United States Court of Appeals for the Federal Circuit

ADASA INC.,
Plaintiff-Appellee

v.

AVERY DENNISON CORPORATION,
Defendant-Appellant

2022-1092

Appeal from the United States District Court for the District of Oregon in No. 6:17-cv-01685-MK, Magistrate Judge Mustafa T. Kasubhai.

Decided: December 16, 2022

ROBERT GREENSPOON, Dunlap Bennett & Ludwig PLLC, Chicago, IL, argued for plaintiff-appellee. Also represented by WILLIAM W. FLACHSBART; GLENN SCHUYLER ORMAN, JONATHAN TAD SUDER, Friedman, Suder & Cooke, Fort Worth, TX.

DEREK L. SHAFFER, Quinn Emanuel Urquhart & Sullivan, LLP, Washington, DC, argued for defendant-appellant. Also represented by JOSEPH MILOWIC, III, OWEN ROBERTS, New York, NY; MARK YEH-KAI TUNG, Redwood Shores, CA.

Before MOORE, *Chief Judge*, HUGHES and STARK, *Circuit Judges*.

MOORE, *Chief Judge*.

Avery Dennison Corporation appeals the United States District Court for the District of Oregon's grant of summary judgment that claim 1 of U.S. Patent No. 9,798,967 is directed to eligible subject matter under 35 U.S.C § 101 and is valid under 35 U.S.C. §§ 102 and 103. Avery Dennison also appeals the district court's order denying its motion for a new trial and imposing sanctions for its discovery misconduct. For the reasons set forth below, we affirm in part, reverse in part, vacate in part, and remand for further proceedings.

BACKGROUND

A

The '967 patent relates, in part, to methods and systems for commissioning radio-frequency identification (RFID) transponders. '967 patent at 3:27–32. RFID transponders, also known as RFID tags, are used, like barcodes, to identify and track objects by encoding data electronically in a compact label. *Id.* at 1:32–34. But unlike traditional barcodes, RFID tags need not include external, machine- or human-readable labels and can communicate the data they encode over a distance using radio-frequency transmission. *Id.* at 1:34–53, 6:28–59.

To facilitate identifying and tracking an object in the stream of commerce, RFID tags are encoded with information associated with the object through a process known as "commissioning." *Id.* at 1:40–53. The encoded data may include various categories of information, "for example, data representing an object identifier, the date-code, batch, customer name, origin, destination, quantity," etc. *Id.* at 1:45–50. Regardless of the specific categories included, to ensure accurate tracking, it is critical that the data

uniquely identify the tagged object. *Id.* at 2:21–22, 2:48–50.

In the RFID industry, uniqueness is ensured by assigning RFID tags an Electronic Product Code (EPC or EPCglobal) in accordance with certain global formatting standards. An EPC is a serialized object number comprising object class information and a serial number that together uniquely identify the associated object. *See id.* at 9:7–15. For example, the EPC may be a Serialized Global Trade Item Number (SGTIN), which consists of a Global Trade Item Number identifying the brand and class of the item (i.e., object class information) followed by a serial number uniquely identifying the tagged item within the brand and class. *Id.* Since objects from the same brand and class will share the same object class information, ensuring the uniqueness of the overall EPC amounts to ensuring uniqueness of the serial number.

Ensuring uniqueness, however, is not necessarily straightforward. *Id.* at 2:49–50. Serialization generally "requires a central issuing authority of numbers for manufacturers, products, and items to guarantee uniqueness and to avoid duplication of numbers." *Id.* at 2:23–25. The issuing authority assigns blocks of numbers to remote locations, wherein each remote location receives the numbers one by one or where the numbering space is partitioned in some manner. *Id.* at 2:25–29. But, in either case, the encoded numbers must generally be reconciled by comparison to a central database "either one or several numbers at a time." *Id.* at 2:30–32.

In the case of EPCglobal numbers, the central issuing authority is known as GS1. *Id.* at 7:61–65, 9:7–15. GS1 distributes blocks of numbers to member companies in a hierarchical manner, wherein each company is authorized to then "further allocate numbers from its upper level database to as many lower database levels as it deems

necessary to distribute number authority throughout its enterprise." *Id.* at 7:61–8:3.

Using central databases to distribute the allocated numbers has certain drawbacks. It generally requires encoders to maintain a continuous network connection with the database so that new serial numbers can be retrieved when an RFID tag is commissioned. *See id.* at 3:27–4:4. But a continuous connection is not always possible and, even when it is, may be plagued by network delays that slow down the commissioning process. *See id.* at 3:64–4:4. This in turn may delay or impair downstream activity, including manual steps in the commissioning or distribution process. *Id.*

The '967 patent seeks to "overcome[] these shortcomings" using systems and methods for commissioning RFID tags "on-demand" and "with no external authorizations or queries required on a transponder-by-transponder basis," enabling commissioning to proceed without the need for continuous connectivity to a central database. *Id.* at 3:27–35, 3:64–67. In one embodiment, pre-authorized ranges of serial numbers for specific object classes are allocated to lower levels in the hierarchy, for example, individual encoders. *Id.* at 8:4–11. In this embodiment, the object class serial number space is subdivided into sectors defined by a series of fixed "Most Significant Bits" (MSBs), wherein the number of allocatable sectors is determined by the number of MSBs. *Id.* at 8:11–15. For example, according to the SGTIN-96 standard, the serial number space consists of 38 bits which can encode 2^{38} distinct serial numbers. If the first 14 of these bits are designated as MSBs, then the serial number space is correspondingly subdivided into 2^{14} sectors or "blocks" which can be allocated to as many as 2^{14} different encoders. *See id.* at 8:21–29. The remaining 24 bits can then be used to encode a unique serial number space within a given block. *Id.* "Each allocated block of serial numbers represents authority for encoding objects of an object class that can either be used by an

encoder for encoding transponders, or allocated to a lower level in the authority hierarchy." *Id.* at 8:32–36.

Critically, once a block is allocated to an encoder, there is no need to reconnect to a central database until the unique numbers within the block have been exhausted. *See id.* at 8:37–51. Thus, in the previous example, 2^{24}, or approximately 16.8 million, RFID tags could be commissioned before reconnection to a central database is required. And by eliminating the need for a continuous connection to the database, the attendant delays are reduced and the commissioning process is improved. The '967 patent refers to such a system, where only intermittent connection to a central database is necessary, as quasi-autonomous encoding authority. *Id.* at 8:4–7.

Claim 1 is the only claim at issue on appeal. As issued following a 2018 reexamination, it recites:

> 1. An RFID transponder comprising:
>
> a substrate;
>
> an antenna structure formed on the substrate; and
>
> an RFID integrated circuit chip which is electrically coupled to the antenna structure;
>
> wherein the RFID integrated circuit chip is encoded with a unique object number, the unique object number comprising an object class information space and a unique serial number space;
>
> *wherein the unique serial number space is encoded with one serial number instance from an allocated block of serial numbers, the allocated block being assigned a*

> *limited number of most significant bits*;
>
> *wherein the unique serial number space comprises the limited number of most significant bits uniquely corresponding to the limited number of most significant bits of the allocated block and of remaining bits of lesser significance that together comprise the one serial number instance.*

'967 patent at claim 1 (emphasis added).

B

In October 2017, ADASA sued Avery Dennison in the District of Oregon, alleging its manufacture and sale of certain RFID tags infringed claims 1–6, 13, and 14 of the '967 patent. The case was assigned to a magistrate judge and the parties consented that the magistrate judge's decisions would be final, subject to appeal.

Following discovery, both parties sought summary judgment. Relevant to this appeal, Avery Dennison moved for summary judgment of noninfringement of all asserted claims or, in the alternative, that the asserted claims were ineligible under § 101. ADASA moved for summary judgment of infringement and that the asserted claims are neither anticipated by U.S. Patent No. 7,857,221 (Kuhno) or the book *RFID for Dummies* nor rendered obvious by *RFID for Dummies* in combination with certain EPC standards.

The district court granted ADASA's motion as to validity, granted in part its motion as to infringement, and denied Avery Dennison's motions *in toto*. *See ADASA Inc. v. Avery Dennison Corp.*, No. 6:17-CV-01685-MK, 2020 WL 5518184 (D. Or. Sept. 14, 2020) (*Summary Judgment Order*). In addition, while denying Avery Dennison's motion for summary judgment of ineligibility, the district court

simultaneously granted judgment in ADASA's favor that the asserted claims were directed to "an encoded RFID transponder implemented with a memory structure accommodating a specific hardware-based number scheme" and thus patent-eligible. *Summary Judgment Order*, at *8.[1] Following summary judgment, ADASA moved to sever and stay its claims of infringement as to all claims except claim 1, which the district court granted. The court subsequently dismissed those claims without prejudice. J.A. 14589–90.

Prior to trial, ADASA moved *in limine* to exclude Avery Dennison's damages expert, Mr. David Yurkerwich's, testimony related to certain Avery Dennison licenses, arguing Mr. Yurkerwich had failed to adequately establish the licenses' technological and economic comparability. The district court granted the motion, determining "Mr. Yurker[w]ich's testimony relating to the non-comparable patents cannot pass the *Daubert* threshold." J.A. 9477.

The parties then proceeded to trial on the issues of infringement of claim 1 and damages. As part of its damages case, ADASA entered into evidence three licenses between itself and various licensees, licenses which Avery Dennison alleged reflected lump-sum agreements to practice the '967 patent. As such, though it had not advanced a lump-sum damages theory during trial, Avery Dennison requested the district court instruct the jury on lump-sum damages and include a lump-sum option on the verdict form. *See*

---

[1] Although the district court's summary judgment decision was not explicit in granting judgment in favor of ADASA regarding subject matter eligibility, the post-trial order clarified that its denial of Avery Dennison's motion for summary judgment "effectively granted summary judgment for Plaintiff as to the validity [i.e., eligibility] claim." *ADASA Inc. v. Avery Dennison Corp.*, No. 6:17-CV-01685-MK, 2021 WL 5921374, at *7 (D. Or. Dec. 15, 2021) (*Post-Trial Order*).

J.A. 15716–18; *see also* J.A. 17927–28 (proposed instruction); J.A. 17906 (proposed verdict form). The district court denied the request, observing that Avery Dennison's expert had not offered a lump-sum damages opinion and concluding the licenses alone were insufficient for the jury to conclude lump-sum damages were appropriate. J.A. 15742–47.

Following trial, the jury returned a verdict of infringement and awarded ADASA a running royalty of $0.0045 per infringing RFID tag for a total award of $26,641,876.75. J.A. 11533. Thereafter, Avery Dennison moved for a new trial pursuant to Rule 59, arguing the district court's exclusion of Mr. Yurkerwich's testimony and its decision not to include a lump-sum instruction were reversible error.

Before the district court ruled on this motion, however, Avery Dennison revealed to ADASA that it had discovered additional, previously undisclosed RFID tags in its databases. An investigation by a third-party auditor subsequently determined the number of undisclosed tags was substantial, totaling more than two billion. Avery Dennison, for its part, stipulated the late-disclosed tags infringed (subject to appeal) and agreed to pay an additional $9,417,343 in damages, corresponding to the jury's rate of $0.0045 per tag. ADASA also moved for sanctions under Rule 37 and requested hearings to determine the appropriate remedy for Avery Dennison's discovery violation. The district court agreed and, after multiple evidentiary hearings in which it heard testimony from several witnesses, indicated it would impose a financial sanction "attached to the number of infringing tags" at a rate of $0.0025 per tag with additional rationale to be set forth in its post-trial order. J.A. 14574 ll. 1–3.

In its December 2021 post-trial order, the district court denied Avery Dennison's motion for a new trial and detailed its findings regarding sanctions, as well as the basis

for the sanction imposed. *Post-Trial Order*, at *11, *13–14. It explained "a sanction tied to the number of infringing tags determined to exist as of the date of the verdict" at a rate of $0.0025 per tag was warranted in view of Avery Dennison's "protracted discovery failures" and "its patent and continuous disregard for the seriousness of this litigation and its expected obligations." *Id.* at *14. Pursuant to those findings, the district court entered a sanction of $20,032,889.80, corresponding to a $0.0025 per-tag rate applied to both the adjudicated and late-disclosed tags. *Id.*

Avery Dennison appeals the district court's summary judgment rulings, its denial of a new trial, and its imposition of sanctions. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

DISCUSSION

I

We first address the district court's grant of summary judgment that claim 1 is eligible under § 101 and not invalid under §§ 102 or 103. We review summary judgment rulings under the law of the regional circuit, here the Ninth Circuit. *Landmark Screens, LLC v. Morgan, Lewis & Bockius, LLP*, 676 F.3d 1354, 1361 (Fed. Cir. 2012). The Ninth Circuit "review[s] the district court's grant of summary judgment de novo, determining whether, viewing all evidence in the light most favorable to the nonmoving party, there are any genuine issues of material fact and whether the district court correctly applied the relevant substantive law." *Kraus v. Presidio Tr. Facilities Div./Residential Mgmt. Branch*, 572 F.3d 1039, 1043–44 (9th Cir. 2009). "The evidence of the non-movant is to be believed, and all justifiable inferences are to be drawn in his favor." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 255 (1986).

A

We begin with the district court's ruling that claim 1 is directed to eligible subject matter, a question we review de

novo. *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016). Section 101 provides that whoever "invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor." 35 U.S.C. § 101. The Supreme Court has explained that § 101 implicitly excludes from patentability "[l]aws of nature, natural phenomena, and abstract ideas." *Mayo Collaborative Servs. v. Prometheus Labs, Inc.*, 566 U.S. 66, 70 (2012). To determine whether a claim falls within these implicit exceptions, we apply the two-step analytical framework set forth in *Alice*. First, we "determine whether the claims at issue are directed to a patent-ineligible concept." *Alice Corp. Pty. v. CLS Bank Int'l*, 573 U.S. 208, 217 (2014). If the focus of the claim is a specific and concrete technological advance, for example an improvement to a technological process or in the underlying operation of a machine, our inquiry ends and the claim is eligible. *See, e.g.*, *Enfish*, 822 F.3d at 1336; *Uniloc USA, Inc. v. LG Elecs. USA, Inc.*, 957 F.3d 1303, 1309 (Fed. Cir. 2020); *SRI Int'l, Inc. v. Cisco Sys., Inc.*, 930 F.3d 1295, 1304 (Fed. Cir. 2019); *Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1305–06 (Fed. Cir. 2018); *Ancora Techs., Inc. v. HTC Am., Inc.*, 908 F.3d 1343, 1349 (Fed. Cir. 2018), *as amended* (Nov. 20, 2018). If, however, the claim is directed to an ineligible concept, we proceed to step two and assess whether the "elements of the claim both individually and 'as an ordered combination' . . . 'transform the nature of the claim' into a patent eligible application." *Alice*, 573 U.S. at 217 (quoting *Mayo*, 566 U.S. at 78).

Here, the district court held claim 1 was not directed to an abstract idea but rather to "an encoded RFID transponder implemented with a memory structure accommodating a specific hardware-based number scheme." *Summary Judgment Order*, at *8; *see also Post-Trial Order*, at *7. Avery Dennison argues claim 1 is directed to the abstract idea of mentally assigning meaning to a sub-

section of a data field and does not recite any eligibility-conferring inventive concepts.[2] We do not agree.

Considered as a whole, and in view of the specification, claim 1 is not directed to an abstract idea. Rather, it is directed to a specific, hardware-based RFID serial number data structure designed to enable technological improvements to the commissioning process. Setting aside the conventional RFID hardware components, claim 1 as a whole focuses on the data structure of the serial number space. It requires that this space include a serial number selected from an allocated block and that this serial number comprise two components: (1) a limited number of MSBs, i.e., a limited, predefined sequence of higher order bits at the leading end of the serial number, *see ADASA Inc. v. Avery Dennison Corp.*, No. 6:17-CV-01685-TC, 2019 WL 281298, at *1 (D. Or. Jan. 22, 2019) (*Markman Order*), and (2) remaining bits of lesser significance. '967 patent at claim 1. Claim 1 further specifies that the claimed MSBs "uniquely correspond" to the MSBs assigned to the allocated block from which the serial number is drawn. *Id.*; *see also Markman Order*, at *3 (construing "uniquely corresponding" according to its plain and ordinary meaning). In other words, for any set of MSBs there is exactly one corresponding allocated block, and for each allocated block there is exactly one set of MSBs. In essence, the claimed MSBs function as an additional data field within the serial number space that uniquely identifies the allocated block from which it came.

This one-to-one correspondence has important technological consequences. Because the predefined sequence of

---

[2] ADASA contends Avery Dennison waived or forfeited various arguments raised on appeal, including that claim 1 is ineligible in view of the district court's claim construction. We find these arguments unpersuasive and accordingly reach the merits of the parties' disputes.

MSBs in a given serial number uniquely corresponds to an allocated block, and vice versa, serial numbers drawn from different blocks are guaranteed to be unique. It is this central feature of the claim that enables improvements in the commissioning process. As the written description details, by appropriate assignment of the allocated blocks to lower levels in the commissioning hierarchy, for example, to individual encoders, unique serial numbers can be guaranteed without the need for a continuous connection to a central database. *See* '967 patent at 8:4–51. This, in turn, reduces delays in the commissioning process relative to prior art RFID tags utilizing conventional data structures and allows tags to be commissioned on-demand, without needing to establish or reestablish a connection. *Id.* at 3:27–35, 3:64–4:12.

We thus reject Avery Dennison's contention that claim 1 is directed to nothing more than mentally ascribing meaning to a pre-existing data field. The meaning of the MSB data field—and the improvements that flow therefrom—is the result of the unique correspondence between the data physically encoded on the claimed RFID tags with pre-authorized blocks of serial numbers. That is not a mere mental process, but a hardware-based data structure focused on improvements to the technological process by which that data is encoded. We therefore conclude claim 1 is directed to eligible subject matter as a matter of law.

Our conclusion is bolstered by prior decisions finding similar claims eligible. *See Enfish*, 822 F.3d at 1334 ("[B]oth this court and the Supreme Court have found it sufficient to compare the claims at issue to those claims already found to be directed to an abstract idea in previous cases."). For example, in *Uniloc*, we held eligible claims appending an additional data field to a prior art data structure used for polling stations in a communication system. 957 F.3d at 1307. We explained the additional data field enabled eligibility-conferring improvements within the communication system, namely reducing or eliminating

communication latency. *Id.* at 1307–08. The same is true here. Claim 1 of the '967 patent adds an additional data field to the prior art serial number space, namely MSBs, which must uniquely correspond to an allocated block of serial numbers. '967 patent at claim 1. This unique correspondence in turn permits unique serial numbers to be assigned without need for a continuous database connection, reducing associated network delays and allowing encoders to operate on-demand. *Id.* at 3:65–4:12, 8:4–51.

Similarly, in *Enfish,* we held eligible at step one claims related to a "specific type of [self-referential] data structure designed to improve the way a computer stores and retrieves memory." 822 F.3d at 1339. The claimed self-referential data structure was directed to a patent-eligible improvement because it enabled greater flexibility for programmers, faster search times, and smaller memory requirements. *Id.* at 1337. So, too, the data structure of claim 1 of the '967 patent is designed to enable greater flexibility by allowing encoders to commission tags on-demand without consulting a central database, while simultaneously expediting the commissioning process by reducing communication delays.

We conclude claim 1, viewed in light of the specification and considered as a whole, is directed to patent eligible subject matter. We need not address step two. Accordingly, we affirm the district court's holding that claim 1 is eligible under § 101.

B

Next, we turn to the district court's grant of summary judgment that claim 1 is neither anticipated nor rendered obvious by *RFID for Dummies*.[3] To anticipate a claim, a

[3] ADASA contends that Avery Dennison did not raise an obviousness defense as to claim 1 and that obviousness is therefore not before us on appeal. On the record

prior art reference must disclose each and every element of the claim, either explicitly or inherently. *Eli Lilly & Co. v. Zenith Goldline Pharms., Inc.*, 471 F.3d 1369, 1375 (Fed. Cir. 2006). While those elements must be arranged or combined in the same way as in the claim, the reference need not disclose the elements in the very same terms used by the patent. *In re Gleave*, 560 F.3d 1331, 1334 (Fed. Cir. 2009) ("[T]he reference need not satisfy an *ipsissimis verbis* test." (citing *In re Bond*, 910 F.2d 831, 832–33 (Fed. Cir. 1990)). And "[e]ven if a reference's teachings are insufficient to find anticipation, that same reference's teachings may be used to find obviousness" where it suggests some reason to modify the prior art to obtain the claimed limitations. *CRFD Rsch., Inc. v. Matal*, 876 F.3d 1330, 1345 (Fed. Cir. 2017). "The question of what a reference teaches and whether it describes every element of a claim is a question for the finder of fact." *Med. Instrumentation & Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1221 (Fed. Cir. 2003).

---

before us, it is not clear whether Avery Dennison raised a single-reference obviousness defense against claim 1 based on *RFID for Dummies*. While Avery Dennison's expert evidently did not opine that claim 1 would have been obvious in view of *RFID for Dummies* alone, in its Answer to ADASA's Second Amended Complaint, Avery Dennison asserted obviousness as an affirmative defense to ADASA's allegations of infringement of claim 1. J.A. 1965; J.A. 1972. Further, the district court's summary judgment order, while not expressly delineating the claims at issue, acknowledges that Avery Dennison asserted "*RFID for Dummies* also renders the '967 patent obvious," without reference to any secondary references. *Summary Judgment Order*, at *9. That order goes on to address whether *RFID for Dummies* renders obvious the MSB limitations of claim 1. *Id.* at *11–12. Accordingly, we interpret the district court's order as resolving the validity of claim 1 under § 103, as well as § 102.

Thus, summary judgment that a reference does not teach or suggest a particular claim element should be granted only if no reasonable juror could find the reference provides the necessary disclosure. *Id.*

The district court granted summary judgment because it believed Avery Dennison's evidence, including witness testimony, did not establish a triable dispute that *RFID for Dummies* discloses or suggests the claimed MSBs. *Summary Judgment Order*, at *11–12. On appeal, Avery Dennison argues the district court erred by reading *RFID for Dummies* too narrowly and by failing to view the relevant witness testimony in its favor. We agree.

Considering the evidence in the light most favorable to Avery Dennison, a reasonable juror could find *RFID for Dummies* discloses each element of claim 1, including the claimed MSBs. *RFID for Dummies* describes a methodology for ensuring the assignment of unique serial numbers to RFID tags when a central numbering authority is inaccessible or impractical, for example, when a company utilizes multiple manufacturing lines to produce the same product. J.A. 3877–78. To decentralize and make feasible the allocation of unique serial numbers across all manufacturing lines, *RFID for Dummies* discloses an "intelligent hierarchy" in which "a range of serial numbers for each product is allocated to each manufacturing facility." *Id.* "Within a facility, a range of numbers from those allocated to the facility is allocated to each line" thereby effectively subdividing the serial number "into a facility number, line number, and subserial number in which the allocation hierarchy is maintained between facility number and line number." *Id.*

Read in the light most favorable to Avery Dennison, this passage could reasonably be interpreted as disclosing the MSBs of claim 1. It describes a unique serial number selected from a range, i.e., a block, allocated to a given manufacturing line. And it further describes that this serial

number includes facility and line numbers unique to that manufacturing line which would necessarily remain invariant across products produced on the line. A reasonable juror could find that a skilled artisan would interpret the disclosed combination of facility and line number as mapping onto the MSBs of claim 1. Indeed, ADASA's witness, Mr. Williams, testified to that effect, stating the cited passage of *RFID for Dummies*, while not specifically mentioning MSBs, "exactly describes" the concept of MSBs as recited in the claim. J.A. 5311; *see also* J.A. 5312–13.

The district court disregarded this testimony because Mr. Williams subsequently testified that, notwithstanding the apparent similarities, *RFID for Dummies* does not say MSBs are utilized to accomplish its hierarchical scheme. J.A. 5311. Drawing all justifiable inferences in Avery Dennison's favor, as we must at the summary judgment stage, Mr. Williams' testimony is also reasonably understood as merely observing that *RFID for Dummies* does not disclose MSBs *in those terms*, not that it fails to disclose them altogether. *See In re Gleave*, 560 F.3d at 1334 ("[An anticipatory prior art] reference need not satisfy an *ipsissimis verbis* test."). To the extent Mr. Williams' testimony was unclear or inconsistent regarding *RFID for Dummies*' disclosure, Avery Dennison was entitled to have a jury determine its weight and import. *Payne v. Norwest Corp.*, 113 F.3d 1079, 1080 (9th Cir. 1997) (reversing summary judgment because "the weighing of [a witness' conflicting testimony] is for a jury, not a judge" (citing *Abdul-Jabbar v. Gen. Motors Corp.*, 85 F.3d 407, 410 (9th Cir.1996))); *see also Optical Disc Corp. v. Del Mar Avionics*, 208 F.3d 1324, 1338 (Fed. Cir. 2000) (applying Ninth Circuit law and reversing grant of summary judgment in view of conflicting testimony).

In short, we conclude the district court erred in concluding there was no triable issue of fact whether *RFID for Dummies* discloses the MSBs of claim 1. The cited passage alone was sufficient to warrant submission to the jury, but

certainly in view of Mr. Williams' corroborating testimony, there was a genuine dispute regarding the scope of *RFID for Dummies*' disclosure.[4] We therefore reverse the district court's grant of summary judgment that *RFID for Dummies* does not anticipate or render obvious claim 1 and remand for a trial limited to claim 1's validity.[5]

C

We now turn to the district court's finding that Kuhno does not anticipate claim 1. *Summary Judgment Order*, at *10–11. As it did for *RFID for Dummies*, the district court found there was no genuine dispute that Kuhno does not disclose MSBs. *Id*. It also determined Avery Dennison failed to offer sufficient evidence that Kuhno discloses a data structure that includes data beyond a serial number, namely object class information. *Id*. As above, we hold that

---

[4] Because we determine this evidence was sufficient to preclude summary judgment, we do not reach the district court's determination that Avery Dennison's expert testimony was so conclusory as to not raise a triable fact dispute. On remand, the district court should consider whether that testimony meets the standards of admissibility under Rule 702 and *Daubert* and thus may be presented to the jury.

[5] The district court's grant of summary judgment of no anticipation and nonobviousness of claims 2–6, 13, and 14 was predicated on its finding that *RFID for Dummies* does not disclose or suggest MSBs. *Summary Judgment Order*, at *11–12. Those claims, however, were subsequently dismissed without prejudice, J.A. 14589–90, and thus are not before us on appeal. To the extent ADASA reasserts those claims, as it retained the right to do in the event of a remand from this court, *id*., the district court should consider, consistent with this opinion, whether summary judgment of no anticipation and nonobviousness remains appropriate.

Kuhno's disclosures raise a genuine dispute of fact as to the anticipation of claim 1.

Kuhno discloses a system for printing labels encoding information about cartons or pallets (i.e., collections of cartons) of products to which they are affixed. J.A. 3958 at 6:27–36. Kuhno's labels include both traditional barcodes and an embedded RFID tag, which, like conventional RFID tags, consists of an encodable radio-frequency device and antenna attached to a substrate. *Id.* at 5:4–22. The barcodes contain "information specific to the cartons and pallets on which the label will be placed," while the RFID tag is encoded with "the same and, optionally, additional information." *Id.* at 5:25–29. For example, this information may include data regarding the product's manufacturer, the product's Unique Product Code (UPC), along with additional information supplied by a retailer or wholesaler which "may depend on the specific needs of the retailer/wholesaler and may be product specific." *Id.* at 6:27–43. Kuhno refers to this collection of information as RFID Printer Data. *Id.* at 6:52–64.

The RFID Printer Data may also include a "unique carton identifier," i.e., a "serial number generated by the system that is unique to each carton" on which an RFID tag is affixed. J.A. 3959 at 7:4–28. In one embodiment, the carton serial number is the combination of a "predetermined number," for example the Julian calendar date, a "production line number" consisting of the workstation ID and line number,[6] and a trailing "least significant portion" selected from a range of serial numbers determined by the system operator. *See* J.A. 3692 at 14:20–28; J.A. 3963 at 16:8–13. A similar scheme is used to assign unique pallet identifiers

[6] Kuhno defines a production line as the set of cartons and pallets labeled by a given workstation. J.A. 3959 at 7:50–52.

to RFID tags affixed to pallets. J.A. 3963 at 16:28–34; *see also* J.A. 3959 at 7:29–49.

Read in the light most favorable to Avery Dennison, Kuhno could be reasonably interpreted as disclosing the claimed MSBs and object class information. The parties agreed that MSBs should be construed as a "predefined sequence of higher order bits at the leading end" of a serial number within a pre-authorized range. *Markman Order*, at *1, *3. A reasonable juror could find that Kuhno's "predetermined number" and/or production line number satisfy this limitation. In addition to being predetermined, Kuhno explains these numbers are found at the leading end of the unique carton serial number, wherein the "least significant" end portion is determined by a range selected by the system operator. J.A. 3963 at 16:8–22. Further, because the production line number is unique to a given workstation, *see* J.A. 3959 at 7:50–52, the encoded production line number is reasonably understood as uniquely corresponding to the block of serial numbers defined by the workstation ID and the range of serial numbers selected by the workstation operator.

Kuhno could also be reasonably interpreted as disclosing data beyond a serial number, including object class information. The parties agreed "object class information space" means a "data field within the memory of the RFID integrated chip for information identifying the class of an object, such as a company prefix, item reference code, partition value, and/or filter value." *Markman Order*, at *1. As discussed above, the RFID Printer Data encoded in Kuhno's RFID tags may include information specifying a product's manufacturer and/or UPC, along with other data supplied by a product's retailer or wholesaler. J.A. 3958 at 6:31–44. At the very least, there is a genuine dispute of fact whether this information satisfies the object class information limitation.

We acknowledge Kuhno discusses these concepts in different terms and with different points of emphasis than the '967 patent. But the district court erred in interpreting these linguistic differences as fatal to a finding of anticipation. "The invention is not the language of the [claim] but the subject matter thereby defined." *Dow Chem. Co. v. Astro-Valcour, Inc.*, 267 F.3d 1334, 1341 (Fed. Cir. 2001). Thus, a prior art inventor need not "conceive of its invention using the same words as the patentee would later use to claim it." *Teva Pharm. Indus. Ltd. v. AstraZeneca Pharms. LP*, 661 F.3d 1378, 1384 (Fed. Cir. 2011). These disclosures create a genuine dispute of fact as to whether Kuhno anticipates claim 1. Accordingly, we reverse the district court's grant of summary judgment of no anticipation based on Kuhno and remand for further proceedings.[7]

II

We now turn to the district court's denial of Avery Dennison's motion for a new trial under Rule 59(a). We review such decisions under regional circuit law. *Columbia Sportswear N. Am., Inc. v. Seirus Innovative Accessories, Inc.*, 942 F.3d 1119, 1124 (Fed. Cir. 2019). The Ninth Circuit reviews the denial of a motion for a new trial for abuse of discretion. *Molski v. M.J. Cable, Inc.*, 481 F.3d 724, 728 (9th Cir. 2007). A "trial court may grant a new trial only if the verdict is contrary to the clear weight of the evidence, is based upon false or perjurious evidence, or to prevent a miscarriage of justice." *Passantino v. Johnson & Johnson*

---

[7] As it did when assessing *RFID for Dummies*, the district court disregarded as conclusory Avery Dennison's expert testimony that Kuhno anticipates claim 1. We do not reach that question here because we find Kuhno's disclosure alone creates a triable fact dispute. On remand, the district court may consider whether Avery Dennison's expert testimony is admissible at trial, applying the standards of Federal Rule of Evidence 702 and *Daubert*.

Consumer Prods., Inc., 212 F.3d 493, 510 n.15 (9th Cir. 2000).

Avery Dennison contends a new trial is necessary for two reasons. First, it argues the district court committed reversible error by declining to instruct the jury on lump-sum damages or include a lump-sum option on the verdict form, despite the admission of certain lump-sum licenses into evidence. Second, it argues a new trial is warranted because the district court excluded certain allegedly comparable licenses from evidence. We address each issue in turn.

A

As an initial matter, the parties dispute the standard of review applicable to the district court's decision that a lump-sum jury instruction was inappropriate because there was insufficient evidence to support a lump-sum damages award. *See* J.A. 15747. ADASA contends we review such decisions under regional circuit law, here the Ninth Circuit, which reviews "whether there is sufficient evidence to support an instruction" for abuse of discretion, *Gantt v. City of Los Angeles*, 717 F.3d 702, 707 (9th Cir. 2013), while Avery Dennison contends we review the district court's decision de novo. We need not resolve this dispute because, even adopting the most liberal standard of de novo review, we see no error in the district court's decision.

Avery Dennison does not dispute it did not advance a lump-sum damages theory before the jury or offer any testimony that lump-sum damages were appropriate. Indeed, Avery Dennison's expert expressly disclaimed any such opinions. J.A. 15675 (Q: "You have no opinions that there would be a lump sum payment as a result of this hypothetical negotiation? There's no opinion in your report about a lump sum payment, is there?" A: "There is not."); J.A. 15688 (Q: "You don't have an opinion as to what the amount would be at this hypothetical negotiation, did you?"

A: "I'm leaving that in the hands of the jury."). Instead, it contends a lump-sum instruction was required because certain admitted licenses, offered by ADASA, reflect lump-sum payments to practice the '967 patent claims.[8]

It may be that in some circumstances licenses, standing alone without supporting lay or expert testimony, can support a lump-sum instruction. This is not such a case. Here, Avery Dennison clearly and repeatedly argued against the relevancy of the licenses upon which it now relies. Its damages expert opined at least two of the three licenses were not helpful to understanding the value of a hypothetical negotiation. J.A. 15649 ll. 9–16; J.A. 15654 ll. 1–2; J.A. 15654 ll. 25–J.A. 15655 ll. 12. Avery Dennison's counsel likewise characterized the licenses as unhelpful to "figur[ing] out what a reasonable royalty would have been." J.A. 15658 ll. 10–12. Avery Dennison instead focused its damages theory at trial on design-around costs, which it presented to the jury as a starting-point in a hypothetical negotiation for a running royalty, not a lump-sum payment.

Where Avery Dennison failed to present a lump-sum damages theory to the jury and, moreover, actively undermined the very evidentiary basis it now contends required a lump-sum instruction, the district court did not err in declining to include such an instruction. Further, because there was insufficient evidence to warrant a lump-sum instruction, the district court appropriately declined to include a lump-sum option on the verdict form.

---

[8] The parties dispute whether each of the licenses at issue is accurately characterized as lump-sum. Because we find the district court did not err in omitting a lump-sum instruction even if the licenses are all lump-sum, we need not resolve that dispute.

B

Next, we address the district court's exclusion of certain Avery Dennison licenses and related expert testimony from evidence. We apply regional circuit law to evidentiary rulings. *Tokai Corp. v. Easton Enters., Inc.*, 632 F.3d 1358, 1364 (Fed. Cir. 2011). The Ninth Circuit reviews evidentiary decisions, including the exclusion of expert testimony under *Daubert*, for abuse of discretion and reverses only if the ruling is both erroneous and prejudicial. *Wagner v. City of Maricopa*, 747 F.3d 1048, 1052 (9th Cir. 2013). The district court excluded these licenses because Avery Dennison did not adequately establish their economic and technological comparability. After reviewing the relevant testimony, we see no abuse of discretion in the district court's decision.

The party proffering a license bears the burden of establishing it is sufficiently comparable to support a proposed damages award. *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1329 (Fed. Cir. 2009). When relying on allegedly comparable licenses, the proponent "must account for differences in the technologies and economic circumstances of the contracting parties." *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1211 (Fed. Cir. 2010). "[A]lleging a loose or vague comparability between different technologies or licenses does not suffice." *LaserDynamics, Inc. v. Quanta Comput., Inc.*, 694 F.3d 51, 79 (Fed. Cir. 2012). The district court did not abuse its discretion in determining Avery Dennison failed to meet this standard.

In support of its contention that the excluded licenses were sufficiently comparable, Avery Dennison relied on the opinions of its technical expert, Dr. Sweeney. Dr. Sweeney's analysis, however, was inadequate to establish the technological comparability of the '967 and licensed patents. As Dr. Sweeney acknowledges, the licenses at issue involved hundreds or thousands of patents that spanned a broad range of technologies. Nevertheless, Dr. Sweeney

did not undertake any meaningful comparison of the licensed technology with the invention disclosed by the '967 patent. Instead, in a single brief paragraph, he observed that the licensed portfolios "include patents that cover RFID transponders," that one of the portfolios included patents cited by ADASA during the prosecution of the '967 patent, and that Avery Dennison allegedly obtained the right to sell the RFID transponders accused of infringing the '967 patent. J.A. 5765–66.

The district court did not abuse its discretion in determining these conclusory observations are insufficient to establish comparability. That the licensed portfolios "include" patents that cover "RFID technology" says little, if anything, about their relation to the '967 patent. "RFID technology" is too broad and vague a category, without more, to serve as a meaningful comparison point to the specific technology at issue in this case. Indeed, Mr. Sweeney later distinguished these patents from the '967 patent precisely because they allegedly cover a range of "foundational technologies" or "fundamental aspects" in the "RFID space," in contrast to the '967 patent's specific claims. J.A. 5766. Moreover, merely observing that *some* patents in a portfolio cover RFID technology, or were cited during the '967 patent's prosecution, says nothing about the comparability of the thousands of remaining patents in the portfolio. And even for the unidentified patents cited during prosecution, Mr. Sweeney does not attempt any independent or meaningful comparison to the '967 patent claims.

Mr. Sweeney's conclusory opinions were inadequate to carry Avery Dennison's burden to establish comparability. The district court was thus well within its discretion to exclude this testimony and the related licenses from evidence. Because we conclude the district court did not commit any reversible error, we affirm its denial of Avery Dennison's motion for a new trial.

III

Last, we turn to the district court's imposition of sanctions under Rule 37(c)(1) for Avery Dennison's late disclosure of more than two billion additional infringing RFID tags. "A decision to sanction a litigant pursuant to [Rule] 37 is one that is not unique to patent law, and we therefore apply regional circuit law to that issue." *Transclean Corp. v. Bridgewood Servs., Inc.*, 290 F.3d 1364, 1370 (Fed. Cir. 2002) (internal citations omitted). The Ninth Circuit reviews discovery sanctions for abuse of discretion and "gives particularly wide latitude to the district court's discretion to issue sanctions under Rule 37(c)(1)." *R&R Sails, Inc. v. Ins. Co. of Pa.*, 673 F.3d 1240, 1245 (9th Cir. 2012).

After reviewing the record before us, we find no abuse of discretion in the district court's decision to impose monetary sanctions. Avery Dennison does not dispute on appeal that it did not meet its discovery obligations under Federal Rule of Civil Procedure 26(e) by failing to discover and disclose the additional RFID tags until after trial. Rule 37(c)(1) authorizes the district court to impose appropriate sanctions, including monetary sanctions, for such an unjustified and harmful discovery failure, provided the sanctioned party is given an opportunity to be heard. Fed. R. Civ. P. 37(c)(1); *Niazi Licensing Corp. v. St. Jude Med. S.C., Inc.*, 30 F.4th 1339, 1355 (Fed. Cir. 2022) ("Rule 37(c)(1)(A) permits a court to impose monetary sanctions caused by the failure to disclose." (internal quotation omitted)).

Moreover, as the district court explained, sanctions were appropriate not just because of Avery Dennison's untimely disclosure, but also because of its "patent and continuous disregard for the seriousness of this litigation and its expected obligations" throughout this dispute. J.A. 14627; *see also* J.A. 14571 ll. 9–J.A. 14574 ll. 3. Having presided over the litigation for several years and observed Avery Dennison's conduct firsthand, the district court is

best positioned to determine whether Avery Dennison's collective conduct warrants sanctions. *Primus Auto. Fin. Servs., Inc. v. Batarse*, 115 F.3d 644, 649 (9th Cir. 1997) ("[The] district court is intimately familiar with the course of the litigation and occupies the best position from which to determine whether to award sanctions."). Avery Dennison has given us no reason to question the district court's finding in this respect, and we thus find no abuse of discretion in the district court's finding that Avery Dennison's conduct warranted sanctions.

Avery Dennison does, however, argue that sanctions are nevertheless inappropriate because it was not given notice and opportunity to address the form of sanctions ultimately imposed, namely a monetary sanction tied to the number of infringing tags, in violation of its due process rights. We are not persuaded.

The district court held multiple hearings to address the parties' sanctions dispute. At the first of those hearings, in September of 2021, ADASA explicitly suggested a monetary sanction based on the number of infringing tags, without response by Avery Dennison. *See* J.A. 14452 ll. 3–20. ADASA then repeated its request during the October 2021 hearing. J.A. 14535 ll. 23–J.A. 14537 ll. 25. Again, despite the opportunity, Avery Dennison did not respond to those arguments. Moreover, later in that same hearing, the district court indicated it would impose a monetary sanction of $0.0025 per infringing tag, J.A. 14573 ll. 24–J.A. 14574 ll. 14, again without response from Avery Dennison. It was not until three days later, on October 4, that Avery Dennison filed a written opposition to the award of such a sanction. *See* J.A. 14581. Avery Dennison thus not only had notice and opportunity to address the sanctions ultimately imposed, it *did* address them. Accordingly, there was no due process violation. *See Hudson v. Moore Bus. Forms, Inc.*, 898 F.2d 684, 686 (9th Cir. 1990) ("The necessary protections [of procedural due process] are notice and an opportunity to respond [to sanctions motion]."); *see also Pac.*

Harbor Cap., Inc. v. Carnival Air Lines, Inc., 210 F.3d 1112, 1118 (9th Cir. 2000) ("The opportunity to brief the issue fully satisfies due process requirements.").

While we find the district court was well within its discretion to impose sanctions and did not violate Avery Dennison's due process rights in doing so, in view of the district court's chosen method for calculating the remedy, the sanction award cannot stand. In crafting the sanction, the district court tied the monetary award to the "number of infringing tags determined to exist as of the date of the verdict." *Post-Trial Order*, at *14; *see also* J.A. 14574 ll. 1–2 (describing sanction as "attached to the number of infringing tags"). The district court's award inappropriately includes in the sanction the timely disclosed RFID tags, for which there was no discovery violation and no established harm to ADASA. *Cf. Holmgren v. State Farm Mut. Auto. Ins. Co.*, 976 F.2d 573, 581 (9th Cir. 1992) (finding an abuse of discretion where the sanction award "did not flow" from the discovery violation); *see also Stillman v. Edmund Sci. Co.*, 522 F.2d 798, 801 (4th Cir. 1975) ("[T]he sanctions authorized under the Rule [37] must pertain to the discovery process."). And, while district courts may impose sanctions for deterrent effects, the size of the award must bear a reasonable relationship to the harm that occurred. *SynQor, Inc. v. Artesyn Techs., Inc.*, 709 F.3d 1365, 1386 (Fed. Cir. 2013) (citing *BMW of N. Am. v. Gore*, 517 U.S. 559, 580–81 (1996)). While the district court invoked this deterrent purpose, by tying the award to the timely, as well as untimely, disclosed tags, it divorced the remedy from the harm that flowed from Avery Dennison's discovery violation. We therefore vacate the sanctions award and remand for the district court to reconsider the appropriate remedy.[9]

---

[9] Our decision should not be interpreted to condition the availability of sanctions on the judgment of infringement being sustained. As the district court thoroughly

Because we vacate the sanctions award, we do not address Avery Dennison's remaining arguments regarding its propriety.

CONCLUSION

We have considered the parties' remaining arguments and find them unpersuasive. For the reasons given above, we affirm the district court's grant of summary judgment with respect to eligibility and reverse with respect to anticipation and obviousness. We also affirm the district court's denial of a new trial. Finally, we vacate the district court's award of sanctions and remand for further consideration consistent with this opinion.

AFFIRMED-IN-PART, REVERSED-IN-PART, VACATED-IN-PART, AND REMANDED-IN-PART

COSTS

No costs.

---

explained, sanctions were warranted because of Avery Dennison's discovery failures and litigation misconduct, not because it was ultimately adjudicated to infringe. We merely hold that, in tying that award to the liability associated with properly disclosed tags, the district court strayed from the proper focus of Rule 37 sanctions: remedying the harm caused by the discovery violation and deterring similar violations in the future.