# IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

GODO	KAISHA	IP BR	IDGE 1.

Plaintiff,

#### **DEMAND FOR JURY TRIAL**

v.

SEAGATE TECHNOLOGY LLC, SEAGATE TECHNOLOGY (US) HOLDING, INC., SEAGATE TECHNOLOGY (THAILAND) LIMITED, SEAGATE SINGAPORE INTERNATIONAL HEADQUARTERS PTE. LTD., and SEAGATE TECHNOLOGY (NETHERLANDS) B.V.,

Defendants.

Civil Action No.	

## **COMPLAINT AND JURY DEMAND**

Plaintiff Godo Kaisha IP Bridge 1 ("IP Bridge" or "Plaintiff") brings this civil action against Seagate Technology LLC ("STL"), Seagate Technology (US) Holding, Inc. ("STH"), Seagate Technology (Thailand) Limited ("Seagate Thailand"), Seagate Singapore International Headquarters Pte. Ltd. ("Seagate Singapore"), and Seagate Technology (Netherlands) B.V. ("Seagate Netherlands") (collectively, "Seagate" or "Defendants").

#### **NATURE OF SUIT**

- This is a civil action for patent infringement under the laws of the United States,
   U.S.C. § 1, et seq.
- 2. Defendants have infringed and continue to infringe one or more claims of U.S. Patent Nos. 7,884,403 (the "'403 patent"), 8,319,263 (the "'263 patent"), and 11,737,372 (the "'372 patent") (collectively, the "Asserted Patents") at least by making, using, selling, offering

for sale, and importing into the United States devices that infringe one or more claims of each of the Asserted Patents.

3. IP Bridge is the legal owner by assignment of the entire right, title, and interest in and to the Asserted Patents, which were duly and legally issued by the United States Patent and Trademark Office ("USPTO"). IP Bridge seeks monetary damages and injunctive relief to address past and ongoing infringement of its valuable patent portfolio.

## **THE PARTIES**

- 4. Plaintiff Godo Kaisha IP Bridge 1 is a Japanese entity, with a place of business at c/o Sakura Sogo Jimusho, 1-11 Kanda Jimbocho, Chiyoda-ku, Tokyo, 101-0051 Japan.
- 5. Defendant Seagate Technology LLC is a corporation incorporated under the laws of the State of Delaware and has a place of business at 47488 Kato Road, Fremont, California 94538. It may be served through its registered agent for service, The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801. On information and belief, Seagate Technology LLC is a wholly-owned subsidiary of Seagate Technology (US) Holdings, Inc.
- 6. Defendant Seagate Technology (US) Holdings, Inc. is a corporation incorporated under the laws of the State of Delaware and has a place of business at 47488 Kato Road, Fremont, California 94538. It may be served through its registered agent for service, The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801.
- 7. Defendant Seagate Technology (Thailand) Limited is a Thailand corporation with a place of business at 1627 Moo 7, Teparuk Rd, Tambol Teparuk, Amphur Muang, Samutprakarn 10270, Thailand.

- 8. Defendant Seagate Singapore International Headquarters Pte. Ltd. is a Singapore corporation having a place of business at 90 Woodlands Avenue 7, Singapore 737911, Singapore. Defendant Seagate Singapore International Headquarters Pte. Ltd. also maintains an address at Koolhovenlaan 1, 1119 NB Schiphol-Rijk, The Netherlands.
- 9. Defendant Seagate Technology (Netherlands) B.V. is a Netherlands corporation having a place of business at Tupolevlaan 105, 1119 PA Schiphol-Rijk, The Netherlands.
- 10. Defendants develop, manufacture, import, offer for sale, and/or sell certain products, including hard disk drives ("HDDs"), for consumers in the United States, including in the State of Delaware.

# **JURISDICTION AND VENUE**

- 11. This action arises under the patent laws of the United States, Title 35 of the United States Code. This Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).
  - 12. This Court has personal jurisdiction over Defendants.
- 13. STH and STL are subject to general personal jurisdiction in the State of Delaware because they are incorporated in the State of Delaware, and thus reside in this district. In addition, on information and belief STH and STL have purposefully availed themselves of the benefits of doing business in the District of Delaware by designing, manufacturing, distributing, promoting, marketing, selling, and offering for sale the Accused Products (defined below) and deriving substantial revenue from such activities by placing those products into the stream of commerce with the expectation that they will be purchased by consumers within the District of Delaware.
- 14. According to a 2011 press release, Seagate Thailand makes hard disk drives. https://investors.seagate.com/news/news-details/2011/Seagate-Thailand-Invests-1-Billion-Baht-

has two facilities in Thailand that manufacture drives and drive assemblies.

https://d18rn0p25nwr6d.cloudfront.net/CIK-0001137789/73579808-2f43-4bde-9354
cffac2ea1c41.pdf, p. 33. According to publicly available importation records, Seagate Thailand

To-Expand-Its-Operations-In-Thailand/default.aspx. According to Seagate's 2023 10-K, Seagate

regularly ships HDDs to the United States. On information and belief, Seagate Thailand makes, sells, offers for sale, and ships to the United States the Accused Products. For example, on information and belief Seagate Thailand has manufactured the Seagate IronWolf Pro 16TB HDD and the Seagate BarraCuda 2TB HDD.

- 15. On information and belief, Seagate Thailand has purposefully availed itself of the benefits of doing business in the District of Delaware by manufacturing, selling, offering for sale, and exporting to the United States the Accused Products and has derived substantial revenue from such activities by placing those products into the stream of commerce with the expectation that they will be purchased by consumers within the District of Delaware. For example, the Seagate IronWolf Pro 16TB HDD and the Seagate BarraCuda 2TB HDD are offered for sale from Best Buy within Delaware. <a href="https://www.bestbuy.com/site/6545785.p">https://www.bestbuy.com/site/6344172.p</a>.
- 16. On information and belief, Seagate Singapore and STL work in concert with Seagate Thailand to manufacture HDDs. *See*<a href="https://efoia.bis.doc.gov/index.php/documents/export-violations/export-violations-2023/1497-e2836/file">https://efoia.bis.doc.gov/index.php/documents/export-violations/export-violations-2023/1497-e2836/file</a>. On information and belief, Seagate Singapore works in concert with other Defendants to distribute to the United States the Accused Products, e.g., the Seagate BarraCuda 2TB HDD, which is offered for sale from Best Buy within Delaware.

  <a href="https://www.bestbuy.com/site/6344172.p.">https://www.bestbuy.com/site/6344172.p.</a>
  <a href="https://www.bestbuy.com/site/6344172.p.">https://www.bestbuy.com/site/6344172.p.</a>

- 17. On information and belief, Seagate Singapore has purposefully availed itself of the benefits of doing business in the District of Delaware by working in concert with other Defendants to manufacture and distribute to the United States the Accused Products and has derived substantial revenue from such activities by placing those products into the stream of commerce with the expectation that they will be purchased by consumers within the District of Delaware.
- 18. On information and belief, Seagate Netherlands works in concert with other Defendants to distribute to the United States the Accused Products, e.g., the Seagate IronWolf Pro 16TB HDD, which is offered for sale from Best Buy within Delaware. https://www.bestbuy.com/site/6545785.p.
- 19. On information and belief, Seagate Netherlands has purposefully availed itself of the benefits of doing business in the District of Delaware by working in concert with other Defendants to distribute the Accused Products to the United States and has derived substantial revenue from such activities by placing those products into the stream of commerce with the expectation that they will be purchased by consumers within the District of Delaware.
- 20. This Court has specific personal jurisdiction over Defendants at least because, on information and belief, they have worked in concert to establish distribution and sales channels for the Accused Products in the United States, including in the District of Delaware.
- 21. Venue is proper in this District under 28 U.S.C. §§ 1391 and 1400(b). STH and STL are incorporated in this District, and thus reside in this district.
- 22. Venue is proper against Seagate Thailand, Seagate Singapore, and Seagate Netherlands under 28 U.S.C. § 1391(c)(3) because they are foreign corporations and venue is proper in any district against a foreign corporation.

23. Defendants are properly joined because, on information and belief, they have acted in concert with each other to design, manufacture, distribute, promote, market, sell, and offer for sale the Accused Products in the United States and within Delaware. Accordingly, the relief requested in this action arises out of the same transaction, occurrence, or series of transactions and will require resolution of common questions of law and/or fact.

#### **BACKGROUND**

#### **IP Bridge's Patented Technologies**

- 24. IP Bridge owns a patent portfolio directed to magnetoresistive devices, such as hard disk drives, with a magnetic tunnel junction ("MTJ") ("MTJ Patent Portfolio") based on a magnesium oxide layer ("MgO"). The sole inventor of the patent portfolio, Dr. Shinji Yuasa, is widely recognized as a luminary in the field of MgO-based MTJs because of his fundamental contributions to the field. His patents cover a groundbreaking innovation that dramatically improves the density of information that can be accurately written to and read from a hard disk drive.
- 25. Dr. Yuasa received a PhD in Physics from Keio University (Yokohama, Japan) in 1996. After receiving his doctorate, he served as a staff scientist at the National Institute of Advanced Industrial Science and Technology ("AIST"). Since 2010, he has been a director of an AIST research center and a professor at University of Tsukuba. Since 2000, he has been studying thin film magnetism and spintronics, more specifically the tunnel magnetoresistance ("TMR") effect and spin-transfer torque ("STT") in magnetic tunnel junctions and their applications to various devices such as magnetic sensors and magnetoresistive random-accessmemory ("MRAM"). According to the IEEE Magnetics Society, Dr. Yuasa's most important scientific achievements are the development of MgO-based MTJs and their applications to read/write heads of hard disk drives and STT-MRAM—precisely the subject of this complaint.

- 26. For his pioneering contribution to the MgO-based MTJs, Dr. Yuasa has been awarded or co-awarded more than 20 prizes, including:<sup>1</sup>
  - The Science and Technology Prize (2016), by the Minister of Education, Culture, Sports, Science and Technology for "Studies on giant tunnel magnetoresistance effect."
  - JSPS Prize (2010) on "Development of High Performance Magnetic Tunnel Junction Devices."
  - Tsukuba Prize (2009 5 million yen) on "Discovery of giant tunnel magnetoresistance in MgO-based magnetic tunnel junctions and its industrial applications."
  - Inoue Harushige Prize (2009) on "Magnesium oxide tunnel magnetoresistive element and its mass production technology."
  - Prime Minister Prize (2008) on "Development of high-performance magnetic tunnel junctions for ultra-high-density hard disk drives."
  - Asahi Award (2008) on "Studies on development and application of tunnel magnetoresistive effect (TMR)."
  - IBM Japan Science Prize (2007) on "Studies on tunnel magnetoresistive effects and their application."
  - Tokyo Techno Forum 21 Gold Medal Prize (2006) on "Study on spintronics technology for MRAM."
  - Marubun Science Prize (2006) on "Study on tunnel magnetoresistance effect."
  - Ichimura Science Prize (2005). A prize of 1 million yen was awarded to S. Yuasa.
  - The Young Scientists' Prize (2005) by the Minister of Education, Culture, Sports, Science and Technology on "Development of MgO-based magnetic tunnel junctions."
- 27. Dr. Yuasa is the sole inventor on the Asserted Patents, which resulted from his award-winning development of MgO-based MTJs in and before 2004. IP Bridge obtained ownership of the MTJ Patent Portfolio in 2021 by assignment from its previous owners (AIST and Japan Science and Technology Agency).

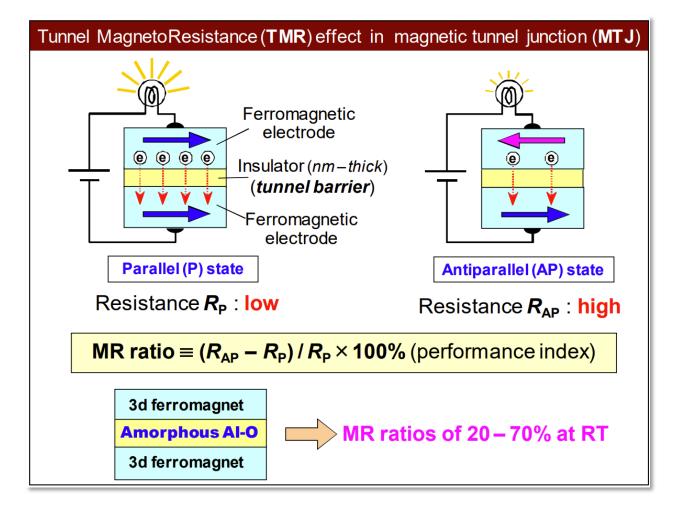
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<sup>&</sup>lt;sup>1</sup> https://www.jst.go.jp/impact/sahashi/en/system/index.html

- 28. The Asserted Patents are directed to a particular structure for the read/write heads of hard disk drives ("HDD") that improves the density of information that can be accurately written to and read from an HDD.
- 29. More specifically, the Asserted Patents are directed to a MTJ structure comprising a thin insulating layer (a tunnel barrier layer) sandwiched between two ferromagnetic metal electrodes. The concept of a "tunnel barrier" is illustrated in the slide below.<sup>2</sup> The two electrodes produce electrical resistance. When the magnetization directions of the two ferromagnetic electrodes are aligned (as shown on the left below), the electrical resistance in the direction perpendicular to the interface between the layers is smaller than the electrical resistance when the two ferromagnetic electrodes have anti-parallel magnetization.<sup>3</sup>

<sup>&</sup>lt;sup>2</sup> Dr. Yuasa's IEEE Distinguished Lecturer presentation, accessible at <a href="https://www.ewh.ieee.org/r6/scv/mag/MtgSum/Meeting2012\_05\_Presentation.pdf">https://www.ewh.ieee.org/r6/scv/mag/MtgSum/Meeting2012\_05\_Presentation.pdf</a>, pg. 12.

<sup>&</sup>lt;sup>3</sup> See Exhibit A, '403 Patent, 1:21-41, Figs. 8(A)-(B).



- 30. Based on this principle, magnetoresistive devices can use a MTJ structure to detect a change in magnetization by measuring electrical resistance. The percentage ratio of the different electrical resistances at the two magnetization alignments (parallel vs. anti-parallel) is referred to as a magnetoresistance ("MR") ratio, which is a known performance metric of magnetoresistive devices. The higher the MR ratio, the more sensitive the device is to detect changes in magnetization.
- 31. Dr. Yuasa's work improved MTJs in multiple respects. ('403 patent at 9:15-24 "In accordance with the invention, a larger magnetoresistance than in the conventional MTJ device can be obtained, and the output voltage of the MTJ device can be increased. At the same time, the resistance value of the MTJ device can be reduced so that it is optimized for MRAM. The

invention thus enables the level of integration of MRAM using the MTJ device to be readily increased. In accordance with the invention, the output voltage value of the MRAM roughly doubles over prior art, making the MTJ device of the invention suitable for very large scale integrated MRAMs of gigabit class."). For example, the MTJs can exhibit an increased MR ratio. ('403 patent at 9:15-17 "In accordance with the invention, a larger magnetoresistance than in the conventional MTJ device can be obtained, and the output voltage of the MTJ device can be increased."). Further, they can exhibit lower resistance and therefore can support higher electrical currents. ('403 patent at 6:52-56 "When there are oxygen vacancy defects, the potential barrier height of the MgO tunnel barrier is thought to decrease (such as in the range of 0.10 to 0.85 eV; more specifically, 0.2 to 0.5 eV), which is thought to result in an increase in the tunneling current.").

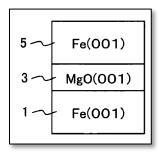
32. Before Dr. Yuasa's invention, conventional MTJ structures used an amorphous aluminum oxide ("Al-O") tunnel barrier layer with a small MR ratio of 70%. Dr. Yuasa recognized that when atoms in the tunnel barrier are arranged in an orderly fashion (e.g., using a crystalline MgO layer), as opposed to the amorphous Al-O layer, electrons are not scattered. This lack of scattering causes coherent tunneling to occur, which improves the MTJ device's performance. To that end, embodiments of the Asserted Patents are directed to the formation of a tunnel barrier that comprises a highly-ordered MgO tunnel barrier layer sandwiched between two ferromagnetic electrodes, as depicted below and in Figure 1(B) of the '403 Patent. The Asserted Patents disclose an MR ratio as high as 146% when measured at a temperature of 20

<sup>&</sup>lt;sup>4</sup> See '403 Patent, 2:21-31.

<sup>&</sup>lt;sup>5</sup> See '403 Patent, 5:9-14.

<sup>&</sup>lt;sup>6</sup> See '403 Patent, Fig. 1(B).

degrees Kelvin ("K"), and 88% at a temperature of 293K (i.e., room temperature), which "represent the highest MR ratios that have so far been obtained at room temperature."<sup>7</sup>



33. In some embodiments, the MgO layer is also formed with oxygen vacancy defects, such that the atomic ratio of Mg and O are no longer stoichiometric (that is, 1:1), but instead 1:x, where x < 1. The inventor recognized that when there are oxygen vacancy defects, a potential barrier height  $\Phi$  of the MgO tunnel barrier is reduced from 3.6 electron volts ("eV") (for an ideal MgO crystal) to a range of 0.10 to 0.85 eV, and more specifically 0.2 to 0.5 eV, which lowers the resistance of the tunnel barrier.<sup>8</sup> The patents describe a method (Simmons' formula) of how the tunnel barrier is determined.<sup>9</sup>

34.

35. Shortly after making this discovery, Dr. Yuasa filed the first priority Japanese patent application to the MTJ patent portfolio on March 12, 2004. Dr. Yuasa first published his research finding of a "giant MR ratio" based on MgO tunnel junctions in the *Japanese Journal of Applied Physics*, and in *Nature Materials* on April 2 and October 31 of the same year,

<sup>&</sup>lt;sup>7</sup> See '403 Patent, 7:46-51.

<sup>&</sup>lt;sup>8</sup> See '403 Patent, 6:47-7:2.

<sup>&</sup>lt;sup>9</sup> See '403 Patent, 7:3-45.

respectively. <sup>10</sup> The *Nature Materials* paper has been cited almost 4,000 times according to Google Scholar.

- 36. Seagate was well-aware of Dr. Yuasa's' groundbreaking work. For example, in 2006 a group of Seagate researchers first reported using TMR heads in Seagate's HDDs. 11 In that report, the Seagate authors describe "[r]ecently published results using MgO as a barrier material has shown giant TMR ratios in excess of 100%," and cited a 2005 paper co-authored by Dr. Yuasa. The Seagate researchers recognized that Dr. Yuasa's breakthrough "provid[es] more opportunity for extending TMR recording head applications" and reported that "for the first time" the industry's "first commercial TMR heads [were] used in Seagate laptop and desktop drives."
- 37. Consistent with Dr. Yuasa's invention, the Seagate researchers reported that their TMR reader had a barrier height in the claimed range of around 0.1 eV (i.e., 100 meV):

# A. Tunnel Barrier Physics

Ultra-low RA tunneling stack fabrication is challenging in volume production. Typically, TMR readers exhibited classical parabolic tunneling negative resistance drop against the applied voltage or current. The current–voltage (I-V) characteristics were fit to the Brinkman–Dynes–Rowell model of tunneling [12], which revealed the barrier height to be around 100 meV with barrier width around 8.5 Å. It shows also typical negative

<sup>&</sup>lt;sup>10</sup> Yuasa, S., Fukushima, A., Nagahama, T., Ando, K., & Suzuki, Y. (2004). "High tunnel magnetoresistance at room temperature in fully epitaxial Fe/MgO/Fe tunnel junctions due to coherent spin-polarized tunneling." *Japanese Journal of Applied Physics*, 43(4B), L588.; Yuasa, S., Nagahama, T., Fukushima, A., Suzuki, Y., & Ando, K. (2004). "Giant room-temperature magnetoresistance in single-crystal Fe/MgO/Fe magnetic tunnel junctions." *Nature Materials*, 3(12), 868-871.

<sup>&</sup>lt;sup>11</sup> Mao, S., *et al.*, "Commercial TMR heads for hard disk drives: characterization and extendibility at 300 gbit2," *IEEE Transactions on Magnetics*, vol. 42, no. 2, pp. 97-102, Feb. 2006, doi: 10.1109/TMAG.2005.861788.

- 38. Defendants have further praised Dr. Yuasa's achievements in journal articles published by their researchers. For example, in a 2007 article co-authored by two Seagate employees, the authors made several extrapolations from Dr. Yuasa's *Nature Materials* paper. <sup>12</sup> In a 2010 journal, lead author Sameh Hassan of Seagate cited Dr. Yuasa's work on annealing as having "attracted much attention for various kinds of materials." <sup>13</sup> In another 2013 article, several Seagate authors cited Dr. Yuasa's work multiple times as showing he "extensively studied" different issues "experimentally," including MTJs. <sup>14</sup> And Seagate researchers have repeatedly appeared at the same conference presentations as Dr. Yuasa. <sup>15</sup>
- 39. Defendants have also cited Dr. Yuasa's work in their own patents. For example, STL's U.S. Patent No. 8,551,626, directed to a "CCP-CPP magnetoresistive reader with high GMR value," at 1:40-45 discusses Dr. Yuasa's published U.S. Patent Application No. 2008/0026253 as providing a useful example of a GMR device. The examiner also cited Dr. Yuasa's published application to STL in prosecution.

# **IP Bridge's Asserted Patents**

40. This complaint focuses on three IP Bridge patents.

<sup>&</sup>lt;sup>12</sup> Runggera, I., Rochaa, A., Mryasovb, O., Heinonenc, O., Sanvito, S., "Electronic transport through Fe/MgO/Fe(1 0 0) tunnel junctions." *Journal of Magnetism and Magnetic Materials* 316 (2007) 481-483.

<sup>&</sup>lt;sup>13</sup> Hassan, S., *et al.*, "Interfacial structure and magnetic properties of Co2FeAl0.5Si0.5 /MgO heterostructures." *Journal of Applied Physics* 107, 103919 (2010).

<sup>&</sup>lt;sup>14</sup> Gangmei, P., Neudert, A., Marcham, M., Hicken, R., Gubbins, M., Cao, X., Lamberton, R., Johnston, A., "Thermal and spin-transfer-torque excitation of precessional modes in magnetic tunnel junction nanopillars with symmetric interfaces and a thick free layer." *Physical Review B*, 88, 134415 (2013).

<sup>&</sup>lt;sup>15</sup> For example, the AVS 50th International Symposium on Magnetic Interfaces and Nanostructures (<a href="https://www2.avs.org/symposium2003/Sessions/Session\_MI-MoA.html">https://www2.avs.org/symposium2003/Sessions/Session\_MI-MoA.html</a>), the 2018 NIMS Award Ceremony and Award Lecture (<a href="https://www.nims.go.jp/nimsweek/2018/pdf/dayle\_flyer\_nw20180911.pdf">https://www.nims.go.jp/nimsweek/2018/pdf/dayle\_flyer\_nw20180911.pdf</a>), and the 8th International Symposium on Metallic Multilayers (<a href="https://www.scl.kyoto-u.ac.jp/~ono/MML2013/PDF/PosterList.pdf">https://www.scl.kyoto-u.ac.jp/~ono/MML2013/PDF/PosterList.pdf</a>).

- 41. IP Bridge is the current owner by assignment of the entire right, title, and interest in and to the '403 patent titled "Magnetic Tunnel Junction Device and Memory Device Including the Same." The '403 patent issued on February 8, 2011. The patent is generally directed to a particular structure of magnetoresistive devices, such as the read/write heads of HDDs that improves the density of information that can be accurately written to and read from an HDD. A copy of the '403 patent is attached as Exhibit A.
- 42. IP Bridge is the current owner by assignment of the entire right, title, and interest in and to the '263 patent titled "Magnetic Tunnel Junction Device." The '263 patent issued on November 27, 2012. The patent is generally directed to a particular structure for magnetoresistive devices, such as the read/write heads of HDDs that improves the density of information that can be accurately written to and read from an HDD. A copy of the '263 patent is attached as Exhibit B.
- 43. IP Bridge is the current owner by assignment of the entire right, title, and interest in and to the '372 patent titled "Method of Manufacturing a Magnetoresistive Random Access Memory (MRAM)." The '372 patent issued on August 22, 2023. The patent is generally directed to a particular structure for magnetoresistive devices, such as the read/write heads of HDDs that improves the density of information that can be accurately written to and read from an HDD. A copy of the '372 patent is attached as Exhibit C.
- 44. IP Bridge has complied with its obligations under 35 U.S.C. § 287 for each of the Asserted Patents.

#### **Defendants' Incorporation of IP Bridge's Patented Technologies Into Their Devices**

45. The allegations provided below are exemplary and without prejudice to IP Bridge's infringement contentions. In providing these allegations, IP Bridge does not convey or imply any particular claim constructions or the precise scope of the claims. IP Bridge's claim

construction contentions regarding the meaning and scope of the claim terms will be provided under the Court's scheduling order and local rules.

- 46. The infringing products include without limitation: read/write heads for hard disk drives ("HDDs"); hard disk drives incorporating read/write heads, whether internal or external drives; and all Defendants' hardware made, used, offered for sale, sold, or imported from March 2018 going forward that incorporate such read/write heads and/or hard disk drives.
- 47. The infringing products thus also include without limitation: Seagate Exos HDDs (e.g., ST8000NM000A); Seagate IronWolf HDDs (e.g., ST4000VN008); Seagate IronWolf Pro HDDs (e.g., ST16000NE000); Seagate BarraCuda HDDs (e.g., ST2000LM015); Seagate FireCuda HDDs (e.g., ST8000DX001); Seagate FireCuda Gaming HDDs (e.g., STKL5000400); Seagate FireCuda Gaming Hub (e.g., STKK16000400); Seagate Nytro HDDs; Seagate Lyve HDDs (e.g., STJX60000400, STJG16000400); Seagate SkyHawk HDDs (e.g., ST8000VX010, ST24000VE002); Seagate One Touch External Hard Drive HDDs (e.g., STKC5000400, STLC20000400); Seagate Ultra Touch External Hard Drive HDDs (e.g., STMA2000400); Seagate Game Drive for PS5 HDDs (e.g., STLV5000100); Seagate Game Drive for Xbox HDDs (e.g., STKW8000400); Seagate Portable Drive (e.g., STGX1000400); Seagate Expansion Desktop HDDs (e.g., STKP24000400); Seagate Expansion Portable HDDs (e.g., STKM5000400); Seagate Photo HDDs (e.g., STJS2000400); Seagate Photo Drive HDDs; Seagate Basic HDDs (e.g., STJL5000400); Seagate Backup Plus HDDs (e.g., STHP5000400); Seagate Starfield Special Edition Game Drive HDDs (e.g., STMJ5000400); Seagate StarWars Edition HDDs (e.g., Hans Solo, Luke Sywalker, Darth Vader, Boba Fett, Grogu, Beskar Ingot, The Mandalorian,); Seagate Marvel Edition HDDs (e.g., God of War Ragnarök, Black Panther, King of Wakanda, Shuri, Okoye, Ghost-Spider, Spider-Man, Miles Morales); and all HDDs

offered under the Exo, IronWolf, BarraCuda, FireCuda, Nytro, Lyve, SkyHawk, One Touch, Ultra Touch, Game Drive, Portable Drive, Expansion, Photo, Photo Drive, Basic, Backup Plus, Starfield, Star Wars, and Marvel brands (all together with the prior paragraph, the "Accused Products").

- 48. The Accused Products are non-limiting examples that were identified based on publicly available information, and IP Bridge reserves the right to identify additional infringing activities and products, including, for example, on the basis of information obtained during discovery.
- 49. As detailed below and in Exhibits D-F, each limitation of at least one claim of each of the Asserted Patents is literally present in the Accused Products, or is literally practiced by Defendants' personnel, agents, or customers who use the Accused Products. To the extent that any limitation is not literally present or practiced, each such limitation is present or practiced under the doctrine of equivalents.
- 50. Defendants have made extensive use of IP Bridge's patented technologies, including the technology described and claimed in the Asserted Patents. IP Bridge requests that this Court award it damages sufficient to compensate for Defendants' infringement of the Asserted Patents, find this case exceptional and award IP Bridge its attorneys' fees and costs, and grant an injunction against Defendants to prevent ongoing infringement of the Asserted Patents.

## **COUNT I**

## (Infringement of U.S. Patent No. 7,884,403)

51. IP Bridge incorporates by reference and realleges all the foregoing paragraphs of the Complaint as if fully set forth herein.

## Direct Infringement by STH, STL, and Seagate Thailand

- 52. STH and STL have directly infringed and continue to directly infringe, literally and/or equivalently, one or more claims of the '403 patent, including at least claim 5, including by making, using, selling, and offering for sale in the United States the Accused Products.
- 53. On information and belief, Seagate Thailand has directly infringed and continues to directly infringe, literally and/or equivalently, one or more claims of the '403 patent, including at least claim 5, by selling and offering for sale in the United States the Accused Products.
- 54. For example, and without limitation, Seagate's devices including their hard disk drives meet each and every limitation of claim 5 either literally or under the doctrine of equivalents, as set forth in Exhibit D and incorporated here.

# Seagate's Knowledge of the '403 Patent

- 55. Since at least 2018, Seagate has known of the '403 patent.
- 56. As discussed above, Seagate was well-aware of Dr. Yuasa's foundational work, having discussed and excerpted his *Nature Materials* paper and other work in journals, cited his work in patents assigned to Seagate, and presented at the same conferences.
- 57. In addition, between 2014 and 2017 there was a litigation in Japan between AIST and Japan Science and Technology Agency—the prior owners of MTJ Patent Portfolio, which includes the Asserted Patents—and Seagate. Among other patents, the prior owners sued Seagate on JP 4,963,744 (the "JP '744 patent"), a Japanese counterpart to the Asserted Patents. The JP '744 patent claims priority to the same Japanese patent applications as all of the Asserted Patents at issue here, JP 2004-071186 and JP 2004-313350, and contains analogous disclosure to the Asserted Patents. For example, the JP '744 patent includes a magnetic barrier height limitation that also appears in the Asserted Patents.

- 58. In May 2017, a Japanese court found that three Seagate HDDs infringed the JP '744 patent. By 2018 the parties to that litigation were negotiating a license to resolve the dispute. As part of those negotiations, the prior owners discussed various options with Seagate for a resolution, including Seagate taking a license to all patents worldwide in the MTJ Patent Portfolio (which would have included U.S. patents like the Asserted patents), or a license to just patents in certain countries like Japan. As a result of those negotiations, Seagate learned of the Asserted Patents and other pending U.S. applications within in the portfolio no later than sometime in 2018.
- 59. In March 2019, Seagate took a license to the prior patent owners' Japanese portfolio, but did not license the U.S. counterparts, including the Asserted Patents. Seagate thus was aware of the '403 patent, which issued in 2011, but did not have a license to it.
- 60. In addition, since at least as early as the service of this Complaint, Seagate has known of the '403 patent.

## **Induced Infringement by All Defendants**

- 61. Since at least as early as 2018 and no later than the service of this Complaint,

  Defendants have known that the Accused Products infringe at least claim 5 of the '403 patent.
- 62. Since at least as early as 2018 and no later than the service of this Complaint,
  Defendants have known that the Accused Products infringe at least claim 5 of the '403 patent
  when used by customers or other users, when imported by others, and when sold or offered for
  sale by third parties, such as Best Buy. *See, e.g.*,

https://www.bestbuy.com/site/brands/seagate/pcmcat166600050107.c. For example, a search of best Buy's website of sales locations in or near the 19702 ZIP code for Newark, Delaware with available external hard drives returns 15 results, with results 1, 3, and 5 located in Delaware. *See* https://www.bestbuy.com/site/store-locator.

- 63. Since at least as early as 2018 and no later than the service of this Complaint, Defendants have induced infringement and continue to induce infringement by actively encouraging customers and/or other users to directly infringe at least claim 5 of the '403 patent. Defendants have provided materials that induce customers or others to use, offer for sale, and sell the Accused Products in a manner that infringes at least claim 5 of the '403 patent. Defendants have done so, for example, on websites, in user manuals, in product documentation, and in other advertising materials. For example, Seagate's website touts its hard drives. See, e.g., https://www.seagate.com/products/hard-drives/ and https://www.seagate.com/products/external-hard-drives/. Seagate's website also contains detailed documentation and product manuals on how to use its hard drives. See https://www.seagate.com/search/?keyword=HDD and https://www.seagate.com/search/?keyword=hard%20drive. As another example, Defendants encourage the use of the IronWolf Pro HDD, the IronWolf HDD, the BarraCuda HDD, and the Exos HDD in in applications such as laptops, mobile storage, external storage systems, all-in-one PCs, ultra-slim desktop PCs, servers, and data centers. See, e.g., https://www.seagate.com/wwwcontent/datasheets/pdfs/ironwolf-pro-18tb-DS1914-16-2011US-en US.pdf, https://www.seagate.com/www-content/datasheets/pdfs/ironwolf-12tbDS1904-9-1707USen US.pdf, https://www.seagate.com/www-content/datasheets/pdfs/barracuda-2-5-DS1907-3-2005US-en US.pdf, and https://www.seagate.com/www-content/datasheets/pdfs/exos-7-e8-datasheet-DS1957-2-1904US-en US.pdf.
- 64. Since at least as early as 2018 and no later than the service of this Complaint,

  Defendants have induced infringement and continue to induce infringement by actively
  encouraging third-party distributors and resellers to directly infringe at least claim 5 of the '403

patent by working in concert with distributors and resellers to sell and offer for sale the Accused Products and have actively encouraged such sales and offers for sale. For example, Seagate's 2023 10-K states that Seagate sells products to "major OEMs, distributors and retailers," that Seagate's "distributors generally enter into non-exclusive agreements for the resale of our products... with limited rights of return and price protection" and other "sales programs to distributors on a quarterly and periodic basis to promote the sale of selected products in the sales channel," and that the "retail channel... typically require[s] greater marketing support, sales incentives and price protection periods." <a href="https://dl8m0p25nwr6d.cloudfront.net/CIK-0001137789/73579808-2f43-4bde-9354-cffac2ea1c41.pdf">https://dl8m0p25nwr6d.cloudfront.net/CIK-0001137789/73579808-2f43-4bde-9354-cffac2ea1c41.pdf</a> at 9. Seagate also notes that it is "dependent on sales to distributors and retailers, which may increase price erosion and the volatility" of sales, because a "substantial portion" of its sales have "been to distributors and retailers of disk drive products." *Id.* at 15, 18. The Accused Products are available at such distributors and retailers, for example Best Buy. *See, e.g.*,

https://www.bestbuy.com/site/brands/seagate/pcmcat166600050107.c.

- 65. Since at least as early as 2018 and no later than the service of this Complaint, each of the Defendants (including STH, STL, Seagate Thailand, Seagate Singapore, and Seagate Netherlands) has actively and knowingly induced third-party retailers, distributors, integrators, and end-users of the Accused Products to directly infringe one more claims of the '403 patent, including at least claim 5.
- 66. On information and belief, STH and STL have induced and continue to induce infringement of the '403 patent by making read heads that are incorporated into the Accused Products that are sold by third parties and used by customers. On information and belief, STH

and STL have induced and continue to induce infringement of the '403 patent by working in concert with other Defendants to market and sell the Accused Products in the United States.

- 67. On information and belief, Seagate Thailand has induced and continues to induce infringement of the '403 patent by making, offering for sale, selling, and exporting to the United States the Accused Products.
- 68. On information and belief, Seagate Singapore and Seagate Netherlands have induced and continue to induce infringement of the '403 patent by distributing to the United States the Accused Products.

## Contributory Infringement by STH, STL, and Seagate Thailand

- 69. Since at least as early as 2018 and no later than the service of this Complaint, STH, STL, and Seagate Thailand have contributorily infringed at least claim 5 of the '403 patent by selling and offering to sell their Accused Products within the United States.
- 70. The Accused Products are not staple articles or commodities of commerce with substantial noninfringing uses. The Accused Products are designed, configured, and adapted to work with both other Seagate devices and other third-party devices, such as personal computers, laptops, servers, server farms, and other computer systems. The Accused Products have no substantial purpose other than as part of infringing devices and accordingly are not staple articles or commodities of commerce.
- 71. The Accused Products are a material part of the invention of at least claim 5 of the '403 patent.
- 72. Since at least as early as 2018 and no later than the service of this Complaint, STH, STL, and Seagate Thailand have known of the '403 patent and have known that the Accused Products are made or adapted for use in a manner that infringes at least claim 5 of the '403 patent.

#### Seagate's Willful Infringement

- 73. Since at least 2018, Seagate knew or should have known, or at a minimum acted with willful blindness to the fact that, its Accused Products infringe one or more claims of the '403 patent, including at least claim 5.
- 74. Seagate has willfully infringed at least claim 5 of the '403 patent. Seagate's making, using, offering for sale, selling, and promoting of the Accused Products with provision of manuals and instruction to purchasers that encourage use that Seagate knew would infringe the '403 patent demonstrate the willful nature of Seagate's infringement.
- 75. Seagate's infringement of the '403 patent has been willful since at least 2018. Seagate's ongoing infringement of the '403 patent continues to be willful. Seagate has chosen to manufacture, use, offer to sell and/or sell the Accused Products, even after having notice of the '403 patent, knowing that such products would infringe the '403 patent.
- 76. The foregoing description of Seagate's infringement is based on publicly available information. IP Bridge reserves the right to modify this description, including, for example, on the basis of information about the Accused Products that it obtains during discovery.
- 77. IP Bridge has been and is being irreparably harmed, and has incurred and will continue to incur damages, as a result of Seagate's infringement of the '403 patent.

  Seagate's infringement of the '403 patent has damaged and continues to damage IP Bridge in an amount yet to be determined, but no less than a reasonable royalty.

#### **COUNT II**

#### (Infringement of U.S. Patent No. 8,319,263)

78. IP Bridge incorporates by reference and realleges all the foregoing paragraphs of the Complaint as if fully set forth herein.

# Direct Infringement by STH, STL, and Seagate Thailand

- 79. STH and STL have directly infringed and continue to directly infringe, literally and/or equivalently, one or more claims of the '263 patent, including at least claim 1, including by making, using, selling, and offering for sale in the United States the Accused Products.
- 80. On information and belief, Seagate Thailand has directly infringed and continues to directly infringe, literally and/or equivalently, one or more claims of the '263 patent, including at least claim 1, by selling and offering for sale in the United States the Accused Products.
- 81. For example, and without limitation, Seagate's devices including their hard disk drives meet each and every limitation of claim 1 either literally or under the doctrine of equivalents, as set forth in Exhibit E and incorporated here.

# Seagate's Knowledge of the '263 Patent

- 82. Since at least 2018, Seagate has known of the '263 patent.
- 83. As discussed above, Seagate was well-aware of Dr. Yuasa's foundational work, having discussed and excerpted his *Nature Materials* paper and other work in journals, cited his work in patents assigned to Seagate, and presented at the same conferences.
- 84. In addition, between 2014 and 2017 there was a litigation in Japan between AIST and Japan Science and Technology Agency—the prior owners of MTJ Patent Portfolio, which includes the Asserted Patents—and Seagate. Among other patents, the prior owners sued Seagate on JP 4,963,744 (the "JP '744 patent"), a Japanese counterpart to the Asserted Patents. The JP '744 patent claims priority to the same Japanese patent applications as all of the Asserted Patents at issue here, JP 2004-071186 and JP 2004-313350, and contains analogous disclosure to the Asserted Patents. For example, the JP '744 patent includes a magnetic barrier height limitation that also appears in the Asserted Patents.

- 85. In May 2017, a Japanese court found that three Seagate HDDs infringed the JP '744 patent. By 2018 the parties to that litigation were negotiating a license to resolve the dispute. As part of those negotiations, the prior owners discussed various options with Seagate for a resolution, including Seagate taking a license to all patents worldwide in the MTJ Patent Portfolio (which would have included U.S. patents like the Asserted patents), or a license to just patents in certain countries like Japan. As a result of those negotiations, Seagate learned of the Asserted Patents and other pending U.S. applications within in the portfolio no later than sometime in 2018.
- 86. In March 2019, Seagate took a license to the prior patent owners' Japanese portfolio, but did not license the U.S. counterparts, including the Asserted Patents. Seagate thus was aware of the '263 patent, which issued in 2012, but did not have a license to it.
- 87. In addition, since at least as early as the service of this Complaint, Seagate has known of the '263 patent.

## **Induced Infringement by All Defendants**

- 88. Since at least as early as 2018 and no later than the service of this Complaint,

  Defendants have known that the Accused Products infringe at least claim 1 of the '263 patent.
- 89. Since at least as early as 2018 and no later than the service of this Complaint, Defendants have known that the Accused Products infringe at least claim 1 of the '263 patent when used by customers or other users, when imported by others, and when sold or offered for sale by third parties, such as Best Buy. *See, e.g.*,

https://www.bestbuy.com/site/brands/seagate/pcmcat166600050107.c. For example, a search of best Buy's website of sales locations in or near the 19702 ZIP code for Newark, Delaware with available external hard drives returns 15 results, with results 1, 3, and 5 located in Delaware. *See* https://www.bestbuy.com/site/store-locator.

- 90. Since at least as early as 2018 and no later than the service of this Complaint, Defendants have induced infringement and continue to induce infringement by actively encouraging customers and/or other users to directly infringe at least claim 1 of the '263 patent. Defendants have provided materials that induce customers or others to use, offer for sale, and sell the Accused Products in a manner that infringes at least claim 1 of the '263 patent. Defendants have done so, for example, on websites, in user manuals, in product documentation, and in other advertising materials. For example, Seagate's website touts its hard drives. See, e.g., https://www.seagate.com/products/hard-drives/ and https://www.seagate.com/products/external-hard-drives/. Seagate's website also contains detailed documentation and product manuals on how to use its hard drives. See https://www.seagate.com/search/?keyword=HDD and https://www.seagate.com/search/?keyword=hard%20drive. As another example, Defendants encourage the use of the IronWolf Pro HDD, the IronWolf HDD, the BarraCuda HDD, and the Exos HDD in in applications such as laptops, mobile storage, external storage systems, all-in-one PCs, ultra-slim desktop PCs, servers, and data centers. See, e.g., https://www.seagate.com/wwwcontent/datasheets/pdfs/ironwolf-pro-18tb-DS1914-16-2011US-en US.pdf, https://www.seagate.com/www-content/datasheets/pdfs/ironwolf-12tbDS1904-9-1707USen US.pdf, https://www.seagate.com/www-content/datasheets/pdfs/barracuda-2-5-DS1907-3-2005US-en US.pdf, and https://www.seagate.com/www-content/datasheets/pdfs/exos-7-e8-datasheet-DS1957-2-1904US-en US.pdf.
- 91. Since at least as early as 2018 and no later than the service of this Complaint,

  Defendants have induced infringement and continue to induce infringement by actively
  encouraging third-party distributors and resellers to directly infringe at least claim 1 of the '263

patent by working in concert with distributors and resellers to sell and offer for sale the Accused Products and have actively encouraged such sales and offers for sale. For example, Seagate's 2023 10-K states that Seagate sells products to "major OEMs, distributors and retailers," that Seagate's "distributors generally enter into non-exclusive agreements for the resale of our products... with limited rights of return and price protection" and other "sales programs to distributors on a quarterly and periodic basis to promote the sale of selected products in the sales channel," and that the "retail channel... typically require[s] greater marketing support, sales incentives and price protection periods." <a href="https://dl18m0p25nwr6d.cloudfront.net/CIK-0001137789/73579808-2f43-4bde-9354-cffac2ea1c41.pdf">https://dl18m0p25nwr6d.cloudfront.net/CIK-0001137789/73579808-2f43-4bde-9354-cffac2ea1c41.pdf</a> at 9. Seagate also notes that it is "dependent on sales to distributors and retailers, which may increase price erosion and the volatility" of sales, because a "substantial portion" of its sales have "been to distributors and retailers of disk drive products." *Id.* at 15, 18. The Accused Products are available at such distributors and retailers, for example Best Buy. *See, e.g.*,

https://www.bestbuy.com/site/brands/seagate/pcmcat166600050107.c.

- 92. Since at least as early as 2018 and no later than the service of this Complaint, each of the Defendants (including STH, STL, Seagate Thailand, Seagate Singapore, and Seagate Netherlands) has actively and knowingly induced third-party retailers, distributors, integrators, and end-users of the Accused Products to directly infringe one more claims of the '263 patent, including at least claim 1.
- 93. On information and belief, STH and STL have induced and continue to induce infringement of the '263 patent by making read heads that are incorporated into the Accused Products that are sold by third parties and used by customers. On information and belief, STH

and STL have induced and continue to induce infringement of the '263 patent by working in concert with other Defendants to market and sell the Accused Products in the United States.

- 94. On information and belief, Seagate Thailand has induced and continues to induce infringement of the '263 patent by making, offering for sale, selling, and exporting to the United States the Accused Products.
- 95. On information and belief Seagate Singapore and Seagate Netherlands have induced and continue to induce infringement of the '263 patent by distributing to the United States the Accused Products.

## Contributory Infringement by STH, STL, and Seagate Thailand

- 96. Since at least as early as 2018 and no later than the service of this Complaint, STH, STL, and Seagate Thailand have contributorily infringed at least claim 1 of the '263 patent by selling and offering to sell their Accused Products within the United States.
- 97. The Accused Products are not staple articles or commodities of commerce with substantial noninfringing uses. The Accused Products are designed, configured, and adapted to work with both other Seagate devices and other third-party devices, such as personal computers, laptops, servers, server farms, and other computer systems. The Accused Products have no substantial purpose other than as part of infringing devices and accordingly are not staple articles or commodities of commerce.
- 98. The Accused Products are a material part of the invention of at least claim 1 of the '263 patent.
- 99. Since at least as early 2018 and no later than the service of this Complaint, STH, STL, and Seagate Thailand have known of the '263 patent and have known that the Accused Products are made or adapted for use in a manner that infringes at least claim 1 of the '263 patent.

#### Seagate's Willful Infringement

- 100. Since at least 2018, Seagate knew or should have known, or at a minimum acted with willful blindness to the fact that, its Accused Products infringe one or more claims of the '263 patent, including at least claim 1.
- 101. Seagate has willfully infringed at least claim 1 of the '263 patent. Seagate's making, using, offering for sale, selling, and promoting of the Accused Products with provision of manuals and instruction to purchasers that encourage use that Seagate knew would infringe the '263 patent demonstrate the willful nature of Seagate's infringement.
- 102. Seagate's infringement of the '263 patent has been willful since at least 2018. Seagate's ongoing infringement of the '263 patent continues to be willful. Seagate has chosen to manufacture, use, offer to sell and/or sell the Accused Products, even after having notice of the '263 patent, knowing that such products would infringe the '263 patent.
- 103. The foregoing description of Seagate's infringement is based on publicly available information. IP Bridge reserves the right to modify this description, including, for example, on the basis of information about the Accused Products that it obtains during discovery.
- 104. IP Bridge has been and is being irreparably harmed, and has incurred and will continue to incur damages, as a result of Seagate's infringement of the '263 patent.
- 105. Seagate's infringement of the '263 patent has damaged and continues to damage IP Bridge in an amount yet to be determined, but no less than a reasonable royalty.

#### **COUNT III**

#### (Infringement of U.S. Patent No. 11,737,372)

106. IP Bridge incorporates by reference and realleges all the foregoing paragraphs of the Complaint as if fully set forth herein.

## Direct Infringement by STH, STL, and Seagate Thailand

- 107. STH and STL have directly infringed and continue to directly infringe, literally and/or equivalently, one or more claims of the '372 patent, including at least claim 1, including by making, using, selling, and offering for sale in the United States the Accused Products.
- 108. On information and belief, Seagate Thailand has directly infringed and continues to directly infringe, literally and/or equivalently, one or more claims of the '372 patent, including at least claim 1, by selling and offering for sale in the United States the Accused Products.
- 109. For example, and without limitation, Seagate's devices including their hard disk drives meet each and every limitation of claim 1 either literally or under the doctrine of equivalents, as set forth in Exhibit F and incorporated here.

# Seagate's Knowledge of the '372 Patent

- 110. Since at least its issuance in August 2023, Seagate has known of the '372 patent.
- 111. As discussed above, Seagate was well-aware of Dr. Yuasa's foundational work, having discussed and excerpted his *Nature Materials* paper and other work in journals, cited his work in patents assigned to Seagate, and presented at the same conferences.
- and Japan Science and Technology Agency—the prior owners of MTJ Patent Portfolio, which includes the Asserted Patents—and Seagate. Among other patents, the prior owners sued Seagate on JP 4,963,744 (the "JP '744 patent"), a Japanese counterpart to the Asserted Patents. The JP '744 patent claims priority to the same Japanese patent applications as all of the Asserted Patents at issue here, JP 2004-071186 and JP 2004-313350, and contains analogous disclosure to the Asserted Patents. For example, the JP '744 patent includes a magnetic barrier height limitation that also appears in the Asserted Patents.

- 113. In May 2017, a Japanese court found that three Seagate HDDs infringed the JP '744 patent. By 2018 the parties to that litigation were negotiating a license to resolve the dispute. As part of those negotiations, the prior owners discussed various options with Seagate for a resolution, including Seagate taking a license to all patents worldwide in the MTJ Patent Portfolio (which would have included U.S. patents like the Asserted patents), or a license to just patents in certain countries like Japan. As a result of those negotiations, Seagate learned of the Asserted Patents and other pending U.S. applications within in the portfolio no later than sometime in 2018.
- 114. In March 2019, Seagate took a license to the prior patent owners' Japanese portfolio, but did not license the U.S. counterparts, including the Asserted Patents. Seagate thus was aware of the patent family to which the '372 patent belongs by that point. On information and belief, Seagate would have been aware of and kept track of the pending applications in that family, including application no. 17/560,922 which eventually issued as the '372 patent in August 2023. Seagate hence knew of the '372 patent on its issuance.
- 115. In addition, since at least as early as the service of this Complaint, Seagate has known of the '372 patent.

#### **Seagate's Induced Infringement**

- 116. Since at least as early as the '372 patent's issuance and no later than the service of this Complaint, Defendants have known that the Accused Products infringe at least claim 1 of the '372 patent.
- 117. Since at least as early as the patent's issuance and no later than the service of this Complaint, Defendants have known that the Accused Products infringe at least claim 1 of the '372 patent when used by customers or other users, when imported by others, and when sold or offered for sale by third parties, such as Best Buy. *See, e.g.*,

https://www.bestbuy.com/site/brands/seagate/pcmcat166600050107.c. For example, a search of best Buy's website of sales locations in or near the 19702 ZIP code for Newark, Delaware with available external hard drives returns 15 results, with results 1, 3, and 5 located in Delaware. *See* https://www.bestbuy.com/site/store-locator.

Since at least as early as the patent's issuance and no later than the service of this 118. Complaint, Defendants have induced infringement and continue to induce infringement by actively encouraging customers and/or other users to directly infringe at least claim 1 of the '372 patent. Defendants have provided materials that induce customers or others to use, offer for sale, and sell the Accused Products in a manner that infringes at least claim 1 of the '372 patent. Defendants have done so, for example, on websites, in user manuals, in product documentation, and in other advertising materials. For example, Seagate's website touts its hard drives. See, e.g., https://www.seagate.com/products/hard-drives/ and https://www.seagate.com/products/external-hard-drives/. Seagate's website also contains detailed documentation and product manuals on how to use its hard drives. See https://www.seagate.com/search/?keyword=HDD and https://www.seagate.com/search/?keyword=hard%20drive. As another example, Defendants encourage the use of the IronWolf Pro HDD, the IronWolf HDD, the BarraCuda HDD, and the Exos HDD in in applications such as laptops, mobile storage, external storage systems, all-in-one PCs, ultra-slim desktop PCs, servers, and data centers. See, e.g., https://www.seagate.com/wwwcontent/datasheets/pdfs/ironwolf-pro-18tb-DS1914-16-2011US-en US.pdf, https://www.seagate.com/www-content/datasheets/pdfs/ironwolf-12tbDS1904-9-1707USen US.pdf, https://www.seagate.com/www-content/datasheets/pdfs/barracuda-2-5-DS1907-32005US-en\_US.pdf, and <a href="https://www.seagate.com/www-content/datasheets/pdfs/exos-7-e8-data-sheet-DS1957-2-1904US-en">https://www.seagate.com/www-content/datasheets/pdfs/exos-7-e8-data-sheet-DS1957-2-1904US-en</a> US.pdf.

119. Since at least as early as the '372 patent's issuance and no later than the service of this Complaint, Defendants have induced infringement and continue to induce infringement by actively encouraging third-party distributors and resellers to directly infringe at least claim 1 of the '372 patent by working in concert with distributors and resellers to sell and offer to sell the Accused Products and have actively encouraged such sales and offers for sale. For example, Seagate's 2023 10-K states that Seagate sells products to "major OEMs, distributors and retailers," that Seagate's "distributors generally enter into non-exclusive agreements for the resale of our products... with limited rights of return and price protection" and other "sales programs to distributors on a quarterly and periodic basis to promote the sale of selected products in the sales channel," and that the "retail channel... typically require[s] greater marketing support, sales incentives and price protection periods." https://d18rn0p25nwr6d.cloudfront.net/CIK-0001137789/73579808-2f43-4bde-9354cffac2ea1c41.pdf at 9. Seagate also notes that it is "dependent on sales to distributors and retailers, which may increase price erosion and the volatility" of sales, because a "substantial portion" of its sales have "been to distributors and retailers of disk drive products." *Id.* at 15, 18. The Accused Products are available at such distributors and retailers, for example Best Buy. See, e.g., https://www.bestbuy.com/site/brands/seagate/pcmcat166600050107.c.

120. Since at least as early as the '372 patent's issuance and no later than the service of this Complaint, each of the Defendants (including STH, STL, Seagate Thailand, Seagate Singapore, and Seagate Netherlands) has actively and knowingly induced third-party retailers,

distributors, integrators, and end-users of the Accused Products to directly infringe one more claims of the '372 patent, including at least claim 1.

- 121. On information and belief, STH and STL have induced and continue to induce infringement of the '372 patent by making read heads that are incorporated into the Accused Products that are sold by third parties and used by customers. On information and belief, STH and STL have induced and continue to induce infringement of the '372 patent by working in concert with the other Defendants to market and sell the Accused Products in the United States.
- 122. On information and belief, Seagate Thailand has induced and continues to induce infringement of the '372 patent by making, offering for sale, selling, and exporting to the United States the Accused Products.
- 123. On information and belief Seagate Singapore and Seagate Netherlands have induced and continue to induce infringement of the '372 patent by distributing to the United States the Accused Products.

## Contributory Infringement by STH, STL, and Seagate Thailand

- 124. Since at least as early as the '372 patent's issuance and no later than the service of this Complaint, STH, STL, and Seagate Thailand have contributorily infringed at least claim 1 of the '372 patent by selling and offering to sell their Accused Products within the United States.
- 125. The Accused Products are not staple articles or commodities of commerce with substantial noninfringing uses. The Accused Products are designed, configured, and adapted to work with both other Seagate devices and other third-party devices, such as personal computers, laptops, servers, server farms, and other computer systems. The Accused Products have no substantial purpose other than as part of infringing devices and accordingly are not staple articles or commodities of commerce.

- 126. The Accused Products are a material part of the invention of at least claim 1 of the '372 patent.
- 127. Since at least as early as the '372 patent's issuance and no later than the service of this Complaint, STH, STL, and Seagate Thailand have known of the '372 patent and have known that the Accused Products are made or adapted for use in a manner that infringes at least claim 1 of the '372 patent.

#### Seagate's Willful Infringement

- 128. Since at least the patent's issuance, Seagate knew or should have known, or at a minimum acted with willful blindness to the fact that, its Accused Products infringe one or more claims of the '372 patent, including at least claim 1.
- 129. Seagate has willfully infringed at least claim 1 of the '372 patent. Seagate's making, using, offering for sale, selling, and promoting of the Accused Products with provision of manuals and instruction to purchasers that encourage use that Seagate knew would infringe the '372 patent demonstrate the willful nature of Seagate's infringement.
- 130. Seagate's infringement of the '372 patent has been willful since at least the '372 patent's issuance. Seagate's ongoing infringement of the '372 patent continues to be willful. Seagate has chosen to manufacture, use, offer to sell and/or sell the Accused Products, even after having notice of the '372 patent, knowing that such products would infringe the '372 patent.
- 131. The foregoing description of Seagate's infringement is based on publicly available information. IP Bridge reserves the right to modify this description, including, for example, on the basis of information about the Accused Products that it obtains during discovery.
- 132. IP Bridge has been and is being irreparably harmed, and has incurred and will continue to incur damages, as a result of Seagate's infringement of the '372 patent.

133. Seagate's infringement of the '372 patent has damaged and continues to damage IP Bridge in an amount yet to be determined, but no less than a reasonable royalty.

## **REQUEST FOR RELIEF**

Plaintiff respectfully requests that this Court enter judgment as follows:

- a. Declaring that Defendants have infringed the '403, '263, and '372 patents;
- b. Granting a permanent injunction, enjoining Defendants and their officers, agents, employees, attorneys, and all other persons acting in concert or participation with them, from further infringement of the '403, '263, and '372 patents, including but not limited to the enjoining the manufacture, sale, offer for sale, importation, or use of the Accused Products and any further development of the Accused Products;
- c. Awarding Plaintiff damages adequate to compensate it for Defendants' infringing activities, including supplemental damages for any post-verdict infringement up until entry of the final judgment with an accounting as needed, together with prejudgment and post-judgment interest on the damages awarded;
- d. Declaring that Defendants' infringement has been willful;
- e. Awarding enhanced damages in an amount up to treble the amount of compensatory damages as justified under 35 U.S.C. § 284;
- f. Finding this to be an exceptional case and awarding Plaintiff its attorneys' fees and costs under 35 U.S.C. § 285 as a result of Defendants' infringement of the Asserted Patents; and
- g. Awarding Plaintiff any such other and further relief as the Court deems just and proper.

## **DEMAND FOR JURY TRIAL**

IP Bridge demands a trial by jury on all issues so triable.

Date: March 15, 2024 YOUNG CONAWAY STARGATT &

TAYLOR, LLP

OF COUNSEL:

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