

No. 22-\_\_\_\_

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IN THE  
**Supreme Court of the United States**

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AVERY DENNISON CORPORATION,

*Petitioner,*

v.

ADASA, INC.,

*Respondent.*

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**On Petition for a Writ of Certiorari to the  
United States Court of Appeals  
for the Federal Circuit**

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**PETITION FOR A WRIT OF CERTIORARI**

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## **QUESTION PRESENTED**

Radio Frequency Identification Device (RFID) tags are encoded with lengthy serial numbers that uniquely identify particular items. The patent at issue in this case designates the leading bits in a binary serial number as “the most significant bits,” and directs that all serial numbers in an allocated block begin with the same “most significant bits.”

The question presented is whether that claim, by subdividing a serial number into “most significant bits” that are assigned such that they remain identical across RFID tags, constitutes patent-eligible subject matter under 35 U.S.C. § 101.

**CORPORATE DISCLOSURE STATEMENT**

Petitioner Avery Dennison Corporation has no parent corporation, and no publicly held company owns 10% or more of its stock.

**RELATED PROCEEDINGS**

U.S. Court of Appeals for the Federal Circuit:

*ADASA Inc. v. Avery Dennison Corp.*, No. 2022-1092 (Dec. 16, 2022)

U.S. District Court for the District of Oregon:

*ADASA Inc. v. Avery Dennison Corp.*, No. 6:17-cv-01685 (Oct. 14, 2021)

## TABLE OF CONTENTS

	<u>Page</u>
QUESTION PRESENTED.....	i
CORPORATE DISCLOSURE STATEMENT .....	ii
RELATED PROCEEDINGS .....	iii
TABLE OF AUTHORITIES.....	vi
PETITION FOR A WRIT OF CERTIORARI .....	1
OPINION AND ORDER BELOW.....	1
JURISDICTION .....	1
STATUTORY PROVISION INVOLVED.....	1
STATEMENT .....	2
A.    Factual Background.....	4
B.    Proceedings Below .....	7
REASONS FOR GRANTING THE PETITION .....	12
A.    Abstract Ideas Are Not Patentable Under Section 101 Of The Patent Act.....	14
B.    The Decision Below Broke From This Court’s Section 101 Precedent By Allowing A Patent On An Abstract Idea .....	21
C.    The Decision Below Highlights The Need For This Court’s Guidance On Section 101 .....	28

**TABLE OF CONTENTS – continued**

	<u>Page</u>
D. This Case Presents An Ideal Vehicle For Review, Either Alone Or Along With Other Petitions Raising Section 101 Questions .....	32
CONCLUSION .....	34
APPENDICES	
APPENDIX A: Opinion of the United States Court of Appeals for the Federal Circuit (Dec. 16, 2022) .....	1a
APPENDIX B: Opinion and Order of the United States District Court for the District of Oregon (Dec. 15, 2021).....	31a
APPENDIX C: Final Rule 58 Judgment of the United States District Court for the District of Oregon (Oct. 14, 2021).....	64a
APPENDIX D: Opinion and Order of the United States District Court for the District of Oregon Regarding Plaintiff’s Motion for Summary Judgment; Defendant’s Motion for Summary Judgment of Non-Infringement and Alternative Motion for Judgment of Invalidity Under 35 U.S.C. § 103 and 35 U.S.C. § 101 (Sept. 14, 2020).....	67a
APPENDIX E: 35 U.S.C. § 101 .....	107a

## TABLE OF AUTHORITIES

	<u>Page(s)</u>
<b>Cases</b>	
<i>Aatrix Software, Inc. v. Green Shades Software, Inc.</i> , 890 F.3d 1354 (Fed. Cir. 2018).....	29
<i>Alice Corp. Pty. v. CLS Bank Int’l</i> , 573 U.S. 208 (2014).....	2, 3, 8, 12, 14, 15, 18, 20, 21, 24, 26, 27, 30
<i>Am. Axle &amp; Mfg. v. Neapco Holdings LLC</i> , 141 S. Ct. 2594 (2021).....	2, 30-31
<i>Am. Axle &amp; Mfg. v. Neapco Holdings LLC</i> , 966 F.3d 1347 (Fed. Cir. 2020) .....	2, 29
<i>Am. Axle &amp; Mfg. v. Neapco Holdings LLC</i> , 977 F.3d 1379 (Fed. Cir. 2020), <i>cert. denied</i> , 142 S. Ct. 2092 (2022).....	2, 13, 28-30
<i>Ariosa Diagnostics, Inc. v. Sequenom, Inc.</i> , 809 F.3d 1282 (Fed. Cir. 2015).....	29, 30
<i>Athena Diagnostics, Inc. v. Mayo Collaborative Servs., LLC</i> , 927 F.3d 1333 (Fed. Cir. 2019), <i>cert. denied</i> , 140 S. Ct. 855 (2020)).....	29
<i>Bilski v. Kappos</i> , 561 U.S. 593 (2010)..	3, 15, 18, 19, 21, 24, 26-28, 32

**TABLE OF AUTHORITIES– continued**

	<b><u>Page(s)</u></b>
<i>Content Extraction &amp; Transmission LLC v. Wells Fargo Bank, Nat. Ass’n</i> , 776 F.3d 1343 (Fed. Cir. 2014).....	28, 29
<i>Diamond v. Chakrabarty</i> , 447 U.S. 303 (1980).....	14
<i>Diamond v. Diehr</i> , 450 U.S. 175 (1981).....	14
<i>Dropbox, Inc. v. Synchronoss Techs., Inc.</i> , 815 F. App’x 529 (Fed. Cir. 2020).....	25
<i>Eli Lilly &amp; Co. v. Medtronic, Inc.</i> , 496 U.S. 661 (1990).....	32
<i>Enfish, LLC v. Microsoft Corp.</i> , 822 F.3d 1327 (Fed. Cir. 2016) .....	28
<i>Funk Bros. Seed Co. v. Kalo Co.</i> , 333 U.S. 127 (1948).....	16
<i>Gottschalk v. Benson</i> , 409 U.S. 63 (1972).....	16-19, 21, 24, 25, 27
<i>Hikma Pharms. USA Inc. v. Vanda Pharms. Inc.</i> , 139 S. Ct. 1368 (2019).....	2, 30
<i>HP Inc. v. Berkheimer</i> , 139 S. Ct. 860 (2019).....	2, 30



**TABLE OF AUTHORITIES– continued**

	<u>Page(s)</u>
<i>Interactive Wearables, LLC v. Polar Electro Oy</i> , 143 S. Ct. 78 (2022).....	3, 4, 13, 30, 33
<i>Interval Licensing LLC v. AOL, Inc.</i> , 896 F.3d 1335 (Fed. Cir. 2018).....	29, 30
<i>KSR Int’l Co. v. Teleflex Inc.</i> , 550 U.S. 398 (2007).....	32
<i>Mackay Radio &amp; Tel. Co. v. Radio Corp. of Am.</i> , 306 U.S. 86 (1939).....	16
<i>Mayo Collaborative Servs. v. Prometheus Labs., Inc.</i> , 561 U.S. 1040 (2010) .....	33, 34
<i>Mayo Collaborative Servs. v. Prometheus Labs., Inc.</i> , 566 U.S. 66 (2010) .....	3, 14, 18-22, 27
<i>Mazurek v. Armstrong</i> , 520 U.S. 968 (1997).....	32
<i>Neilson v. Harford</i> , 151 E.R. 1266 (1841).....	15
<i>O’Reilly v. Morse</i> , 56 U.S. 62 (1853).....	12, 15, 17, 20, 27
<i>Parker v. Flook</i> , 437 U.S. 584 (1978).....	17, 18, 21, 24, 26, 27
<i>PersonalWeb Techs. LLC v. Google LLC</i> , 8 F.4th 1310 (Fed. Cir. 2021), <i>cert. denied</i> , 142 S. Ct. 1445 (2022).....	28, 29

**TABLE OF AUTHORITIES– continued**

	<b><u>Page(s)</u></b>
<i>Quanta Comput., Inc. v. LG Elecs., Inc.</i> , 553 U.S. 617 (2008).....	32
<i>Rubber-Tip Pencil Co. v. Howard</i> , 87 U.S. 498 (1874).....	15-16, 27
<i>Tropp v. Travel Sentry, Inc.</i> , 143 S. Ct. 361 (2022).....	2-4, 13, 30, 33
<i>Uniloc USA, Inc. v. LG Elecs. USA, Inc.</i> , 957 F.3d 1303 (Fed. Cir. 2020).....	28
 <b>Constitutional Provisions and Statutes</b>	
U.S. Const. Art. I, § 8, cl. 8 .....	14, 27
28 U.S.C. § 1254(1).....	1
35 U.S.C. § 101 .....	i, 1-4, 8-10, 13-22, 24, 26-33
35 U.S.C. § 102.....	8, 33
35 U.S.C. § 103 .....	8, 33
 <b>Rules and Regulations</b>	
84 Fed. Reg. 50 (Jan. 7, 2019).....	31
 <b>Other Authorities</b>	
ADASA, <i>RFID Patent Portfolio for Omni-Channel Retail</i> , <a href="https://perma.cc/AFY3-5FJM">https://perma.cc/AFY3-5FJM</a> .....	6

**TABLE OF AUTHORITIES— continued**

	<u>Page(s)</u>
Avery Dennison, <i>Explore RFID</i> , <a href="https://perma.cc/45EM-2JPA">https://perma.cc/45EM-2JPA</a> .....	5
Brief for the United States as Amicus Curiae, <i>Am. Axle &amp; Mfg. v. Neapco Holdings LLC</i> , 141 S. Ct. 2594 (2021).....	30, 31
Brief for the United States as Amicus Curiae, <i>Hikma Pharms. USA Inc. v. Vanda Pharms.</i> <i>Inc.</i> , 139 S. Ct. 1368 (2019) .....	30
Brief for the United States as Amicus Curiae, <i>HP</i> <i>Inc. v. Berkheimer</i> , 139 S. Ct. 860 (2019) .....	30
Dennis Crouch, <i>Anticipation for Dummies</i> , Pa- tently-O (Dec. 19, 2022), <a href="https://perma.cc/654Z-J87N">https://perma.cc/654Z-</a> <a href="https://perma.cc/654Z-J87N">J87N</a> .....	24
Int’l Org. for Standardization, <i>ISO 2108: Infor-</i> <i>mation and documentation—International</i> <i>Standard Book Number</i> (5th ed. 2017), <a href="https://perma.cc/2RYQ-AUA9">https://perma.cc/2RYQ-AUA9</a> .....	23
Int’l Org. for Standardization, <i>ISO 3779: Road</i> <i>vehicles—Vehicle identification number</i> <i>(VIN)—Content and structure</i> (3d. 1983), <a href="https://perma.cc/HCM3-9QNN">https://perma.cc/HCM3-9QNN</a> .....	23
Int’l Org. for Standardization, <i>ISO 7812-1: Iden-</i> <i>tification cards—Identification of issuer</i> (5th ed. 2017), <a href="https://perma.cc/MKQ8-U945">https://perma.cc/MKQ8-U945</a> .....	23

**TABLE OF AUTHORITIES– continued**

	<b><u>Page(s)</u></b>
U.S. Patent & Trademark Office, <i>Report to Congress: Patent eligible subject matter: Public views on the current jurisprudence in the United States</i> (2022) .....	31
<i>RFID for Dummies</i> (2005).....	9, 11, 12, 24
U.S. Patent No. 7,857,221.....	9, 11
U.S. Patent No. 9,798,967.....	6-9, 21

## **PETITION FOR A WRIT OF CERTIORARI**

Petitioner Avery Dennison Corporation (Avery Dennison) respectfully petitions for a writ of certiorari to review the judgment of the United States Court of Appeals for the Federal Circuit in this case.

## **OPINION AND ORDER BELOW**

The opinion of the court of appeals (App., *infra*, 1a-30a) is published at 55 F.4th 900. The opinion of the district court denying, *inter alia*, Avery Dennison's motion for judgment as a matter of law or for a new trial (App., *infra*, 31a-63a) is not published in the Federal Supplement but is available at 2021 WL 5921374. The opinion of the district court denying, *inter alia*, Avery Dennison's motion for summary judgment (App., *infra*, 67a-106a) is not published in the Federal Supplement but is available at 2020 WL 5518184.

## **JURISDICTION**

The judgment of the court of appeals was entered on December 16, 2022. This Court has jurisdiction under 28 U.S.C. § 1254(1).

## **STATUTORY PROVISION INVOLVED**

Section 101 of Title 35 of the United States Code provides: "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, subject to the conditions and requirements of this title."

**STATEMENT**

No issue in patent law today is more significant—or more divisive—than application of the patent-eligibility criteria in 35 U.S.C. § 101. This Court has long explained that, under Section 101 and the constitutional grant of authority to Congress to promote the progress of science and useful arts, “abstract ideas are not patentable.” *Alice Corp. Pty. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014) (internal quotation marks and citation omitted). Over the past decade, however, the Federal Circuit—the nation’s “lone patent court”—has concededly found itself “at a loss as to how to uniformly apply § 101.” *Am. Axle & Mfg. v. Neapco Holdings LLC*, 977 F.3d 1379, 1382 (Fed. Cir. 2020) (Moore, J., concurring), *cert. denied*, 142 S. Ct. 2092 (2022). The court’s decisions in this area have become “so diverse and unpredictable as to have a serious effect on the innovation incentive in all fields of technology.” *Am. Axle & Mfg. v. Neapco Holdings LLC*, 966 F.3d 1347, 1357 (Fed. Cir. 2020) (Newman, J., dissenting from denial of rehearing en banc). Indeed, it seems the judges’ one point of agreement on Section 101 is that this Court must provide guidance on the issue—a plea echoed by virtually all involved in the patent field.

This Court has repeatedly signaled interest in providing such guidance by inviting the Solicitor General’s views on certiorari petitions addressing Section 101. *See Am. Axle & Mfg. v. Neapco Holdings LLC*, 141 S. Ct. 2594 (2021); *HP Inc. v. Berkheimer*, 139 S. Ct. 860 (2019); *Hikma Pharms. USA Inc. v. Vanda Pharms. Inc.*, 139 S. Ct. 1368 (2019). Two such invitations are currently outstanding. *See Tropp v. Travel*

*Sentry, Inc.*, 143 S. Ct. 361 (2022) (No. 22-22); *Interactive Wearables, LLC v. Polar Electro Oy*, 143 S. Ct. 78 (2022) (No. 21-1281). The petitions in those cases contend that the Federal Circuit construed Section 101 too narrowly—*i.e.*, by erroneously finding valid patents ineligible. This petition illustrates the depths of the Federal Circuit’s division by presenting the other side of the coin: a case in which the court erroneously allowed a patent covering ineligible subject matter.

The Federal Circuit’s decision in this case warrants review because it conflicts with the “longstanding rule that an idea of itself is not patentable” under Section 101. *Alice*, 573 U.S. at 218 (internal quotation marks, brackets, and citation omitted). At bottom, the court found patentable the familiar concept of treating one long number as the combination of two shorter numbers—and then applying that mental subdivision to conventional technology in a particular industry. This Court’s Section 101 cases make clear, however, that “[s]tating an abstract idea while adding the words ‘apply it’ is not enough for patent eligibility.” *Id.* at 223 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 72 (2012)). “Nor is limiting the use of an abstract idea ‘to a particular technological environment.’” *Id.* (quoting *Bilski v. Kappos*, 561 U.S. 593, 610-11 (2010)). The claim at issue here “simply combines those two steps, with the same deficient result.” *Id.* By finding the claim patentable, the Federal Circuit broke from this Court’s direction on the proper scope of Section 101. This Court’s intervention is urgently needed on that exceptionally important and frequently recurring question of federal patent law.

The warrant for review here is even more compelling when this petition is considered alongside those on which the Court has recently invited the Solicitor General's views. *See Tropp, supra; Interactive Wearables, supra.* If the Court were to take up the Section 101 issue, it would benefit from having before it petitioners who contend both that the Federal Circuit's reading of Section 101 is too narrow (as in *Tropp* and *Interactive Wearables*) and that the Federal Circuit's reading of Section 101 is too broad (as here). Balancing the perspectives on the Federal Circuit's deeply divided jurisprudence would facilitate this Court's consideration of these profoundly important issues. Unless it rounds out the equation by granting plenary review in a case like this, the Court risks sending the message that operative concerns point only one way, towards lowering the established threshold under Section 101. The better course would be for this Court to consider and address competing concerns in parallel cases, thereby underscoring that the Federal Circuit must show consistent, principled regard for this Court's controlling precedents when making its all-important determinations about whether patent claims are properly excluded or included under Section 101.

At a minimum, if the Court were to grant another petition on the scope of Section 101, the Court should hold this petition pending resolution of that case, given that the Court's interpretation of Section 101 there will be directly applicable here.

### **A. Factual Background**

1. Petitioner Avery Dennison is a leading global manufacturer of labels, tags, and graphic materials.



The company's products range from retail tags on clothing to special low-temperature labels affixed to blood bags. *See* C.A. App. 15,611.

Of central relevance here, Avery Dennison makes Radio Frequency Identification Device (RFID) transponders. App., *infra*, 6a. "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 2a. RFID tags "communicate the data they encode over a distance using radio-frequency transmission," *id.*, and can be created for "trillions of simple everyday items," Avery Dennison, *Explore RFID*, <https://perma.cc/45EM-2JPA>.

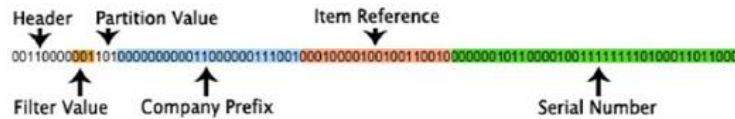
"In the RFID industry," the uniqueness of an RFID tag "is ensured by" encoding in each tag "an Electronic Product Code" (EPC). App., *infra*, 3a. The EPC includes "a 'company prefix,' which identifies the brand owner[,] and an 'item reference number,'" which identifies "the class of item offered by a brand owner." *Id.* at 69a (citation omitted). The EPC also includes a "unique serial number for each item," which is assigned by the brand owner. *Id.*; *see id.* at 3a.

EPCs are typically formatted in accordance with published international standards, such as the Serialized Global Trade Item Number (SGTIN). *See* App., *infra*, 3a. The figure below depicts a typical SGTIN structure: a 96-bit binary number (a string of zeros and ones), subdivided into various categories, including company prefix, item reference number, and serial number.

A typical EPC SGTIN-96 Structure:

Header	Filter / Object Type	Partition	Company Prefix	Item Ref and Indicator	Serial
8 bits	3 bits	3 bits	20- 40 bits	24 - 4 bits	38 bits

EPC SGTIN-96 Binary



C.A. App. 228.

2. Respondent ADASA is an Oregon corporation that owns patents related to RFID technology. See App., *infra*, 68a; ADASA, *RFID Patent Portfolio for Omni-Channel Retail*, <https://perma.cc/AFY3-5FJM> (describing ADASA’s licensing program from RFID-related patents). This case involves U.S. Patent No. 9,798,967 (the ’967 Patent), which ADASA owns but does not practice. C.A. App. 14759-760.

Claim 1 of the patent is the only claim at issue here. App., *infra*, 5a. That claim recites “[a]n RFID transponder comprising” several elements that are undisputedly routine: “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.” *Id.* at 5a-6a.

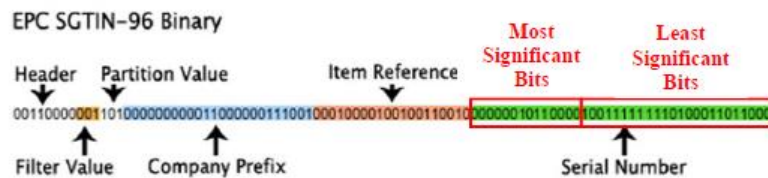
Claim 1 then recites two allegedly inventive elements regarding the “unique serial number space”:

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.*

App., *infra*, 6a (citation omitted).

In plain terms, Claim 1 deems the serial number portion of an EPC to be a combination of “most significant bits” (MSBs) and “remaining bits of lesser significance” (or least significant bits) and then directs the allocation of blocks of serial numbers that have the same most significant bits. App., *infra*, 6a (citation omitted). The following figure, supplied by ADASA, depicts that concept.



C.A. App. 230.

## B. Proceedings Below

1. In October 2017, ADASA sued Avery Dennison in the U.S. District Court for the District of Oregon,

asserting in relevant part that Avery Dennison’s manufacture and sale of certain RFID tags infringed Claim 1 of the ‘967 Patent. App., *infra*, 6a.<sup>1</sup> The case was assigned to a magistrate judge, “and the parties consented that the magistrate judge’s decisions would be final, subject to appeal.” *Id.*

a. Following initial motions practice and discovery, both parties moved for summary judgment. App., *infra*, 7a. As relevant here, Avery Dennison sought summary judgment on the ground that Claim 1 seeks patent protection for an abstract idea outside the scope of eligible subject matter as defined by 35 U.S.C. § 101. *Id.*; see *Alice*, 573 U.S. at 216 (“[A]bstract ideas are not patentable.”) (internal quotation marks and citation omitted). ADASA sought summary judgment on infringement and lack of anticipation or obviousness under 35 U.S.C. §§ 102 and 103. App., *infra*, 7a. The court denied Avery Dennison’s motion and granted ADASA’s motion in part. App., *infra*, 106a.

i. As to eligibility under Section 101, the court recognized that an “abstract idea” is “not patentable,” App., *infra*, 82a (quoting *Alice*, 573 U.S. at 216), and that the patent-eligibility framework announced by this Court in *Alice* required it to first “determine whether the claims at issue are directed to an abstract idea,” *id.* The court held that Claim 1 was not “directed to an abstract idea,” but was instead “directed to an encoded RFID transponder implemented with a

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<sup>1</sup> ADASA initially alleged infringement with respect to additional claims, but it subsequently “moved to sever and stay its claims of infringement as to all claims except claim 1.” App., *infra*, 7a. The district court “dismissed th[e other] claims without prejudice.” *Id.* at 8a.

memory structure accommodating a specific hardware-based number scheme.” *Id.* at 16. The court accordingly found Claim 1 patent-eligible. *Id.*

ii. The district court granted summary judgment to ADASA on anticipation and obviousness. App., *infra*, 86a-93a. The court credited ADASA’s expert testimony that neither of two prior-art references—U.S. Patent No. 7,857,221 (the Kuhno patent) and *RFID for Dummies*—“teaches the concept of most significant bits” disclosed in Claim 1. *Id.* at 88a-93a. The court also granted summary judgment to ADASA on infringement with respect to accused products that the court concluded practiced every element of the ’967 Patent. *Id.* at 96a-103a. The court concluded that another category of accused products practiced all but one element of Claim 1 and granted summary judgment on infringement with respect to those elements but left a determination of whether the products practiced the final element for the jury. *Id.* at 103a.

b. The parties proceeded to trial on that narrow infringement issue and on damages. App., *infra*, 8a. The jury found that Avery Dennison’s tags infringed and issued a royalty of \$.0045 per tag, resulting in a total award of \$26,641,876.75. *Id.* Avery Dennison filed post-trial motions for judgment as a matter of law on its Section 101 patentability defense and for a new trial on certain damages objections. *Id.* at 8a-9a. The district court denied the motions. *See id.* at 62a.

The district court’s post-trial order also addressed an issue that had arisen after the verdict. *See* App., *infra*, 9a. Avery Dennison discovered evidence of previously undisclosed RFID tags in its database and agreed to include those tags in the damages award at

the same rate the jury had awarded for the other tags—an approach that increased the damages award by \$9,417,343. *Id.* On ADASA’s motion, the court awarded a sanction of \$0.0025 per infringing tag—applicable to both newly discovered tags and those disclosed before trial. *Id.* at 9a-10a. The total sanction amounted to \$20,032,889.80. *Id.* The court further awarded interest and attorney’s fees, bringing the total judgment to \$62,407,801.50. *Id.* at 65a.

2. On appeal, a panel of the Federal Circuit (Moore, C.J., Hughes and Stark, JJ.) unanimously affirmed with respect to patent eligibility under Section 101 and reversed and remanded with respect to anticipation and obviousness. App., *infra*, 10a-21a. The court also affirmed the denial of a new trial on damages and vacated the sanctions order. *Id.* at 22a-30a.

a. In an opinion written by Chief Judge Moore, the Federal Circuit held that ADASA’s claim was patent-eligible because it was “not directed to an abstract idea.” App., *infra*, 12a. “Setting aside the conventional RFID hardware components” recited in Claim 1, the court observed, the claim “focuses on the data structure of the serial number space.” *Id.* By subdividing that space into “two components: (1) a limited number of MSBs ... and (2) remaining bits of lesser significance,” the claim essentially created “an additional data field within the serial number space.” *Id.* In the court’s view, creation of that additional field was “not a mere mental process, but a hardware-based data structure focused on improvements to the technological process by which that data is encoded.” *Id.* at 13a. In particular, the court noted, recognition of the additional data field had “important technological consequences” by ensuring that “unique serial

numbers can be guaranteed without the need for a continuous connection to a central database.” *Id.*

b. The Federal Circuit reversed on anticipation and obviousness. The court held that “a reasonable juror could find *RFID for Dummies* discloses each element of claim 1”—and therefore could constitute relevant prior art for purposes of anticipation and obviousness—because “*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.” App., *infra*, 16a. The court similarly held that the Kuhno patent “could be reasonably interpreted as disclosing the claimed MSBs and object class information” and therefore could be the basis for an anticipation defense. *Id.* at 20a. The court accordingly remanded for further proceedings on anticipation and obviousness. *See id.* at 18a, 21a.

c. The Federal Circuit affirmed the denial of a new trial on damages, App., *infra*, 22a-26a, but vacated the sanctions order, *id.* at 26a-30a. The court held that the sanctions award “inappropriately include[d] ... the timely disclosed RFID tags, for which there was no discovery violation and no established harm to ADASA.” *Id.* at 29a. While the amount of discovery sanctions remains to be determined on remand, damages are fixed at an amount well exceeding \$40 million, not counting ongoing royalties, presumptively subject to a jury’s decision on anticipation and obviousness.

3. Upon remand, the district court has set a schedule for revisiting the amount of the discovery sanction and for a new jury trial on invalidity (anticipation and

obviousness). As to the latter, although trial has been tentatively set for July 2023, the district court was apprised at the post-remand status conference on January 11, 2023, that this petition would be filed, and the court made explicit that it would defer to a grant of review by this Court: “If the Supreme Court grants review, then we’ll take the case off the trial docket, if that makes the most sense under the circumstances, and then we will await a decision and ... follow the lead [of this Court].” 1/11/23 Hr’g Tr. 13.

### **REASONS FOR GRANTING THE PETITION**

The decision below markedly departs from a core teaching that this Court has reiterated in every era of patent law, from the telegraph era to the Internet era: “abstract ideas are not patentable.” *Alice Corp. Pty. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014) (internal quotation marks and citation omitted); *see, e.g., O’Reilly v. Morse*, 56 U.S. 62, 112-120 (1853). It is hard to imagine a more blatant transgression of that rule than the claim in this case, which sought a patent monopoly over the simple concept of treating one long serial number as the combination of two shorter numbers, and then directing that blocks of RFID tags all start with the same shorter number. At bottom, that claim is no different from a direction to mentally subdivide all telephone numbers into two component parts and then assign the same leading part to an allocated block of numbers (*e.g.*, all telephone numbers in the District of Columbia start with 202). That may be a good idea (indeed, the concept in ADASA’s patent appears in the pages of *RFID for Dummies*), but it is no more patentable than the other good but abstract



ideas that this Court has held unpatentable for more than 150 years. *See id.*

By finding ADASA’s claim patentable, the Federal Circuit panel demonstrated the extent of the “confusion” that “has driven ... every judge on th[at] court to request Supreme Court clarification” of the proper scope of Section 101. *Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 977 F.3d 1379, 1382 (Fed. Cir. 2020) (Moore, J., concurring). This case cleanly presents that exceptionally important and frequently recurring question. It accordingly constitutes an apt, timely vehicle for this Court to provide the “clarification” sought not only by the entire Federal Circuit, but also by “commentators, amici,” Members of Congress, business leaders, the Solicitor General, and practically everyone else with a stake in the patent system. *Id.*

The basis for certiorari here is even more compelling when this case is considered in conjunction with other pending Section 101 petitions contending that the Federal Circuit has erred in the opposite direction, by striking down too many patents as ineligible. *See Tropp v. Travel Sentry, Inc.*, 143 S. Ct. 361 (2022) (No. 22-22); *Interactive Wearables, LLC v. Polar Electro Oy*, 143 S. Ct. 78 (2022) (No. 21-1281). If this Court were to take up the weighty question of construing Section 101, it would benefit from having before it cases that challenge the Federal Circuit’s jurisprudence from both directions. Otherwise, there will be an obvious risk of straightening the Federal Circuit’s swerving jurisprudence *only* when it veers too far in *excluding* under Section 101—potentially resulting in over-correction and opening floodgates for claims that should be ineligible to be granted a pass under Section 101, as happened here.

This case is accordingly worthy of review either independently or as a companion to one of the other Section 101 petitions that the Court is considering. At a minimum, if the Court grants one of those other petitions, it should hold this one and then dispose of it as appropriate in light of the ensuing decision.

### **A. Abstract Ideas Are Not Patentable Under Section 101 Of The Patent Act**

In statutory language that has changed little since its initial enactment in 1793, Section 101 of the Patent Act 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, subject to the conditions and requirements of this title.” 35 U.S.C. § 101; *see Diamond v. Diehr*, 450 U.S. 175, 182 (1981); *Diamond v. Chakrabarty*, 447 U.S. 303, 308-309 (1980).

For as long as it has interpreted that language, this Court has held that an “abstract idea”—like a law of nature or natural phenomenon—“of itself is not patentable.” *Alice*, 573 U.S. at 218 (internal quotation marks and citation omitted) (collecting cases). The Court has grounded its interpretation partly in the Constitution, recognizing that allowing monopolies over abstract ideas would “thwart the primary objection of the patent laws,” *id.* at 216, “[t]o promote the Progress of Science and useful Arts,” U.S. Const. art. I, § 8, cl. 8; *see Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 71 (2012).

The Court has likewise emphasized that “the prohibition against patenting abstract ideas cannot be circumvented by attempting to limit the use of the

[idea] to a particular technological environment or adding insignificant postsolution activity.” *Bilski v. Kappos*, 561 U.S. 593, 610-11 (2010) (internal quotation marks and citation omitted). Allowing such circumvention, the Court has warned, “would make the determination of patent eligibility depend simply on the draftsman’s art, ... eviscerating the rule that abstract ideas are not patentable.” *Alice*, 573 U.S. at 224 (internal quotation marks and citations omitted).

1. The Court addressed the prohibition on patenting abstract ideas in one of its earliest and most celebrated patent cases: *O’Reilly v. Morse*, *supra*. There, the Court upheld most of inventor Samuel F.B. Morse’s patent for a process of using electromagnetism to produce distinguishable signs for telegraphy. 56 U.S. at 111-112. But the Court invalidated the eighth claim in Morse’s patent, which claimed “the use of ... electro-magnetism, however developed[,] for marking or printing intelligible characters, signs, or letters, at any distances.” *Id.* at 112.

The Court explained that a “discovery of a principle in natural philosophy or physical science, is not patentable.” *Morse*, 56 U.S. at 116. Accordingly, in evaluating the eligibility of a patent claim, an unpatentable “principle must be regarded as well known,” such that the claim is eligible only if it recites some other invention. *Id.*; *see id.* at 115-116 (tracing that rule to English law, in particular *Neilson v. Harford*, 151 E.R. 1266 (1841)). Because Morse’s eighth claim recited only an abstract idea, the court found it outside the scope of Section 101. *Id.* at 120.

2. The Court has reiterated that understanding of Section 101 through the decades and across different

forms of technology. See, e.g., *Rubber-Tip Pencil Co. v. Howard*, 87 U.S. 498, 507 (1874); *Mackay Radio & Tel. Co. v. Radio Corp. of Am.*, 306 U.S. 86, 94 (1939); *Funk Bros. Seed Co. v. Kalo Co.*, 333 U.S. 127, 130 (1948).

The Court reaffirmed the prohibition on claiming abstract ideas in *Gottschalk v. Benson*, 409 U.S. 63 (1972), the first Section 101 case of the digital era. The purported invention in *Benson* was “a method of programming a general-purpose digital computer to convert signals from binary-coded decimal [(BCD)] form into pure binary form.” 409 U.S. at 65. “Any decimal number from 0 to 10 can be represented in the binary system with four digits.” *Id.* at 66 (providing table). BCD numbering “replaces the character for each component decimal digit in” a decimal numeral “with the corresponding four-digit binary numeral.” *Id.* at 66-67. Thus, a two-digit decimal number becomes eight numerals in BCD, a three-digit decimal number becomes twelve numerals, and so on. See *id.* For example, the pure binary form of 6 is 110, the pure binary form of 2 is 10, and the pure binary form of 62 is 111110. In BCD, the number 6 is expressed as 0110, 2 is expressed as 0010, and 62 is expressed as 01100010—the BCD form of 6, followed by the BCD form of 2. The table below illustrates other examples:

Decimal	BCD	Pure Binary
61	0110 0001	111101
62	0110 0010	111110
63	0110 0011	111111
64	0110 0100	1000000
65	0110 0101	1000001

The *Benson* Court explained that “conversion of BCD numerals to pure binary numerals can be done mentally through use” of a table. 409 U.S. at 67. The “method sought to be patented” described a way of performing the steps by computer. *Id.* Applying decisions dating back to *Morse*, the Court explained that the claimed invention contained nothing more than unpatentable “mental processes” and “abstract intellectual concepts.” *Id.*; *see id.* at 68-71. Treating the claims as patent-eligible, the Court observed, would allow the holder to “patent an idea”—which “one may not do” under Section 101. *Id.* at 71. The Court acknowledged that the claim had “no substantial practical application except in connection with a digital computer,” but rejected it anyway because “the practical effect” of allowing the patent “would be a patent on the algorithm itself.” *Id.* at 71-72.

The Court expanded on that holding several years later in *Parker v. Flook*, 437 U.S. 584 (1978). The patentee in *Flook* claimed a “formula for updating the value of an alarm limit on any process variable involved in a process comprising the catalytic chemical conversion of hydrocarbons.” *Id.* at 586. The Court

recognized the mathematical formula as indistinguishable from the unpatentable algorithm in *Benson* and rejected the *Flook* patentee's argument that preserving "uses of his formula outside of the petrochemical and oil-refining industries" should make his formula patentable. *Id.* at 589-90.

The Court likewise rejected the *Flook* patentee's argument that adding "post-solution activity" to the claimed formula (there, a direction to "adjust[] the alarm limit to the figure computed according to the formula") rendered the claim patentable. 437 U.S. at 589-90. Such directions were "conventional or obvious," the Court explained, and allowing them to "transform an unpatentable" abstract idea into "a patentable process" would allow Section 101 to be circumvented by any "competent draftsman." *Id.* at 590. Refusing to allow that result, the Court reiterated that an unpatentable abstract idea must be "treated as though it were a familiar part of the prior art." *Id.* at 591-92.

3. The Court has returned to its "precedents on the unpatentability of abstract ideas" when considering claims asserted during the "Information Age," issuing three largely unanimous decisions rejecting "attempts to patent abstract ideas" or similar unpatentable subject matter. *Bilski*, 561 U.S. at 605, 609, 613; *see Alice*, 573 U.S. at 216-227; *Mayo*, 566 U.S. at 77-92.

In *Bilski*, the Court found patent ineligible "a claimed invention that explains how buyers and sellers of commodities in the energy market can protect, or hedge, against the risk of price changes." 561 U.S. at 599. "[A]ll members of the Court agree[d] that

the patent application” fell “outside of § 101 because it claims an abstract idea.” *Id.* at 609; *see id.* at 612 (Stevens, J., concurring in the judgment). As the Court explained, the “concept of hedging ... is an unpatentable abstract idea, just like the algorithms at issue in *Benson* and *Flook*.” *Id.* at 611. The same held for the patentee’s remaining claims demonstrating how “hedging can be used in commodities and energy markets” and “instruct[ing] the use of well-known random analysis techniques to help establish some of the inputs into the equation.” *Id.* at 612. The Court reiterated that “limiting an abstract idea to one field of use or adding token postsolution components did not make the concept patentable.” *Id.*

In *Mayo*, the Court unanimously reversed a Federal Circuit decision that had allowed claims that “purport to apply natural laws describing the relationships between the concentration in the blood of certain [particles] and the likelihood that the” dosage of certain drugs “will be ineffective or induce harmful side effects.” 566 U.S. at 72. The case was resolved by applying the “bright line prohibition against patenting laws of nature, mathematical formulas, and the like,” *id.* at 89, and the corollary rule that “simply appending conventional steps, specified at a high level of generality, to laws of nature, natural phenomena, and abstract ideas cannot make those laws, phenomena, and ideas patentable,” *id.* at 82. “If a law of nature is not patentable,” the Court explained, “then neither is a process reciting a law of nature, unless that process has additional features that provide practical assurance that the process is more than a drafting effort designed to monopolize the law of nature itself.” *Id.* at 78.

Finally, in *Alice*, the Court again unanimously rejected claims “drawn to a patent-ineligible abstract idea”—there, “the abstract idea of intermediated settlement”—and reiterated that “merely requiring generic computer implementation fails to transform [an] abstract idea into a patent-eligible invention.” 573 U.S. at 212. Synthesizing “more than 150 years” of Section 101 precedent, the *Alice* Court outlined a two-step “framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts,” *id.* at 216-17:

First, the Court “determine[s] whether the claims at issue are directed to one of those patent-ineligible concepts.” *Alice*, 573 U.S. at 217. If not, the claims pass the Section 101 threshold. Second, if the claims are directed to a patent-ineligible concept, the Court “ask[s], ‘what else is there in the claims?’” *Id.* (quoting *Mayo*, 566 U.S. at 78). To meet the eligibility requirement, a claim must “contain[] an “‘inventive concept’ ... that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Id.* (citation omitted).

Applying that approach—which tracks *Morse*’s venerable instruction that an abstract “principle” claimed in a patent “must be regarded as well known,” and thus not the basis for patent eligibility, 56 U.S. at 116—the *Alice* Court found the claims invalid because they “amount to ‘nothing significantly more’ than an instruction to apply the abstract idea of intermediated settlement using” a computer, 573 U.S. at 225-26 (quoting *Mayo*, 566 U.S. at 79).



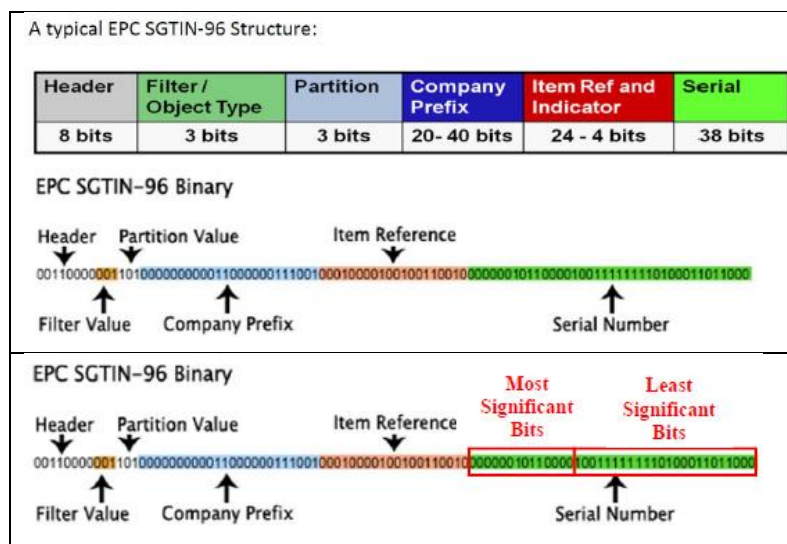
**B. The Decision Below Broke From This Court's Section 101 Precedent By Allowing A Patent On An Abstract Idea**

The decision below defied this Court's Section 101 precedent by allowing ADASA to do precisely what this Court has forbidden: pursue patent claims "directed to an abstract idea," while adding only "purely conventional" steps applying the idea to a particular technological environment. *Alice*, 573 U.S. at 219, 222; *see, e.g., Mayo*, 566 U.S. at 73-74; *Bilski*, 561 U.S. at 610-11; *Flook*, 437 U.S. at 589-90; *Benson*, 409 U.S. at 67-71.

1. Claim 1 of the '967 Patent includes six elements. App., *infra*, 87a-88a. The first four undisputedly describe a conventional RFID transponder, made with familiar hardware assembled in a routine manner, in which the bits of the serial number space—bits that exist in every RFID transponder—start with a collection of zeros and ones. *See id.* The only allegedly new element, recited in the fifth and sixth paragraphs of the claim, directs that all serial numbers in an allocated block begin with the same "most significant bits"—*i.e.*, a matching set of zeros and ones—while the rest of each serial number in the block includes "bits of lesser significance." *Id.*

Although framed in technical language, the patent describes a strikingly familiar concept: subdividing one long number (here, the serial number) into two shorter portions (here, "most significant bits" and "bits of lesser significance"). ADASA's own visual depiction of its claim confirms as much, simply reframing the same "Serial Number" sequence of exactly the

same 1s and 0s, only now as divided between “Most Significant Bits” and “Least Significant Bits.”



C.A. App. 228, 230.

ADASA’s claim plainly amounts to an attempt to patent an abstract idea, which is impermissible under the “bright line prohibition” established by this Court’s precedents construing Section 101. *Mayo*, 566 U.S. at 72. Treating a long number as the combination of shorter numbers is a simple and familiar concept. As explained above, telephone numbers are often mentally divided into three leading digits (deemed the area code) followed by seven additional digits (often further mentally subdivided into separate three- and four-digit portions). Although that concept may be quite useful, no one suggests that it would constitute patentable subject matter under Section 101. That straightforward understanding would not change if the patent claim designated the leading digits in the telephone number the “most significant”

part of the number. App., *infra*, 6a (quoting ADASA’s claim). Nor would it change if the patent claim added a step directing that phone numbers in a particular “block” all be uniquely “allocated” with the same “most significant” portion (*e.g.*, that all numbers allocated to telephones in D.C. begin with 202). *Id.*

Other examples abound. Cars have 17-digit Vehicle Identification Numbers (VINs), allocated into portions corresponding to, *e.g.*, the manufacturer, the plant where the car was manufactured, and a serial number.<sup>2</sup> Credit cards have between 8 and 19 digits, the first 6 or 8 of which identify the issuer, with most of the remainder identifying the user’s account.<sup>3</sup> Books are identified by 13-digit International Standard Book Numbers (ISBNs), including sections dedicated to the language or country of origin, the publisher, and the title.<sup>4</sup> But patent law does not invite someone to patent the idea, for instance, of a car bearing a VIN in which the first digit of the serial number section is allocated to denote the car’s original color; or of a credit card stamped with a card number in which the first digit of the account portion denotes whether there is an annual fee; or of a book labeled with an ISBN in which the first digit of the title field

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<sup>2</sup> See Int’l Org. for Standardization (IOS), *ISO 3779: Road vehicles—Vehicle identification number (VIN)—Content and structure 2* (3d. 1983), <https://perma.cc/HCM3-9QNQ>.

<sup>3</sup> See IOS, *ISO 7812-1: Identification cards—Identification of issuer 2* (5th ed. 2017), <https://perma.cc/MKQ8-U945>.

<sup>4</sup> See IOS, *ISO 2108: Information and documentation—International Standard Book Number 4* (5th ed. 2017), <https://perma.cc/2RYQ-AUA9>.

denotes whether the book is a hard-cover, a paperback, or an e-book.

The concept of subdividing a long number into two shorter portions is, if anything, even more abstract than, for example, the hedging or settlement concepts found ineligible in *Bilski* and *Alice*, or the mathematical formula found ineligible in *Flook*. See pp. 17-20, *supra*. Technologically, ADASA’s claims are perhaps most reminiscent of those found ineligible in *Benson*, which also involved binary numbers. See pp. 16-18, *supra*. But the claims here are even less compelling than those in *Benson* because subdividing one long binary number into two shorter groups of bits is even simpler than converting a number from BCD to pure binary. See *id.* Indeed, the subdivision concept is recounted in a book entitled *RFID for Dummies*. App., *infra*, 16a; cf. Dennis Crouch, *Anticipation for Dummies*, Patently-O, <https://perma.cc/654Z-J87N> (Dec. 19, 2022) (“As I was reading this case, I was sure that the Federal Circuit was going to flip the whole table based upon eligibility.”).

2. The Federal Circuit panel found ADASA’s claim patent-eligible because, “[s]etting aside the conventional RFID hardware components”—which are concededly unpatentable—the claim “is directed to a specific, hardware-based RFID serial number data structure designed to enable technological improvements to the commissioning process.” App., *infra*, 12a. That analysis contains multiple errors that this Court has cautioned against in its Section 101 cases.

a. *First*, the panel repeatedly referred to the claim’s “focus on the data structure of the serial num-

ber space.” App., *infra*, 12a; *see id.* at 12a-13a (similar). As an initial matter, the claim itself does not actually refer to a data structure. Even if it did, however, there would be nothing talismanic about such a reference. The abstract concept of treating one number as the combination of two component parts does not become less abstract simply because it is described as altering a data structure. *See, e.g., Dropbox, Inc. v. Synchronoss Techs., Inc.*, 815 Fed. Appx. 529, 537 (Fed. Cir. 2020) (“[F]ormatting the data ... into fields ... and tagging said data’ ... does not describe an inventive data structure.”). Indeed, one could easily describe the binary-number-conversion formula in *Benson* as an alteration of data structure, yet this Court found it unpatentable. *See* pp. 16-18, *supra*. Notably, the actual 1s and 0s that form the actual data structure remain unchanged by ADASA’s claimed invention, as ADASA’s own depiction of it confirms. C.A. App. 228, 230. Nor does the claim call for any specific improvement to data structure or anything else as compared to conventional RFID technology, apart from the purely mental step of assigning some number of “most significant bits.”

b. *Second*, to the extent the panel found it significant that the claim teaches a “*hardware-based* data structure,” App., *infra*, 14a (emphasis added), it fell into a familiar trap. To describe the patent as “hardware-based” is simply to note that the idea in Claim 1 is carried out on RFID tags—tangible items that are physically encoded with binary data. ADASA’s claimed invention does not in any way change, let alone invent, RFID technology. Nor does ADASA’s invention improve how RFID information is encoded, transmitted, or scanned. To the contrary, the relevant

technological system remains precisely as it was under prior art. All ADASA's claim does is add a mental abstraction so that human beings can understand and agree that fixed meaning has been assigned to some number of leading "most significant bits" on an RFID tag.

Applying abstraction in a particular technological context is not a ticket to eligibility under Section 101. Indeed, the Court emphasized in *Alice* that "limiting the use of an abstract idea 'to a particular technological environment'" does not make the abstract idea patentable. 573 U.S. at 223-24 (quoting *Bilski*, 561 U.S. at 610-11). As the Court explained, every technological application of an abstract idea "exists in the physical, rather than purely conceptual, realm." *Id.* at 223. That ADASA's invention operates in the "physical ... realm" of RFID tags should not change the eligibility analysis here anymore than it did in *Alice*.

The Court's decision in *Flook* is similarly instructive. The patentee there contended that an abstract mathematical formula should be patentable because he claimed it only in connection with activity in the "petrochemical and oil-refining industries." 437 U.S. at 590. But the Court rejected that attempt to "transform an unpatentable principle into a patentable process." *Id.*; see *Bilski*, 561 U.S. at 610-11 ("*Flook* stands for the proposition that the prohibition against patenting abstract ideas cannot be circumvented by attempting to limit the use of the formula to a particular technological environment."). So too here: ADASA's attempt to claim an abstract concept only in connection with the encoding of RFID transponder hardware does not make it patent-eligible. If anything,

ADASA’s approach may render the claim less *sweeping*—but that does not render it any less *abstract*. See *Mayo*, 566 U.S. at 88-89 (“[This Court’s] cases have not distinguished among [unpatentable subject matters] according to whether or not the principles they embody are sufficiently narrow.”).

c. *Finally*, the Federal Circuit noted several times that ADASA’s claim resulted in “technological improvements to the [RFID tag] commissioning process.” App., *infra*, 12a; see *id.* at 13a (similar). That reasoning misunderstands the eligibility inquiry. Every invention that receives a patent must be “useful.” 35 U.S.C. § 101; see U.S. Const. art. I, § 8, cl. 8 (referring to the “useful Arts”). But not every useful claim is eligible for a patent. For example, Samuel Morse’s broad claim to “electro-magnetism ... for marking or printing intelligible characters, signs, or letters,” *Morse*, 56 U.S. at 112, surely resulted in numerous “technological improvements.” App., *infra*, 12a. Nevertheless, the Court found it an unpatentable attempt to claim a law of nature. And in another early Section 101 case, the Court explained that “[a]n idea of itself is not patentable” even though the “idea of this patentee was a good one” and “his device to give it effect ... useful.” *Rubber-Tip Pencil*, 87 U.S. at 507.

The Court has repeatedly reiterated that principle. “In *Gottschalk v. Benson*, [the Court] held that the discovery of a novel and *useful* mathematical formula may not be patented.” *Flook*, 437 U.S. at 585 (emphasis added; citation omitted). In *Flook*, the Court held that “the identification of a limited category of *useful* ... post-solution applications of such a formula” did not make the claimed “method eligible for patent protection.” *Id.* (emphasis added). And the Court in the

recent trio of eligibility cases—*Bilski*, *Mayo*, and *Alice*—never doubted that the claimed inventions might produce improvements in their respective industries. Still, the Court held that the concepts at issue in each of those cases were unpatentable under Section 101. *See* pp. 18-20, *supra*.

### **C. The Decision Below Highlights The Need For This Court’s Guidance On Section 101**

The decision below is the latest in a long line of decisions in which the Federal Circuit has openly struggled to apply Section 101. In the opening minute of the oral argument in this case, Chief Judge Moore—who later authored the panel opinion—lamented the absence of any discernible line in the court’s precedents on patentability. Oral Arg. Recording 0:34-0:46, <https://perma.cc/HB33-W8WP>. And while the panel stated that its holding was “bolstered by prior decisions finding similar claims eligible,” App., *infra*, 13a; *see id.* at 13a-14a (citing *Uniloc USA, Inc. v. LG Elecs. USA, Inc.*, 957 F.3d 1303 (Fed. Cir. 2020), and *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016)), those cited cases expressly credited “specific asserted improvements in computer capabilities” and “computer functionality,” *Uniloc*, 957 F.3d at 1306-07; *see Enfish*, 822 F.3d at 1335—the sort of improvement that is conspicuously lacking here and that the court below would not consistently demand across patent cases, as this case illustrates. Meanwhile, the Federal Circuit has on numerous other occasions recognized that “dividing ... data into sequences of bits” is “a telltale sign of abstraction” and thus unpatentability. *PersonalWeb Techs. LLC v. Google LLC*, 8 F.4th 1310, 1315-16 (Fed. Cir. 2021), *cert. denied*, 142 S. Ct.



1445 (2022); *see, e.g., Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass'n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014) (holding that “claims of the asserted patents are drawn to the abstract idea of 1) collecting data, 2) recognizing certain data within the collected data set, and 3) storing that recognized data in a memory”).

This case thus further confirms that the Federal Circuit is “at a loss as to how to uniformly apply § 101,” and is “slowly creating a panel-dependent body of law.” *Am. Axle*, 977 F.3d at 1382 (Moore, J., concurring). The court’s continuing “confusion” on Section 101 “has driven ... every judge on th[e Federal Circuit] to request Supreme Court clarification.” *Id.* (citing *Athena Diagnostics, Inc. v. Mayo Collaborative Servs., LLC*, 927 F.3d 1333 (Fed. Cir. 2019), *cert. denied*, 140 S. Ct. 855 (2020)). As Judge Newman recently put it, “[t]he court’s rulings on patent eligibility have become so diverse and unpredictable as to have a serious effect on the innovation incentive in all fields of technology.” *Am. Axle & Mfg. v. Neapco Holdings LLC*, 966 F.3d 1347, 1357 (Fed. Cir. 2020). Judge Hughes has likewise urged an “explication ... from th[is] Court” about “eligibility standards” under Section 101. *Athena*, 927 F.3d at 1337. Judge Chen has agreed that the Federal Circuit “would benefit from th[is] Court’s guidance as to” Section 101. *Id.* at 1344. And Judge O’Malley has called Section 101 jurisprudence “the most baffling concept in the whole catalogue of judicial efforts to provide postulates for indefinitely varying occasions.” *Id.* at 1372 (citation omitted).

All of those statements came in just two of the Federal Circuit’s recent cases. Countless other such statements are scattered across the court’s opinions.

See, e.g., *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 890 F.3d 1354, 1360 (Fed. Cir. 2018) (Lourie, J., concurring in denial of rehearing en banc (“[T]he law needs clarification by higher authority ... to work its way out of what so many in the innovation field consider are § 101 problems.”)); *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1348 (Fed. Cir. 2018) (Plager, J., concurring in part and dissenting in part) (stating that “[t]he law ... renders it near impossible to know with any certainty whether the invention is or is not patent eligible,” and calling for “a special effort by the judges and the patent bar to gain the Court’s attention”); *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 809 F.3d 1282, 1287 (Fed. Cir. 2015) (Dyk, J., concurring in denial of rehearing en banc) (explaining that “the framework of *Mayo* and *Alice* is an essential ingredient of a healthy patent system,” but adding that “further illumination ... would be beneficial” and “must come from th[is] Court”).

Taken together, the Federal Circuit’s statements amount to a “unanimous” and “unprecedented plea for guidance.” *Am. Axle*, 977 F.3d at 1382 (Moore, J., concurring). This Court has responded in part by inviting the views of the Solicitor General in five Section 101 cases over the past five years. See pp. 2-3, *supra*. In its initial submissions, the United States recognized the “uncertainty” and “confusion” that exists on Section 101 and stated that the issue “warrants review in an appropriate case.” U.S. Amicus Br. 8, *Hikma, supra* (No. 18-807); see U.S. Amicus Br. 10, *Berkheimer, supra* (No. 18-415) (similar). The United States contended that *American Axle* was such “a suitable vehicle for providing greater clarity,” given the

“substantial uncertainty” that has “fractured the Federal Circuit.” U.S. Amicus Br. 9, 19, *Am. Axle, supra* (No. 20-891). The Government added that the U.S. Patent and Trademark Office had acknowledged in official guidance that applying this Court’s recent Section 101 decisions “in a consistent manner has proven to be difficult”; “has caused uncertainty in this area of the law”; has made it difficult for “inventors, businesses, and other patent stakeholders to reliably and predictably determine what subject matter is patent-eligible.” *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50, 52 (Jan. 7, 2019).

This Court ultimately did not grant review in *American Axle*. But the need for guidance identified by the Federal Circuit judges and the United States persists—and continues to gain recognition. In March 2021, a bipartisan group of senators wrote to the U.S. Patent and Trademark Office (PTO) decrying the “lack of consistency and clarity in our nation’s patent eligibility laws.” PTO, *Report to Congress: Patent eligible subject matter: Public views on the current jurisprudence in the United States*, at A-1 (2022). The senators warned that, “unless we take steps to provide clarity in the area of patent eligibility, we risk losing our place as the global innovation leader in the twenty-first century.” *Id.* In response, the PTO published a report acknowledging that lower courts have “struggled to apply” this Court’s Section 101 precedents and summarizing the widespread view among stakeholders that greater clarity is needed. *Id.* at 2.

**D. This Case Presents An Ideal Vehicle For Review, Either Alone Or Along With Other Petitions Raising Section 101 Questions**

This case provides a prime vehicle for this Court’s long-awaited clarification of Section 101’s scope. The court of appeals cleanly decided the Section 101 question as a matter of law. *See App., infra*, 12a n.2 (rejecting ADASA’s preservation argument). Moreover, as explained, it decided that question in a manner that conflicts with this Court’s precedent, thereby warranting this Court’s intervention.

The Federal Circuit remanded for further proceedings on questions of novelty and obviousness—as well as on sanctions—but that is no obstacle to this Court’s review. This Court has granted review to resolve significant patent questions of that nature notwithstanding an interlocutory posture. *See, e.g., Quanta Comput., Inc. v. LG Elecs., Inc.*, 553 U.S. 617, 625, 638 (2008); *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 415 (2007); *Eli Lilly & Co. v. Medtronic, Inc.*, 496 U.S. 661, 664 (1990); *see also Mazurek v. Armstrong*, 520 U.S. 968, 975 (1997) (“[T]here is no absolute bar to review of nonfinal judgments of the lower federal courts.”).

Moreover, the current posture of this case ensures that this Court would be able to decide the question presented pristinely, just as it would on appeal from a final judgment. Per the district court’s recent instruction, “If the Supreme Court grants review, then we’ll take the case off the trial docket ... and follow the lead [of this Court’s decision].” 1/13/23 Hr’g Tr. 13. Because patentability under Section 101 is a “threshold test,” *Bilski*, 561 U.S. at 602, resolution of

it in Avery Dennison's favor would fully dispose of the merits of this case without leaving the ultimate liability determination in the hands of a jury. Of course, there is an important difference—as a practical as well as a legal matter—between a court invalidating at the threshold under Section 101 and a jury ultimately finding invalidity under Sections 102 or 103. An abstract idea that never merited a patent should not occasion a jury trial at which tens of millions of dollars in liability hang in the balance.

Review of this case would be warranted either on its own or in conjunction with other Section 101 cases. As described above, this case implicates one of the key lines of Section 101 precedent—the bar on patenting abstract ideas—that the Federal Circuit has struggled to apply consistently in recent years. This case would also be a suitable vehicle for review in conjunction with another case or cases that present similar Section 101 issues. If the Court were to review one or both of the cases in which it recently called for the views of the United States, *see Tropp, supra; Interactive Wearables, supra*, this case would be an especially appropriate companion. Granting review in this case would ensure that this Court receives vigorous argument regarding how the Federal Circuit's inconsistencies may have led the court to be *both* unduly permissive *and* unduly restrictive when enforcing Section 101 across different cases.

At a minimum, if the Court grants another Section 101 petition, it should hold this petition pending resolution of that petition and then dispose of this case as appropriate. *See, e.g., Mayo Collaborative Servs. v.*

*Prometheus Labs., Inc.*, 561 U.S. 1040 (2010)  
(granting, vacating, and remanding in light of *Bilski*).

**CONCLUSION**

The petition for a writ of certiorari should be granted.

Respectfully submitted,

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February 27, 2023

## **APPENDIX**

## TABLE OF CONTENTS

	<b>Page</b>
APPENDIX A: Opinion of the United States Court of Appeals for the Federal Circuit (Dec. 16, 2022).....	1a
APPENDIX B: Opinion and Order of the United States District Court for the District of Oregon (Dec. 15, 2021) .....	31a
APPENDIX C: Final Rule 58 Judgment of the United States District Court for the District of Oregon (Oct. 14, 2021).....	64a
APPENDIX D: Opinion and Order of the United States District Court for the District of Oregon Regarding Plaintiff’s Motion for Summary Judgment; Defendant’s Motion for Summary Judgment of Non-Infringement and Alternative Motion for Judgment of Invalidity Under 35 U.S.C. § 103 and 35 U.S.C. § 101 (Sept. 14, 2020) .....	67a
APPENDIX E: 35 U.S.C. § 101 .....	107a



1a

**APPENDIX A**

UNITED STATES COURT OF APPEALS  
FOR THE FEDERAL CIRCUIT

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2022-1092

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ADASA INC.,

*Plaintiff-Appellee*

v.

AVERY DENNISON CORPORATION,

*Defendant-Appellant*

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

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Decided: December 16, 2022

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Redwood Shores, CA.

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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

6a

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.<sup>1</sup> 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.

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<sup>1</sup> 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*).

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* 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 composi-

tion 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 subsection of a data field and does not recite any eligibility-conferring inventive concepts.<sup>2</sup> 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

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<sup>2</sup> 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.

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 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*.<sup>3</sup> To anticipate a claim, a 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). 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.*

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<sup>3</sup> 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

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.<sup>4</sup> 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.<sup>5</sup>

## 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

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<sup>4</sup> 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.

<sup>5</sup> 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 discloses a data structure that includes data beyond a serial number, namely object class information. *Id.* As above, we hold that 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 bar-codes 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,<sup>6</sup> 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 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

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

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.<sup>7</sup>

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<sup>7</sup> 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,

## 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 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

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applying the standards of Federal Rule of Evidence 702 and *Daubert*.

“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.<sup>8</sup>

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

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<sup>8</sup> 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.

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.

## 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.<sup>9</sup>

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.

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<sup>9</sup> Our decision should not be interpreted to condition the availability of sanctions on the judgment of infringement being sustained. As the district court thoroughly 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.

**APPENDIX B**

UNITED STATES DISTRICT COURT  
DISTRICT OF OREGON  
EUGENE DIVISION

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Case No. 6:17-cv-01685-MK

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ADASA, INC.,

*Plaintiff,*

vs.

AVERY DENNISON CORPORATION,

*Defendant.*

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OPINION AND ORDER

KASUBHAI, United States Magistrate Judge:

Plaintiff Adasa Incorporated brought this patent action against Defendant Avery Dennison Corporation alleging infringement of U.S. Patent No. 9,798,967 (“the ’967 Patent”). *See* Second Amend. Compl., ECF No. 112. In September 2020, the Court denied Defendant’s motion for summary judgment on non-infringement and invalidity under 35 U.S.C. §§ 101 and 103 and granted, in part, Plaintiff’s motion for summary judgment. *See* September 14, 2020 Op. and Order, ECF No. 305 (“September 2020 O&O”); *see also Adasa Inc. v. Avery Dennison Corp.*, No. 6:17-cv-01685-MK, 2020 WL 5518184, at \*1 (D. Or. Sept. 14, 2020). In May 2021, after multiple delays due to public health concerns stemming from the Covid-19 pandemic, the Court held a five-day trial. The jury returned a verdict

finding Defendant's Commissioning Authority tags literally infringed the '967 patent, infringed *via* the doctrine of equivalence, and awarded Plaintiff approximately \$26,640,876 in damages. *See* Jury Verdict, ECF No. 331. After the parties filed several post-trial motions, the Court heard two days of argument and issued an oral ruling on the motions reflected in an October 10, 2021 Minute Order. ECF No. 421. This opinion supplements the Court's previous oral ruling.

Given the extensive briefing and jury trial, the Court and parties are well familiar with the factual and procedural history, contested issues of law, and evidentiary record in this case. As a result, this Opinion limits its discussion to only information necessary to resolve the pending matters before the Court, which include: Plaintiff's Bill of Costs (ECF No. 350); Plaintiff's Motion for Attorney Fees (ECF No. 351); Plaintiff's Motion for Pre- and Post-Judgment Interest (ECF No. 352); Plaintiff's Motion for Ongoing Royalties (ECF No. 353); Defendant's Motion for Judgment as a Matter of Law or New Trial (ECF No. 362); and Plaintiff's Motion for Sanctions (ECF No. 366).

## DISCUSSION

### I. Bill of Costs (ECF No. 350)

Plaintiff seeks costs in the amount of \$56,499.38. ECF No. 350. Defendant timely objected and argues the Court should reduce the amount. ECF No. 363. For the reasons explained below, the Court reduces Plaintiff's Bill of Costs.

Federal Rule of Civil Procedure ("Rule") 54(d)(1) provides: "Unless a federal statute, these rules, or a court order provides otherwise, costs—other than attorney's fees—should be allowed to the prevailing



party.” Rule 54(d) creates a presumption in favor of awarding costs to a prevailing party—*i.e.*, “the losing party must show why costs should not be awarded” in any particular case. *Save Our Valley v. Sound Transit*, 335 F.3d 932, 944–45 (9th Cir. 2003).

Title 28 § 1920 of the United States Code allows a federal court to tax specific items as costs against a losing party pursuant to Rule 54(d)(1). Section 1920 provides:

A judge or clerk of any court of the United States may tax as costs the following:

- (1) Fees of the clerk and marshal;
- (2) Fees for printed or electronically recorded transcripts necessarily obtained for use in the case;
- (3) Fees and disbursements for printing and witnesses;
- (4) Fees for exemplification and costs of making copies of any materials where the copies are necessarily obtained for use in the case;
- (5) Docket fees under section 1923 of this title;
- (6) Compensation for court appointed experts, compensation of interpreters, and salaries, fees, expenses, and costs of special interpretation services under section 1828 of this title.

The court must limit an award of costs to those defined in 28 U.S.C. § 1920 unless otherwise provided for by statute. *Grove v. Wells Fargo Fin. Ca., Inc.*, 606 F.3d 577, 579–80 (9th Cir. 2010). Although Rule 54 creates

a presumption in favor of awarding costs to the prevailing party, the rule also “vests in the district court discretion to refuse to award costs” in appropriate circumstances. *Ass’n of Mex.-Am. Educators v. California*, 231 F.3d 572, 591 (9th Cir. 2000). This discretion is not unlimited and a district court must provide reasons for its decision. *Id.*

The Ninth Circuit has explained that:

[a]ppropriate reasons for denying costs include: (1) the substantial public importance of the case, (2) the closeness and difficulty of the issues in the case, (3) the chilling effect on future similar actions, (4) the plaintiffs limited financial resources, and (5) the economic disparity between the parties.

*Escriba v. Foster Poultry Farms, Inc.*, 743 F.3d 1236, 1247-48 (9th Cir. 2014). “This is not an exhaustive list of good reasons for declining to award costs, but rather a starting point for analysis.” *Id.* at 1248 (quotation marks omitted).

Defendant objects to Plaintiff’s bill of costs on four specific grounds: (1) the recovery of *pro hac vice* application fees; (2) Plaintiff’s use of a private process server; (3) costs relating to fees for printed and electronically recorded transcripts; and (4) costs relating to exemplification and making copies.

After reviewing the parties’ submissions and relevant authority, the Court concludes that Plaintiff’s request shall only be reduced by the amount related to fees for the late payment of invoices, but otherwise awarded. *See Healthport Corp. v. Tanita Corp. of Am.*, No. 06-cv-00419-PK, 2008 WL 11513092, at \*3 (D. Or. July 24, 2008) (concluding “that *pro hac vice* fees may be taxable as costs”); *Skedco, Inc. v. Strategic*

*Operations, Inc.*, No. 3:13-CV-00968-HZ, 2016 WL 8678445, at \*13 (D. Or. Apr. 1, 2016) (permitting “fees for service of the summons and subpoenas”) (citing 28 U.S.C. § 1920(1)); *see also Alflex Corp. v. Underwriters Lab., Inc.*, 914 F.2d 175, 177 (9th Cir. 1990) (per curiam) (“Now that the Marshal is no longer involved as often in the serving of summonses and subpoenas, the cost of private process servers should be taxable under 28 USC § 1920(1).”); *Davico v. Glaxosmithkline Pharms.*, No. 05-cv-06052-TC, 2008 WL 624049, at \*1 (D. Or. Jan. 23, 2008) (“[f]ees incurred in obtaining deposition transcripts may be recovered”), *adopted*, 2008 WL 627412 (D. Or. Mar. 6, 2008); *Adidas Am., Inc. v. Payless Shoesource, Inc.*, No. 01-cv-01655-KI, 2009 WL 302246, at \*4 (D. Or. Feb. 9, 2009) (allowing approximately \$267,000 in printing and copying costs and observing that “[c]opying costs for documents produced in discovery, as well as the court’s copies of documents filed to support motions, are held to be reasonably necessary for use in a case and thus are routinely awarded in this court”).

Plaintiff is AWARDED costs in the amount of \$55,424.70. The amount Plaintiff requested is reduced by the amount Plaintiff incurred for late fee payments of outstanding invoices.

## II. Attorney Fees (ECF No. 351)

Plaintiff moves for an award of attorney fees in this matter in the amount of \$2,250,000. *See* ECF No. 351. Plaintiff moved the court for additional attorney fees incurred post-trial bringing its total requested attorney fees to \$2,250,000. Defendant timely opposes the motion and argues the relevant statute does not permit a fee award “merely for winning” and Defendant defending itself. ECF No. 361 at 5. For the reasons explained below, Plaintiff’s motion is granted.

Title 35 § 285 of the United States Code permits an award of reasonable attorney fees to a prevailing party in “exceptional cases.” *See* 35 U.S.C. § 285. The Supreme Courts has explained that an exceptional case is one that, considering the totality of the circumstances, “stands out from others with respect to the substantive strength of a party’s litigating position (considering both the governing law and the facts of the case) or the unreasonable manner in which the case was litigated.” *Octane Fitness, LLC v. ICON Health & Fitness, Inc.* 572 U.S. 545, 554 (2014). While “there is no precise rule or formula” for considering the totality of the circumstances, a district court may weigh such factors as “frivolousness, motivation, objective unreasonableness (both in the factual and legal components of the case) and the need in particular circumstances to advance considerations of compensation and deterrence.” *Id.* at 554 n.6. “Section 285 demands a simple discretionary inquiry; it imposes no specific evidentiary burden, much less such a high one,” thus a litigant only must show that it is entitled to fees under Section 285 by a preponderance of the evidence. *Id.* at 557–58.

Under relevant precedent, there are generally two categories that the district court should look to when considering a fee award: (1) litigation misconduct and (2) advancing substantively weak or repetitive arguments throughout the course of trial. More specifically, “misconduct during litigation” alone can make a case exceptional. *Beckman Instr. Inc. v. LKB Produkter AB*, 892 F.2d 1547, 1551 (Fed. Cir. 1989). Additionally, “courts have awarded attorneys’ fees under Section 285 where a party advances arguments that are particularly weak and lack support in the record or seek only to re-litigate issues the court has already decided.” *Enovsys LLC v. AT&T Mobility LLC*, 2016

WL 3460794, at \*6 (C.D. Cal. Feb. 16, 2016). It is the “substantive strength,” not the “correctness or eventual success,” of a party’s position that is relevant to the determination that a case qualifies as “exceptional.” *SFA Sys., LLC v. Newegg Inc.*, 793 F.3d 1344, 1348 (Fed. Cir. 2015) (also finding that “[a] district court may declare a case exceptional based on unreasonable and vexatious litigation tactics, even where it finds the legal theories advanced not objectively baseless”). Ultimately, the decision of whether to award attorney fees is left to the district court’s sound discretion. *Highmark Inc. v. Allcare Health Mgmt. Sys., Inc.*, 572 U.S. 559, 563 (2014).

Viewing the totality of Defendant’s conduct throughout the course of this litigation, the Court finds that this is an exceptional case. Plaintiff is therefore entitled to an attorney fee award for several reasons. The Court explained that it was inclined to consider an award of attorney fees, in part, as a result of Defendant’s eleventh-hour attempt to inject three “supplemental” expert reports on the eve of trial. Throughout the jury trial, Defendant repeatedly flouted the Court’s *limine* rulings.

Defendants also continued to relitigate issues the Court previously rejected such as Defendant’s assertion of foreign infringement of the ‘967 patent. *See San Diego Comic Convention v. Dan Farr Prods.*, 2019 WL 1599188, at \*3 (S.D. Cal. Apr. 15, 2019) (“Defendant also repeatedly attempted to relitigate issues the Court has already decided.”) *aff’d in part, vacated in part, remanded*, 807 F. App’x 674 (9th Cir. 2020) (affirming district court’s “deeming [the] case ‘exceptional’ and granting attorney fees where the district judge highlighted the defendants’ “failure to comply with court rules, persistent desire to re-litigate issues

already decided, advocacy that veered into ‘gamesmanship,’ and unreasonable responses to the litigation”).

Defendant’s conduct regarding discovery also weighs in favor of finding this case to be exceptional. On multiple occasions Defendant failed to comply with basic discovery obligations. *See Drop Stop Ltd. Liab. Co. v. Zhu*, 757 F. App’x 994, 998 (Fed. Cir. 2019) (affirming award of attorneys’ fees for plaintiff when defendant committed numerous instances of discovery misconduct which the district court found “[t]aken individually, the pieces of the story might not make Defendants’ conduct look exceptional. The whole tale, however, leads to a different conclusion.”); *Integrated Tech. Corp. v. Rudolph Techs., Inc.*, 629 F. App’x 972, 974 (Fed. Cir. 2015) (affirming award of attorneys’ fees for plaintiff when defendant’s litigation conduct made the case exceptional).

Finally, the Court finds Plaintiff’s proposed fees are reasonable. Section 285 permits the award of “reasonable” attorneys’ fees. Federal Circuit law controls the calculation of reasonable attorney fees in patent infringement cases. *Bywaters v. United States*, 670 F.3d 1221, 1227-28 (Fed. Cir. 2012). “Normally this will encompass all hours reasonably expended on the litigation.” *Mathis v. Spears*, 857 F.2d 749, 755-56 (Fed. Cir. 1988); *see also Monolithic Power Systems, Inc. v. O2 Micro International Ltd.*, 726 F.3d 1359 (Fed. Cir. 2013) (affirming an exceptional finding for a full award of attorney fees when the exceptional conduct spanned the entire case).

The Federal Circuit has endorsed the “lodestar” approach to calculating reasonable attorneys’ fees, which requires multiplying the number of hours reasonably expended by a reasonable hourly rate. *Bywaters*, 670 F.3d at 1225-26; *Lumen View Tech. LLC*

*v. Findthebest.com, Inc.*, 811 F.3d 479, 483 (Fed. Cir. 2016) (lodestar method yields “a presumptively reasonable attorney fee amount”).<sup>1</sup>

The Court finds the hourly rates supplied by Plaintiff’s counsel to be reasonable given time and labor required as well as requisite experience and reputation of counsel. The Court further finds the hours worked reasonable, especially given Plaintiff’s ten percent reduction. Plaintiff’s motion for attorney fees is GRANTED in the amount of \$2,250,000.

### III. Interest Rates (ECF Nos. 352)

#### A. Pre-judgment Interest

In patent litigation, prejudgment interest on damages is awarded pursuant to 35 U.S.C. § 284, which states in relevant part:

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<sup>1</sup> To determine the lodestar amount the court may consider the following factors:

- (1) the time and labor required;
- (2) the novelty and difficulty of the questions involved;
- (3) the skill requisite to perform the legal service properly;
- (4) the preclusion of other employment by the attorney due to acceptance of the case;
- (5) the customary fee;
- (6) whether the fee is fixed or contingent;
- (7) any time limitations imposed by the client or the circumstances;
- (8) the amount involved and the results obtained;
- (9) the experience, reputation, and ability of the attorneys;
- (10) the undesirability of the case;
- (11) the nature and length of the professional relationship with the client;
- and (12) awards in similar cases.

*Fischel v. Equitable Life Assur. Soc’y of U.S.*, 307 F.3d 997, 1007 n.7 (9th Cir. 2002) (quotation omitted). A rote recitation of the relevant factors is unnecessary as long as the court adequately explains the basis for its award of attorney fees. *McGinnis v. Kentucky Fried Chicken of Cal.*, 51 F.3d 805, 809 (9th Cir. 1995).

Upon a finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court.

This interest should be awarded from the time infringement began until the entry of judgment. *See, e.g., Bio-Rad Laboratories, Inc. v. Nicolet Instrument Corp.*, 807 F.2d 964, 967 (Fed. Cir. 1986). Prejudgment interest is “necessary” in a typical case “to ensure the patent owner is placed in as good a position as he would have been in had the infringer entered into a reasonable royalty rate.” *Gen. Motors Corp. v. Devex Corp.*, 461 U.S. 648, 655 (1983). “[P]rejudgment interest should ordinarily be awarded absent some justification for withholding such an award.” *Id.* at 657.

Courts must also determine the proper rate to apply. Because there is no standard rate for calculating prejudgment interest provided in the statute, district courts have “substantial discretion” to determine the interest rate in patent infringement cases. *See Gyromat Corp. v. Champion Spark Plug Co.*, 735 F.2d 549, 556–57 (Fed. Cir. 1984) (concluding “that the determination whether to award simple or compound interest [ ] is a matter largely within the discretion of the district court”).

District courts within the Ninth Circuit regularly rely on state statutory interest rates in patent infringement cases. *See, e.g., Presidio Components Inc. v. Am. Technical Ceramics Corp.*, 723 F.Supp.2d 1284, 1330 (S.D. Cal. 2010) (awarding California statutory rate), *aff’d in part, vacated in part*, 702 F.3d 1351 (Fed. Cir. 2012); *In re Hayes Microcomputer Prods.*, 766



F.Supp. 818, 824-25 (N.D. Cal. 1991) (same), *aff'd*, 982 F.2d 1527 (Fed. Cir. 1992).

Under Oregon Rev. Stat. (“ORS”) § 82.010, “[t]he rate of interest . . . is nine percent per annum and is payable on: (a) [a]ll moneys after they become due . . . .” See ORS § 82.010(1)(a). Courts additionally have discretion to choose the state statutory rate over the Treasury-Bill (“T-Bill”) rate specifically. See *Bard Peripheral Vascular, Inc. v. W.L. Gore & Assoc., Inc.*, 2009 WL 920300, at \*2–3 (D. Ariz. Mar. 31, 2009) (awarding state statutory rate of 10 percent because “[i]n the context of patent infringement, the T-Bill rate is often inappropriate, as its lower rate of return has the potential to result in a windfall profit for the wrongful interloper . . . .”), *aff'd*, 670 F.3d 1171 (Fed. Cir. 2012), *vac. in part on other grounds*, 682 F.3d 1003 (Fed. Cir. 2012); *Server Tech., Inc. v Am. Power Conversion Corp.*, 2015 WL 1505654, at \*6 (D. Nev. Mar. 31, 2015) (“[T]he court finds that [the] proposed Treasury Bill rate would not cover inflation over the infringing period . . . .”).

Here, Plaintiff argues prejudgment interest should be based upon the Oregon state statutory rate of nine percent, while Defendant argues the lower T-Bill rate should apply. On this record, the Court concludes that the nine percent annum Oregon rate places Plaintiff in “as good a position as he would have been in had the [Defendant] entered into a reasonable royalty rate.” *Gen. Motors Corp.*, 461 U.S. at 655. Accordingly, Plaintiff’s is entitled to prejudgment interest at the rate of nine percent simple interest per annum.<sup>2</sup>

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<sup>2</sup> Plaintiff’s request for prejudgment interest to be compounded quarterly is DENIED.

### B. Post-judgment Interest

Pursuant to 28 U.S.C. § 1961, “[i]nterest shall be allowed on any money judgment in a civil case recovered in a district court.” Post-judgement interest is “calculated from the date of the entry of the judgment, at a rate equal to the weekly average 1-year constant maturity

Treasury yield, as published by the Board of Governors of the Federal Reserve System.” 28 U.S.C. § 1961; *Wordtech Sys., Inc. v. Integrated Network Solutions, Inc.*, 2009 WL 981843, at \*7 (E.D.Cal. Apr. 13, 2009). Accordingly, Plaintiff is entitled to post-judgment interest at the current rate published by the Board of Governors of the Federal Reserve System.

Plaintiff’s motion for pre- and post-judgment interest is GRANTED as articulated above.

### IV. Judgment as a Matter of Law or New Trial (ECF No. 362)

Defendant renews its motion for a judgment as a matter of law under Rule 50(b); or, in the alternative, for a new trial under Rule 59. *See generally* Avery Dennison’s Renewed Mot. J. Matter Law & Mot. New Trial, ECF No. 362 (“Def.’s JMOL”). Specifically, Defendant asserts that: (1) claim 1 of the ‘967 Patent was not infringed by its products; (2) the ‘967 Patent are invalid pursuant to 35 U.S.C. section 101, 102, and 103; and (3) the damages awarded by the jury were not supported by substantial evidence. *See Id.* In the alternative, Defendants move the court to vacate the jury’s verdict and order a new trial. *Id.*

### A. Standards

For issues not unique to patent law, such as sufficiency of the evidence on issues tried to the jury,

the Court applies the law of the regional circuit in which it sits, here the Ninth Circuit. *See Duro-Last, Inc. v. Custom Seal, Inc.*, 321 F.3d 1098, 1106 (Fed.Cir. 2003) (citations omitted). Otherwise, for all substantive issues of patent law, the Court applies the law of the Court of Appeals for the Federal Circuit. *See id.* (citations omitted).

In the Ninth Circuit, a judgment as a matter of law (“JMOL”) pursuant to Rule 50(a) is proper only “if the evidence, construed in the light most favorable to the nonmoving party, permits only one reasonable conclusion, and that conclusion is contrary to the jury’s verdict.” *Pavao v. Pagay*, 307 F.3d 915, 918 (9th Cir. 2002) (citation omitted). Phrased otherwise, a JMOL should be granted only if “there is no legally sufficient evidentiary basis for a reasonable jury to find for that party on that issue” and the verdict reached by the jury is “against the great weight of the evidence.” *Hangarter v. Provident Life & Acc. Ins. Co.*, 373 F.3d 998, 1005 (9th Cir. 2004) (citations omitted). “Although the court should review the record as a whole, it must disregard evidence favorable to the moving party that the jury is not required to believe, and may not substitute its view of the evidence for that of the jury.” *Pavao*, 307 F.3d at 918 (citation and quotation marks omitted). Thus, the Court must keep in mind that “credibility determinations, the weighing of the evidence, and the drawing of legitimate inferences from the facts are jury functions, not those of a judge.” *Hangarter*, 373 F.3d at 1005 (internal quotation marks and citations omitted).

Although Defendant frames some of its arguments in terms of Rule 50, it essentially asks the Court to amend rulings it has already made. As such, the Court will evaluate those arguments under Rule 59(e), which

permits the alteration or amendment of a prior judgment. Rule 59(e) is an “extraordinary remedy” available only where: (1) the court committed manifest errors of law or fact; (2) the court is presented with newly discovered or previously unavailable evidence; (3) the decision was manifestly unjust; or (4) there is an intervening change in the controlling law. *See Allstate Ins. Co. v. Herron*, 634 F.3d 1101, 1111 (9th Cir. 2011) (citing *McDowell v. Calderon*, 197 F.3d 1253, 1255 n.1 (9th Cir. 1999) (en banc)); *see also* 389 *Orange Street Partners v. Arnold*, 179 F.3d 656, 665 (9th Cir. 1999) (explaining that a judgment should not be reconsidered under Rule 59(e) “absent highly unusual circumstances”). A Rule 59(e) motion may not be used to “raise arguments or present evidence for the first time when they could reasonably have been raised earlier in the litigation.” *Allstate*, 634 F.3d at 1111 (citing *Kona Enters., Inc. v. Estate of Bishop*, 229 F.3d 877, 890 (9th Cir. 2000)).

Defendant’s request for a new trial is governed by Rule 59(a), which permits courts to grant requests for a new trial in limited circumstances. “Upon the Rule 59 motion of the party against whom a verdict has been returned, the district court has ‘the duty . . . to weigh the evidence as [the court] saw it, and to set aside the verdict of the jury, even though supported by substantial evidence, where, in [the court’s] conscientious opinion, the verdict is contrary to the clear weight of the evidence.’” *Molski v. M.J. Cable, Inc.*, 481 F.3d 724, 729 (9th Cir. 2007) (citation omitted, alteration in original). Bases for a new trial include: (1) a verdict against the clear weight of the evidence, *see Landes Const. Co., Inc. v. Royal Bank of Canada*, 833 F.2d 1365, 1371 (9th Cir. 1987); (2) evidence, discovered after trial, that would not have been uncovered earlier through the exercise of due diligence

and that is of such magnitude that its production at trial would likely have changed the outcome of the case, *see Far Out Prods., Inc. v. Oskar*, 247 F.3d 986, 992–93 (9th Cir. 2001) (quoting *Defenders of Wildlife v. Bernal*, 204 F.3d 920, 929 (9th Cir. 2000) ); (3) jury misconduct, *see United States v. Romero-Avila*, 210 F.3d 1017, 1024 (9th Cir. 2000); and (4) error in law that has substantially prejudiced a party, *see Ruvalcaba v. City of Los Angeles*, 64 F.3d 1323, 1328 (9th Cir. 1995). The decision to grant a new trial falls within the sound discretion of the trial court. *Kode v. Carlson*, 596 F.3d 608, 611 (9th Cir. 2010).

## B. Validity Judgments

### 1. Section 101

Defendant asserts it is entitled to judgment as a matter of law because Plaintiff's asserted claims are invalid under 35 U.S.C. § 101. Section 101 defines patentable subject matter as “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” 35 U.S.C. § 101. The Supreme Court has “long held that this provision contains an important exception: laws of nature, natural phenomena, and abstract idea are not patentable.” *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014) (citation omitted). Acknowledging that “all inventions . . . embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas[,]” the Court noted that “an invention is not rendered ineligible for patent simply because it involves an abstract concept.” *Id.* at 217. The Supreme Court “tread[ed] carefully in construing this exclusionary principle lest it swallow all of patent law.” *Id.*

To distinguish abstract ideas from patent-eligible concepts, the Supreme Court set forth a two-step test commonly referred to as an *Alice* analysis. *Id.* at 217–18. The first step is to determine whether the claims at issue are directed to an abstract idea. *Id.* at 217. If the claims are directed to an abstract idea, the inquiry moves to step two to decide whether there are any additional elements to “transform the nature of the claim” into a patent-eligible application. *Id.* That is, whether there is an inventive concept—an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the abstract idea itself. *Id.* at 217-18.

Defendant’s attempt to “relitigate old matters”—specifically the Court’s *Alice* analysis at the summary judgment stage—is misplaced. *Exxon Shipping Co. v. Baker*, 554 U.S. 471, 485 n.5 (2008) (internal citations omitted). The Court finds no reason to depart from its earlier ruling rejecting Defendant’s contention “that the ‘967 Patent claims fail the first step of the *Alice* test.” September 2020 O&O, 2020 WL 5518184, at \*7. In the September 2020 O&O, the Court held at step 1 of the *Alice* analysis that the ‘967 patent claims were 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.” *Id.* at \*8.

In so holding, the Court effectively granted summary judgment for Plaintiff as to the validity claim. *See Ericsson Inc. v. TCL Commc’n Tech. Holdings Ltd.*, 955 F.3d 1317, 1322 (Fed. Cir. 2020) (“As discussed above, the district court did not deny summary judgment of ineligibility on the basis of additional facts that needed to be, or even could be, presented at

trial. The court affirmatively concluded that the claims are not directed to an abstract idea but rather to an improved technological solution to mobile phone security software.”) (citation and quotation marks omitted), *cert. denied*, 141 S. Ct. 2624 (2021). Moreover, at oral argument, the Court made clear that its prior ruling answered the question of validity in Plaintiff’s favor.

Accordingly, Defendant’s section 101 arguments provide no basis for deviating from the Court’s prior ruling nor granting Defendant’s JMOL.<sup>3</sup>

## 2. Claim Construction

Defendant’s claim construction arguments relating to “printed matter” are not properly before the Court. “Printed matter” assertions are a type of claim construction argument. *Praxair Distrib. v. Mallinckrodt Hosp. Prods. IP*, 890 F.3d 1024, 1033 (Fed. Cir. 2018). As such, the Court declines to consider the arguments at this stage of the litigation. *See Lazare Kaplan Int’l v. Photocopy Techs., Inc.*, 628 F.3d 1359, 1376 (Fed. Cir. 2010) (explaining that claim construction arguments presented for the first time in post-trial motions are waived).

## 3. Priority Date

Defendant’s arguments relating to additional evidence regarding the proper priority date also fail. Despite the fact that the Court decided that the ‘967 patent was entitled to a priority date of May 21, 2008 in the April 30, 2020 Opinion and Order (“April 2020 O&O on Validity”), ECF No. 167, Defendant nevertheless asserts that it “respectfully submits that such

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<sup>3</sup> For this reason, the Court need not, and does not, reach step two of Defendant’s *Alice* argument.

finding was erroneous” and argues instead that the appropriate priority date is July 21, 2011. Def.’s JMOL 7 n.4. For the reasons articulated in the April 2020 O&O on Validity, the Court declines to deviate from its prior ruling.<sup>4</sup>

To the extent that Defendant attempts to offer “additional evidence,” a summary judgment determination is not judged according to a litigant’s trial offer of proof, but according to the record as it existed during Rule 56 proceedings. *See Kirshner v. Uniden Corp. of Am.*, 842 F.2d 1074, 1077 (9th Cir. 1988) (considering only record before the district court at time it made the decision being reviewed); *see also Padgett v. Wright*, 516 Fed. Appx. 609, 610–11 (9th Cir. 2013) (“We do not consider [trial testimony] when reviewing the grant of summary judgment.”).

#### 4. Obviousness

Defendant’s arguments related to obviousness also fail. The Court’s September 2020 O&O disposed of Defendant’s invalidity arguments based on *RFID for Dummies* alone and in combination with the SGTIN-96 Tag Standard, as well as the alleged *Kuhno* reference. ECF No. 205. The Court also disposed of Defendant’s invalidity arguments based on its reliance on the “Paxar” products in combination with the same SGTIN-96 Tag Standard, as well as the LeSportSac products, in its grant of Plaintiff’s Rule 50(a) motion

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<sup>4</sup> Defendant’s enablement challenge also fails for similar reasons. The Court granted Plaintiff’s *Daubert* motion on Defendant’s enablement defense as well as Plaintiff’s *limine* motion on the subject and declines to reconsider its prior reasoning. *See* Omnibus Order on Motions in Limine and Daubert Motion 2, ECF No. 286 (granting Plaintiff’s motion relating to Defendant’s enablement defense testimony and excluding portions of Defendant’s expert testimony).



at trial. The Court finds no basis for altering its prior rulings on these issues. To the extent Defendant relies on litigation theories it intentionally discarded for trial, those arguments were rejected when the Court granted Plaintiff's motion in *limine* on the issue, which it declines to reconsider now. *See* Omnibus Order on Motions in Limine and Daubert Motion 2, ECF No. 286.

### C. Infringement Judgments

#### 1. Literal Infringement

Defendant asserts that it is entitled to judgment as a matter of law on infringement because its accused products do not infringe the '967 patent. However, Defendant failed to bring this challenge within its Rule 50(a) motions at trial. Accordingly, the argument has been waived. *Wei Zhang v. Am. Gem Seafoods, Inc.*, 339 F.3d 1020, 1028-29 (9th Cir. 2003) (the result of failing to raise such an issue at trial is “a complete waiver, precluding our consideration of the merits of the issue.”); *Freund v. Nycomed Amersham*, 347 F.3d 752, 761 (9th Cir. 2003) (“A party cannot raise arguments in its post-trial motion for judgment as a matter of law under Rule 50(b) that it did not raise in its preverdict Rule 50(a) motion.”). Moreover, Defendant's Rule 50 motion is not a proper vehicle to challenge the Court's prior summary judgment ruling that the PCTag literally infringes.

Defendant's Commissioning Authority literal infringement argument is properly before the Court under Rule 50. However, it fails because the jury returned a verdict that resolved disputed facts on the issue. Viewing the evidence in the light most favorable to Plaintiff as the Court is required to do in light of the

jury's verdict, the jury could reasonably conclude that the Commissioning Authority tags contain element F.

## 2. Equivalents Infringement

Defendant asserts that it is entitled to judgment as a matter of law because Plaintiff failed to meet its burden of showing that the "unique" correspondence limitation of claim 1 was satisfied under the doctrine of equivalents by the accused Commissioning Authority products. The Federal Circuit has explained that to establish infringement under the doctrine of equivalents:

[A] patentee must . . . provide particularized testimony and linking argument as to the 'insubstantiality of the differences' between the claimed invention and the accused device or process, or with respect to the function, way, result test when such evidence is presented to support a finding of infringement under the doctrine of equivalents. Such evidence must be presented on a limitation-by-limitation basis. Generalized testimony as to the overall similarity between the claims and the accused infringer's product or process will not suffice.

*AquaTex Indus., Inc. v. Techniche Sols.*, 479 F.3d 1320, 1328 (Fed. Cir. 2007) (quoting *Texas Instruments, Inc. v. Cypress Semiconductor Corp.*, 90 F.3d 1558 (Fed.Cir.1996)).

Defendants contend that Dr. Engels' trial testimony was conclusory on the issue and therefore inadequate as a matter of law. Dr. Engels presented expert testimony at trial that specified substantial similarity between the function, way, and result of limitation F, versus any differences that might be identified in

Commissioning Authority tags. Dr. Engels also testified as to his opinion that whatever differences there were would be “insubstantial.”

That testimony was sufficient to overcome a Rule 50(b) challenge under Federal Circuit law interpreting FRE 705. *See Symbol Technologies, Inc. v. Opticon, Inc.*, 935 F.2d 1569, 1576 (Fed. Cir. 1991) (“In short, [the patentee] was permitted to rest its *prima facie* case on [the] expert testimony, including charts, that the patents were infringed [under an equivalency theory], and the District Court was free to accept or reject that evidence.”). “To the extent that [Defendant] challenged this testimony [on cross-examination], the verdict indicates that the jury accepted [Plaintiff’s] proffer. To the extent that [Defendant] failed to challenge this testimony, [Defendant] has waived its right to raise the issue.” *Lucent Techs., Inc. v. Newbridge Networks Corp.*, 168 F. Supp. 2d 181, 218 (D. Del. 2001).

### 3. Sales or Manufacture Outside the United States.

Defendant next argues that certain unquantified sales occurred outside the United States and thus cannot meet the requirement under 35 U.S.C. § 271(a) of a “sale” in this country. Because this argument was not brought within Defendant’s Rule 50(a) motions at trial, the argument has been waived and the Court will not consider it. *See Wei Zhang*, 339 F.3d at 1028–29 *Freund*, 347 F.3d at 761.

Moreover, on the record before the jury, it was appropriate for the jury to have inferred that all infringing “sales” occur in the United States based on Mr. Pellegrino’s testimony and testimony from the other witnesses at trial. As for Defendant’s 35 U.S.C.

§ 271(f) argument, the Court previously rejected that argument on summary judgment and finds no basis to reconsider its ruling. *See* September 2020 O&O 31–32, ECF No. 205.

#### D. Damages Judgments

Defendants assert it is entitled to judgment as a matter of law reducing the damages award. Specifically, it argues that damages should be reduced because: (1) the jury’s damages calculation was overstated commensurate with the number of Commissioning Authority tags that were encoded in-plant by Avery Dennison customers; (2) the jury’s damages calculation was overstated commensurate with the number of inlays included; (3) the RFID transponders manufactured and sold overseas and their inclusion as part of a damage award was improper; and (4) intervening rights apply and the damages award is overstated in that it includes products that were sold prior to the issuance of the reexamination certificate.

Defendant first two arguments are foreclosed by its own litigation strategies both throughout discovery and at trial. For example, Defendant presented insufficient information to make such reductions during discovery, declined to present any quantification of such reductions during trial, and offered no expert analysis for exposure to cross-examination on how or why such reductions impact damages.

Where “actual damages cannot be ascertained with precision because the evidence available from the infringer is inadequate, damages may be estimated on the best available evidence, taking cognizance of the reason for the inadequacy of proof and resolving doubt against the infringer.” *Sensonics, Inc. v. AeroSonic Corp.*, 81 F.3d 1566, 1572 (Fed. Cir. 1996) (citation

omitted). Further, “[w]hen the calculation of damages is impeded by incomplete records of the infringer, adverse inferences are appropriately drawn.” *Id.*

The Court also finds significant that the royalty based rate evidence and the base instruction went to the jury without objection. The Court finds that the record here contained sufficient evidence to support the jury’s conclusion on the issue of damages. *Del Monte Dunes at Monterey, Ltd. v. City of Monterey*, 95 F.3d 1422, 1435 (9th Cir. 1996) (explaining that courts give “substantial deference to a jury’s finding of the appropriate amount of damages” and “must uphold the jury’s finding unless the amount is grossly excessive or monstrous, clearly not supported by the evidence, or based only on speculation or guesswork” (citations omitted)), *aff’d*, 526 U.S. 687 (1999).

As to Defendant’s third argument for reducing the jury’s damages award, the foreign sales issue was waived because it was not raised in Defendant’s Rule 50(a) motion. The Court declines Defendant’s invitation to reconsider its intervening rights ruling that Defendant lost at the pleadings stage of this litigation and notes that Rule 50 is an improper vehicle for such a challenge. *See* April 30, 2020 Op. & Order, ECF No. 166 (“Judgment on the Pleadings O&O”) (finding “that intervening rights do not apply and Defendant’s affirmative defenses of intervening rights fail on their face” and granting Plaintiff’s motion “as to Defendant’s affirmative defenses of intervening rights”). Accordingly, the Court concludes that the damages award found ample support in the record.

In sum, many of Defendant’s arguments are not properly before the Court because they were not properly preserved in Defendant’s Rule 50(a) motions at trial; others fails because they are procedurally

improper attempts to challenge this Court's prior rulings; those that are properly brought pursuant to Rule 50(b) fail because the Court "may not substitute its view of the evidence for that of the jury." *Pavao*, 307 F.3d at 918.

Defendant's motion for a judgment as a matter of law is DENIED.

#### E. New Trial

Defendant asserts that the Court committed reversible error requiring a new trial in (1) excluding the testimony of David Yurker which regarding the Round Rock and Intermec licenses; and (2) not including a lump sum jury instruction and a lump sum line on the verdict form.<sup>5</sup>

Defendant's first argument ignores the Court's limine ruling that "portions of Mr. Yurkevich's testimony relating to the non-comparable patents cannot pass the *Daubert* threshold" and would therefore be excluded. *See* Omnibus Order on Motions in Limine and *Daubert* Motion 2-3, ECF No. 286. Defendant's arguments to the contrary fail to provide a basis for the Court to reconsidering its *Daubert* ruling.

Defendant's second argument in favor of a new trial, fares no better. Nothing in Defendant's briefing has persuaded the Court to deviate from its ruling, after lengthy attorney argument, that Defendant had not presented a lump sum damages calculation but

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<sup>5</sup> Defendant also asserts that a new trial is required and incorporate by reference the additional arguments outlined in their judgment as a matter of law briefing. For the reasons articulated in the Court's discussion of Defendant's judgment as a matter of law arguments, the Court concludes they provide no basis for granting a new trial under Rule 59(a) as well.

instead a starting point for discussions. In other words, the Court is not “left with the definite and firm conviction that a mistake has been committed” as to either of Defendant’s contentions. *Landes Constr. Co. v. Royal Bank of Can.*, 833 F.2d 1365, 1372 (9th Cir. 1987) (internal quotations omitted).

Defendant’s motion for a new trial is DENIED.

#### V. Ongoing Royalties (ECF No. 353)

Plaintiff moves for an ongoing royalty rate \$0.0075. ECF No. 353. Defendant urges the Court to “defer any decision on the ongoing royalty until after the conclusion of the appeal[.]” ECF No. 359 at 2. For the reasons explained below, the Court finds an ongoing royalty rate of \$.009 is appropriate.

Following a jury verdict of infringement, a district court may award an ongoing royalty for continued patent infringement. *See Paice LLC v. Toyota Motor Corp.*, 504 F.3d 1293, 1315 (Fed.Cir. 2007). The parties should ordinarily be given an opportunity to negotiate a license regarding future use of the patented invention, but if they are unable to reach agreement, the district court can “step in to assess a reasonable royalty in light of the ongoing infringement.” *Id.*

An ongoing royalty is a form of equitable relief authorized under 35 U.S.C. § 283. *See id.* at 1315 n.16. Courts are not bound by the prejudgment royalty rate found by the jury. *Amado v. Microsoft Corp.*, 517 F.3d 1353, 1361–62 (Fed.Cir. 2008). “[P]resuit and post judgment acts of infringement are distinct, and may warrant different royalty rates given the change in the parties’ legal relationship and other factors.” *Paice*, 504 F.3d at 1317 (Rader, J., concurring)

The Federal Circuit has summarized how courts should determine a post-verdict royalty:

In *Amado v. Microsoft Corp.*, we held that there is a “fundamental difference” between “a reasonable royalty for pre-verdict infringement and damages for post-verdict infringement.” 517 F.3d 1353, 1360 (Fed. Cir. 2008). For example, when calculating an ongoing royalty rate, the district court should consider the “change in the parties’ bargaining positions, and the resulting change in economic circumstances, resulting from the determination of liability.” *Id.* at 1362. When patent claims are held to be not invalid and infringed, this amounts to a “substantial shift in the bargaining position of the parties.” *ActiveVideo Networks, Inc. v. Verizon Commc’ns, Inc.*, 694 F.3d 1312, 1342 (Fed. Cir. 2012). We have also instructed district courts to consider changed economic circumstances, such as changes related to the market for the patented products.

The requirement to focus on changed circumstances is particularly important when, as in this case, an ongoing royalty effectively serves as a replacement for whatever reasonable royalty a later jury would have calculated in a suit to compensate the patentee for future infringement. The later jury would necessarily be focused on what a hypothetical negotiation would look like after the prior infringement verdict. Therefore, post-verdict factors should drive the ongoing royalty rate calculation in determining whether such a rate should be different from the jury’s rate.



*XY, LLC v. Trans Ova Genetics, L.C.*, 890 F.3d 1282, 1297 (Fed. Cir. 2018) (some citations omitted).

“Ongoing royalties may be based on a post-judgment hypothetical negotiation using the *Georgia-Pacific* factors.” *Arctic Cat Inc. v. Bombardier Recreational Prods. Inc.*, 876 F.3d 1350, 1370 (Fed. Cir. 2017).<sup>6</sup>

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<sup>6</sup> The *Georgia-Pacific* factors include: “1. The royalties received by the patentee for the licensing of the patent in suit, proving or tending to prove an established royalty. 2. The rates paid by the licensee for the use of other patents comparable to the patent in suit. 3. The nature and scope of the license, as exclusive or non-exclusive; or as restricted or non-restricted in terms of territory or with respect to whom the manufactured product may be sold. 4. The licensor’s established policy and marketing program to maintain his patent monopoly by not licensing others to use the invention or by granting licenses under special conditions designed to preserve that monopoly. 5. The commercial relationship between the licensor and licensee, such as, whether they are competitors in the same territory in the same line of business; or whether they are inventor and promoter. 6. The effect of selling the patented specialty in promoting sales of other products of the licensee; that existing value of the invention to the licensor as a generator of sales of his non-patented items; and the extent of such derivative or convoyed sales. 7. The duration of the patent and the term of the license. 8. The established profitability of the product made under the patent; its commercial success; and its current popularity. 9. The utility and advantages of the patent property over the old modes or devices, if any, that had been used for working out similar results. 10. The nature of the patented invention; the character of the commercial embodiment of it as owned and produced by the licensor; and the benefits to those who have used the invention. 11. The extent to which the infringer has made use of the invention; and any evidence probative of the value of that use. 12. The portion of the profit or of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions. 13. The portion of the realizable profit that should be credited to the invention as distinguished from non-

Turning first to the change in circumstances between the parties, the Court finds that Plaintiff's bargaining position was significantly improved after the jury's determination that Defendant infringed the '967 patent. Turning next to the relevant *Georgia-Pacific* factors, the Court finds factors eight through ten weigh in favor of applying a higher ongoing royalty rate. Generally, these factors establish the profitability of products made under the patent, their commercial success and current popularity, as well as utility advantages and benefits gained through use of the patented invention. The evidence at trial demonstrated that Defendant profited significantly through the extensive use of infringing radio frequency identification ("RFID") tags; Defendant's customers demanded tags encoded in a manner that infringed the '967 Patent; and Defendant continued infringement at high volumes throughout the litigation with the company having no specific plan or desire to move away from the using the infringing schemas. The Court also has considered Defendant's disclosure of substantially more infringing tags post-trial and concludes that the post-trial discovery of a substantially sizeable number

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patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer. 14. The opinion testimony of qualified experts. 15. The amount that a licensor (such as the patentee) and a licensee (such as the infringer) would have agreed upon (at the time the infringement began) if both had been reasonably and voluntarily trying to reach an agreement; that is, the amount which a prudent licensee— who desired, as a business proposition, to obtain a license to manufacture and sell a particular article embodying the patented invention—would have been willing to pay as a royalty and yet be able to make a reasonable profit and which amount would have been acceptable by a prudent patentee who was willing to grant a license." *Georgia-Pac. Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970).

of additional infringing tags increases Plaintiff's negotiating leverage.

As such, the Court concludes that an ongoing royalty rate of royalty rate \$0.009 is appropriate in this case beginning May 14, 2021, through the expiration of the '967 patent. Plaintiff's motion for an ongoing royalty rate is GRANTED as described above.

#### VI. Sanctions (ECF No. 366)

Plaintiff moves for sanctions based on Defendant's post-trial disclosure of additional infringing Electronic Product Codes ("EPCs") not produced in pre-trial discovery nor presented to the jury. ECF No. 366. After trial, Defendant realized that its attempts to identify all relevant RFID programs were flawed, and it had failed to identify all the relevant programs that contained infringing EPCs. *See* Def.'s Suppl. Resp. Pl.'s Mot. Sanctions 2, ECF No. 404; *see also* Def.'s Opp'n Mot. Sanctions, ECF No. 379. Ultimately, Defendant identified 2,092,742,863 additional EPCs that it concedes should be added to the judgment. *Id.* at 5. Defendant argues, however, that there is no basis for sanctions because Defendant promptly disclosed the "new information" it identified. *See id.* Because the Court concludes sanctions are appropriate under Rule 37, the Court declines to consider Plaintiff's additional arguments regarding the Court's inherent authority and 28 U.S.C. § 1927.

"Rule 37(c)(1) was adopted to provide explicit authority for excluding evidence and *imposing other sanctions* for failure to supplement disclosures and discovery responses." 8A Fed. Prac. & Proc. Civ. § 2050 (3d ed.) (emphasis added). "Enforcement encourages attorneys and parties to identify undisputed issues early to avoid unnecessary costs. Failure to identify

those issues wastes the resources of parties and courts.” *Marchand v. Mercy Medical Center*, 22 F.3d 933, 936 (9th Cir. 1994); *see also Campbell Indus. v. M/V Gemini*, 619 F.2d 24, 27 (9th Cir. 1980) (“parties have a duty, which may arise even without a court order, seasonably to amend discovery responses that were false when made or have since become false”). Specifically, Rule 37(c) provides:

(1) Failure to Disclose or Supplement. If a party fails to provide information . . . as required by Rule 26(a) or (e), the party is not allowed to use that information or witness to supply evidence on a motion, at a hearing, or at a trial, unless the failure was substantially justified or is harmless. In addition to or instead of this sanction, the court, on motion and after giving an opportunity to be heard:

(A) may order payment of the reasonable expenses, including attorney’s fees, caused by the failure;

(B) may inform the jury of the party’s failure; and

(C) *may impose other appropriate sanctions*, including any of the orders listed in Rule 37(b)(2)(A)(i)-(vi)

(emphasis added).

District courts have “particularly wide latitude . . . to issue sanctions under Rule 37(c)(1). This particular subsection, implemented in the 1993 amendments to the Rules, is a recognized broadening of the sanctioning power.” *Yeti by Molly, Ltd. v. Deckers Outdoor Corp.*, 259 F.3d 1101, 1106 (9th Cir. 2001) (citations omitted). The Advisory Committee Notes explain that

the sanctioning authority “provides a strong inducement for disclosure of material . . . .” Fed.R.Civ.P. 37 advisory committee’s note (1993). The “without substantial justification” and “harmless” safeguard against “unduly harsh penalties in a variety of situations.” *Id.*

The Court concludes that a financial sanction is appropriate. Because the default remedy of exclusion is unavailable given the procedural posture of this case, the Court concludes that a sanction tied to the number of infringing tags determined to exist as of the date of the verdict is an appropriate, reasonable, and proportionate method for sanctioning Defendant. The Court imposes a sanction amount of \$.0025/tag. The total number of tags upon which this sanction is to be applied includes the additional tags the parties stipulated would be part of the original judgment. To be clear, the Court is not revising the royalty rate the jury awarded. In crafting an appropriate remedy, the Court considered Defendant’s protracted discovery failures and disingenuous explanations that the discovery failures were simple oversights. This Court has exercised a great deal of patience and extended professional courtesies to both parties through several years of litigation. And yet, even on the final day of post-trial hearings, Defendant could not assure the Court that it had ever reliably sought the discovery to which Plaintiff was entitled—its own purported expert who would be able to explain how the search for potentially infringing tags had been conducted was withdrawn because Defendant had to acknowledge the expert was never asked to conduct a search in the first place. To be fair, oversights in complex discovery happen. Hence the reason the dictates of professionalism encourage every lawyer, and judge, to exercise a bit of grace. But here, Defendant repeatedly opted to

stick its head in the sand, expecting that everyone else would do the same. While the Court can appreciate Defendant's counsel's embarrassment of her client's failure to take discovery seriously, her apologies do not absolve Defendant's patent and continuous disregard for the seriousness of this litigation and its expected obligations. To appropriately sanction Defendant, a sanction amount tied to the number of tags that served the basis for the jury award is reasonable. While the known number of these tags is large, it does not include the unknown number of ongoing infringing tags. Nor does it include the unknown number of tags for which this Court has little confidence Defendant will confirm existed at the time of trial but did not produce. This sanction will provide "a strong inducement" for future litigants to accurately disclose and supplement discoverable information subject to Rule 26.

Plaintiff's motion for sanctions is GRANTED.

#### CONCLUSION

For the reasons explained above, Plaintiff's Bill of Costs (ECF No. 350) is GRANTED in part. Plaintiff's Motion for Attorney Fees (ECF No. 351) pursuant to 35 U.S.C. § 285 is GRANTED. Plaintiff's Motion for Pre- and Post-Judgment Interest (ECF No. 352) is GRANTED. The Court finds a pre-judgment interest rate of 9% simple interest appropriate. Post-judgment interest will be set pursuant to statute. Plaintiff's Motion for Ongoing Royalties (ECF No. 353) is GRANTED. The Court finds an ongoing royalty rate of \$.009 is appropriate. Defendant's renewed Motion for Judgment as a Matter of Law or in the Alternative for a New Trial (ECF No. 362) is DENIED. Plaintiff's Motion for Sanctions (ECF No. 366) is GRANTED. The Court finds financial sanctions in the amount of \$.0025 per tag is appropriate and applied to the

63a

number of for tags identified at trial and as stipulated  
by the parties.

DATED this 15th day of December 2021.

s/ Mustafa T. Kasubhai  
MUSTAFA T. KASUBHAI (He / Him)  
United States Magistrate Judge

64a

**APPENDIX C**

IN THE UNITED STATES DISTRICT COURT  
DISTRICT OF OREGON  
EUGENE DIVISION

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Case No.: 6:17-cv-01685-MK

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ADASA INC.,

*Plaintiff,*

v.

AVERY DENNISON CORPORATION,

*Defendant.*

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**FINAL RULE 58 JUDGMENT**

It is ORDERED and ADJUDGED that judgment be entered in favor of Plaintiff and against Defendant in accordance with the jury verdict on Plaintiff's claims of direct infringement of claim 1 of reexamined U.S. Patent No. 9,798,967, literally and under the doctrine of equivalents, by tags tried to the jury and encoded under Defendant's PCTag and Commissioning Authority schemas. For the avoidance of doubt, a Section 101 defense has been resolved in favor of Plaintiff on summary judgment and in JMOL rulings (ECF No. 205).

It is ORDERED and ADJUDGED that judgment be entered in favor of Plaintiff for damages in the amount of \$36,059,220 for direct infringement through March 31, 2021. This amount is based on the amount found by the jury and includes \$9,417,343 based on the additional infringing tags found by Defendant post-



65a

verdict as explained in the briefing on the Motion for Sanctions.

It is ORDERED and ADJUDGED that Defendant shall pay pre-judgment interest at the rate of 9% per annum without compounding in the amount of \$4,010,267.

It is ORDERED and ADJUDGED that Defendant shall be taxed costs of \$55,424.70.

For reasons entered on the record and as to be further set forth in a formal written opinion to follow, the Court finds this to be an exceptional case under 35 U.S.C. § 285, and thus it is ORDERED and ADJUDGED that Defendant shall pay Plaintiff's attorneys' fees in the amount of \$2,250,000.

For reasons entered on the record and as to be further set forth in a formal written opinion to follow, the Court finds conduct of the Defendant to have been sanctionable, finds that the appropriate sanction is \$0.0025 per tag for the total number of tags included in the merits judgment above, and thus it is ORDERED and ADJUDGED that Defendant shall pay sanctions in the amount of \$20,032,889.80.

The sum of the above lines is \$62,407,801.50.

It is ORDERED and ADJUDGED that Defendant shall pay Plaintiff post-judgment interest on the above amounts in the amount statutorily required by 28 U.S.C. § 1961.

It is ORDERED and ADJUDGED that Defendant shall pay Plaintiff a royalty of \$0.0045 per tag on revenues for ongoing sales made by Defendant of the infringing products listed above and any not colorably different from April 1, 2021 through May 14, 2021.

It is ORDERED and ADJUDGED that Defendant shall owe and pay Plaintiff, on a quarterly basis, an ongoing royalty of \$.009 per tag on revenues for ongoing sales made by Defendant of the infringing products listed above and any not colorably different from May 15, 2021 until the expiration of the '967 Patent. Such payments shall be made no later than 30 days after the expiration of such quarter. For purposes of reporting, Defendant shall provide to Plaintiff on a quarterly basis statements disclosing the number of EPCs generated during that quarter using any schema found to result in infringement and any not colorably different ("Accused Schema") and transponder sales attributed to all corresponding retail brand owners. Royalty bearing sales shall be determined using the number of EPCs generated using an Accused Schema unless EPCs generated for a particular retail brand owner exceed the number of units sold attributed to that brand owner by more than 10% for that quarter, in which case the number of units sold apportioned by the percent of EPCs generated using an Accused Schema shall be used instead. The first such report shall include calculations from April 1, 2021 through September 30, 2021. Such report shall be prepared by Ernst & Young, LLP as to the amount and the calculation, and if an apportionment is used, the basis for the 10% or more discrepancy. Any stay or forbearance of the payment obligation as ordered by the Court or agreed to by the parties shall not stay or forebear the reporting requirement set forth above.

Dated: October 14, 2021

s/ Mustafa T. Kasubhai  
MUSTAFA T. KASUBHAI (He / Him)  
United States Magistrate Judge

67a

**APPENDIX D**

UNITED STATES DISTRICT COURT  
DISTRICT OF OREGON  
EUGENE DIVISION

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Case No.: 6:17-cv-01685-MK

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ADASA INC.,

*Plaintiff,*

v.

AVERY DENNISON CORPORATION,

*Defendant.*

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OPINION AND ORDER<sup>1</sup>

RE: PLAINTIFF'S MOTION FOR SUMMARY  
JUDGMENT; DEFENDANT'S MOTION FOR  
SUMMARY JUDGMENT OF  
NON-INFRINGEMENT AND ALTERNATIVE  
MOTION FOR JUDGMENT OF INVALIDITY  
UNDER 35 U.S.C. § 103 AND 35 U.S.C. § 101

KASUBHAI, Magistrate Judge:

Plaintiff brought this action alleging that Defendant infringed its patent in violation of 35

U.S.C. §§ 271(a), (b), (c), and (f). Second Am. Compl., ECF No. 112. Before the Court are: (1) Plaintiff's Motion for Summary Judgment (ECF No. 168) (2) Defendant's Motion for Summary Judgment of Non-Infringement and Alternative Motion for Judgment of

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<sup>1</sup> The parties consent to jurisdiction by a U.S. Magistrate Judge. ECF No. 29.

Invalidity Under 35 U.S.C. §§ 101 and 103 (ECF No. 169), and (3) Defendant's Motion for Leave to File Sur-Reply (ECF No. 186).

The Court heard oral argument on July 8, 2020. ECF No. 194. In order to allow the parties to prepare for the jury trial scheduled in September 2020, the Court issued a letter on July 15, 2020 with its summary rulings of the summary judgment motions and the evidentiary issues raised by the parties in the motions. The jury trial was subsequently postponed due to COVID-19. The Court now issues this Opinion and Order to formally address the pending motions. The Court rules as follows:

Both parties' evidentiary objections are **OVERRULED**.

Defendant's Motion to File Sur-Reply is **GRANTED** (ECF No. 186) is **GRANTED**. Defendant's Alternative Motion for Summary Judgment of Invalidity Under 35 U.S.C. §§ 101 and 103 (ECF No. 169) is **DENIED**.

Plaintiff's Motion for Summary Judgment (ECF No. 168) is **GRANTED** except as to infringement of element F by the Commissioning Authority Schemas, which is **DENIED**.

Defendant's Motion for Summary Judgment of Non-Infringement (ECF No. 169) is **DENIED**.

## BACKGROUND

### I. General Background

Plaintiff, an Oregon corporation, is the owner of the United States Patent No. 9,798,967 (the "'967 Patent"). Am. Compl. Ex. A, the '967 Patent, ECF No. 71-1. The inventor of the '967 Patent is Clarke McAllister ("McAllister"). *Id.* The '967 Patent relates in part to systems for encoded and commissioned wireless radio frequency identification ("RFID") devices. Second Am.

Compl. ¶ 8, ECF No. 112; Answer, ¶¶ 8, 11, ECF No. 114. In the RFID industry, and particularly for merchandise tracking applications, the memory bank of an RFID tag is encoded with an Electronic Product Code (“EPC”), which is an identifier for an item in the supply chain to uniquely identify that particular item. Second Am. Compl. ¶ 11, ECF No. 112; Answer ¶ 11, ECF No. 114. The EPC can be serialized in a format following an EPC tag data standard. Second Am. Compl. ¶ 11, ECF No. 112; Answer ¶ 11, ECF No. 114. One standard is known as Serialized Global Trade Item Number (“SGTIN”). Second Am. Compl. ¶ 11, ECF No. 112; Answer ¶ 11, ECF No. 114.

Where the SGTIN format is used for item identification, the EPC contains “object class” information and a “serial number.” Second Am. Compl. ¶ 12, ECF No. 112; Answer ¶ 12, ECF No. 114. The “object class” information includes, among other things, a “company prefix,” which identifies the brand owner and an “item reference number.” Second Am. Compl. ¶ 12, ECF No. 112; Answer ¶ 12, ECF No. 114. The “item reference number” identifies the class of item offered by a brand owner. Second Am. Compl. ¶ 12, ECF No. 112; Answer ¶ 12, ECF No. 114. The “object class” section of SGTIN format uniquely identifies different classes of products sold by a particular brand owner. Second Am. Compl. ¶ 12, ECF No. 112; Answer ¶ 12, ECF No. 114. The companies or brand owners are responsible for assigning a unique serial number for each item of an object class. Second Am. Compl. ¶ 12, ECF No. 112; Answer ¶ 12, ECF No. 114. The combination of an object class and a unique serial number provides a unique object number contained in the EPC. Second Am. Compl. ¶ 13, ECF No. 112; Answer ¶ 13, ECF No. 114.

The '967 Patent teaches RFID transponder or inlay with RFID integrated circuit chip ("IC chip") having encoded memory structure that ensures uniqueness with the serial number portion of the code. Am. Compl. Ex. A, the '967 Patent, ECF No. 71-1. Specifically, the '967 Patent teaches an RFID IC chip memory structure by delineating a section using the leading bits of the serial number section of the EPC binary encoding – referred to as the "most significant bits" ("MSB") in the '967 Patent. Am. Compl. Ex. A, the '967 Patent, ECF No. 71-1.

## II. Previously Resolved Issues That Are Relevant

### A. Priority

The '967 Patent claims priority through a chain of patent applications, including the U.S. Patent Application No. 12/124,768, filed on May 21, 2008 ("2008 Application"). *Id.* at 1:6-21. On Defendant's challenge of the priority date, this Court has held that "the '967 Patent is entitled to the priority date of the 2008 Application." Op. and Order 16, ECF No. 167.

### B. Ad Hoc Mode

In August and September of 2008, Plaintiff and the inventor McAllister worked to incorporate embodiments of McAllister's invention into an RFID encoding system as a project with Walmart, referred to as the "Ad Hoc Mode". Legaard Decl., Ex. E., McAllister Dep. 95:17-24, ECF No. 123-5; *see* Ex. G, Pl.'s Resp. to Def.'s Second Set of Interrogs. 3, ECF No. 123-7. Plaintiff introduced the Ad Hoc feature commercially in February 2009 and sold the encoders and software implementing the Ad Hoc Mode to Walmart on April 20, 2009. *Id.* at Ex. G, 3-4. Based on the finding that the 2008 Application discloses the claimed invention in the '967 Patent, this Court held that "the later-

occurred Ad Hoc Mode sale cannot create an on-sale bar to the '967 Patent." Op. and Order 16, ECF No. 167.

### III. Plaintiff's Claims

Plaintiff alleges that Defendant, a third-party encoder, "makes, encodes, sells, and offers to sell RFID tags and labels for customers that are RFID transponders that comprise a substrate, an antenna, and an RFID IC chip coupled to the antenna." Second Am. Compl. ¶ 22, ECF No. 112; *see also*, Pl.'s Mot. Summ. J., Ex. C, ¶ 22, ECF No. 168-5; Ex. D, ¶ 22, ECF No. 168-6; Ex. H, ¶ 19, ECF No. 168-11.

Plaintiff alleges direct infringement of claims 1-6, 12-15 of the '967 Patent by using the format of the '967 Patent in violation of 35 U.S.C. § 271(a). *Id.* ¶¶ 26-35, ECF No. 112. Plaintiff also alleges indirect infringement of the '967 Patent in violation of 35 U.S.C. §§ 271(b), (c) and (f). *Id.* ¶¶ 36-41.

### IV. Motions at Issue

Plaintiff's summary judgment motion has two parts. In the first part, Plaintiff moves for partial summary judgment on its claims of 35 U.S.C. §§ 271(a), (b) and (f). Pl.'s Mot. Summ. J., 10-24, ECF No. 168. Plaintiff also moves for summary judgment on Defendant's affirmative defenses of invalidity and inequitable conduct.<sup>2</sup> *Id.* at 25-33. After Plaintiff filed a Reply to

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<sup>2</sup> Defendant raised eleven affirmative defenses in its Answer. Answer 9-12, ECF No. 11. After this Court's previous ruling granting Plaintiff's Motion for Judgment on the Pleadings against Defendant's affirmative defenses three to ten, the three remaining affirmative defenses are: non-infringement, invalidity and inequitable conduct. Op. and Order 4-10, ECF No. 166. The first part of Plaintiff's motion at issue concerns the affirmative defense of non-infringement related to 35 U.S.C. §§ 271(a), (b), (f).

its summary judgment motion, Defendant filed a Motion for Leave to File Sur-Reply. Def.'s Mot. File Sur-Reply, ECF No. 186.

Defendant moves for summary judgment of non-infringement. Def.'s Mot. Summ. J. 8-11, ECF No. 169. Alternatively, Defendant moves for summary judgment of invalidity. *Id.* at 12-21.

#### LEGAL STANDARD

Summary judgment is appropriate when “there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a). “The movant has the burden of showing that there is no genuine issue of fact, but the plaintiff is not thereby relieved of his own burden of producing in turn evidence that would support a jury verdict.” *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 256 (1986). In determining a motion for summary judgment, “the judge must view the evidence in the light most favorable to the nonmoving party.” *McLaughlin v. Liu*, 849 F.2d 1205, 1208 (9th Cir. 1988).

#### DISCUSSION

##### I. Evidentiary Issues

The Court starts with the three evidentiary issues raised in the parties' filings related to Plaintiff's Motion for Summary Judgment. First, Plaintiff objects to Mr. Blanchard's unsworn report and Mr. Sweeney's unsworn chart in support of Defendant's Response. Pl.'s Reply 7-8, ECF No. 179. For purposes of summary judgment, the Court overrules Plaintiff's objection.

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Pl.'s Mot. Summ. J. 8-24, ECF No. 168. The second part concerns the affirmative defenses of invalidity and inequitable conduct. *Id.* at 26-33.



The second and third evidentiary issues are raised by Defendant. Defendant objects to Dr. Engels' declaration in support of Plaintiff's Reply because the declaration is new. Def.'s Sur-Reply, ECF Nos. 186, 186-1. Additionally, Defendant files a Motion for Leave to File Sur-Reply as response to Plaintiff's submission of Dr. Engels' "new" declaration. Def.'s Mot. File Sur-Reply 2, ECF No. 186. Defendant also files a Sur-Reply. Def.'s Sur-Reply, ECF No. 187.

"[W]here new evidence is presented in a reply to a motion for summary judgment, the district court should not consider the new evidence without giving the non-movant an opportunity to respond." *Provenz v. Miller*, 102 F.3d 1478, 1483 (9th Cir. 1996); *see also, e.g., Or. Nautral Desert Ass'n v. Cain*, 17 F. Supp. 3d 1037, 1048 (D. Or. 2014) (granting motion for leave to file sur-reply, as "[w]hen a party has... presented new evidence in a reply to an opposition, the court may permit the other party to counter the new arguments or evidence") (citation omitted).

Having reviewed the record, the Court finds that Dr. Engels' declaration is not new evidence. The Court overrules Defendant's objection to Dr. Engels' declaration. Nevertheless, for purposes of summary judgment, the Court grants Defendant's Motion for Leave to File Sur-Reply (ECF No. 186) and will consider Plaintiff's Sur-Reply (ECF Nos. 186-1, 187).

## II. Defendant's Alternative Motion for Summary Judgment of Invalidity (ECF No. 169)

In its Motion for Summary Judgment of Non-Infringement, Defendant makes the alternative Motion for Summary Judgment of Invalidity under both 35 U.S.C. § 103 (non-obviousness) and 35 U.S.C. § 101 (subject matter) patentability. Def.'s Mot. Summ. J.

12-21, ECF No. 169. Because invalidity is a complete defense to patent infringement, the Court first addresses the patent validity issue. *See Radio Sys. Corp. v. Lalor*, 709 F.3d 1124, 1132 (Fed. Cir. 2013) (“invalidity operates as a complete defense to infringement”).

A patent is presumed valid. *See, e.g.*, 35 U.S.C. § 282 (“A patent shall be presumed valid”); *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1303 (Fed. Cir. 2008). The party challenging the validity of a patent bears the burden of proving by clear and convincing evidence that the patent is invalid. *University of Rochester v. G.D. Searle & Co.*, 358 F.3d 916, 920 (Fed.Cir.2004) (“[A] party ‘seeking to invalidate a patent at summary judgment must submit . . . clear and convincing evidence of invalidity’ “); *Geneva Pharmaceuticals, Inc. v. GlaxoSmithKline PLC*, 349 F.3d 1373, 1377 (Fed.Cir.2003) (“This court gives due weight to a patent’s presumed validity under 35 U.S.C. § 282 (2000), and an accused infringer must show by clear and convincing evidence that a patent is invalid”); *Brown & Williamson Tobacco Corp. v. Philip Morris, Inc.*, 229 F.3d 1120, 1124 (Fed.Cir.2000) (“[T]he party asserting invalidity of a patent must prove the disputed facts by clear and convincing evidence”); *Mas-Hamilton Group v. LaGard, Inc.*, 156 F.3d 1206, 1216 (Fed.Cir.1998) (“Under 35 U.S.C. § 282, a patent is presumed valid and one challenging its validity bears the burden of proving invalidity by clear and convincing evidence”). “[A] patentee has the burden of going forward with rebuttal evidence once a challenger has presented a prima facie case of invalidity.” *Mas-Hamilton Group*, 156 F.3d at 1216. If rebuttal is offered, “the presumption of validity remains intact and the ultimate burden of proving invalidity remains with the challenger throughout the litigation.” *Id.*

## A. Obviousness Under 35 U.S.C. § 103

Defendant asserts that the tags printed with Paxar Corp.'s Secure Batch ID ("Paxar Art") are prior art to the '967 Patent and render the '967 Patent invalid because of obviousness under 35 U.S.C. § 103. Def.'s Mot. Summ. J. 12-14, ECF No. 169.

Section 103(a) forbids issuance of a patent when "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." The United States Supreme Court set out a framework for applying the statutory language of section 103. *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 15-18, 86 S.Ct. 684, 15 L.Ed.2d 545 (1966). The legal determination of obviousness is based on factual inquires:

Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or non-obviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.

*Id.* at 17-18.

For a patented invention to be invalid as obvious, the accused infringer must identify prior art references that alone or in combination with other

references would have rendered the claimed invention obvious to one of ordinary skill in the art at the time of the invention. *See e.g. Hitkansut LLC v. United States*, 130 Fed. Cl. 353, 369 (2017). “When an obviousness determination relies on the combination of two or more references, there must be some suggestion or motivation to combine the references.” *RMS Gaming, Inc. v. Int’l Game Tech.*, 184 F.3d 1339, 1355 (Fed. Cir. 1999). While it is a question of law to determine whether the claimed combination would have been obvious to one with ordinary skills in the art, it is an issue of fact to determine whether such an artisan would have been motivated to combine. *Arctic Cat Inc. v. Bombardier Recreational Prod. Inc.*, 876 F.3d 1350 (Fed. Cir. 2017). It is possible that a reason or motivation may exist, but nonetheless the ordinary artisan would not have found the combination obvious. *Id.*

The Supreme Court warned against hindsight bias in finding obviousness:

A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning. *See Graham*, 383 U.S., at 36, 86 S.Ct. 684 (warning against a “temptation to read into the prior art the teachings of the invention in issue” and instructing courts to “guard against slipping into use of hindsight” (quoting *Monroe Auto Equip. Co. v. Heckethorn Mfg. & Supply Co.*, 332 F.2d 406, 412 (C.A.6 1964))).

*KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 421, 127 S. Ct. 1727, 1742, 167 L. Ed. 2d 705 (2007); *see also, Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.*, 711 F.3d 1348, 1368 (Fed. Cir. 2013) (the Federal Circuit has observed that “the prejudice of

hindsight bias” often overlooks that the “genius of invention is often a combination of known elements which in hindsight seems preordained.”); *Innogenetics, N.V. v. Abbott Labs.*, 512 F.3d 1363, 1373-74 (Fed.Cir. 2008) (cautioning against “the pitfalls of hindsight that belie a determination of obviousness.”); *Ecolochem, Inc. v. S. Cal. Edison Co.*, 227 F.3d 1361, 1371-72 (Fed. Cir. 2000) (“ . . .the best defense against hindsight-based obviousness analysis is the rigorous application of the requirement for a showing of a teaching or motivation to combine the prior art references. Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor’s disclosure as a blueprint for piecing together the prior art to defeat patentability – the essence of hindsight.”).

The parties’ dispute is over motivation to combine. Def.’s Mot. Summ. J. 14, ECF No. 169; Pl.’s Resp. 18-25, ECF No. 172. Defendant contends that motivation to combine is readily apparent. Def.’s Mot. Summ. J. 14, ECF No. 169. In particular, Defendant argues: “[m]arket forces in the form of customer requests provide a motivation to sell RFID transponders encoded with EPCs that complied with the SGTIN-96 data standard.” *Id.* (citing Kuhno Dep. 64:1-5 (stating that customers ask for “RFID tags that conform to the global standards.”), ECF No. 170-3). Defendant also argues that “[t]he motivation to use the Secure Batch ID system to create serial numbers for those transponders is found in the background knowledge and common sense of those of ordinary skill in the art.” *Id.* at 15 (citing Blanchard Report, ECF No. 170-7). Defendant adds that its offer for sale of RFID transponders encoded with serial numbers generated using Secure Batch ID is evidence that people skilled in the art were interested in using Secure Batch ID to

serialize RFID transponders and had a reasonable expectation of success. *Id.*

Contrary to Defendant's assertion of motivation to combine, Mr. Kuhno testified that Defendant's customers do not specify or care how serialization is used in the RFID tags. Kuhno Dep. 64:10-11, 166:15-20, ECF No. 173-12. Dr. Engels testified that the SGTIN-96 standard does not address serialization schemas. Engels' Decl. ¶ 59, ECF No. 174. More importantly, according to Dr. Engels' testimony, it is technically impractical and impossible to combine the prior art references as Defendant suggests. *Id.* ¶ 61. Dr. Engels explains:

Notably, Avery's PCID serialization system contemplated use of a 17-digit decimal data string, . . . . As shown in the LeSportSac encoding bit map, . . . Avery opted to encode this data as 17 separate characters which were individually converted to binary with each character taking up 4-bits of memory space within the LeSportSac RFID tag memory. This encoded data therefore occupied 68-bits of memory space. The remaining 28-bits of memory in these tags was filled with zeroes to pad the encoded PCID encoded data and fill out the entire 96-bits of memory within the LeSportSac RFID tag memory. Because the serial number portion of this encoding occupies 68-bits of space while leaving only 28-bits for all other data, it is unworkable with the SGTIN-96 format. The SGTIN-96 format allots only the final 38-bits of memory space within the 96-bits of an RFID tag for encoding a serial number and reserves the leading 58-bits of memory for encoding a partition, filter, company prefix, and/or an item reference

value. As such, significant modification to the PCID format would be absolutely required to render it usable at all within any SGTIN-96 format.

*Id.*

Acknowledging that Defendant could have alternatively opted to treat the values comprising its 17-digit PCID as a single, 17-digit value rather than as 17-distinct values for encoding, Dr. Engels discussed why it would still not render the PCID serialization system usable within any SGTIN-96 format. *Id.* ¶ 62.

First, this large decimal value would take up at least 54-bits of memory space when converted to binary – far more than the 38-bits permitted under the SGTIN96 formats.

And second, concatenation of separate strings of data to create one combined decimal value in this manner completely destroys any possibility that the 5-digit PCID portion can function as MSBs uniquely corresponding to an allocated block of serial numbers. Decimal values within the range of 0 to 99,999,999,999,999 (17 – 9’s) would not all have even one common leading bit when converted to binary for encoding. Indeed, implementing PCID serialization in this manner is simply the prior art methodology of “counting up” without any regard for use of MSBs or maintaining clean bit boundaries.

*Id.* ¶ 63.

Defendant rebuts that shortening a number field must have been obvious to a person having ordinary skill in the art, because Dr. Engels, one skilled in the

art, “is more than capable of shortening number fields.” Def.’s Reply 20, ECF No. 182<sup>3</sup>. However, Defendant’s argument is speculative because it offers no evidence to support its argument. *See id.*

The Federal Circuit has held that a jury cannot reasonably find the motivation to support obviousness based solely on testimony that “is generic and bears no relation to any specific combination of prior art elements,” and “fails to explain why a person of ordinary skill in the art would have combined elements from specific references in the way the claimed invention does.” *ActiveVideo Networks, Inc. v. Verizon Commc’ns, Inc.*, 694 F.3d 1312, 1328 (Fed. Cir. 2012) (affirming pre-verdict judgment as a matter of law). The court must distinguish between “knowledge of a problem and motivation to solve it” and the requisite “motivation to combine particular references to reach the particular claimed method.” *Innogenetics, N.V. v. Abbott Labs.*, 512 F.3d 1363, 1373 (Fed. Cir. 2008). Combinations on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated teaching, suggestion, or motivation with some rational underpinning to support the legal conclusion of obviousness. *TQ Delta*,

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<sup>3</sup> Defendant also argues that it must have been obvious because the 2008 Application, to which the ’967 Patent claims priority, “contains no discussion of how to fit a limited number of most significant bits and an incrementing serial number within a 38-bit serial number space.” Def.’s Reply 20, ECF No. 182. Defendant has previously challenged the 2008 Application priority. Def.’s Mot. Summ. J., ECF No. 122. The Court discussed this issue in length and found that Defendant failed to meet its burden to show by clear and convincing evidence that the ’967 Patent is not entitled to the priority date of 2008 Application. Op. and Order 6-16, ECF No. 167. The Court will not address the priority argument here.



*LLC v. Cisco Sys.*, 942 F.3d 1352, 1359 (Fed. Cir. 2019); *Microsoft Corp. v. Enfish, LLC*, 662 F. App'x 981, 989 (Fed. Cir. 2016).

Defendant's arguments are devoid of any reason for a skilled artisan to be motivated to combine. Specifically, Defendant fails to explain why the Paxar Art and other prior art references would have prompted one with ordinary skill in the art to combine the elements in the fashion claimed by the '967 Patent and how it is possible to combine. Defendant's arguments are mere conclusory statements. *See McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351-52 (Fed. Cir. 2001) ("the factual inquiry whether to combine references must be thorough and searching."); *see also, In re Lee*, 277 F.3d 1338, 1343 (Fed. Cir. 2002) (stressing that the "need for specificity pervades [obviousness] authority").

In light of the dispute over the factual inquiry of motivation to combine, summary judgment of obviousness based on the Paxar Art is improper. The Court need not reach other arguments raised by the parties concerning the ultimate legal determination of obviousness. Defendant's Alternative Motion for Summary Judgment of Invalidity based on 35 U.S.C. § 103 is DENIED.

#### B. Subject Matter Under 35 U.S.C § 101

Defendant challenges the patentability of the '967 Patent because its claims were directed to the abstract idea of partitioning a number space in the content of an RFID transponder. Def.'s Mot. Summ. J. 19, ECF No. 169.

Section 101 of the patent law defines patentable subject matter as "any new and useful process, machine, manufacture, or composition of matter, or

any new and useful improvement thereof.” 35 U.S.C. § 101. The Supreme Court has “long held that this provision contains an important exception: laws of nature, natural phenomena, and abstract idea are not patentable.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014) (citation omitted). Acknowledging that “all inventions . . . embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas[,]” the Supreme Court noted that “an invention is not rendered ineligible for patent simply because it involves an abstract concept.” *Id.* at 217. The Supreme Court “tread[ed] carefully in construing this exclusionary principle lest it swallow all of patent law.” *Id.*

To distinguish abstract ideas from patent-eligible concepts, the Supreme Court set forth a two-step test. *Id.* at 217-18. The first step is to determine whether the claims at issue are directed to an abstract idea. *Id.* at 217. If the claims are directed to an abstract idea, the inquiry moves to step two to decide whether there are any additional elements to “transform the nature of the claim” into a patent-eligible application. *Id.* That is, whether there is an inventive concept – an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the abstract idea itself. *Id.* at 217-18.

Defendant contends that the ’967 Patent claims fail the first step of the *Alice* test, reasoning:

If the claim language *itself* does not require a limited number of most significant bits to be assigned to an allocated block of serial numbers in binary, then the claimed invention is not directed to a hardware-based approach

accomplished by managing assignment of serial numbers at the binary bit level.

Def.'s Mot. Summ. J. 19-20, ECF No. 169 (emphasis added). Defendant explains: "in order for these aspects of the invention to establish that the claims are directed toward a technological improvement and not an abstract idea, they must be reflected in the claim language *itself*." Def.'s Mot. Summ. J. 20, ECF No. 169 (citing *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1337 (Fed. Cir. 2016)) (emphasis added).

First, Defendant's interpretation of the law is misguided. It is established in patent law that claims must be read in light of the specification. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370, 116 S. Ct. 1384, 134 L. Ed. 2d 577 (1996) ("To ascertain the meaning of claims, we consider three sources: The claims, the specification, and the prosecution history."). In *Enfish*, while the court found that the claims themselves "are specifically directed to a *self-referential* table for a computer database[.]" the court also examined the specification in addition to examining the claim language. *Enfish*, 822 F.3d at 1337. Based on its review of both the claim language and the specification, the *Enfish* court found that the claims were valid under 35 U.S.C. § 101. *Id.* Therefore, Defendant's position to *only* look at the claim language *itself* to decide whether the claims are directed to an abstract idea does not comport with the law. Thus, Defendant's challenge that is solely based on the claim language *itself* is unavailing.

Second, Dr. Engels testified that the claims encompass binary encoding:

While the particular sequence of most significant bits representing the PCTag ID may be

alternatively expressed in accordance with any number system (binary, decimal, hexadecimal), it is designed as and encoded as a binary sequence set apart from the other data fields within the encoded memory of the infringing RFID tags with the intentional maintenance of clean, consistent bit boundaries in the assigned values.

Engels Decl. ¶ 9, ECF No. 174. Defendant's argument without evidence showing the contrary is unavailing.

Defendant further argues, without citing any evidence, that "if the claims encompass commissioning authority," "then [they] are not directed to a means of enabling quasi-autonomous commissioning, as commissioning authority does not enable quasi-autonomous commissioning." Def.'s Mot. Summ. J. 20, ECF No. 169. However, the specification of the '967 Patent expressly teaches that the claims may effect quasi-autonomous encoding operations:

Quasi-autonomous RFID transponder encoding authority is achieved when an external number issuance authority allocates to the encoder blocks of numbers for specific object class. A preferred embodiment for quasi-autonomous transponder encoding authority is realized when large pre-authorized blocks of serial numbers are made available to encoder 175 or 30 to utilize on object classes as objects of a class are presented for tagging. A preferred method of providing pre-authorized blocks of object class serial number space into sectors that are defined by a limited number of MSB's (Most Significant Bits) of the serial number field.

Wojcio Decl., Ex. B, the '967 Patent, 8:4-15, ECF No. 173-2; *see also*, Wojcio Decl., Ex. B, 8:21-32, 33:20-23, ECF No. 173-2.

Additionally, in contrast to Defendant's unsupported assertion that the claims "broadly encompass virtually any use of segmented serial numbers in RFID transponders[,]” Dr. Engels testified that claims 1 and 13 of the '967 Patent are directed to an encoded RFID transponder implemented with a memory structure accommodating a specific hardware-based number scheme. Def.'s Mot. Summ. J. 20, ECF No. 169; Engels' Decl. ¶ 90, ECF No. 174. The Court therefore finds that Defendant has failed to carry its burden to show by clear and convincing evidence that the '967 Patent claims are directed to an abstract idea.

For these reasons, Defendant's Alternative Motion for Summary Judgment of Invalidity under 35 U.S.C. § 101 is also DENIED.

### III. Plaintiff's Motion for Partial Summary Judgment (ECF No. 168)

#### A. Summary Judgment Against Defendant's Remaining Affirmative Defenses

The Court begins with the second part of Plaintiff's motion concerning patent validity before discussing the first part regarding infringement. *See Radio Sys. Corp. v. Lator*, 709 F.3d 1124, 1132 (Fed. Cir. 2013) (“invalidity operates as a complete defense to infringement”). The second part of Plaintiff's motion is against Defendant's affirmative defenses of invalidity and inequitable conduct. Pl.'s Mot. Summ. J. , ECF No. 168.

##### a. Inequitable Conduct Affirmative Defense

Defendant concedes that its inequitable conduct affirmative defense is not viable under the Court's

prior ruling of priority. Def.'s Resp. 24, ECF No. 175. The Court grants Plaintiff's Motion for Summary Judgment as to Defendant's affirmative defense of inequitable conduct.

b. Invalidity Affirmative Defense

On Plaintiff's motion for summary judgment against Defendant's invalidity affirmative defense, Defendant concedes that the references post-dating the 2008 Application are not statutory prior art based on this Court's prior ruling that the '967 Patent is entitled to the priority date of the 2008 Application. Def.'s Resp. 23, ECF No. 175; Op. and Order 6-16, ECF No. 167. The Court grants Plaintiff's motion against the invalidity affirmative defense based on prior art references post-dating the 2008 Application.

However, Defendant maintains its invalidity affirmative defense based on U.S. Patent No. 8,857,221 ("the '221 Patent" or "Kuhno Patent") and the *RFID for Dummies* book. *Id.* at 3-16. Defendant asserts that both references anticipate the '967 Patent and *RFID for Dummies* also renders the '967 Patent obvious. *Id.*

Anticipation is a question of fact. *Kennametal, Inc. v. Ingersoll Cutting Tool Co.*, 780 F.3d 1376, 1381 (Fed. Cir. 2015). Anticipation under 35 U.S.C. § 102(b) requires a showing that each limitation of a claim is found in a single reference. *Bristol-Myers Squibb Co. v. Ben Venue Labs., Inc.*, 246 F.3d 1368, 1380 (Fed. Cir. 2001). To anticipate a patent, the reference must enable one of ordinary skill in the art to make the invention without undue experimentation. *In re Gleave*, 560 F.3d 1331, 1334 (Fed. Cir. 2009).

Obviousness under 35 U.S.C. § 103 is an issue of law based on the underlying findings of facts including the scope and content of the prior art, the differences

between the prior art and the claims, the level of ordinary skill in the art and secondary considerations. *Kennametal, Inc. v. Ingersoll Cutting Tool Co.*, 780 F.3d 1376, 1381 (Fed. Cir. 2015); *supra*, Discussion II.A. Before the court makes the ultimate legal determination of obviousness, every claim limitation of the invention must be found in the prior art references. *See Velandar v. Garner*, 348 F.3d 1359, 1363 (Fed.Cir.2003).

Thus, both anticipation and obviousness depend on the factual inquiry of whether a prior art reference discloses every claim limitation. Plaintiff argues that neither the '221 Patent nor *RFID for Dummies* teaches certain elements of the '967 Patent. Pl.'s Mot. Summ. J. 27, 29, ECF No. 168. Defendant asserts the opposite, citing the conflicting testimony of Mr. Sweeney as grounds to deny summary judgment. *Id.* at 3, 11 (citing Sweeney Report ¶¶ 88-92, ECF No. 168-17).

The following discussion uses claim 1, a representative independent claim of the disputed claim elements:<sup>4</sup>

Claim Element	Claim 1
Preamble:	1. An RFID transponder comprising:
Element A:	a substrate;
Element B:	an antenna structure formed on the substrate; and
Element C:	an RFID integrated circuit chip which is electrically coupled to the antenna structure,

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<sup>4</sup> Independent claim 13 also includes these elements, as well as their respective dependent claims. *See* Am. Compl., Ex. A, the '967 Patent Reexam. Cert., 2:1-18, ECF No. 71-1.

Element D:	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,
Element E:	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,
Element F:	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.

Am. Compl., Ex. A, the '967 Patent Reexam. Cert., 1:21-39, ECF No. 71-1.

*i. The '221 Patent (Kuhno Patent)*

Plaintiff takes the position that it is undisputed that the '221 Patent fails to disclose at least Elements D-F of independent claims 1 and 13 and therefore cannot anticipate either claims 1 or 13. Pl.'s Mot. Summ. J. 28, ECF No. 168 (citing Engels' Decl. ¶¶ 161-68, ECF No. 168-11). Plaintiff argues that: (1) the '221 Patent does not teach or suggest encoding an RFID tag with object class information and with a serial number instance comprising a limited number of MSBs along



with remaining bits of lesser significance, and (2) a person of ordinary skill would not understand that the '221 teaches or suggests the specific data structures claimed by the '967 Patent. *Id.* at 28-29 (citing Engels' Decl. ¶¶ 161-68, ECF No. 168-11).

More specifically, Kuhno does not teach or suggest “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” as required by all of the challenged claims of the '967 Patent. Instead, Kuhno is directed to systems for gathering and storing information corresponding to shipping pallets, cartons, and the like. Exh. M at 6:5-11 [ECF No. 168-19]. The systems disclosed scan a printed label on a carton which may contain UPC, SKU, or other indicia, then create or add the information to a database of records corresponding to an identifier number assigned to the pallet or carton. Exh. M at 6:27-7:3 [ECF No. 168-19]. RFID tags are then encoded with information such as a serial number for a carton or pallet and affixed thereto. The RFID tags may be [sic] include additional data, but Kuhno does not disclose any particular format or data structure for such an encoding that may include data beyond a serial number. Exh. M at 5:22-29; 6:27-7:3 [ECF No. 168-19]. In fact, Kuhno states that “[t]he format and configuration of the RFID Printer Data depends on the requirements of the RFID printer and the protocols related to the barcode and RFID tag and are therefore not discussed herein.” Exh.

M at 6:66-7:3 [ECF No. 168-19] (emphasis added).

Engels' Decl. ¶ 162, ECF No. 168-11 (emphasis supplied).

Defendant disagrees and concludes that “Dr. Engels’ testimony accords with Mr. Sweeney’s analysis” based on Dr. Engels’ testimony. Def.’s Resp. 8-9, ECF No. 175 (citing Legaard Decl., Ex. B, 23:17-21, 52:9-13, 76:1-11, ECF No. 176-2; Engels’ Decl. ¶ 165, ECF No. 168-11). However, Defendant offers no evidence that creates a dispute of the fact that “[the ‘221 Patent] does not disclose any particular format or data structure for such an encoding that may include data beyond a serial number.” Engels’ Decl. ¶ 162, ECF No. 168-11. Mr. Sweeney’s opinion does not identify which part of the ‘221 Patent teaches the concept of most significant bits. *See* Sweeney Report ¶¶ 88-92, ECF No. 168-17; *see also*, Sweeney Report ¶¶ 88-92, ECF No. 189-1. Nor does Mr. Sweeney explain how one skilled in the art would apply the disclosure of the ‘221 Patent to meet all of the claim requirements of the ‘967 Patent. *See id.*

Defendant’s argument and Mr. Sweeney’s opinion are not sufficient to establish a genuine issue of material fact. *See Dynacore Holdings Corp. v. U.S. Phillips Corp.*, 363 F.3d 1263, 1278 (Fed. Cir. 2004) (district court did not err in ruling conclusory testimony did not create a material factual dispute for trial) (collecting authority); *Telemac Cellular Corp. v. Topp Telecom, Inc.*, 247 F.3d 1316, 1329 (Fed. Cir. 2001) (“Broad conclusory statements offered by [] experts are not evidence and are not sufficient to establish a genuine issue of material fact.”). The Court grants Plaintiff’s Motion for Summary Judgment

against Defendant's invalidity affirmative defense based on the 221 Patent.

*ii. RFID for Dummies*

Plaintiff contends that *RFID for Dummies* does not disclose, teach or suggest the use of the data structure utilizing most significant bits defining allocated blocks of serial numbers. Pl.'s Mot. Summ. J. 30 (citing Engels' Decl. ¶¶ 153-54, ECF No. 168-11). Dr. Engels explains:

154. *RFID for Dummies* discloses an approach to allocating serial numbers in which a range of decimal serial numbers for each product is allocated to each manufacturing facility. Within a facility, a range of decimal numbers from those allocated to the facility is allocated to each production line producing a particular product. However, this is merely selecting a range of decimal numbers in a database and assigning those decimal numbers to a facility or a production line within a facility. This was a conventional methodology employed at the time for sequential allocation of batches of serial numbers from a central allocation authority. *RFID for Dummies* makes no mention of using most significant bits to allocate a block of serial numbers.

155. Selecting and assigning a range of a series of decimal numbers is not the same and in no way discloses or suggests assigning an allocated block based on a limited number of most significant bits. In *RFID for Dummies*, the decimal serial number would be converted from decimal to binary for encoding on an RFID tag. The only consideration of the

binary numbers is the conversion from the decimal representation. There is no disclosure of defining or allocating block based on a limited number of most significant bits.

Engels' Decl. ¶¶ 154-55, ECF No. 168-11.

As it argues for the '221 Patent, Defendant relies on Mr. Sweeney's conclusory testimony that *RFID for Dummies* anticipates the '967 Patent and renders the '967 Patent obvious. Def.'s Resp. 11-12, ECF No. 175 (citing Sweeney Report ¶ 90, ECF No. 168-17); *see also*, Sweeney Report ¶ 90, ECF No. 189-1. For the same reasons as discussed above under the '221 Patent, the Court finds that Defendant's argument and Mr. Sweeney's report are insufficient to establish a dispute of a material fact.

Defendant further contends that Plaintiff's previous witness Mr. Williams<sup>5</sup> "testified to the contrary[.]" Def.'s Resp. 13, ECF No. 175. Mr. Williams testified that *RFID for Dummies* "talk[s] about partitioning the serial number bits into those distinct fields [of facility number, line numbers and sub-sub serial numbers.]" Williams Dep. 97:24-98:3, ECF No. 176-4. Mr. Williams further testified that the facility number would be a series of bits and would be at the beginning of the serial number space; that the numbers assigned to that facility were an allocated block of serial numbers; that every number in that allocated block would begin with the same facility number; and that the serial number bits would uniquely correspond to that facility number. *Id.* at 98:4-10, 98:12-23.

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<sup>5</sup> Plaintiff disputes Defendant's reference of Mr. Williams as Plaintiff's expert witness. Def.'s Resp. 13, ECF No. 175; Pl.'s Reply 11, ECF No. 179. Plaintiff states that Mr. Williams is a fact witness. Pl.'s Reply 11, ECF No. 179.

Defendant suggests that Mr. Williams' testimony supports Mr. Sweeney's opinion regarding the teachings of *RFID for Dummies*.

However, Plaintiff points out that Mr. Williams expressly distinguished the methodology of *RFID for Dummies* from an embodiment of the use of most significant bits, one of the central inventive features of the '967 Patent. Pl.'s Reply 11, ECF No. 179. Mr. Williams testified that *RFID for Dummies* does not state the use of most significant bits. Williams Dep. 93:23-25, ECF No. 180-1. He also testified that *RFID for Dummies* does not mention anything about bits of a serial number, nor could there be a conclusion from reading *RFID for Dummies* that using most significant bits of the serial number could be accomplished. *Id.* at 94:9-16.

Despite Defendant's assertion that Mr. Williams' testimony supports Mr. Sweeney's opinion, Defendant has not provided any evidence to dispute the fact that *RFID for Dummies* does not disclose, teach or suggest the use of most significant bits, as testified both by Mr. Williams and Dr. Engels. *Id.*; Engels Decl. ¶¶ 153-56, ECF No. 168-11. Therefore, the Court grants Plaintiff's Motion for Summary Judgment against Defendant's invalidity affirmative defense based on *RFID for Dummies*.

#### B. Partial Summary Judgment of Infringement

Plaintiff moves for partial summary judgment of infringement under 35 U.S.C. §§ 271(a), (b), and (f). Pl.'s Mot. Summ. J. 10-24, ECF No. 168.

To prove infringement, the patentee must show that the accused device meets each claim limitation either literally or under the doctrine of equivalents. Literal infringement

requires the patentee to prove that the accused device contains each limitation of the asserted claim. Infringement under the doctrine of equivalents requires the patentee to prove that the accused device contains an equivalent for each limitation not literally satisfied.

*Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 812 (Fed. Cir. 2002) (citations omitted). “A determination of infringement, whether literal or under the doctrine of equivalents, is a question of fact.” *Id.* (citation omitted).

Plaintiff asserts that the undisputed evidence shows that Defendant’s RFID tags meet every claim limitation of the ’967 Patent. Pl.’s Mot. Summ. 8, ECF No. 168. For the ease of discussion, the Court reproduces independent claims 1 and 13:

Claim Element	Claim 1
Preamble:	1. An RFID transponder comprising:
Element A:	a substrate;
Element B:	an antenna structure formed on the substrate; and
Element C:	an RFID integrated circuit chip which is electrically coupled to the antenna structure,
Element D:	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,
Element E:	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,
Element F:	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.

Claim Element	Claim 13
Preamble:	1. An RFID transponder comprising:
Element A:	a substrate;
Element B:	an antenna structure formed on the substrate; and
Element C:	an RFID integrated circuit chip which is electrically coupled to the antenna structure,
Element D:	wherein the RFID integrated circuit chip is encoded with a global trade item number including a unique object number, the unique object number comprising an object class information space including a block of at least 50 bits and a unique serial number space including a block of at least 38 bits,
Element E:	wherein the unique serial number space has one serial number instance

	from an allocated block of serial numbers, the allocated block being assigned a limited number of most significant bits, and
Element F:	wherein the unique serial number space comprises at least 3 most significant bits uniquely corresponding to the limited number of most significant bits of the allocated block.

Am. Compl., Ex. A, the '967 Patent Reexam. Cert., 1:21-39, 2:1-18, ECF No. 71-1. Defendant's opposing arguments do not concern the preamble and elements A, B, and C of the two independent claims. Def.'s Resp. 16-19, ECF No. 175. It is therefore undisputed that Defendant's products meet the limitations of the preamble, elements A, B, and C. *See United States v. McEnry*, 659 F.3d 893, 902 (9th Cir. 2011) (where an argument is available but not raised, it is waived); *Hanse v. Long*, 2014 WL 3435871, \*14 (C.D.Cal. Jan. 28, 2014), *adopted* 2014 WL 3436156 (C.D.Cal. July 10, 2014) (failure to address argument in reply is a concession of the argument). Thus, the Court's discussion will only concern elements D, E and F.

Additionally, Defendant does not dispute that the difference between claim 1 and claim 13 has no effect on the infringement analysis of these claims. Def.'s Resp. 16-19, ECF No. 175; *see* Pl.'s Mot. Summ. 10-19, ECF No. 168.

a. Infringement Under 35 U.S.C. § 271(a)

Under 35 U.S.C. § 271(a), "whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the



United States any patented invention during the term of the patent therefor, infringes the patent.”

As an initial matter, one argument Defendant makes in opposition is that the serial numbers of its products are assigned in decimal and therefore cannot infringe the ‘967 Patent claims which require most significant bits and the assignment of serial numbers to be in binary. Def.’s Resp. 16-19, ECF No. 175. This Court previously held that “it is irrelevant whether the numbers in decimal form in the data files were copied into binary form.” Op. and Order 9, ECF No. 165. Similarly, here, because a fully encoded RFID tag can only physically be encoded in binary, Defendant’s argument that its serial numbers are assigned in decimal is irrelevant. *See* Engels Decl. ¶¶ 7-9, ECF No. 180-4; Engels Decl. ¶¶ 100-05, ECF No. 168-11; Def.’s Mot. J. 6, ECF No. 115 (citing Answer ¶ 42, ECF No. 114) (binary form is required to encode the numbers onto RFID tags).

*i. Element D*

In both claim 1 and claim 13, element D requires that “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,” with claim 13 additionally requiring that the encoding comprise a “global trade item number” with at least 50 bits comprising an object class information space and at least 38 bits comprising a unique serial number space. Am. Compl., Ex. A, the ‘967 Patent Reexam. Cert., 1:21-39, 2:1-18, ECF No. 71-1.

Based on Defendant’s internal documents, Dr. Engels identified two categories of schemas Defendant uses to encode the accused RFID tags: “Commissioning

Authority/PCTag Schemas” and “Commissioning Authority Schemas.” Engels’ Decl. ¶¶ 23-32, ECF No. 168-11; Pl.’s Mot. Summ. J., Ex. H2, 1, ECF No. 168-13; Ex. J, 96, ECF No. 168-16. Based on his analysis of the format of Defendant’s accused RFID tags and these schemas used to encode data, Dr. Engels testified that Defendant’s RFID tags encoded pursuant to either of the two schemas literally infringe element D of claims 1 and claims 13. *Id.* ¶¶ 71-88, 140.

Defendant does not dispute Dr. Engel’s analysis. *See* Def.’s Resp. 19-21, ECF No. 175. However, Defendant argues that it “re-uses serial numbers for different retail brand owners.” Def.’s Resp. 20-21, ECF No. 175 (citing Blanchard Report ¶¶ 83-85, ECF No. 170-7). Because of the “re-use,” Defendant argues that Plaintiff cannot establish that any serial number encoded by Defendant is unique. *Id.* at 21. Plaintiff rebuts that Defendant’s argument “divorces the phrase ‘unique serial number space’ from the remainder of element D and element E and warps the plain language of the claim.” Pl.’s Reply 14, ECF No. 179.

At claim construction, this Court construed “unique serial number space” as “data field within the memory of the RFID integrated circuit for information identifying a unique serial number.” Op. and Order 3, ECF No. 68. This claim construction does not require a single worldwide use of any “one serial number instance” as Defendant suggests. Nor does the claim language have this requirement. *See, e.g.*, Am. Compl., Ex. A, the ‘967 Patent, 35:41-42, ECF No. 71-1 (“RFID Transponder 156 receives and stores a globally unique identifier such as an SGTIN-96 ...”).

Consistent with the Court’s construction, Dr. Engels testified: “[Element D] entails that a ‘unique object number’ encoded within the RFID integrated circuit

chip contains and includes two subparts: 1) an ‘object class information space’ and 2) a ‘unique serial number space.’” Engels’ Decl. ¶ 73, ECD No. 168-11. Additionally, “[w]hen this system is applied globally across all of the object classes, each object class will have its own set of serial numbers such that the *combination* of the object class and serial number is *globally unique*.” *Id.* ¶ 115 (emphasis added).

Dr. Engels explains why Defendant’s “re-use” argument fails:

Because each brand owner and each item produced or sold by each brand owner correspond to different object class information (e.g., company prefix, item reference code), the further requirement that a particular serialized data string can only be used once across all brands and products worldwide is nonsensical and unduly and dramatically narrows the available universe of “unique object numbers.” Such a system would also obviate any need to include object class information within the encoded data of an EPC, since the relative few available serial numbers could only be used once globally and are therefore by themselves sufficient for unique object identification. This is not what the ’967 Patent teaches or claims, however, as the claims plainly do not include this additional, negative limitation.

Engels’ Decl. ¶ 17, ECF No. ECF No. 180-4.<sup>6</sup>

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<sup>6</sup> Defendant’s objection to Dr. Engels’ declaration in support of Plaintiff’s Reply does not include ¶ 17. Def.’s Mot. Leave File Sur-Reply, Ex. A, 2, ECF No. 186-1.

Because Defendant's "re-use" argument fails to materially dispute Plaintiff's evidence that Defendant's accused RFID tags meet element D, summary judgment for Plaintiff is proper as to element D.

*ii. Element E*

Element E<sup>7</sup> requires that "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." Am. Compl., Ex. A, the '967 Patent Reexam. Cert., 1:21-39, 2:1-18, ECF No. 71-1.

Based on his analysis of Defendant's schemas encoding the RFID tags, Dr. Engels testified that the accused RFID tags literally infringe element E of claims 1 and 13. Engels' Decl. ¶¶ 100-05, ECF No. 168-11. On Plaintiff's motion for summary judgment as to the infringement of element E, Defendant does not dispute or contradict Plaintiff's proffered expert testimony and documents. *See* Def.'s Resp. 19-21, ECF No. 175. Rather, Defendant asserts that Plaintiff has failed to establish that Defendant's "PC Tag numbers or Commissioning Authority numbers are ever assigned to an *allocated* block of serial numbers." Def.'s Resp. 19, ECF No. 175 (emphasis in original).

Defendant offers no evidence to support its suggestion that the claims require PC Tag numbers or Commissioning Authority numbers be "assigned" to an allocated block of serial numbers.<sup>8</sup> Element E requires

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<sup>7</sup> The minor difference between claim 1 and claim 13 does not impact the infringement analysis. Pl.'s Reply 15, n. 11, ECF No. 179.

<sup>8</sup> Defendant cites the Court's claim construction that "an allocated block of serial numbers" means "a pre-authorized serial numbers." Def.'s Resp. 20, ECF No. 175. However, Defendant

the allocated block be assigned a limited number of most significant bits. Am. Compl., Ex. A, the '967 Patent Reexam. Cert., 1:21-39, 2:1-18, ECF No. 71-1. Dr. Engels testified that the '967 Patent discloses that “a block of serial numbers is *created* ...” and “a serial number instance is *selected* from this block of serial numbers ...” Engels' Decl. ¶ 114, ECF No. 168-11 (emphasis added).

Defendant has offered no evidence to dispute Plaintiff's evidence regarding the infringement of element E. The Court therefore finds summary judgment is proper as to infringement of element E.

*iii. Element F*

Element F of claim 1 requires that “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.” Am. Compl., Ex. A, the '967 Patent Reexam. Cert., 1:21-39, ECF No. 71-1. Element F of claim 13 adds the additional limitation that the most significant bits comprise at least three bits<sup>9</sup>. *Id.* at 2:1-18.

Plaintiff's summary judgment as to infringement of element F is supported by Dr. Engels' testimony and analysis that element F is present in Defendant's

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does not explain how this claim construction supports its assertion of the claim limitation that PC Tag numbers and Commissioning Authority numbers are assigned to an allocated block of serial numbers. *Id.* at 20. The Court finds no relevancy between Defendant's argument and this claim construction.

<sup>9</sup> Plaintiff notes that it does not allege infringement by RFID tags encoded pursuant to Commissioning Authority only schema comprising only two bits. Pl.'s Reply 17, n. 12, ECF No. 179.

products. Engels' Decl. ¶¶ 109-22, ECF No. 168-11. Defendant opposes and argues that commissioning authority does not "uniquely correspond" to any one allocated block because "commissioning authority numbers ... are not assigned to an allocated block, but rather are assigned to many allocated blocks." Def.'s Resp. 20, ECF No. 175 (citing Sweeney Report ¶¶ 114-18, ECF No. 168-17; Blanchard Report ¶¶ 70-78, ECF No. 170-7; Blanchard Decl. ¶¶ 10-12, ECF No. 171). Defendant contends that Dr. Engels provides no explanation for how any accused transponder satisfies the "uniquely corresponding" requirement. *Id.*

As discussed above, Dr. Engels identified two categories of infringing schemas: Commissioning Authority/PCTag Schemas and Commissioning Authority Schemas. Engels' Decl. ¶¶ 23-32, ECF No. 168-11; Pl.'s Mot. Summ. J., Ex. H2, 1, ECF No. 168-13; Ex. J, 96, ECF No. 168-16. Defendant's response only challenges the Commissioning Authority Schemas but not the Commissioning Authority/PCTag Schemas. Therefore, it is undisputed that the Commissioning Authority/PCTag Schemas or RFID tags encoded by such schemas infringe element F.

As to Defendant's argument about the Commissioning Authority Schemas, Plaintiff notes an inconsistency between Defendant's argument and its statement that "[c]ommissioning authority numbers are a sequence of bits that are to be used at the beginning of each and every serial number encoded *pursuant to a given schema.*" Pl.'s Reply 18, ECF No. 179 (citing Def.'s Mot. Summ. J. 10, ECF No. 169) (emphasis supplied). Despite this inconsistency between "many" allocated blocks and "a given schema," Defendant has offered evidence that establishes a factual dispute whether

the Commissioning Authority numbers infringe element F.

Thus, to the extent that Plaintiff seeks summary judgment on the infringement of element F by RFID tags encoded by the Commissioning Authority / PCTag Schemas, the Court grants Plaintiff's motion. However, the Court denies Plaintiff's summary judgment motion as to infringement of element F by the Commissioning Authority Schemas, because there remains a genuine dispute of material fact of whether RFID tags encoded by the Commissioning Authority Schemas meet element F.

b. Infringement Under 35 U.S.C. § 271(b)

Under 35 U.S.C. § 271(b), “[w]hoever actively induces infringement of a patent shall be liable as an infringer.” “In order to succeed on a claim of inducement, the patentee must show, first that there has been direct infringement, and second that the alleged infringer knowingly induced infringement and possessed specific intent to encourage another’s infringement.” *Enplas Display Device Corp. v. Seoul Semiconductor Co.*, 909 F.3d 398, 407 (Fed. Cir. 2018). “[I]nducement can be found where there is [e]vidence of active steps taken to encourage direct infringement, which can in turn be found in advertising an infringing use or instructing how to engage in an infringing use.” *Barry v. Medtronic, Inc.*, 914 F.3d 1310, 1334 (Fed. Cir. 2019).

As discussed above, the Court grants summary judgment as to Plaintiff's direct infringement claim under 35 U.S.C. § 271(a) with the exception of RFID tags encoded with the Commissioning Authority Schemas. *Supra*, Discussion III.B.a.iii. Plaintiff further offers evidence that Defendant took active

steps by providing instructions to its customers about how to encode RFID tags and labels in accordance with the specifications and schemas that directly infringe the '967 Patent. Engels' Decl. ¶¶ 37, 46-47, ECF No. 168-11; Def.'s Serialization Manager Serial Number Request Instruction, 3-4, 9-16, ECF No. 168-24; Kuhno Dep. 15:12 16:4, 21:7-15, 23:19-24:10, 171:9-172:5, ECF No. 168-9; Pl.'s Mot. Summ. J., Exs. S1-S5, ECF Nos. 168-25 – 168-29.

Other than the arguments made concerning direct infringement under 35 U.S.C. § 271(a), Defendant does not separately dispute any evidence offered by Plaintiff as to induced infringement under 35 U.S.C. § 271(b). *See* Def.'s Resp. 21, ECF No. 175. Therefore, consistent with the granting of Plaintiff's summary judgment motion of infringement under 35 U.S.C. § 271(a), Plaintiff's Motion for Summary Judgment is granted as to infringement under 35 U.S.C. § 271(b).

c. Infringement Under 35 U.S.C. § 271(f)

The relevant portion of 35 U.S.C. § 271(f) provides:

(2) Whoever without authority supplies or causes to be supplied in or from the United States any component of a patented invention that is especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use, where such component is uncombined in whole or in part, knowing that such component is so made or adapted and intending that such component will be combined outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, shall be liable as an infringer.

35 U.S.C. § 271(f)(2).



This Court has previously held that data files supplied by Defendant to foreign manufacturers, who then use the data files to encode onto RFID tags, are “components” under § 271(f)(2). Op. and Order 9, ECF No. 165. Plaintiff provides evidence that Defendant causes complete EPCs to be created in the United States and then supplies them abroad to be encoded onto RFID tags. Pl.’s Mot. Summ. J. 21-22, ECF No. 168.

In response, Defendant distinguishes local serialization programs from the central serialization systems. Def.’s Resp. 21-22, ECF No. 175. “When local serialization programs are used, complete EPCs are not provided[.]” Blanchard Report ¶ 62, ECF No. 170-7. Defendant contends that, because Dr. Engels does not identify which accused transponders are encoded pursuant to central program and which are encoded pursuant to local programs, Plaintiff has not met its burden of proof that Defendant supplied complete EPCs to foreign factories and service bureaus. Def.’s Resp. 22, ECF No. 175.

Mr. Blanchard states in his report that “Central Serialization using PCMate and Serialization Manager is very rare but should be explained. Central Serialization from SM to PCMate sends the entire EPC number to PCMate (in hexadecimal) for every tag that needs to be commissioned.” Blanchard Report ¶ 62, ECF No. 170-7. Therefore, Mr. Blanchard’s report confirms that, while “very rare,” Defendant’s Central Serialization sends the entire EPC number for every tag that needs to be commissioned. *Id.* Defendant does not offer any evidence to dispute the fact that it uses Central Serialization to provide complete EPCs to foreign manufacturers. Accordingly, summary judgment of infringement under § 271(f) is proper. IV. Defendant’s Motion for Summary Judgment of Non-Infringement (ECF No. 169)

Defendant's Motion for Summary Judgment of Non-Infringement generally argues that its transponders do not meet the claim requirements. Def.'s Mot. Summ. J. 8-11, ECF No. 169. Because Plaintiff's Motion for Partial Summary Judgment of Infringement under 35 U.S.C. §§ 271(a), (b) and (f) is granted, Defendant's Motion for Summary Judgment of Non-Infringement under 35 U.S.C. §§ 271 (a), (b) and (f) is necessarily DENIED. To the extent Defendant seeks summary judgment of non-infringement under 35 U.S.C. § 271(c), Defendant's arguments are the same as those discussed above. Because the Court found Defendant's arguments unavailing, Defendant's motion as to 35 U.S.C. § 271(c) is DENIED.

#### CONCLUSION

Both parties' evidentiary objections are overruled.

Defendant's Motion to File Sur-Reply is GRANTED (ECF No. 186) is GRANTED.

Defendant's Alternative Motion for Summary Judgment of Invalidity Under 35 U.S.C. §§ 101 and 103 (ECF No. 169) is DENIED.

Plaintiff's Motion for Summary Judgment (ECF No. 168) is GRANTED except as to infringement of element F by the Commissioning Authority Schemas, which is DENIED.

Defendant's Motion for Summary Judgment of Non-Infringement (ECF No. 169) is DENIED.

DATED this 14th day of September 2020.

s/ Mustafa T. Kasubhai  
MUSTAFA T. KASUBHAI  
United States Magistrate Judge

107a

**APPENDIX E**

**35 U.S.C. § 101**

**§ 101. Inventions patentable**

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, subject to the conditions and requirements of this title.