Trials@uspto.gov
571-272-7822

Paper No. 8
Entered: July 10, 2017

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SONY CORP.,
Petitioner,

v.

FUJIFILM CORP.,
Patent Owner.

Case IPR2017-00625
Patent 6,641,891 B2

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

ABRAHAM, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
37 C.F.R. § 42.108

I. INTRODUCTION

Sony Corporation ("Petitioner") filed a Petition seeking *inter partes* review of claims 1, 4–9, 11, and 14 of U.S. Patent No. 6,641,891 B2 (Ex. 1001, "the '891 patent"). Paper 2 ("Pet."). Fujifilm Corporation ("Patent Owner") filed a Patent Owner Preliminary Response to the Petition. Paper 6 ("Prelim. Resp."). After considering the Petition and the Preliminary Response, we determine that Petitioner has not established a reasonable likelihood of prevailing with respect to any of the challenged claims of the '891 patent. *See* 35 U.S.C. § 314(a). Accordingly, we deny the Petition, and do not institute *inter partes* review.

II. BACKGROUND

A. Related Proceedings

The parties indicate that the '891 patent is involved in *Certain Magnetic Data Storage Tapes and Cartridges Containing the Same* (ITC Investigation No. 337-TA-1012). Pet. vii; Paper 4, 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. vii.

B. The '891 Patent

The '891 patent, titled "Magnetic Recording Medium," issued on Nov. 4, 2003. Ex. 1001, [54], [45]. The '891 patent discloses "particulate high-density magnetic recording media" comprising "a magnetic layer, an essentially nonmagnetic lower layer, and an uppermost layer comprising a ferromagnetic powder in the form of a ferromagnetic metal powder, hexagonal ferrite powder, or the like." *Id.* at 1:5–11. To overcome

limitations and problems in the area of higher-density recording, the '891 patent states:

> further thinning of the magnetic layer and heightened dispersion of ferromagnetic powder were examined to achieve a magnetic recording medium corresponding to high density recording. As a result, it was determined that, as shortening recording wavelength, the magnetic particles aggregate and behave like a single large magnetic member (magnetic cluster), causing problems. That is, as recording is conducted at increasingly shorter wavelengths and the magnetic layer is made ever thinner, magnetic clusters make their appearance. As a result, there are problems in that the medium noise increases, causing the [signal-to-noise ("S/N")] and [carrier-to-noise ("C/N")] ratios to drop.

Id. at 3:16–27.

According to the '891 patent, the inventors discovered that it was possible to achieve good high-density characteristics by limiting the mean size of the magnetic clusters to a certain range. *Id.* at 3:37–42. The '891 patent teaches that when average cluster size increases, medium noise increases, but when magnetic clusters are eliminated entirely, electromagnetic characteristics deteriorate due to dispersion. *Id.* at 4:44–50. Therefore, the '891 patent discloses that "the average size of magnetic clusters during DC erasure is equal to or higher than 0.5×10^4 nm^2 and less than 5.5×10^4 nm^2." *Id.* at 4:42–44.

The '891 patent also teaches improving the performance of the magnetic recording media by maintaining (1) the thickness of the magnetic layer between 0.01 and 0.15 μm, (2) the coercivity of the magnetic layer above 159 kA/m (2000 Oe), and (3) the mean particle size of the ferromagnetic powder at a value of less than about 0.25 μm. *Id.* at 3:44–58,

4:27–63. Improvements include high S/N or C/N ratios and suppression of medium noise. *Id.* at 31:26–28.

The '891 patent discloses several embodiments of the invention disclosed therein and comparative examples, in the form of magnetic tapes and disks, and provides tables comparing measured properties of each. *Id.* at 22:39–28:24, Tables 2, 3, 29:50–31:35. The measured properties include the thickness of the magnetic layer, coercivity of the magnetic layer, magnetic cluster size, S/N ratio (for magnetic disks), and C/N ratio (for magnetic tapes). *Id.* at col. 28, Tables 2, 3. The '891 patent sets forth procedures for measuring these properties, and states that a S/N ratio equal to or greater than 20 db and a C/N ratio equal to or greater than 0.0 db are both considered "good." *Id.* at 29:1–49.

C. Challenged Claims

Petitioner challenges claims 1, 4–9, 11, and 14 of the '891 patent. Independent claim 1 is illustrative, and is reproduced below:

> 1. A magnetic recording medium, comprising:
>
> an essentially nonmagnetic lower layer; and a magnetic layer comprising a ferromagnetic powder and a binder, the magnetic layer located over the lower layer,
>
> wherein said magnetic layer has a thickness ranging from 0.01 to 0.15 μm and a coercivity equal to or higher than 159 kA/m, and the ferromagnetic particles contained in the ferromagnetic powder have a size less than 0.15 μm, and an average size of magnetic cluster at DC erase is equal to or higher than 0.5×10^4 nm^2 and less than 5.5×10^4 nm^2, and wherein the essentially non-magnetic lower layer has either no magnetic properties or magnetic properties to a degree not affected by recording information to the magnetic layer.

Id. at 31:39–52.

D. References

Petitioner relies on the following references:

Yamazaki et al., U.S. Patent No. 6,017,605, issued Jan. 25, 2000 ("Yamazaki," Ex. 1002).

S.M. McCann et al., *Noise characterisation of barium ferrite dispersions*, J. MAGNETISM & MAGNETIC MATERIALS 193, 366–369 (1999) ("McCann," Ex. 1003).

M. Takahashi et al., *The Dependence of Media Noise on the Magnetic Cluster Size for Co Based Thin Film Media Fabricated under Ultra Clean Sputtering Process*, IEEE TRANS. ON MAGNETICS Vol. 4, No. 4, 1573–1575 (1998) ("Takahashi," Ex. 1004).

Petitioner also relies on the Declaration of George A. Saliba. Ex. 1006.

E. The Asserted Grounds

Reference(s)	Statutory Basis	Claims Challenged
Yamazaki	§ 102	1, 4–7, 11, and 14
Yamazaki	§ 103	1, 4–9, 11, and 14
Yamazaki, McCann, Takahashi	§ 103	1, 4–9, 11, and 14

III. ANALYSIS

A. Claim Construction

In an *inter partes* review, claim terms in an unexpired patent are interpreted according to their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016) (upholding the use of the broadest reasonable interpretation standard). Absent a special definition for a claim term being set forth in the

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.