Trials@uspto.gov
571-272-7822

Paper No. 50
Mailed August 16, 2018

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SONY CORPORATION,
Petitioner,

v.

FUJIFILM CORPORATION,
Patent Owner.

Case IPR2017-00800
Patent 6,767,612 B2

Before JO-ANNE M. KOKOSKI, JEFFREY W. ABRAHAM, and MICHELLE N. ANKENBRAND, *Administrative Patent Judges.*

ABRAHAM, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318 and *37 C.F.R. § 42.73*

I. INTRODUCTION

Sony Corporation ("Petitioner") filed a Corrected Petition seeking *inter partes* review of claims 1, 2, 4, 5, and 7–11 ("the challenged claims") of U.S. Patent No. 6,767,612 B2 (Ex. 1001, "the '612 patent"). Paper 9 ("Pet."). Fujifilm Corporation ("Patent Owner") filed a Patent Owner Preliminary Response to the Petition. Paper 13 ("Prelim. Resp."). On August 18, 2017, we instituted an *inter partes* review of claims 1, 2, 4, 5, and 7–11. Paper 14 ("Inst. Dec.").

After institution, Patent Owner filed a Patent Owner Response (Paper 27, "PO Resp.") and Petitioner filed a Reply (Paper 31, "Reply"). On April 26, 2018, we issued an order modifying our institution decision. Paper 35. After receiving authorization from the Board, Patent Owner filed a Supplemental Patent Owner Response (Paper 41, "Suppl. PO Resp.") and Petitioner filed a Supplemental Reply (Paper 42, "Suppl. Reply").

An oral hearing was held on July 23, 2018 and a transcript of the hearing has been entered into the record of the proceeding. Paper 49 ("Tr.").

We have jurisdiction 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 that follow, we determine that Petitioner has shown by a preponderance of the evidence that claims 1, 2, 4, 5, and 7–11 are unpatentable.

II. BACKGROUND

A. Related Proceedings

The parties indicate that the '612 patent is involved in *Certain Magnetic Data Storage Tapes and Cartridges Containing the Same* (ITC Investigation No. 337-TA-1012). Pet. 7; Paper 3, 2. Petitioner further

identifies the following litigation as related: *Sony Corporation v. Fujifilm Holdings Corporation*, Civil Action No. 1:16-cv-05988-PGG (S.D.N.Y). Pet. 7.

B. The '612 Patent

The '612 patent, titled "Magnetic Recording Medium," issued on July 27, 2004. Ex. 1001, [54], [45]. The '612 patent is directed to a "magnetic recording medium affording great improvement in medium noise in a recording and reproduction system adopting MR [magneto-resistive] heads." *Id.*, Abstract. The magnetic recording medium of the '612 patent includes a magnetic layer, comprising a hexagonal ferrite powder and a binder, on a nonmagnetic support. *Id.* According to the '612 patent, the inventors discovered that "pits of a certain depth on the magnetic layer surface have a marked effect on noise." *Id.* at 2:20–25. The '612 patent explains that

> when there are pitted portions of prescribed depth on the magnetic layer surface, contact conditions between the MR head and the magnetic tape are compromised and output decreases locally in areas in which spacing loss in the pitted portions is substantial. . . . [S]ince pits on the magnetic layer surface cannot be removed, when the number of pits having a certain depth or more exceeds a certain number, they are thought to increase noise during reproduction by MR heads.

Id. at 3:28–40. The '612 patent also teaches that it is possible to reduce noise by maintaining the surface roughness of the magnetic layer within a certain range. *Id.* at 2:59–61.

In view of this, the '612 patent discloses a magnetic recording medium comprising a magnetic layer wherein

> the number of pits having a depth of ⅓ or more of the minimum recording bit length present on a surface of said magnetic layer is equal to or less than 100/10000 μm^2, and the center surface

> average roughness of said magnetic layer surface SRa is equal to or less than 6.0 nm.

Id. at 2:33–37. The '612 patent discloses methods for manufacturing magnetic recording media with the aforementioned properties, as well as methods for measuring pits and surface roughness. *Id.* at 16:44–24:38.

C. Illustrative Claim

Petitioner challenges claims 1, 2, 4, 5, and 7–11 of the '612 patent. Claims 1 and 10 are independent claims. Independent claim 1 is illustrative, and is reproduced below:

> 1. A magnetic recording medium comprising a nonmagnetic layer comprising a nonmagnetic powder and a binder and a magnetic layer comprising a hexagonal ferrite powder and a binder in this order on a nonmagnetic support, wherein
>
> > the number of pits having a depth of ⅓ or more of the minimum recording bit length present on a surface of said magnetic layer is equal to or less than 100/10,000 μm^2, the minimum recording bit length is about 50 to 500 nm, and the center surface average roughness of said magnetic layer surface SRa is equal to or less than 6.0 nm.

Ex. 1001, 25:65–26:10.

D. References

> Matsuno, JP 2001-84549A, published Mar. 30, 2001 ("Matsuno," Ex. 1004).
>
> Endo et al., JP 2000-40218A, published Feb. 8, 2000 ("Endo," Ex. 1005).
>
> Yamazaki et al., U.S. Patent No. 6,017,605, issued Jan. 25, 2000 ("Yamazaki," Ex. 1007).
>
> R.L. Wallace, Jr., *The Reproduction of Magnetically Recorded Signals*, BELL SYS. TECH. J. 1145–1173 (1951) ("Wallace," Ex. 1006).

E. Reviewed Grounds of Patentability

References	Statutory Basis	Claims Challenged
Matsuno, Endo	§ 103	1, 2, 4, 5, and 7–11
Matsuno, Endo, Wallace	§ 103	1, 2, 4, 5, and 7–11
Matsuno, Endo, Wallace, Yamazaki	§ 103	1, 2, 4, 5, and 7–11

F. Level of Ordinary Skill in the Art

Petitioner defines a person of ordinary skill in the art as having at least one of the following qualifications:

> (1) a bachelor's degree in electrical engineering, mechanical engineering, physics, materials science (or a related field) plus two years of experience working with magnetic storage systems or media; (2) an advanced degree in one of the disciplines identified above (or a related field), either with an emphasis in magnetic storage technology or equivalent experience working with magnetic storage systems or media; or (3) work experience equivalent to the prior qualifications.

Pet. 9; Ex. 1023 ¶ 16. Patent Owner does not dispute Petitioner's definition, presents an analysis based on Petitioner's definition, and argues that, even under Petitioner's definition, Petitioner has failed to show the challenged claims are unpatentable. PO Resp. 8; *id.* at 8 n.2.

In view of the foregoing, we adopt Petitioner's definition of the level of ordinary skill in the art. Further, this level of ordinary skill is reflected by the prior art of record. *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (the prior art itself can reflect the appropriate level of ordinary skill in the art).

DOCKET ALARM

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts

Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research

With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips

Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS
Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS
Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS
Sync your system to PACER to automate legal marketing.