korea Corp. v. LG Electronics Inc.*, Case 1:15-cv-0691 (LPS) (D. Del.). Pet. 4; Paper 6, 1. In addition to this Petition, LG filed another petition challenging the patentability of a certain subset of claims in U.S. Patent No. 6,721,110 B2 (“the ’110 patent”) (Case IPR2015-01642). Pet. 5.

B. The '065 Patent

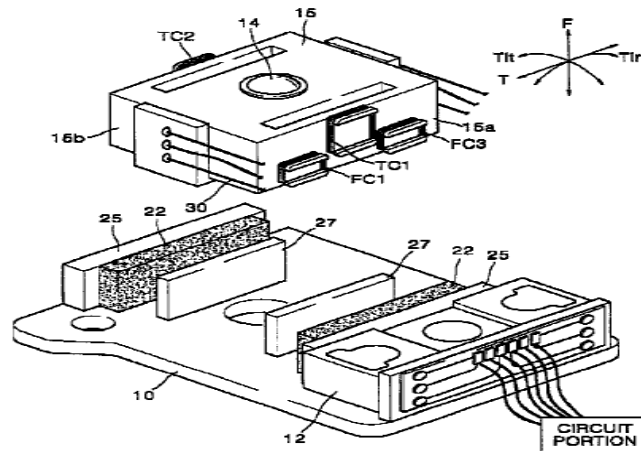
The '065 patent, titled “Optical Pickup Actuator Driving Method and Apparatus Therefor,” issued August 31, 2004, from U.S. Patent Application No. 10/772,339, filed on February 6, 2004. Ex. 1001, at [54], [45], [21], [22]. The '065 patent is a continuation of U.S. Patent Application No. 10/173,958, filed on June 12, 2002—now the '110 patent. *Id.* at [63]. The '065 patent also claims foreign priority to Korean Patent Application No. 2001-34687, filed on June 19, 2001. *Id.* at [30].

As the title suggests, the '065 patent generally relates to an apparatus and method of driving an optical pickup actuator in which a focus coil, a track coil, and a tilt coil drive the optical pickup actuator in a focus direction, a track direction, and tilt direction, respectively. Ex. 1001, 1:16–21. These coils are provided at two sides of a bobbin to secure the remaining sides of the bobbin, and also allow the focus coil to be used as the tilt coil. *Id.* at 1:22–24. According to the '065 patent, a conventional optical pickup actuator is very small and uses all four side surfaces of the bobbin to install the focus coils, the track coils, or the tilt coils. *Id.* at 2:57–59, Fig. 1. Consequently, it becomes very difficult to install the necessary wiring in such a small space. *Id.* 2:60–63, Fig. 1. In addition, when these coils are arranged on all four side surfaces of the bobbin, the wiring of the coils becomes more complicated. *Id.* at 2:65–66, Fig. 1.

The '065 patent purportedly addresses these problems by arranging the focus coils, the track coil, and the tilt coils on just two side surfaces of the bobbin in a manner that secures a sufficient space provided at the other side surfaces of the bobbin, and allows the focus and tilt direction to be controlled together by a single coil. Ex. 1001, 3:10–18. Figure 3 of the '065

patent, reproduced below, illustrates an optical pickup actuator according to one embodiment of the invention. *Id.* at 4:44–46, 5:9–10.

FIG. 3



As shown in Figure 3, the optical pickup actuator includes base 10, holder 12 located on one side of base 10, bobbin 15, objective lens 14 mounted on bobbin 15, and a magnetic driving portion that drives bobbin 15 in a focus direction, a tilt direction, and a track direction. Ex. 1001, 5:10–15. The magnetic driving portion further includes at least one focus and tilt coil FC1–FC4 and at least one track coil TC1 or TC2 at each of opposite side surfaces 15a of bobbin 15. *Id.* at 5:16–18. Magnets 22 are installed to face the at least one focus and tilt coil and at least one track coil provided on each of the opposite side surfaces. *Id.* at 5:18–21.

C. Illustrative Claim

Of the challenged claims, claim 1 is independent. Independent claim 1 is directed to an optical recording or reproducing apparatus for use with transferring information with respect to a recording medium. Claims 2–9

directly or indirectly depend from independent claim 1. Independent claim 1 is illustrative of the challenged claims and is reproduced below:

1. An optical pickup recording and/or reproducing apparatus for use with transferring information with respect to a recording medium, comprising:
 - a spindle motor rotating the recording medium;
 - an optical pickup including an objective lens and an actuator which actuates the objective lens so as to transfer the information with respect to the recording medium; and
 - a control unit driving the spindle motor and the optical pickup to transfer information with respect to the recording medium and controlling the actuator of the optical pickup in the radial, track, tilt and focusing directions;
 - wherein the actuator comprises:
 - a bobbin movably arranged on a base of actuator;
 - at least one focus and tilt coil which drives the bobbin in the focus and tilt directions and at least one track coil which drives the bobbin in the track direction arranged on each of opposite side surfaces of the bobbin;
 - support members which move the bobbin and are provided to the other side surfaces of the bobbin, wherein the focus and tilt coils and the track coils are not arranged on the other side surfaces of the bobbin; and
 - magnets arranged to face corresponding sides of the opposite side surfaces of the bobbin.

Ex. 1001, 8:39–65.

D. Prior Art Relied Upon

LG relies upon the following prior art references:

Ikegame	US 5,428,481	June 27, 1995	Ex. 1005
Wakabayashi	US 5,905,255	May 18, 1999	Ex. 1007
Kim	US 6,034,935	Mar. 7, 2000	Ex. 1004
Mohri	US 6,134,058	Oct. 17, 2000	Ex. 1006
Akanuma	US 6,343,053 B1	Jan. 29, 2002 (filed Aug. 25, 1999)	Ex. 1002

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