

United States Court of Appeals for the Federal Circuit

INGENICO INC.,
Plaintiff/Counterclaim Defendant-Appellee

INGENICO CORP., INGENICO GROUP S.A.,
Counterclaim Defendants-Appellees

v.

IOENGINE, LLC,
Defendant/Counter-Claimant-Appellant

2023-1367

Appeal from the United States District Court for the District of Delaware in No. 1:18-cv-00826-WCB, Circuit Judge William C. Bryson.

Decided: May 7, 2025

KERRY L. TIMBERS, Sunstein LLP, Boston, MA, argued for plaintiff/counterclaim defendant-appellee and counterclaim defendants-appellees. Also represented by KEVIN R. MOSIER.

NOAH LEIBOWITZ, Dechert LLP, New York, NY, argued for defendant/counter-claimant-appellant. Also represented by GREGORY CHUEBON; MICHAEL A. FISHER, Philadelphia, PA; MICHAEL JOSHI, San Francisco, CA.

Before DYK, PROST, and HUGHES, *Circuit Judges*.

HUGHES, *Circuit Judge*.

This is an appeal from the judgment issued by the United States District Court for the District of Delaware pursuant to a jury verdict and the subsequent denial of motion for judgment as a matter of law and motion for a new trial. Judgment, *Ingenico, Inc. v. IOENGINE, LLC*, No. 18-826-WCB (D. Del. July 25, 2022), ECF No. 506. IOENGINE appeals a jury verdict that found claim 3 of U.S. Patent No. 9,059,969 and claims 56, 90, 101, 105, and 124 of U.S. Patent No. 9,774,703 invalid as anticipated and rendered obvious by the prior art. In the alternative, IOENGINE appeals the district court's jury instructions and decision to allow Ingenico to introduce prior art at trial. Because substantial evidence supports the jury verdict, and because the district court did not abuse its discretion in denying a new trial, we affirm.

I

The patents-at-issue are directed to a portable device, such as a USB thumb drive, which includes a processor that causes communications to be sent to a network server in response to user interaction with an interface on a terminal. '969 patent, Abstract; '703 patent, Abstract.

On March 23, 2018, IOENGINE filed an action in the District of Delaware alleging PayPal Holdings, Inc.'s accused products infringed various patents, a subset of which are at issue in this appeal. Complaint, *IOENGINE, LLC v. PayPal Holdings, Inc.*, No. 18-452-WCB (D. Del. Mar. 23, 2018), ECF No. 1. Because it supplied PayPal's accused products, Ingenico filed a declaratory judgment action against IOENGINE. Complaint, *Ingenico Inc. v. IOENGINE LLC*, No. 18-826-WCB (D. Del. June 1, 2018), ECF No. 1.

Prior to trial, Ingenico filed IPR petitions challenging IOENGINE's asserted patents, which resulted in final written decisions that held most of the challenged claims of the '969 and '703 patents unpatentable. *Ingenico Inc. v. IOENGINE, LLC*, IPR2019-00879 (PTAB Mar. 25, 2019); *Ingenico Inc. v. IOENGINE, LLC*, IPR2019-00929 (PTAB Apr. 4, 2019). At summary judgment, IOENGINE moved to preclude Ingenico from relying on "documentation related to DiskOnKey Upgrade software" under 35 U.S.C. § 315(e)(2) because Ingenico reasonably could have been expected to raise it during the IPR proceedings. J.A. 115 n.21. The district court ruled that "Ingenico will be estopped from relying on those documents [to prove invalidity] except to the extent . . . that they form part of a substantively different combination of references that could not reasonably have been raised in the IPRs." J.A. 115.

A five-day jury trial concerning Ingenico's infringement of the asserted claims began on July 11, 2022. At trial, Ingenico introduced evidence of a prior art USB device known as the DiskOnKey (DiskOnKey Device). The DiskOnKey Device was manufactured and sold in the early 2000s by M-Systems Flash Disk Pioneers Ltd. The DiskOnKey Device was offered with various software applications, including a Firmware Upgrader, and was equipped with capabilities described in a Software Development Kit (together the DiskOnKey System). Ingenico argued that the DiskOnKey System invalidated the asserted claims as anticipated or obvious because it was either "on sale" or "in public use" under 35 U.S.C. § 102(b) (pre-AIA), or "known or used by others . . . before the date of the invention" under 35 U.S.C. § 102(a) (pre-AIA).

In relevant part, the jury returned a general verdict finding the claims-at-issue in this appeal were infringed, but invalid as anticipated and obvious. The district court subsequently entered judgment, and IOENGINE timely filed a renewed motion for JMOL of no invalidity under

Federal Rule of Civil Procedure 50(b) or, alternatively, for a new trial under Federal Rule of Civil Procedure 59(a). The district court denied IOENGINE's motions. This appeal followed.

II

On appeal, IOENGINE does not challenge the jury's finding that the DiskOnKey System invalidates the claims-at-issue as anticipated or obvious if the DiskOnKey System is prior art. Instead, IOENGINE challenges the jury's implicit finding that the Firmware Upgrader portion of the DiskOnKey System was either "on sale" or "in public use" under 35 U.S.C. § 102(b) (pre-AIA), or "known or used by others . . . before the invention" under 35 U.S.C. § 102(a) (pre-AIA).

Alternatively, IOENGINE argues it is entitled to a new trial because it alleges the district court provided various legally erroneous jury instructions and failed to instruct on the presumption of validity, and because IPR estoppel should have precluded Ingenico from introducing the Firmware Upgrader at trial.

A

We review a district court's denial of JMOL under the regional circuit law. *Summit Tech., Inc. v. Nidek Co.*, 363 F.3d 1219, 1223 (Fed. Cir. 2004). The Third Circuit standard is "whether there is evidence upon which a reasonable jury could properly have found its verdict." *TransWeb, LLC v. 3M Innovative Props. Co.*, 812 F.3d 1295, 1301 (Fed. Cir. 2016) (quoting *Gomez v. Allegheny Health Servs.*, 71 F.3d 1079, 1083 (3d Cir. 1995)). JMOL "should be granted only if, viewing the evidence in the light most favorable to the nonmovant and giving it the advantage of every fair and reasonable inference, there is insufficient evidence from which a jury reasonably could find for the nonmovant." *Id.* (quoting *Lightning Lube, Inc. v. Witco Corp.*, 4 F.3d 1153, 1166 (3d Cir. 1993)).

Under the pre-AIA public use bar, “[a] person shall be entitled to a patent unless . . . the invention was . . . in public use . . . in this country, more than one year prior to the date of the application for patent in the United States.” 35 U.S.C. § 102(b) (pre-AIA). “The public use bar is triggered ‘where, before the critical date, the invention is [(1)] in public use and [(2)] ready for patenting.’” *Minerva Surgical, Inc. v. Hologic, Inc.*, 59 F.4th 1371, 1377 (Fed. Cir. 2023) (quoting *Polara Eng’g Inc v. Campbell Co.*, 894 F.3d 1339, 1348 (Fed. Cir. 2018)) (alterations in original).

On appeal, IOENGINE disputes whether the Firmware Upgrader portion of the DiskOnKey System was “in public use.” The “in public use” element of the public use bar is met if the invention “‘was accessible to the public or was commercially exploited’ by the inventor.” *Id.* (quoting *Delano Farms Co. v. Cal. Table Grape Comm’n*, 778 F.3d 1243, 1247 (Fed. Cir. 2015)).

Here, substantial evidence supports finding that the Firmware Upgrader was accessible to the public. At trial, Ingenico introduced a July 2002 email that M-Systems sent to its employees, including those in California, announcing the launch of the Firmware Upgrader. This email was accompanied by the DiskOnKey “Readme” user guide, which disclosed important details about the Firmware Upgrader’s functionality. The email encouraged the employees to “pass this information along to your partners, customers, reps and distributors, and indicated that the application and user guide could “be downloaded from [the DiskOnKey] web site . . . starting from [July 10, 2002].” J.A. 15 (alteration in original) (citation omitted).

Ingenico also introduced a July 11, 2002, press release issued by M-Systems in Fremont, California. The press release promoted the launch of the Firmware Upgrader, explained the application’s benefits, and touted the Firmware

Upgrader as a major differentiator from other storage devices. *See* J.A. 11041.

Ingenico further introduced an archived M-Systems website page from 2002, from which the Firmware Upgrader was available for download. J.A. 11305. Ingenico's expert testified that "there would be . . . many people that would think they need to upgrade the firmware and would be downloading the firmware [upgrade application]" and the Readme file from the M-Systems website. J.A. 10177, 1142:15–25.

IOENGINE does not dispute this evidence, but contends it is insufficient to establish public use because it does not prove "**actual use** by someone at some point." Appellant's Opening Br. 32 (emphasis in original) (quoting *Minn. Mining & Mfg. Co. v. Chemque, Inc. (3M)*, 303 F.3d 1294, 1307 (Fed. Cir. 2002)). IOENGINE argues "the only evidence here is that the Firmware Upgrader was available for download, not that anyone in this country (or anywhere) ever actually downloaded it and used it." *Id.* at 33 (emphasis omitted).

It is true that public use requires actual use. But circumstantial evidence is not second-class to direct evidence. *See Medtronic, Inc. v. Teleflex Innovations S.A.R.L.*, 70 F.4th 1331, 1340 (Fed. Cir. 2023) ("Nor is circumstantial evidence second-class to direct evidence."). "Circumstantial evidence is not only sufficient, but may also be more certain, satisfying and persuasive than direct evidence." *Id.* (quoting *Michalic v. Cleveland Tankers, Inc.*, 364 U.S. 325, 330 (1960)). Thus, "[e]ither direct or circumstantial evidence corroborating public use may be sufficient for a party to meet its burden of proof." *TransWeb, LLC v. 3M Innovative Props. Co.*, 16 F. Supp. 3d 385, 393 (D.N.J. 2014), *aff'd*, 812 F.3d 1295 (Fed. Cir. 2016). Here, there is substantial circumstantial evidence that would allow a reasonable jury to conclude that a user downloaded

and actually used the Firmware Upgrader with the DiskOnKey Device.

IOENGINE relies on *3M* to argue that there is insufficient evidence of public use. In *3M*, the defendant sent samples of the accused product as a two-part composition that needed to be mixed prior to use. 303 F.3d at 1307. The asserted claims also required applying the mixed composition to a “signal transmission device.” *Id.* But “absent from the record [was] testimony or evidence about what disclosure was actually sent with the samples” that would allow a person of ordinary skill in the art “to make the claimed invention.” *Id.* at 1306. The failure of proof, therefore, hinged on a lack of evidence that the product was used in a way that met or disclosed the claim requirements.

Here, M-Systems’ employees were encouraged to inform their partners, customers, reps, and distributors about the Firmware Upgrader. Those customers had access to a user guide that informed them about the beneficial functionality of the Firmware Upgrader. In contrast to *3M*, where there was a lack of evidence that the products were used in a way that met the claim requirements, customers were encouraged to download the Firmware Upgrader and were instructed on how to use it. And it is not in dispute that a single download of the Firmware Upgrader results in a system that meets the patents-at-issue’s claim requirements. Thus, there is substantial evidence to support the jury’s finding that the DiskOnKey System, including the Firmware Upgrader, was in public use.

The jury returned a general verdict finding the claims-at-issue in this appeal were invalid as anticipated and obvious. “A general jury verdict of invalidity should be upheld if there was sufficient evidence to support any of the alternative theories of invalidity.” *Cordance Corp. v. Amazon.com, Inc.*, 658 F.3d 1330, 1339 (Fed. Cir. 2011). Thus, we need not reach whether substantial evidence supports a jury verdict that the Firmware Upgrader was “on sale”

under 35 U.S.C. § 102(b) (pre-AIA), or “known or used by others . . . before the invention” under 35 U.S.C. § 102(a) (pre-AIA).

Because substantial evidence supports the jury’s verdict finding that the Firmware Upgrader was in public use, we affirm.

B

In the alternative, IOENGINE argues it is entitled to a new trial. “This court applies regional circuit law in reviewing the denial of . . . a motion for a new trial.” *Seachange Int’l, Inc. v. C-COR, Inc.*, 413 F.3d 1361, 1367–68 (Fed. Cir. 2005). “The Third Circuit reviews a denial of a motion for new trial for abuse of discretion.” *Id.* at 1368 (citing *Rinehimer v. Cemcolift, Inc.*, 292 F.3d 375, 383–84 (3d Cir. 2002)).

In contesting the district court’s denial of its motion for a new trial, IOENGINE takes issue with (1) the district court’s jury instructions, and (2) the district court’s decision to allow Ingenico to rely on prior art at trial. We address each issue in turn.

1

IOENGINE argues that the district court’s conception and diligence, public use, and on sale instructions were erroneous, and that the district court also erroneously failed to instruct the jury on the presumption of validity. “The question of whether a jury instruction on an issue of patent law is erroneous is a matter of Federal Circuit law and is reviewed de novo.” *Sulzer Textil A.G. v. Picanol N.V.*, 358 F.3d 1356, 1363 (Fed. Cir. 2004). A jury verdict will be set aside if the instructions were “legally erroneous” and “the errors had prejudicial effect.” *Id.* (quoting *Advanced Display Sys., Inc. v. Kent State Univ.*, 212 F.3d 1272, 1282 (Fed. Cir. 2000)).

First, IOENGINE argues that the district court’s jury instruction on conception and diligence incorrectly flipped the legal burden. The district court instructed the jury that “Ingenico has the burden of proving invalidity by clear and convincing evidence, which as I’ve said before, means evidence that must leave you with a clear conviction or belief that the claims in question are invalid.” J.A. 10372, 1293:9–12. The district court then instructed the jury that:

IOENGINE’s contention is that the date of the invention is no later than July 26th, 2001. Ingenico’s contention is that the date of the invention was March 23, 2004 [A]ny product or method that was first publicly known or used in the United States after [the invention] date wouldn’t be regarded as coming before the invention [A]ny product or method that was known to or used by others in this country before [the invention] date would be prior art to the invention Whatever the date of invention, Ingenico must prove by clear and convincing evidence that the prior art item predated the claimed invention.

J.A. 10375–76, 1296:20–1297:16.

The district court’s instruction was based on *Mahurkar v. C.R. Bard, Inc.*, which specifies that the patent challenger “must persuade the trier of fact by clear and convincing evidence that the [purported prior art item] was published prior to [the inventor’s] invention date.” 79 F.3d 1572, 1578 (Fed. Cir. 1996). The district court clearly and consistently communicated to the jury that Ingenico had the burden of proving the prior art predated the claimed invention. We see no error in the district court’s instruction.

Second, IOENGINE argues that the district court’s public use instruction was legally erroneous because the district court failed to appreciate that different rules apply to prior use by the inventor versus an unrelated third

party. IOENGINE claims the district court should have instructed the jury that “public use may be found when the claimed features of the invention are discernible from a prior art product that is accessible to the public.” J.A. 10350, 1271:7–11. But “an invention is in public use if it is shown to or used by an individual other than the inventor under no limitation, restriction, or obligation of confidentiality.” *Am. Seating Co. v. USSC Grp., Inc.*, 514 F.3d 1262, 1267 (Fed. Cir. 2008) (citation omitted). That is what the district court instructed the jury. *See* J.A. 10377, 1298:10–13 (“Now, public use may be found when a prior art product is accessible to the public, commercially exploited, or otherwise used by the inventor or others with no restrictions or obligations of secrecy.”). We see no error in the district court’s instruction.

Third, IOENGINE argues that the district court’s on sale instruction was legally erroneous. IOENGINE proposed the district court inform the jury that “only an offer that the other party could make into a binding contract simply by accepting it constitutes an offer for sale.” J.A. 10351, 1272:16–19. Alternatively, IOENGINE proposed including that “an advertisement is not an offer for sale.” J.A. 10351, 1272:19–20.

The district court did not include IOENGINE’s proposed instructions “[b]ecause the issue of validity turned not on whether particular conduct constituted an offer for sale, but instead on whether the DiskOnKey Devices sold in the United States contained the [F]irmware [U]pgrade[r] and the SDK capabilities.” J.A. 48. Additionally, the district court concluded that IOENGINE’s proposed instructions were more likely to confuse than help the jury. J.A. 48–49. We see no error in the district court’s instruction.

Lastly, IOENGINE argues that the district court erred in refusing IOENGINE’s request to instruct the jury on the presumption of validity. We have held that a district court

does not reversibly err by not instructing the jury on the presumption of validity if the jury has otherwise been properly instructed on the clear and convincing evidentiary standard required to prove invalidity. *Chiron Corp. v. Genentech, Inc.*, 363 F.3d 1247, 1258–59 (Fed. Cir. 2004). Here, the district court properly and repeatedly instructed the jury on the clear and convincing standard. Thus, there was no error in declining to instruct the jury on the presumption of validity.

2

IOENGINE argues that under 35 U.S.C. § 315(e)(2), Ingenico should have been estopped from presenting the Firmware Upgrader at trial. Ingenico relied on the DiskOnKey Device operating the Firmware Upgrader—device art that Ingenico could not have raised during the IPR—to challenge that the claimed invention was known or used by others, on sale, or in public use. IOENGINE claims that IPR estoppel applies because the Firmware Upgrader was entirely cumulative and substantively identical to the Readme instructions and screenshots—which, according to IOENGINE, are printed publications that reasonably could have been raised during the IPR.

Whether Ingenico should be estopped depends on the proper interpretation of the term “ground” used in 35 U.S.C. § 315(e)(2). We have not previously interpreted the term’s meaning, and there is a split among district courts about its proper interpretation. *See Prolitec Inc. v. ScentAir Techs., LLC*, No. 20-984-WCB, 2023 WL 8697973, at *21–*23 (D. Del. Dec. 13, 2023) (collecting cases).

“Interpretation of the IPR estoppel statute, an issue unique to patent law, is a question of law we review de novo applying Federal Circuit law.” *Ironburg Inventions Ltd. v. Valve Corp.*, 64 F.4th 1274, 1296 (Fed. Cir. 2023) (emphasis and internal citations omitted). We begin our analysis by first looking to the statutory language. The estoppel statute provides:

(2) Civil actions and other proceedings. The petitioner in an inter partes review of a claim in a patent under this chapter that results in a final written decision under section 318(a), or the real party in interest or privy of the petitioner, may not assert either in a civil action arising in whole or in part under section 1338 of title 28 or in a proceeding before the International Trade Commission under section 337 of the Tariff Act of 1930 that the claim is invalid *on any ground that the petitioner raised or reasonably could have raised during that inter partes review.*

35 U.S.C. § 315(e)(2) (emphasis added). The Patent Act does not expressly define “ground.” *See* 35 U.S.C. § 100. However, 35 U.S.C. §§ 311 and 312 also use the term ground and may properly aid our understanding of its use in § 315. *See IBP, Inc. v. Alvarez*, 546 U.S. 21, 34 (2005) (“[T]he normal rule of statutory interpretation [is] that identical words used in different parts of the same statute are generally presumed to have the same meaning.”).

Under 35 U.S.C. § 311(b), the scope of an IPR is limited to “a ground that could be raised under section 102 or 103.” This makes clear that grounds are the theories of invalidity available to challenge a claim under §§ 102 and 103. But, instead of allowing a petitioner to challenge a claim under any theory of invalidity, Congress intentionally limited an IPR’s scope to invalidity challenges based on “prior art consisting of patents or printed publications.” 35 U.S.C. § 311(b). By design, a petitioner has no opportunity to challenge that the claimed invention was known or used by others, on sale, or in public use at IPR. *See Qualcomm Inc. v. Apple Inc. (Qualcomm I)*, 24 F.4th 1367, 1376 (Fed. Cir. 2022) (“[O]ur understanding [is] that Congress sought to create a streamlined administrative proceeding that avoided some of the more challenging types of prior art identified in 35 U.S.C. § 102, such as commercial sales and public uses, by restricting the ‘prior art’ which may form a

basis of a ground to prior art documents.”); *Lynk Labs, Inc. v. Samsung Elecs. Co.*, 125 F.4th 1120, 1128 (Fed. Cir. 2025) (“The stated intent for this limitation was to allow the PTO to evaluate ‘patents and printed materials, matters which are normally handled by patent examiners,’ while excluding ‘[c]hallenges to validity on other grounds (e.g., public uses or sales)[, which] would remain the province of the courts.’”) (quoting S. REP. NO. 96-617, at 2 (1980)) (alteration in original). These are grounds that could normally be raised under §§ 102 or 103, but Congress excluded in IPR proceedings.¹

¹ Comparing the IPR statutes to the post-grant review statutes further confirms both (1) that Congress deliberately excluded these grounds in an IPR and (2) our interpretation of the term ground. The PGR estoppel statute similarly states that “[t]he petitioner in a post-grant review . . . may not assert . . . that the claim is invalid on any ground that the petitioner raised or reasonably could have raised during that post-grant review.” 35 U.S.C. § 325(e)(2). Under 35 U.S.C. § 321(b), the PGR statute that corresponds to 35 U.S.C. § 311(b), “[a] petitioner in a post-grant review may request to cancel as unpatentable 1 or more claims of a patent on any ground that could be raised under paragraph (2) or (3) of section 282(b) (relating to invalidity of the patent or any claim).” Thus, in a PGR, a petitioner may challenge the “[i]nvalidity of the patent or any claim in suit on *any ground specified in part II as a condition for patentability*,” on “any requirement of section 112, except . . . the failure to disclose the best mode,” or on “any requirement of section 251.” 35 U.S.C. § 282(b)(2)–(b)(3)(B) (emphasis added). This includes grounds that the claimed invention was known or used by others, on sale, or in public use. In contrast to PGRs, Congress intentionally limited IPRs to grounds that the claimed invention was patented or described in a printed publication.

Further, a ground is not the prior art asserted during an IPR. In drafting 35 U.S.C. § 315(e)(2), Congress could have precluded petitioners from asserting in district court that the claim is invalid on any *prior art* that the petitioner raised or reasonably could have raised during that inter partes review, but Congress chose not to. Instead, Congress precluded petitioners from asserting *grounds* in district court. Thus, IPR estoppel does not preclude a petitioner from asserting the same prior art raised in an IPR in district court, but rather precludes a petitioner from asserting grounds that were raised or reasonably could have been raised during an IPR. The only anticipation and obviousness challenges that a petitioner *can* make during an IPR are that the claims were patented or described in a printed publication. IPR estoppel precludes these challenges in district court if they were raised or reasonably could have been raised during the IPR. But IPR estoppel does not preclude a petitioner from relying on the same patents and printed publications as evidence in asserting a ground that could not be raised during the IPR, such as that the claimed invention was known or used by others, on sale, or in public use.

35 U.S.C. § 312(a)(3) provides additional support that prior art is evidence of a ground, not coextensive with a ground. “The petition . . . defines the scope of the IPR.” *Click-to-Call Techs. LP v. Ingenio, Inc.*, 45 F.4th 1363, 1368 (Fed. Cir. 2022) (quoting *California Inst. of Tech. v. Broadcom Ltd.*, 25 F.4th 976, 990 (Fed. Cir. 2022)). Under § 312(a)(3) “the evidence that supports the grounds . . . include[s]—(A) copies of patents and printed publications that the petitioner relies upon in support of the petition.” Thus, while patents and printed publications are evidence that support a ground that the claimed invention was patented or described in a printed publication, they are not coextensive with a ground.

Lastly, this interpretation of ground is consistent with how we have previously interpreted 35 U.S.C. § 311(b). In

Qualcomm Inc. v. Apple Inc. (Qualcomm II), we considered whether applicant admitted prior art (AAPA), which was not a prior art patent or printed publication, could form the basis of an IPR ground if it is used in combination with one or more patents or printed publications. No. 23-1208, 2025 WL 1174161, at *7 (Fed. Cir. Apr. 23, 2025). We interpreted § 311(b) to “mean[] that ‘the basis’ of an IPR ground asserting unpatentability can ‘only’ include ‘prior art consisting of patents or printed publications.’” *Id.* at *8 (quoting 35 U.S.C. § 311(b)). We held that “because the basis can only include prior art consisting of patents or printed publications, and because AAPA is not a prior art patent or printed publication . . . , it follows that the plain meaning of § 311(b) does not permit the basis to include AAPA.” *Id.* But we noted “that an IPR petition may rely on AAPA for certain uses, so long as the AAPA is not the basis of a ground in violation of § 311(b).” *Id.* (citing *Qualcomm I*, 24 F.4th at 1375). This supports our interpretation that grounds are the theories of invalidity available to challenge a claim under 35 U.S.C. §§ 102 and 103, which are limited in an IPR to asserting that the claimed invention was patented or described in a printed publication (or would have been obvious only on the basis of prior art patents or printed publications). If prior art that is not a patent or printed publication, such as AAPA, was used in combination with patents or printed publications such that the “basis” of the ground included AAPA, the petitioner would no longer be asserting a ground that the claimed invention was patented or described in a printed publication.

Therefore, we hold that IPR estoppel applies only to a petitioner’s assertions in district court that the claimed invention is invalid under 35 U.S.C. §§ 102 or 103 because it was patented or described in a printed publication (or would have been obvious only on the basis of prior art

patents or printed publications).² IPR estoppel does not preclude a petitioner from asserting that a claimed invention was known or used by others, on sale, or in public use in district court. These are different grounds that could not be raised during an IPR.

Here, Ingenico challenged that the DiskOnKey System was known or used by others, on sale, or in public use. These are grounds that could not have been raised during the IPR. The Readme file and other printed publications that Ingenico relied upon were evidence to support these grounds. To the extent that Ingenico reasonably could have raised the Readme file during the IPR, it would only be to challenge that the claimed invention was described in a printed publication—a separate ground not raised at trial. Thus, a new trial is not warranted because IPR estoppel did not preclude Ingenico from relying on the DiskOnKey System with related printed publications at trial to prove the claimed invention was known or used by others, on sale, or in public use.

III

We have considered IOENGINE's remaining arguments and find them unpersuasive. We affirm.

AFFIRMED

² Of course, for IPR estoppel to apply, all other statutory requirements must be met, including that the IPR “results in a final written decision” and that the petitioner’s invalidity assertion in district court be a “ground that the petitioner raised or reasonably could have raised during that” IPR. 35 U.S.C. § 315(e)(2); see *Ironburg Inventions*, 64 F.4th at 1298 (holding that a petitioner “reasonably could have raised” a ground if “a skilled searcher conducting a diligent search reasonably could have been expected to discover” it).