IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

RADIAN MEMORY SYSTEMS LLC,

Plaintiff,

v.

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

Defendants.

Civil Action No.: 2:24-cv-1073

JURY TRIAL DEMANDED

PLAINTIFF'S MOTION FOR PRELIMINARY INJUNCTION

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I. INTRODUCTION

Radian Memory Systems LLC ("Radian") moves for a preliminary injunction to restrain Defendants Samsung Electronics Co., Ltd., and Samsung Electronics America, Inc. (collectively, "Samsung") from infringing its asserted patents—U.S. 11,544,183 ("the '183 patent") and U.S. 11,347,656 ("the '656 patent"). Radian developed and patented its innovative Symphonic Cooperative Flash Management technology to improve flash solid-state drives ("SSDs"), particularly for enterprise and data-center operations. Radian owns valid patents that Samsung has infringed and continues to infringe. Irreparable harm during the pendency of this suit is likely on two grounds. First, traditional principles of equity—which must be drawn from the English Court of Chancery circa 1789—state that the prospect of ongoing future violations alone renders damages inadequate. Second, even under a more contemporary analysis, Radian will continue to suffer injury to its market position as a pioneer, suffer loss of market opportunities, suffer injury to its reputation and goodwill, and suffer irretrievable loss of its patent term. By contrast, a preliminary injunction will not unduly harm Samsung as it would not lose its businesses or its ability to market non-infringing SSDs. Nor does the public interest counsel against an injunction. Radian respectfully requests an evidentiary hearing on its motion.

II. STATEMENT OF FACTS

A. Radian and Its Symphonic Cooperative Flash Management Technology

Founded in 2010, Radian sought to create and deliver more efficient flash-management storage solutions for large data-center operations. *See* Jadon Decl. at ⁋⁋ 8-9. Radian built what became known as its Symphonic Cooperative Flash Management technology. *See* Jadon Decl. at ⁋ 12. Radian accomplished this by breaking down the long-standing barrier between storage devices (*e.g.*, SSDs) and the host computer-system software that used them (*e.g.*, a server in a data center). *See id.* Among other things, Radian's approach gave the host primary responsibility

for things like scheduling tasks and commands and allocating data and gave the SSD's internal memory controller primary responsibility for things like monitoring and handling maintenance of the NAND flash. *See id.* This improved the efficiency, reliability, and performance of SSDs, leading to cost savings that made SSDs even more appealing for data centers. *See id.* at ¶¶ 8, 12.

B. Industry and NVM Express Consortium

Radian proved the value of its inventions using real-world devices and well-accepted industry benchmarks. *See* Jadon Decl. at ¶¶ 15-17, 19-22. Radian's technology eclipsed the competition, and the industry praised Radian and bestowed awards and acclaim upon it. *See id.* Yet, the industry was not content dealing with Radian at arms-length. *See id.* at ¶ 23. Instead, it wanted Radian to first agree to join the NVM Express (NVMe) organization. *See id.* A consortium of companies, NVMe sets standards for how host systems communicate with SSDs. *See id.* at ¶ 20. The consortium manages various NVMe specifications, including the Zoned Namespace Command Specification (ZNS) at issue in this suit. *See id*. at ¶¶ 20, 23. Samsung is a top-tier member of NVMe. *See id*. at ¶ 24. Importantly, NVMe requires members to grant each other royalty-free licenses to their patents that read on its specifications. *See id*. at ¶ 23.

At a major industry conference in 2017, Microsoft—a major data-center operator—called on participants like Samsung to collaborate on a new interface for communicating with SSDs. *See* Jadon Decl. at ¶ 21. That motivated industry players like Samsung to work toward a ZNS standard that incorporated Radian's technology. *See id.* at ¶¶ 21, 28-29. When Radian refused to join NVMe in 2019, the consortium plowed ahead with Radian's innovations anyway, having learned about those innovations from Radian over a number of years. *See id.* at ¶¶ 22-24. NVMe excluded Radian from meetings and withheld draft specifications from it, which made it hard for Radian to detect encroachment on its innovations. *See id.* at ¶ 23. Once the ZNS specification was published in June 2020, Radian saw that key aspects of its Cooperative Flash Management

technology had made their way into the NVMe ZNS specification. *See* Jadon Decl. at ⁋ 23.

Radian's patents at issue in this Motion issued on January 3, 2023 ('183 patent) and May 31, 2022 ('656 patent) with priority dates of January 28, 2013, and October 13, 2014, respectively. *See* Jones Decl., Ex. Q ('183 patent) and Ex. R ('656 patent).

C. Samsung's Infringement

Samsung was a frequent attendee at Radian's conference booths, inquiring about Radian's technology. Jadon Decl. at ¶ 24. Samsung publicly announced its ZNS-capable SSD products and proceeded to market them in June 2021. *See id.* at ¶¶ 25-27. Samsung's Accused Instrumentalities, SSDs with ZNS capabilities, infringe at least claim 1 of the '183 patent and claim 1 of the '656 patent. Samsung is also likely to continue its infringement in this litigation and beyond. *See* Jadon Decl. at ¶¶ 26-30. It is a heavily invested and influential participant in SSDs, software-defined flash, and ZNS-capable SSD markets. *See id.* at ¶ 24. Also, as a supplier of SSDs (including ZNS-capable SSDs) to hyperscalers with massive data-center operations, Samsung has to fulfill purchase orders and contracts for ongoing service and maintenance obligations. *See id.* at ¶¶ 27-30. Samsung's market share, investments, standards-setting activity, and supply obligations make Samsung's continued infringement of Radian's patents very likely.

III. LEGAL STANDARD

The Patent Act authorizes courts to grant injunctions to "prevent the violation of any right secured by patent." 35 U.S.C. § 283. "A plaintiff seeking a preliminary injunction must establish that he is likely to succeed on the merits, that he is likely to suffer irreparable harm in the absence of preliminary relief, that the balance of equities tips in his favor, and that an injunction is in the public interest." *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 20 (2008). Federal Circuit law governs whether a plaintiff is likely to succeed on an infringement claim, *Natera, Inc. v. Neogenomics Labs, Inc.*, 106 F.4th 1369, 1375 (Fed. Cir. 2024), but Fifth Circuit law

binds this court to the extent that equitable principles are trans-substantive, *i.e.*, principles that apply regardless of the subject area. *See ABC Corp. v. P'ship & Uninc. Ass'ns*, 52 F.4th 934, 941 (Fed. Cir. 2022). Importantly, the Supreme Court has clarified that much of what occurs on a request for a patent injunction is unexceptional. *See eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 394 (2006); *Romag Fasteners, Inc. v. Fossil, Inc.*, 590 U.S. 212, 217 (2020) (confirming that "principles of equity" as used in *eBay* refers to "transsubstantive" rules).[1]

IV. ARGUMENT

A. Likelihood of Success on the Merits

To prevail on a claim for patent infringement, a plaintiff must demonstrate that it owns a valid patent and that a defendant has infringed the patent. Radian is more likely than not to succeed at trial for at least claim 1 of the '183 patent and claim 1 of the '656 patent.

1. Radian Owns Valid Patents.

Radian holds all necessary ownership, title, and interest in and to the asserted '183 patent and '656 patent. *See* US Patent Office Assignment Database at Reel/Frame Nos. 053547/0946, 053548/0154, and 067471/0240, available at https://tinyurl.com/s27sphkb (assignment history for the '183 patent); US Patent Office Assignment Database at Reel/Frame Nos. 057617/0300, 057533/0180, and 067471/0240, available at https://tinyurl.com/rzbjz24d (assignment history for the '656 patent); *see also* 35 U.S.C. §§ 261, 262.

Radian's asserted patents enjoy a presumption of validity that extends to all aspects of

[1] *eBay* involved a permanent injunction, but the Court has also ruled that "[t]he standard for a preliminary injunction is essentially the same as for a permanent injunction with the exception that the plaintiff must show a likelihood of success on the merits rather than actual success." *Amoco Prod. Co. v. Vill. of Gambell, AK*, 480 U.S. 531, 546 n.12 (1987). Thus, the "substantive analysis" for irreparable harm is the same whether on a final injunction or preliminary injunction. *Apple Inc. v. Samsung Elecs. Co.*, 809 F.3d 633, 652 n.3 (Fed. Cir. 2015) (Reyna, J., concurring); *Apple Inc. v. Samsung Elecs. Co.*, 735 F.3d 1352, 1361 (Fed. Cir. 2013).

validity. *See* 35 U.S.C. § 282(a); *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1570 (Fed. Cir. 1987). The presumption of validity and the corresponding burden of challenging validity by clear and convincing evidence apply equally at the preliminary-injunction stage. *See Gonzales v. O Centro Espirita Beneficente Uniao do Vegetal*, 546 U.S. 418, 429 (2006); *Gillette Co. v. Energizer Holdings, Inc.,* 405 F.3d 1367, 1370 (Fed. Cir. 2005).

2. Samsung's Accused Instrumentalities Infringe.

To establish infringement of a patent, a patent owner must prove either "literal infringement" or infringement under the "doctrine of equivalents." *Under Sea Indus. Inc. v. Dacor Corp.*, 833 F.2d 1551, 1557 (Fed. Cir. 1987).

Samsung infringes claim 1 of the '183 patent and claim 1 of the '656 patent with its ZNS-capable SSDs, both literally and under the doctrine of equivalents. This includes Samsung's PM1731a, PM1733, PM1735, PM9731a, and PB SSD products, as well as any other Samsung SSDs that have ZNS capabilities. *See* Jones Decl. at ¶¶ 41–103. Radian's technical expert, Dr. Mark Jones, analyzed the relevant NVMe specifications and publicly available documents and materials from Samsung, NVMe, and other sources. *See id*. at ¶¶ 53–103.

(a) Claim 1 of the '183 Patent

Dr. Jones has determined that Samsung's Accused Instrumentalities meet each element of claim 1 of the '183 patent as shown below. *See id*. at ¶¶ 57–81.

'183 Patent Claim 1 Elements	**Dr. Jones's Infringement Analysis**
[1 preambl.] A memory controller to control flash memory, the flash memory having subdivisions, each of the subdivisions corresponding to a respective group of erase blocks, each of the erase blocks such that it must be erased before storage locations in that erase block can be reprogrammed, the memory controller comprising:	Jones Decl. at ¶¶ 57–59
[1a] a host interface;	Jones Decl. at ¶¶ 60–61
[1b] a memory interface;	Jones Decl. at ¶¶ 62–63

[1c] logic to track information indicating extent of page utilization of each of the subdivisions;	Jones Decl. at ¶¶ 64–66
[1d.1] logic to receive a write request from a host via the host interface, the write request accompanied by an address that designates a specific one of the subdivisions,	Jones Decl. at ¶¶ 67–70
[1d.2] wherein the logic to track is to, in association with execution of the write request, update the information indicating extent of page utilization of the specific one of the subdivisions;	Jones Decl. at ¶¶ 71–72
[1e] logic to send the host the information indicating extent of page utilization of the specific one of the subdivisions and an address corresponding to the specific one of the subdivisions;	Jones Decl. at ¶¶ 73–74
[1f.1] logic to receive an erasure request from the host, via the host interface, the erasure request accompanied by the address corresponding to the specific one of the subdivisions,	Jones Decl. at ¶¶ 75–76
[1f.2] to responsively control erasure of each unerased erase block in the group respective to the specific one of the subdivisions, and to update the information indicating extent of page utilization of the specific one of the subdivisions; and	Jones Decl. at ¶¶ 77–78
[1g] logic to, in connection with the erasure, detect a defect in one of the erase blocks in the group respective to the specific one of the subdivisions, to responsively substitute one or more different erase blocks of the flash memory for the one of the erase blocks for which the defect was detected;	Jones Decl. at ¶¶ 79–80
[1h] wherein each said logic comprises at least one of hardware circuitry or instructions stored on non-transitory, machine-readable media that when executed are to control the operation of hardware circuitry.	Jones Decl. at ¶ 81

(b) Claim 1 of the ’656 Patent

Dr. Jones has determined that Samsung’s Accused Instrumentalities also meet each element of claim 1 of the ’656 patent as reflected below. *See id*. at ¶¶ 82–103.

’656 Patent Claim 1 Elements	**Dr. Jones’s Infringement Analysis**
[1 preambl.] A storage device comprising:	Jones Decl. at ¶ 82
[1a] flash memory having physical erase units; and	Jones Decl. at ¶¶ 83–84
[1b] circuitry to receive incoming data access requests and for each of the incoming data access requests, accompanying address information, wherein said circuitry is to:	Jones Decl. at ¶¶ 85–87

[1c] derive, from the accompanying address information, a first address portion, a second address portion and a third address portion,	Jones Decl. at ¶¶ 88–89
[1d] identify an addressed block device from the first address portion,	Jones Decl. at ¶¶ 90–91
[1e] identify an addressed segment within the addressed block device from the second address portion, and	Jones Decl. at ¶¶ 92–93
[1f] identify an addressed storage location within the addressed segment from the third address portion,	Jones Decl. at ¶¶ 94–95
[1g] wherein the circuitry is to use a division operation to identify a logical erase unit within the addressed segment,	Jones Decl. at ¶¶ 96–98
[1h] wherein the circuitry is to identify one of the physical erase units that corresponds to the identified logical erase unit;	Jones Decl. at ¶¶ 99–100
[1i] wherein the storage device is to detect a failure condition of the physical erase units and is to remap each logical erase unit which corresponds to one of the physical erase units for which the failure condition is detected to instead correspond to one of the physical erase units for which the failure condition has not been detected and is to utilize the remapped correspondence to service one or more of the incoming data access requests.	Jones Decl. at ¶¶ 101–103

The first *Winter* factor favors a preliminary injunction. The Court should find a likelihood of success on the merits as to claim 1 of the '183 patent, claim 1 of the '656 patent, or both.

B. Irreparable Harm

Irreparable harm requires showing that a defendant is likely to harm the plaintiff in the future, and that the harm would be irreparable. "In general, a harm is irreparable where there is no adequate remedy at law, such as monetary damages." *Janvey v. Alguire*, 647 F.3d 585, 600 (5th Cir. 2011). Awarding Radian damages at trial, whether lost profits or a reasonable royalty, will fall far short of an adequate remedy at law here, for two reasons. The first, which suffices alone, is that under *traditional* principles of equity, the likelihood of ongoing violations, once proven, renders damages inadequate. The Supreme Court has said so, as has the Fifth Circuit. Moreover, under *contemporary* principles of equity, Radian has suffered and will continue to suffer damage to its market position, market opportunities, reputation, goodwill, and patent term.

1. Radian Will Be Irreparably Harmed–Traditional Principles of Equity.

(a) Unless Congress Directs Otherwise, Federal Courts Must Exercise Their Equitable Powers According to Traditional Principles of Equity.

Under controlling Supreme Court precedent, whether a plaintiff has an adequate remedy at law depends on "traditional principles of equity," *eBay*, 547 U.S. at 394, which must be drawn from the time when the Judiciary Act of 1789 first created the lower federal courts and co-opted the remedies available in the English Court of Chancery, *Sprague v. Tictonic Nat'l Bank*, 307 U.S. 161, 164–65 (1939). The equitable powers conferred by the 1789 Act cabin a federal court's default authority to administering "the principles of the system of judicial remedies which had been devised and was being administered by the English Court of Chancery at the time of the separation of the two countries." *Atlas Life Ins. Co. v. W. I. Southern, Inc.*, 306 U.S. 563, 568 (1939). Thus, absent a congressional act that alters those traditional principles, the "substantive prerequisites for obtaining an equitable remedy as well as the general availability of injunctive relief" have not changed since 1789. *Grupo Mexicano de Desarrollo S.A. v. All. Bond Fund, Inc.*, 527 U.S. 308, 318–19 (1999); *see also id.* at 318 ("[T]he equity jurisdiction of the federal courts is the jurisdiction in equity exercised by the High Court of Chancery in England [in 1789.]").[2]

This "body of doctrine" adopted by Congress in 1789 is not merely the "power or authority to hear and decide" but must also "guide [the court's] decisions." *Atlas Life*, 306 U.S. at 568. In other words, equitable discretion "must be exercised consistent with traditional principles of equity," *eBay*, 547 U.S. at 394, and must be "administered . . . according to the

[2] *Accord Guaranty Tr. Co. v. York,* 326 U.S. 99, 105 (1945); *Matthews v. Rodgers*, 284 U.S. 521, 529 (1932); *Waterman v. Cana-Louisiana Bank & Tr. Co.*, 215 U.S. 33, 43 (1909); *Fontain v. Ravenel*, 58 U.S. 369, 384 (1855); *Robinson v. Campbell*, 16 U.S. 212, 222–23 (1818).

Members of the Court have recently reminded courts to follow 18th-century principles. *E.g.*, *Bessent v. Dellinger*, 145 S. Ct. 515, 517 (2025) (Gorsuch, J., joined by Alito, J., dissenting); *Labrador v. Poe*, 144 S. Ct. 921, 923 (2024) (Gorsuch, J., joined by Thomas & Alito, JJ., concurring); *Trump v. Hawaii*, 585 U.S. 667, 714 (2018) (Thomas, J., concurring).

practice of courts of equity in [England]," *Boyle v. Zacharie*, 31 U.S. 648, 658 (1832). Following that maxim, the Court has held that whether there is an "adequate remedy at law" for a particular wrong, must be assessed against the legal remedies that "existed [for the wrong] when the Judiciary Act of 1789 was adopted," except insofar as Congress has "subsequently changed" the legal remedies. *McConihay v. Wright*, 121 U.S. 201, 206 (1887). Notably, the Federal Circuit has never discussed this ruling nor any others directing courts to apply 18th-century principles. But the Fifth Circuit has, ruling that "[w]hether a plaintiff has a plain, adequate, and complete, remedy at law depends not upon the law at the time the suit is brought, but upon what it was when the Constitution of the United States drew the line of demarcation between legal and equitable jurisdiction." *Humble Oil & Refining Co. v. Sun Oil Co.*, 191 F.2d 705, 710–11 (5th Cir. 1951); *see also* 13 P. Edmunds et al., *Cyclopedia of Federal Procedure* § 6537, at 88 (2d ed. 1944) ("Where, under the English Chancery system, relief by injunction can be given, the same or similar relief may be given by a federal court [today] . . . ."); *accord* 3 *id.* § 857, at 666–67.

(b) At the Founding, It Was Settled that Legal Remedies Like Damages Were Inadequate in Patent-Infringement Cases.

At the time of the founding, the established practice in the Court of Chancery was to consider ongoing future infringement itself, including patent infringement, a cognizable future injury for purposes of equitable relief, and to also consider the remedies available at law (which included damages and punitive damages) inadequate to redress that injury. For example, in *Donaldson v. Becket,* Chief Justice De Grey rejected an argument in a copyright-infringement suit that a copyright owner facing future infringement could ever have an adequate remedy at law. *See Donaldson v. Becket* (H.L. 1774), *reprinted in* 17 *The Parliamentary History of England from the Earliest Period to the Year 1803*, at 953, 989 (W. Cobbett ed., London, 1813) (De Grey, C.J.) (interim injunction; it is no "objection that the party applying for it has a remedy

at law"). Similarly, in *Horton v. Maltby*, LI Misc MS 112, p. 10 (Ch. 1783), the Chancery stated that any infringements expected to occur while a case was being litigated constituted irreparable injury. Likening patent infringement to copyright infringement, the Chancery noted that the infringer "may in the mean time print a number of copies to the irreparable injury of the Owner." *Id.* at 12 (Ashurst, L. Cr.). This holding arose from the infringement itself—not any claim of lost sales, market erosion, or other harms stemming from the infringement.

Preliminary injunctions were common in patent cases, being denied only when the Chancery doubted liability or feared hardship to the defendant. H.T. Gómez-Arostegui & S. Bottomley, *The Traditional Burdens for Final Injunctions in Patent Cases* c.*1789 and Some Modern Implications*, 71 CASE W. RSRV. L. REV. 403, 420 n.70 (2020) (citing *Stationers v. Carnan* (Ch. 1774); *Liardet v. Johnson* (Ch. 1777)). As Baron Smythe noted, "[t]he ordinary relief in Case of Rights upon Patents is [an] Injunction & an Account. [Equity] [s]eldom refuse[s] [to grant an] Injunction till [the] hearing." *Liardet v. Johnson* (Ch. 1780), *as printed in* H.T. Gómez-Arostegui & S. Bottomley, *Patent-Infringement Suits and the Right to a Jury Trial*, 72 AM. U. L. REV. 1293, 1343 (2023); *see also Horton v. Maltby* (Ch. 1783) (arg.) ("[T]he usual way of proceeding in these [invention] Cases [i]s to get an [interim] Injunction . . . ."), *as printed in id.* at 1344 n.250; *accord Tonson v Walker*, 3 Swans. 672, 679 (Ch. 1752) (copyright case).

Nothing suggests that the Chancery believed that these irreparable injuries were inflicted only on patent-practicing patentees, only if patentees established they had refused to license their patents, or only if the patentees established some other sort of special follow-on harm. In point of fact, Matthew Boulton and James Watt, who regularly received interlocutory injunctions in the late 18th century, operated their business in large part by offering licenses to all comers who wished to implement Watt's separate-condenser improvement to the steam engine. *See* S.

Bottomley, *The British Patent System During the Industrial Revolution*, 1700–1852, at 117 (2014) (mentioning 15 injunctions); *id.* at 251–55 (describing licensing business). Instead, the Chancery enjoined ongoing infringement because future infringement itself was irreparable.

(c) The Basis for Inadequacy Stemmed from the Nature of the Right and the Prospect of Continuing Infringement.

The Chancery viewed the likelihood of future infringement, when proven, as irreparable in part because infringement constituted waste to property, something in which the plaintiff held an exclusive right. Typically, a defendant possessed real property as a tenant and threatened to damage or destroy it by removing trees or other resources, all to the injury of the plaintiff who held a reversion in the land. The Chancery observed that its jurisdiction to enjoin infringement—which, again, was triggered when damages were an inadequate remedy—sprung from its jurisdiction to stay waste. *See Goodeson v. Gallatin*, 2 Dick. 455, 455 (Ch. 1771) (Lord Apsley, L.C.); *accord Doolittle v. Walton*, 2 Dick. 442, 442 (Ch. 1771) (Lord Apsley, L.C.); *Donaldson v. Becket* (H.L. 1774), *reprinted in* 17 *Parliamentary History*, at 996 (Lord Camden, L.C.).

In fact, the Attorney General for England, John Scott (who later became Lord Chancellor Eldon), successfully used this analogy in *Boulton v. Bull*, 3 Ves. Jr. 140, 141 (Ch. 1796), a patent-infringement suit, to explain why a preliminary injunction should not be dissolved:

> In the case of waste it is the specific right of the party to have the interference of the Court [of Chancery]. In [those cases] the Court [does] not permit the timber to be cut upon security for the value [*i.e.*, even if the defendant offers to post security for the timber]. So here[, in the case of patents,] there is a specific right, which the law will protect . . . .
>
> *Lord Chancellor* . . . . [The] injunction must be continued [while the patent is tried at law]. . . . I will not disturb the possession of their specific right.

Additionally, to receive a preliminary injunction, merely holding an exclusive right in property was not enough. It had to be coupled with the prospect of a future violation of that right, such as infringement. Damages were limited to redressing torts that occurred *before* an action

was filed, leading to the possible prospect of a multiplicity of suits stemming from the constant grievance of continuing infringement. Gómez & Bottomley, *Traditional Burdens*, 71 CASE W. RSRV. L. REV. at 422. As Justice Story observed: "It is quite plain that, if no other remedy could be given in cases of patents and copyrights than an action at law for damages, the inventor or author might be ruined by the necessity of perpetual litigation . . . ." 1 J. Story & A.E. Randall, *Commentaries on Equity Jurisprudence* § 931 (3d ed. 1920); *accord id.* § 930; 4 J.N. Pomeroy et al., *Pomeroy's Equity Jurisprudence* § 1352 (4th ed. 1919).

Moreover, the inability of the courts of law to restrain infringement of intellectual property, alongside other injuries, was a notorious point of failure:

> It is the known and experienced imbecility of the resort to the ordinary courts, and their failure in administrative power to secure justice to their suitors, which in modern times has brought so many of those suitors to the . . . Chancellor. The common cases of injunctions to stay waste . . . and, the violation of patents and of copyright, may be taken as examples.

1 George Spence, *The Equitable Jurisdiction of the Court of Chancery* 706 (1846); *accord* Story & Randall, *Commentaries on Equity Jurisprudence* § 933.

(d) Ongoing Infringements *Per Se* (and Ongoing Trespasses of All Sorts) Remain Cognizable and Irreparable Injuries Today.

Consistent with this history, the statute codifying a federal court's power to enjoin patent infringement explicitly states that the point of an injunction is to restrain infringement itself:

> The several courts having jurisdiction of cases under this title may grant injunctions in accordance with the principles of equity to prevent the violation of any right secured by patent, on such terms as the court deems reasonable.

35 U.S.C. § 283. The statute does not authorize courts to grant injunctions solely to prevent *special harms caused by* future violations of a patent, such as loss of reputation or market share. Injunctions are instead meant to "prevent the violation"—*i.e.*, the infringement—itself. *See I.N.S. v. Pangilinan*, 486 U.S. 875, 883 (1988) ("[I]t is well established that '[c]ourts of equity can no

more disregard statutory . . . requirements and provisions than can courts of law.'").

This focus has never changed. Congress enacted the first statute allowing injunctions in patent suits in 1819 "to prevent the violation of the rights of any . . . inventors." Act of Feb. 15, 1819, 3 Stat. 481, 481–82. That language has persisted with no material changes in the patent statutes enacted through to the 1952 Patent Act.[3] There has been no suggestion—let alone an "unequivocal statement"—that Congress intended to implement what would be a "drastic departure from the traditions of equity practice." *Hecht Co. v. Bowles*, 321 U.S. 321, 329 (1944).

Also consistent with Chancery practice, the Supreme Court and Fifth Circuit have embraced the equitable principle that continuing infringements or trespasses constitute irreparable injuries as a matter of law. In 1908, the Court stated that "it hardly need[ed] to be pointed out that the [patent] right can only retain its attribute of exclusiveness by a prevention of its violation" and that "trespasses and continuing wrongs and the vexation of many actions" were "well-recognized grounds of equity jurisdiction" in patent cases. *Cont'l Paper Bag Co. v. E. Paper Bag Co.*, 210 U.S. 405, 430 (1908).[4] The Court has also repeatedly deemed damages inadequate in cases of continuing trespasses generally. *E.g.*, *Rondeau v. Mosinee Paper Corp.*, 422 U.S. 49, 59 (1975); *United States v. W.T. Grant Co.*, 345 U.S. 629, 633 (1953); *Donovan v. Pennsylvania Co.*, 199 U.S. 279, 304–05 (1905); *City of Walla Walla v. Walla Walla Water Co.*, 172 U.S. 1, 12 (1898). Indeed, showing that damages are inadequate was never meant to be difficult. "[I]n order to exclude a concurrent remedy [in] equity," damages "must be as complete,

[3] *See* July 4, 1836, 5 Stat. 117, 124; July 8, 1870, 16 Stat. 198, 206; Mar. 3, 1897, 29 Stat. 692, 694; Feb. 18, 1922, 42 Stat. 389, 392; Aug. 1, 1946, 60 Stat. 778, 778.

[4] *See also Stearns-Roger Mfg. Co. v. Brown*, 114 F. 939, 945 (8th Cir. 1902) (affirming preliminary injunction in a patent case due to continuing trespass); *Allington & Curtis Mfg. Co. v. Booth*, 78 F. 878, 879 (2d Cir. 1897) (affirming preliminary injunction because "infringement of a patent is a constantly recurring grievance").

as practical and as efficient to the ends of justice and its prompt administration, as the remedy in equity." *Walla*, 172 U.S. at 12; *accord Twp. of Hillsborough v. Cromwell*, 326 U.S. 620, 629 (1946); *Activated Sludge, Inc. v. City of Fort Worth*, 89 F.2d 278, 279 (5th Cir. 1937) (patent).

Just last year, the Fifth Circuit applied this trans-substantive principle—that ongoing wrongs constitute irreparable injuries—to reverse the denial of a preliminary injunction in a case involving trespass to chattels. *Texas v. U.S. Dept. of Homeland Security*, 123 F.4th 186, 212 (5th Cir. 2024) ("When a trespass is continuous such that stopping it would require a multiplicity of suits, a[] [preliminary] injunction is justified because monetary relief is inadequate."); *see also Rojas-Adam Corp. v. Young*, 13 F.2d 988, 989–90 (5th Cir. 1926) (continuous trespass to land). Holding that this traditional principle does not apply here would create a special, ahistorical rule, limited to patent cases, something the Court has directed courts not to do. *eBay*, 547 U.S. at 394.

(e) This Traditional Equitable Principle Is Not a Presumption of Irreparable Harm Nor Is It an Impermissible Categorical Rule.

The equitable principles laid out above do not constitute a presumption of irreparable harm. The Court in *Amoco Prod. Co. v. Vill. of Gambell*, 480 U.S. 531, 544–45 (1987), rejected a presumption of irreparable injury on a showing of likelihood of success on the merits in an environmental case. And the Federal Circuit in dicta rejected one in a patent case on a showing that the plaintiff actually succeeded on the merits. *See Robert Bosch LLC v. Pylon Mfg. Corp.*, 659 F.3d 1142, 1148–49 (Fed. Cir. 2011) (patentee did not rely on a presumption at the trial court or on appeal; Federal Circuit concluded the patentee would suffer irreparable injury for loss of market share). But those presumptions did not require proof of future harm to the plaintiff by the defendant, and instead presumed from the proof of one fact—that the defendant was liable or likely liable—the existence of another fact—that the defendant would harm the patentee again in the future. *See Routen v. West*, 142 F.3d 1434, 1440 (Fed. Cir. 1998) (defining presumptions);

Francis v. Franklin, 471 U.S. 307, 314 (1985) (describing presuming one fact from another).

Here, by contrast, Radian has set forth evidence that Samsung plans to continue its conduct during the pendency of this suit and beyond, and that such conduct infringes. *See* Sections II.C and IV.A.2 *supra*. Concluding that a type of *proven* future harm constitutes irreparable injury simply raises an issue of law, and it is a move that the Supreme Court has itself employed recently. *Roman Cath. Diocese of Brooklyn v. Cuomo*, 592 U.S. 14, 19 (2020) (*per curiam*) ("The loss of First Amendment freedoms, for even minimal periods of time, unquestionably constitutes irreparable injury."); *cf. Maryland v. King*, 567 U.S. 1301, 1303 (2012) (Roberts, C.J., in chambers) ("[A]ny time a State is enjoined by a court from effectuating statutes enacted by representatives of its people, it suffers a form of irreparable injury."); *Harris County v. CarMax Auto Superstores, Inc.*, 177 F.3d 306, 312 (5th Cir. 1999) ("Each [injunction] element[] is a mixed question of fact and law . . . ."); *accord* 13 Edmunds et al., *Cyclopedia* § 6583, at 146. Indeed, if the irreparability of a harm could never be a conclusion of law, then the Federal Circuit would be unable to rule as a general principle, which it has, that certain types of future harms (when proven)—such as loss of reputation or market share—are irreparable. *See Bosch*, 659 F.3d at 1152 ("An injury is either of the irreparable sort, or it is not.").

Similarly, *eBay*'s rejection of "categorical" rules, 547 U.S. at 393–94, cannot be read to mean that traditional equitable principles do not apply.[5] To do so would place *eBay* into a hopeless conflict. Traditional principles are themselves rules, as the Court has confirmed. *See*

[5] In a nonprecedential opinion issued by a motions panel, the Federal Circuit granted a motion for summary affirmance against a patentee who had argued that ongoing infringement was irreparable injury under the traditional principles of equity at the founding. *See VidStream LLC v. Twitter, Inc.*, No. 2024-2265, 2024 WL 4820802, at *1 (Fed. Cir. Nov. 19, 2024). Notably, the patentee did not argue for a presumption of irreparable injury or an automatic injunction. In any event, the *VidStream* opinion is nonprecedential and does not address Radian's arguments.

Starbucks Corp. v. McKinney, 602 U.S. 339, 348 (2020); *Romag*, 590 U.S. at 217; *see also Grupo*, 527 U.S. at 318–23 (describing equity practice as principles and rules interchangeably). So traditional 18th-century equitable principles cannot run afoul of *eBay*'s categorical-rules exclusion when *eBay* itself directs courts to apply those principles. *eBay*'s criticism of the lower court in that case reinforces the point. The problem with the district court's rule—that a nonuser patent owner cannot establish irreparable harm if it is willing to license—was that it could not "be squared with the principles of equity adopted by Congress." *eBay*, 547 U.S. at 393.

Nor will recognizing continuing future acts of infringement as irreparable harm lead to automatic preliminary injunctions. Irreparable harm is one of several factors. An injunction might still fail due to a weak merits case, the defendant ceasing to infringe, undue hardship, the public interest, or an equitable defense (such as laches or unclean hands).

In light of the foregoing, Radian respectfully requests that the Court apply the traditional principles of equity, as dictated by Supreme Court and Fifth Circuit precedent, and conclude that Radian will be irreparably harmed, on Radian's showing that *future* and ongoing infringement is likely, and not just on showing of likelihood of success on the merits of *past* infringement.

2. <u>Radian Will Be Irreparably Harmed–Contemporary Principles of Equity.</u>

The Federal Circuit requires a patentee to demonstrate that future infringement is likely *and* that the infringement will cause the patentee to suffer an additional, special harm. The Federal Circuit has held that at least the following special harms (when proven) are irreparable: loss of market share, loss of market opportunities, damage to reputation, and loss of goodwill. *See, e.g.*, *TEK Global, S.R.L. v. Sealant Sys. Int'l*, 920 F.3d 777, 792–93 (Fed. Cir. 2019); *Texas Advanced Optoelectronic Sols., Inc. v. Renesas Elecs. Am., Inc.*, 895 F.3d 1304, 1331–32 (Fed. Cir. 2018); *Douglas Dynamics, LLC v. Buyers Prods. Co.*, 717 F.3d 1336, 1344–45 (Fed. Cir. 2013); *Celsis in Vitro, Inc. v. CellzDirect, Inc.*, 664 F.3d 922, 930 (Fed. Cir. 2012); *i4i Ltd.*

Partnership v. Microsoft Corp., 598 F.3d 831, 861 (Fed. Cir. 2010).

Radian has already demonstrated that Samsung is likely to continue its infringing conduct. *See* Sections II.C and IV.A.2 *supra*. And in the wake of Samsung's infringement, Radian will likely continue to suffer irreparable harm in the form of loss of market opportunities, market position, goodwill, reputation, and patent term. *See* Jadon Decl. at ¶¶ 31–50. These types of harm cannot be quantified or reduced to calculable damages, and accordingly, they constitute irreparable harm. An injunction would help protect against these harms and potentially give Radian a chance to continue to innovate, including potentially being able to pursue opportunities like prototyping or consulting. *See id.* at ¶¶ 51-58. Radian has had to restructure and recapitalize to brace itself to withstand protracted litigation. *See id*. at ¶¶ 55-56, 58. In the time between Samsung's first infringement of the asserted patents on the dates of their issuance on January 3, 2023 ('183 patent) and May 31, 2022 ('656 patent) and when Radian filed suit in this case on December 24, 2024, Radian was diligently engaged in this effort. *See id*. at ¶¶ 18, 58.

(a) Loss in Market Opportunities and Market Position as a Leader in the Software-Defined Flash Market, including for ZNS-compatible SSDs.

Radian was a pioneering leader in the software-defined flash market for data centers (including, *e.g.*, enterprise, cloud, and hyperscale). Radian easily bested other technologies with its superior Symphonic Cooperative Flash Management technology, which embodied its patented inventions. *See id*. at ¶ 17. Radian had filed its first patent application in January 2013 and spent years evangelizing its technology and inventions before the rest of the industry had even begun to grapple with the technological problems Radian had already solved. *See id.* at ¶¶ 14-22. By the time Microsoft first made a public call-to-arms in 2017 to encourage the industry to adopt Radian's technology and architecture, Radian had already won a "most innovative" award for its technology in 2015. *See id*. at ¶¶ 17, 21. And by the time NVMe first published the ZNS

command set specification in 2020, Radian had already racked up another major award a year before in 2019. *See id*. at ¶ 22. Within months of the specification's publication, Radian had its SSD pass a full suite of verification tests by an independent lab, while Samsung itself did not announce its intention to release a ZNS-compatible product until 2021. *See id*. at ¶¶ 23-25.

During this time, Samsung was (and still is) the largest conventional SSD manufacturer by market share, meaning that Samsung had massive manufacturing and assembly capabilities already at its fingertips with which it could infringe Radian's patents. *See* Jadon Decl. at ¶¶ 24-25. With Samsung's ongoing infringement of Radian's patents, Radian will also continue to lose pathways to market opportunities in addition to the market opportunities it already lost, including potential deals with existing and prospective customers. *See id.* at ¶¶ 33-37, 48-50. Samsung's infringement also caused Radian to suffer damage to its position as the market pioneer for its inventive technology in the software-defined flash market, including for ZNS-compatible SSDs. *See id.* at ¶¶ 37, 45. Samsung's ongoing infringement will continue to erode what is left of Radian's market position as the technology pioneer. *See id.* at ⁋ 33. Radian is unable to compete against its own patented inventions when wielded by Samsung with its massively larger manufacturing capabilities, built-in economies of scale, and human and capital resources. *See id*. at ¶¶ 25, 34-35; *compare id. with TEK Global*, 920 F.3d at 792–93 (in considering hardships, noting that the "district court determined that, without the injunction, TEK would be forced to compete with its own patented invention"). Radian also was trying to compete in a specialized segment where infringement was particularly damaging. *Cf. id.* at 792 (noting that patentee's "lack of diversification exposes it to a particular risk of lowered market share"). Innovation was Radian's competitive edge in that marketplace. By infringing, Samsung stripped Radian of that edge and forced it to compete with Samsung on scale. *See* Jadon Decl. at ¶¶ 25, 34-35.

Additionally, as an influential market participant, Samsung's infringement encouraged other companies to release ZNS-compatible SSDs that resulted in Radian facing the prospect of competing against its own technology with other market entrants. *See* Jadon Decl. at ¶¶ 36-37. This impact was amplified by Samsung's collaborative efforts with other members of the NVMe organization to include Radian's patented inventions in NVMe's specifications—leading to the market wrongly treating Radian's patented inventions as fair game to be freely used as commodities at will, further eroding Radian's position as a market pioneer for this technology. *See id*. at ¶¶ 37, 50; *compare id. with i4i*, 598 F.3d at 861–62 ("In this case, the district court properly considered strong circumstantial evidence that Microsoft's infringement rendered i4i's product obsolete for much of the custom XML market, causing i4i to lose market share and change its business strategy to survive. i4i was not required to prove that its specific customers stopped using i4i's products because they switched to the infringing Word products.").

(b) Loss of Goodwill and Reputation.

In addition to having the market opportunity that Radian created taken by Samsung with its infringement, Radian's goodwill and reputation were also damaged (and continue to be so) as a result of Samsung's infringement. As Mr. Jadon explains in his declaration, Radian diligently built its reputation and goodwill over the course of a decade. *See* Jadon Decl. at ¶¶ 40-43, 47-48. But that all came crashing down after Samsung's infringement. *See id.* at ¶¶ 39, 45-46, 49-50.

The industry recognized and knew of Radian's reputation as a pioneer in this technology space with one of the largest storage software companies in the industry telling Radian that it appeared to be the frontrunner in the space. *See* Jadon Decl. at ¶ 18; *compare id. with Douglas Dynamics*, 717 F.3d at 1344–45 (recognizing harm to a patentee's "reputation as an innovator"). Beyond that, Radian proved to the industry (repeatedly) the benefits and performance of its patented inventions in real products and with industry-standard device-level and system-level

benchmarks. *See* Jadon Decl. at ¶ 42. The status of Radian's reputation was also affirmed by the industry itself. *See id*. at ¶¶ 17, 21-22, 43. Samsung and other members of the NVMe organization also knew of Radian prior to their collaborative efforts to include Radian's patented inventions in standards specifications. *See id*. at ¶¶ 15-17, 19-23, 44. And again, the industry tried to persuade (and then pressure) Radian to join NVMe. *See id*. at ¶¶ 23, 44. Radian did not join because it did not want to give royalty-free licenses the industry.

Having the largest market share in SSDs and being a key leader in the NVMe organization, Samsung's infringement was particularly harmful to Radian's reputation. *See* Jadon Decl. at ¶ 45. Had Samsung not infringed Radian's patents, the rest of the industry, including Samsung's customers and Radian's customers, would have seen a major market participant respecting Radian's patent rights and would have likewise also continued to respect Radian's reputation as the pioneer of this technology. *See id.*; *compare id. with Douglas Dynamics*, 717 F.3d at 1345 (recognizing that a patentee's "reputation would be damaged if its dealers and distributors believed it did not enforce its intellectual property rights").

Relatedly, Radian had customer relationships with various companies for other products (not embodying the claims of the asserted patents). *See* Jadon Decl. at ¶ 48. Radian sold tens of millions of dollars' worth of these other products. *See id*. Radian also engaged with its largest existing customer and prospective customers regarding evaluation agreements and potential opportunities for that customer to purchase Radian products embodying the patented inventions. *See id.* But just as its reputation was damaged, Radian's goodwill and relationships with existing and prospective customers were also damaged. *See id*. at ¶ 49. Samsung's infringement was particularly destructive because of Samsung's visibility, market share, and role in standards activities. *See id*. Samsung's infringement greenlit indifference to Radian's patent rights by the

industry, including some of Radian's own customers. *See id.* at ¶ 50. This eroded Radian's goodwill and customer relationships, and these existing and prospective customers did not complete agreements with Radian for products with its patented inventions. *See id.*; *compare id. with SynQor, Inc v. Artesyn Techs., Inc.*, No. 2:07-CV-497, 2011 WL 238645, at *3 (E.D. Tex. Jan. 24, 2011); *see also LEGO A/S v. ZURU Inc.*, 799 F. App'x 823, 832 (Fed. Cir. 2020).

(c) Permanent Loss of Patent Term and Exclusivity.

Radian's patent term and exclusivity will likely continue to be destroyed irreversibly by Samsung's infringement if it continues unabated. *See* Jadon Decl. at ¶ 38. Loss of Radian's patent term is permanent, and monetary damages cannot restore a loss of patent-supported exclusivity after years of litigation. *See Masimo Corp. v. True Wearables, Inc.*, No. 2021-2146, 2022 WL 205485, at *6 n.4 (Fed. Cir. Jan. 24, 2022); *Apple*, 809 F.3d at 642. Samsung's unrestrained infringement would cause Radian to suffer further loss of patent term and deprive Radian of patent-supported exclusivity to participate in the market on its own terms. *See* Jadon Decl. at ¶¶ 38, 51-58. An injunction would protect Radian's patent term. *See id.* at ¶¶ 38, 58.

(d) Radian's Inventions Drive Demand for Samsung's Accused Products.

Samsung's infringement of Radian's patents also satisfies the causal nexus requirement of the Federal Circuit's contemporary approach, which requires a patentee to show that "the infringing feature drives consumer demand for the accused product." *Apple Inc. v. Samsung Elecs. Co.*, 695 F.3d 1370, 1375–76 (Fed. Cir. 2012). "Driving demand, however, does not require a patented feature to be the only basis of consumer demand," and it is enough "to show that a significant reason consumers bought its device was the presence of the patented features." *TEK Global*, 920 F.3d at 792 (citation omitted); *see also Apple*, 735 F.3d at 1364 ("[T]hese principles do not mean Apple must show that a patented feature is the one and only reason for consumer demand. Consumer preferences are too complex—and the principles of equity are too

flexible—for that to be the correct standard.") (citation omitted).

Radian's inventions drove demand for Samsung's infringing SSD products. In fact, as described above, Radian's patented inventions created this market opportunity—years ahead of anyone else in the industry. *See* Jadon Decl. at ¶¶ 8-25. Samsung's customers for software-defined flash drives, including ZNS-capable SSDs, are primarily hyperscalers with large data-center operations. *See id*. at ¶¶ 27, 29. For example, Microsoft runs the Azure cloud platform, which runs on massive data centers, requiring millions of SSDs. *See id*. at ¶ 28. In 2017, Microsoft called on the industry to adopt the next generation of a high-density storage interface for cloud-scale data-center applications. *See id*. at ¶ 27-28. The architecture that Microsoft wanted the industry to adopt embodied Radian's patented features. *See id*. at ¶ 29. Prior to this, Samsung promoted alternative technologies in conferences. *See id*. It was not until after Microsoft publicly expressed its demand for technology that embodied Radian's patented features that Samsung began to seriously pursue production of ZNS products. *See id*. Of the SSD manufacturers that have announced ZNS products, Samsung has the largest market share and the necessary production scale to meet Microsoft's requirements. *See id*. Microsoft purchases ZNS-capable SSDs from Samsung because Microsoft wants the infringing features in those SSDs. *See id*. at ¶ 30. As such, Radian satisfies the causal nexus requirement.

3. Discrimination Against Nonuser Patent Owners Is Prohibited.

Discrimination against nonuser patent owners has emerged as a particularly prominent feature of the post-*eBay* approach to granting injunctive relief. *See, e.g.*, *Bianco v. Globus Med., Inc.*, No. 2:12-CV-00147, 2014 WL 1049067, at *5-6 (E.D. Tex. Mar. 17, 2014) (Bryson, J., sitting by designation) ("In fact, with only a few exceptions, courts have denied injunctive relief in cases in which the patentee does not practice the patent and compete with the alleged infringer.") (collecting cases). This discrimination is improper.

The law does not permit discrimination against nonuser patent owners when considering whether to grant injunctive relief. *eBay* itself criticized the district court for being out of line with the traditional principles of equity and *Continental Paper* by denying injunctive relief because of the plaintiff's lack of commercial activity. *See eBay*, 547 U.S. at 393. In *Continental Paper*, the Court stated that it was the deliberate policy of the United States not to discriminate against nonuser patent owners, specifically with respect to injunctive relief. *Id.* at 429–30. *eBay* reaffirmed this policy, endorsing *Continental Paper* without qualification. *eBay*, 547 U.S. at 393.

Yet, even in the face of Supreme Court precedent prohibiting this practice, many courts improperly discriminate against nonuser patent owners when considering injunctive relief. It appears that lower courts have latched onto Justice Kennedy's concurrence in *eBay* as justification for a new rule—one that departs from *eBay*, *Continental Paper*, and the traditional principles of equity—that permits discrimination against nonuser patent owners. *See, e.g.*, *Apple*, 809 F.3d at 650 (Reyna, J., concurring) ("As Justice Kennedy explained, however, this traditional model does not always apply, particularly when the patentee is a non-practicing entity.") (cleaned up); *accord Bianco*, 2014 WL 1049067, at *5-6. But Justice Kennedy's concurrence in *eBay* does not and cannot authorize courts to discriminate against nonuser patent owners in the face of *eBay* and *Continental Paper's* precedent to the contrary. Any discrimination against nonuser patent owners—not merely that in the form of a per se rule that nonuser patent owners cannot obtain equitable relief—violates *eBay* and *Continental Paper*.

* * *

Radian has established that it is likely to suffer irreparable harm under both the traditional principles of equity and the contemporary principles of equity. As such, the second *Winter* factor favors granting a preliminary injunction.

C. Balance of Hardships

The third *Winter* factor considers the hardship the plaintiff would face in the absence of injunctive relief versus the hardship the defendant would face if enjoined. *See Winter*, 555 U.S. at 26. The hardships that Radian would face in the absence of injunctive relief vastly outweigh any hardship that Samsung might face if it were prohibited from continuing its infringement.

Absent an injunction, Radian will endure significant hardships from irreparable harm to its market position, market opportunities, reputation, goodwill, and loss of patent term. These hardships have been detailed above. *See* Section IV.B.2 *supra*. Radian is also deprived of its patent rights to determine with whom to enter licenses and on what terms. This, in turn, depletes Radian's flexibility, time, and motivation to develop more innovations. *See* Jadon Decl. at ¶ 58.

Even if enjoined, Samsung, a massive multinational corporation with numerous constituent business lines, would not generally go out of business, lose its memory and storage business, or even lose its enterprise or data center segments of its storage business.[6] Instead, Radian's proposed injunction is reasonably tailored to Samsung's infringement. *See* Jones Decl. at ¶¶ 114-17. Samsung could continue selling conventional SSDs. *See id.* at ¶ 123. Additionally, Samsung would be given a reasonable amount of time to bring its infringing activities to a complete end. *See* Proposed Injunction Order; Jones Decl. at ¶¶ 118-24. Finally, Radian has negotiated terms so that it can post a bond of $10,000,000 under Rule 65(c) if the Court decides it is needed to address hardship to Samsung from an injunction. *See* Curry Decl. at ¶ 3.

Because the hardship to Radian in the absence of an injunction greatly outweighs any hardship to Samsung if enjoined, the third *Winter* factor favors granting a preliminary injunction.

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[6] *See, e.g.*, https://news.samsung.com/global/fast-facts; https://www.samsung.com/us/memory-storage/; https://semiconductor.samsung.com/us/ssd/; https://semiconductor.samsung.com/us/ssd/enterprise-ssd/; https://semiconductor.samsung.com/us/ssd/datacenter-ssd/.

D. Public Interest

The final *Winter* factor considers the impact on the public interest. *See Winter*, 555 U.S. at 24; *Roche Prod., Inc. v. Bolar Pharm. Co.*, 733 F.2d 858, 866-67 (Fed. Cir. 1984). The public interest favoring the enforcement of patent rights has been expressed in the statutes passed by Congress. *See Morton Salt Co. v. G. S. Suppiger Co.*, 314 U.S. 488, 492 (1942). The ownership of inventions as a property right—and the enforcement of that right via injunction—has been critical to our nation's prosperity. *See* Adam Mossoff, *The Injunction Function: How and Why Courts Secure Property Rights in Patents*, 96 NOTRE DAME L. REV. 1581, 1594–95 (2021).

Defendants like Samsung assume they will face no risk of being enjoined preliminarily or permanently, and thus they have no incentive to mediate or settle, particularly when the patentee is a small company like Radian. *See Kristen* Jakobsen Osenga, *"Efficient" Infringement and Other Lies*, 52 SETON HALL L. REV. 1085, 1090–91 (2022) (explaining that systems with "regularly-granted injunctions" encourage pre-infringement negotiations and provide a place from which post-lawsuit negotiations could begin). Applying the traditional practice of enjoining patent infringement would encourage parties in lawsuits to negotiate resolutions directly instead of using the courts as a negotiation forum. This would of course advance the public interest. The proposed injunction does not jeopardize public health, public safety, or national security. *See Xerox Corp. v. 3Com Corp.*, 61 F. App'x 680, 685 (Fed. Cir. 2003); *see also Winter*, 555 U.S. at 33. Because Radian has established that the public interest would be unharmed and actually improved with an injunction, the fourth *Winter* factor favors granting a preliminary injunction.

V. CONCLUSION

As demonstrated above, the four-factor *Winter* test supports a preliminary injunction. Radian respectfully requests that the Court grant its Motion for a preliminary injunction.

Dated: May 6, 2025

Respectfully submitted,

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ATTORNEYS FOR PLAINTIFF RADIAN MEMORY SYSTEMS LLC

CERTIFICATE OF SERVICE

I certify that on May 6, 2025, a true and correct copy of the above and foregoing document was served on counsel of record via the Court's CM/ECF system per Local Rule CV-5(a)(3).

/s/ *Austin Curry*
Austin Curry

CERTIFICATE OF CONFERENCE

I certify that counsel for Radian met and conferred with counsel for Samsung to discuss the substantive relief sought in this Motion pursuant to Local Rule CV-7(h). Counsel for Samsung indicated that it was opposed to the relief sought in this Motion.

/s/ *Austin Curry*
Austin Curry