No. 2023-1367

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.

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

APPELLEES' RESPONSE BRIEF

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LANGUAGE OF A PATENT CLAIM AT ISSUE

Under FCR 32(a)(3), the following is the language of a patent claims at issue in this appeal.

Claim 3 of U.S. Patent No. 9,059,969 ("the '969 Patent"), Appx169:

> **1.** A portable device configured to communicate with a terminal comprising a processor, an input component, an output component, a network communication interface, and a memory configured to store executable program code, including first program code which, when executed by the terminal processor, is configured to present an interactive user interface on the terminal output component, and second program code which, when executed by the terminal processor, is configured to provide a communications node on the terminal to facilitate communications to the portable device and to a communications network node through the terminal network communication interface, the portable device comprising:
>
> (a) an external communication interface configured to enable the transmission of communications between the portable device and the terminal;
>
> (b) a processor; and
>
> (c) a memory having executable program code stored thereon, including:
>
> (1) third program code which, when executed by the portable device processor, is configured to provide a communications node on the portable device to coordinate with the communications node on the terminal and establish a communications link between the portable device and the terminal, and facilitate communications to the terminal and to a communications network node through the terminal network communication interface; and
>
> (2) fourth program code which is configured to be executed by the portable device processor in response to a communication received by the portable device resulting from user interaction with the interactive user interface; wherein the portable device is configured to facilitate communications through the communication node on the

terminal and the terminal network interface to a communications network node.

2. The portable device according to claim 1, wherein the fourth program code which, when executed by the portable device processor, is configured to cause a communication to be transmitted to the communication network node.

3. The portable device according to claim 2, wherein the communication caused to be transmitted to the communication network node facilitates verification of the portable device.

Claim 56 of U.S. Patent No. 9,774,703 ("the '703 Patent"), Appx135:

55. A method implemented on a portable device comprising a processor, a memory having executable program code stored thereon, and an external communication interface for enabling the transmission of a plurality of communications between the portable device and a terminal, the terminal comprising a processor, an input component, an output component, a network communication interface, and a memory configured to store executable program code, including first program code which, when executed by the terminal processor, is configured to affect the presentation of an interactive user interface by the terminal output component, and second program code which, when executed by the terminal processor, is configured to provide a communications node on the terminal to facilitate communications to the portable device and to a communications network node through the terminal network communication interface, the method comprising:

(a) causing the terminal to execute the first program code to affect the presentation of an interactive user interface by the terminal output component;

(b) executing third program code stored on the portable device memory to provide a communications node on the portable device configured to coordinate with the communications node on the terminal and establish a communications link between the portable device and the terminal, and to facilitate communications to the terminal and to a communications network node through the terminal network communication interface;

(c) executing, in response to a communication received by the

portable device resulting from user interaction with the interactive user interface, fourth program code stored on the portable device memory to cause a communication to be transmitted to a communications network node; and (d) facilitating communications through the terminal network communication interface to a communications network node.

56. The method according to claim 55, wherein the step of executing fourth program code stored on the portable device memory causes a communication to be transmitted to the communications network node to facilitate verification of the portable device.

CERTIFICATE OF INTEREST

Under Federal Circuit Rule 47.4, counsel for the Appellees, Ingenico Inc., Ingenico Corp., and Ingenico Group S.A. (collectively, Ingenico) certifies the following:

Under FCR 47.4(a)(1), the full name of every entity represented in this case by Appellee's counsel is:	Ingenico Inc.; Ingenico Corp.; Worldline IGSA (f/k/a Ingenico Group S.A.)
Under FCR 47.4(a)(2), the names of every real party in interest (if the real party named in the caption is not the real party in interest) represented by me are:	Banks and Acquirers International Holding S.A.S.
Under FCR 47.4(a)(3), all parent corporations and any publicly held companies that own 10 percent or more of the stock of the entities represented by me in this case are:	Ingenico Corp. (parent company of Ingenico Inc.); Banks and Acquirers Int'l Holding S.A.S. (parent company of Ingenico Corp.); Worldline S.A. (parent company of Worldline IGSA)
Under FCR 47.4(a)(4), the names of all law firms, partners, and associates that appeared for the entity now represented by me in the lower tribunal or are expected to appear in this court, other than those who have already entered an appearance in this Court, are:	Not applicable.

Under FCR 47.4(a)(5), other than the originating case numbers, the title and number of any case known to counsel to be pending in this or any other court or agency that will directly affect or be directly affected by this court's decision in the pending appeal:	*IOENGINE LLC v. PayPal Holdings, Inc.*, Civ. No. 1:18-452 (D. Del.); *Ingenico, Inc. v. IOENGINE, LLC*, No. IPR2019-00879 (PTAB); *Ingenico, Inc. v. IOENGINE, LLC*, No. IPR2019-00929 (PTAB)
Under FCR 47.4(a)(6), information regarding organizational victims in criminal cases and debtors and trustees in bankruptcy cases:	Not applicable.

Dated: November 9, 2023

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STATEMENT OF RELATED CASES

Under FCR 47.5(a), no other appeal in or from the same civil action was previously before this or any other appellate court.

Under FCR 47.5(b), other than the originating case numbers, the following cases are known to counsel to be pending in this or any other court or agency that will directly affect or be directly affected by this court's decision in the pending appeal because they also involve U.S. Patent No. 9,059,969 ("the '969 Patent") and U.S. Patent No. 9,774,703 ("the '703 Patent") (collectively, the "Patents-at-Issue"):

- *IOENGINE, LLC v. PayPal Holdings, Inc.*, Civ. No. 1:18-452 (D. Del.);
- *Ingenico, Inc. v. IOENGINE, LLC*, No. IPR2019-00879 (PTAB); and
- *Ingenico, Inc. v. IOENGINE, LLC*, No. IPR2019-00929 (PTAB).

Under FCR 47.5(b)(2), the following parties, law firms, partners, and associates, other than those who have entered an appearance in this case, have appeared in those cases:

- PayPal Holdings, Inc.;
- Jared Bobrow, Alyssa M. Caridis, Jacob Heath, Travis Jensen, Robert Manhas, Tyler Miller, Parth Sagdeo, Robert L. Uriarte—Orrick, Herrington & Sutcliffe LLP;
- Jack B. Blumenfeld, Brian P. Egan—Morris, Nichols, Arsht & Tunnell LLP;
- Eve H. Ormerod, Neal C. Belgam—Smith, Katzenstein, & Jenkins LLP;

- Robert W. Ashbrook Jr., Judah Bellin, Jacob Ryan Porter, Luke M. Reilly—Dechert LLP;

- Fred Cottrell, Christine Haynes—Richards, Layton & Finger; and

- Robert M. Asher, Lawrence M. Green, Joel R. Leeman, Timothy Michael Murphy, Lisa M. Tittemore—Sunstein LLP.

COUNTER-STATEMENT OF THE ISSUES

1. Did the District Court properly deny IOENGINE's motion for judgment as a matter of law ("JMOL") where the jury was presented with substantial evidence that the DiskOnKey devices, along with their accompanying Firmware Upgrade software and software development kit ("SDK") capabilities, were "in public use or on sale in this country" under § 102(b) or "known or used by others in this country…before the invention" under § 102(a)?
2. Did the District Court properly deny IOENGINE's motion for new trial based upon its jury instructions concerning conception, diligence, "public use" and "on sale" under § 102, and the presumption of validity?
3. Did the District Court properly deny IOENGINE's motion for new trial based upon IPR estoppel, where Ingenico relied upon device art and corroborating testimony and documentary evidence?

I. COUNTER-STATEMENT OF THE CASE AND FACTS

IOENGINE appeals a jury verdict in which all asserted claims[1] are either not infringed or invalid. Only the invalidity findings are appealed. Following trial, Judge Bryson, who presided over the District Court proceedings by designation, denied IOENGINE's renewed JMOL under Rule 50(b), or alternatively, for a new trial under Rule 59, determining the jury was presented with substantial evidence to support its invalidity findings, the jury instructions did not present any clear errors, and IPR estoppel did not apply to Ingenico's device art. Appx3-54.

A. The Patents and Technology at Issue

The Patents-at-Issue are directed to a portable device (*e.g.*, a USB thumb drive) with a processor that sends communications to a network server via use of an interactive user interface on a "terminal" (*e.g.*, computer). Ingenico's accused products are mobile credit card readers used by merchants with smartphones or tablets running payment software.

B. The DiskOnKey Prior Art Device

Ingenico presented substantial evidence of a prior art USB device, known as the M-Systems DiskOnKey, which was offered with various software applications, including a Firmware Upgrader, and was equipped with capabilities described in an

[1] For the purposes of this brief, the "asserted claims" refers to the claims challenged on appeal: claim 3 of the '969 Patent and claims 56, 90, 101, 105, and 124 of the '703 Patent.

SDK (together, the "DiskOnKey System"). An exemplary DiskOnKey device in evidence is reproduced below:

Appx11047.

Unlike other USB storage devices available at the time, the DiskOnKey had a sophisticated microprocessor that could run applications. Appx9696, 700:6-23. By mid-2002, M-Systems had developed several applications that could be run by the DiskOnKey's processor, including a Firmware Upgrader as well as an SDK for developers to create their own custom applications. *See*, *e.g.*, Appx11305, Appx11306.

The § 102(b) critical date (for the on-sale and public use bars) is March 23, 2003. The § 102(a) invention date (for prior use/knowledge) is the filing date of March 24, 2004. At trial, Ingenico presented abundant evidence that the DiskOnKey System was invalidating and was in public use, on sale, and known to the public in the United States ("U.S.") under §§ 102(a) and (b) prior to those dates. The testimony of three third-party fact witnesses and nearly two dozen contemporaneous documents established the DiskOnKey Systems' hardware and software

functionality, its public availability, its commercial exploitation, and its sales. Specifically, Ingenico presented:

- testimony from three former M-Systems employees, including two original developers of the DiskOnKey and a 30(b)(6) designee (Appx9695-9709, 699:20-713:9; Appx9709-9721, 713:20-725:22; Appx9723-9740, 727:4-744:21);
- contemporaneous documentary evidence from 2000-2004 produced in discovery by M-Systems' eventual successor, Western Digital, including emails, press releases, sales spreadsheets, technical documentation, user manuals, presentations, marketing materials, and an executable file (Appx11098-11112; Appx11113-11114; Appx11115-11117; Appx11118; Appx11119; Appx11120; Appx11121-11170; Appx11171; Appx11174; Appx11177-11182; Appx11197-11281; Appx11282);
- contemporaneous public documents from 2000-2004 consisting of Internet Archive web captures and a public SEC filing (Appx10931; Appx10932; Appx11037; Appx11039-11040; Appx11041-11042; Appx11305; Appx11305);
- a physical DiskOnKey USB device (Appx11044-11049); and
- expert testimony from Mr. James Geier analyzing the DiskOnKey and its SDK and Firmware Upgrader software, including a limitation-by-limitation

analysis of the asserted claims from the point of view of a person of ordinary skill in the art ("POSITA") (Appx9776-9860, 780:19-864:3; Appx9933-9937 937:5-941:11; Appx10168-10177, 1133:7-1142:25).

1. Evidence of Sale, Use, and Knowledge of the DiskOnKey System in the U.S.

Ingenico presented evidence that the DiskOnKey first launched in the U.S. in late 2000, and garnered millions of dollars in sales between 2000 and 2004 to customers and distributors in the U.S. *See* Appx9697, 701:9-21; Appx9711, 715:5-12; Appx9933-9935, 937:5-939:11; Appx10959; Appx10979; Appx11008; Appx11031 (noting M-Systems' U.S. presence, including a U.S. subsidiary and U.S. sales offices, and over $17 million in U.S. sales revenue in 2002 alone). M-Systems financial spreadsheets in evidence demonstrate sales of DiskOnKey devices to U.S. customers from the fourth quarter of 2001 through at least the last quarter of 2003. *See* Appx11118; Appx11119; Appx11120. Numerous examples of English-language M-Systems and DiskOnKey webpages from the relevant time frame, as well as press releases issued from California, evidence sales and marketing of the DiskOnKey System in the U.S., including the Firmware Upgrader and SDK, prior to March 23, 2003, the critical date. *See, e.g.*, Appx10931; Appx11037-11038; Appx11039-11040; Appx11041-11042; Appx11043.

The jury was presented with evidence that M-Systems commercially exploited, offered, and sold its SDK and Firmware Upgrader together with the

DiskOnKey, and marketed these applications as a selling point to differentiate the DiskOnKey from other storage devices in the market. A November 2002 screenshot of the M-Systems website boasted that:

> DiskOnKey technology is the only portable keychain storage device that can run applications…. The processor runs applications straight from the device – not from the host computer. This means applications are now just as mobile as data, and there's no need to carry around CDs or Install any software…DiskOnKey already comes with several applications that demonstrate this terrific new potential. Users can secure their devices and files using the KeySafe application, or upgrade their firmware using the Upgrade program.

Appx11039.

A July 11, 2002, M-Systems press release issued from California publicly announced the launch of the DiskOnKey Firmware Upgrader, which the press release stated, "solidifies that the DiskOnKey is the only product in the keychain storage category offering…the functionality to run applications from the device." Appx11041-11042. This press release provides specific pricing and availability of the DiskOnKey in the U.S. *Id*.

Concurrent evidence demonstrated the Firmware Upgrader and associated documentation were sent to numerous M-Systems employees in July 2002—including employees located in Santa Clara, California—via an email announcing the release of the Firmware Upgrader, stating: "**Please pass this information to your partners, customers, reps and distributors."** Appx11174-11176. It promoted the Firmware Upgrader as a "unique capability**,**" which supports the

"DiskOnKey product line, starting from DiskOnKey firmware version 2.01 for all the capacities from 8MB to 512 MB." *Id.* It also encouraged employees to "become familiarized with the application to better serve our customers" and attached a DiskOnKey "ReadMe" user guide file, which contained extensive information regarding the Firmware Upgrader's functionality. *Id.*; Appx11177-11182. The email announced that the "DiskOnKey Upgrade can be downloaded from the [DiskOnKey] website through the Download menu starting from July the 10th," and "the ReadMe file may also be viewed from our site." Appx11174-11176. Evidence of screen captures of the DiskOnKey website from December 2002 established that users could download the Firmware Upgrader. Appx11305. *See also* Appx9738-9739, 742:4-743:3.

Ingenico's expert, Mr. James Geier, testified that he analyzed the Firmware Upgrader ReadMe file, the Firmware Upgrader executable itself, the DiskOnKey physical device, and other internal M-Systems presentations discussing the DiskOnKey functionalities and the Firmware Upgrader. Appx9791-9823, 795:4-827:2; Appx11177-11182; Appx11171; Appx11282-11287; Appx11098-11112; Appx11041-11042; Appx11174-11176. Based on his experience and expertise at the time of the invention and given the number of U.S. sales, Mr. Geier testified that "there would be…many people that would think they need to upgrade the firmware and would be downloading the firmware" and the ReadMe file based on the

DiskOnKey's sales figures. Appx10177, 1142:15-25. *See also* Appx9910-9911 914:15-915:9; Appx9912-9915, 916:22-919:3 (discussing public availability of Upgrader and SDK).

A California-issued September 25, 2002 press release announced the launch of the DiskOnKey's SDK, which provided software functions used to implement the Firmware Upgrader, in which M-Systems "Invite[d] Developers to Design Applications for [its] Leading Keychain Storage Device," promoted its present availability to select partners and software development companies, and invited customers to request the SDK. Appx11115-11117. In November 2002, the M-Systems website similarly promoted the SDK and allowed users to download the SDK data sheet. Appx110306. *See also* Appx9739, 743:4-18. The jury also saw evidence and heard testimony about an SDK guide from September 2002, the same month the official SDK was publicly announced. Appx11197. M-System's witness, Mr. Eyal Sobol, testified about the functionalities described in the SDK guide and confirmed both that the guide describes functionalities that existed inside the DiskOnKey and the information in the SDK reflected how the product actually functioned. Appx9729-9733, 733:18-737:24; Appx9740, 744:11-21.

2. The DiskOnKey System is Invalidating Art under Anticipation and Obviousness Theories

At trial, Mr. Geier testified at length about: 1) the general knowledge of a POSITA at the time of the invention; 2) the DiskOnKey's functionality; 3) the

Firmware Upgrader and the SDK capabilities of the DiskOnKey; and 4) how the DiskOnKey System invalidates the asserted claims as both anticipated by the DiskOnKey System and obvious over the DiskOnKey in combination with the Elazar Patent (Appx11291-11303). Appx9749-9775, 753:8-779:12; Appx9776-9860, 780:19-864:3; Appx9865, 869:8-23; Appx10168-10177, 1133:7-1142:25. On cross examination, IOENGINE's expert, Dr. Aviel Rubin, confirmed that, from the evidence of record, a POSITA would understand how to make and use the DiskOnKey System without undue experimentation. *See* Appx10128, 1093:5-24; Appx10130-10131, 1095:1096:7; Appx10135-10136, 1100:10-1101:14; Appx10134, 1099:13-16; Appx10124, 1089:12-13.

C. Lack of Evidence Regarding Conception and Reduction to Practice

The presumptive invention date of the Patents-at-Issue is March 23, 2004—the date the priority application was filed. Importantly, the § 102(b) on-sale and public use critical date for DiskOnKey is March 23, 2003 (one-year before the priority date) and ***cannot be sworn behind***. Nevertheless, at trial, for § 102(a) "prior knowledge" purposes, IOENGINE attempted to swear behind prior art by asserting that Mr. Scott McNulty conceived of his invention on July 26, 2001, and diligently reduced it to practice thereafter. To the extent the jury based its invalidity decision on post-March 23, 2003, prior art (§ 102(a) art), the trial record provides a sound basis for the jury's rejection of IOENGINE's alleged earlier invention date.

IOENGINE relied upon Mr. McNulty's testimony that he conceived of his alleged invention while visiting the June 2001 PC Expo in New York and disclosed his invention in a document he titled "Portable devices rule" (the "PDR Memo"). Appx9055-9065, 147:22-157:6; Appx16798-16799. Both Dr. Rubin and Mr. McNulty, who was not a POSITA in the relevant technological fields at the time of invention (Appx9045-9046, 137:13-138:4), testified that a single sentence in the PDR Memo—"Hi. I am here from a person's pocket and I would like to copy your content"—disclosed conception of the "verification" and "portable device identifier information" ("PDII") limitations present in asserted claims. Appx16798-16799; Appx9114-9116, 206:36-208:16; Appx10093, 1058:11-17, Appx10094-10095, 1059:2-1060:23; Appx10096-10097, 1061:17-1062:9.

Ingenico presented contrary evidence. Mr. Geier testified that the PDR Memo does not disclose all the elements of the asserted claims and a POSITA would not understand it to disclose device verification or the use of PDII. Appx9862-9863, 866:3-867:14; Appx10166-10168, 1131:21-1133:6. Mr. Geier explained that, at most, the PDR Memo discloses a request to copy content, and that the use of the word "I" does not distinguish one device from another as would be required for device verification or use of PDII. *Id.*

IOENGINE alleges that Mr. McNulty spent nearly three years attempting—without success—to reduce his invention to practice, and ultimately constructively

reduced it to practice by filing his patent application. Appx9093, 185:15-21. Mr. McNulty testified that he hired Dr. Larry Bernstein, but IOENGINE offered no independent evidence that Mr. McNulty worked with Dr. Bernstein. Appx9065, 157:7; Appx9070, 162:25.

Mr. McNulty testified that he later hired Gidi Elazar and Dan Harkabi, along with some other hardware and software teams. Appx9071, 163:4-11; Appx9072, 164:12-14. However, IOENGINE offered no evidence corroborating Mr. McNulty's claim to have worked "every evening, every weekend, all weekend." Appx9082, 174:8-11. Instead, IOENGINE's evidence at best accounts for only eight of the 32 months during which IOENGINE asserts Mr. McNulty was working diligently to reduce his invention to practice. *See* Appx16485-16501; Appx16560-16562; Appx16795-16797; Appx16800-16801; Appx16803; Appx16804-16805; Appx18151-18160. IOENGINE offered no corroborating evidence of work during the intervening months and offered no explanation for periods during which there is no evidence of activity. Additionally, evidence was presented that Mr. McNulty concurrently worked on USB projects for his employer Fuji, which may have included work alleged to have been done in furtherance of reducing his invention to practice. *E.g.*, Appx9165-9177, 257:23-269:13; Appx9685-9687, 689:14-691:4; Appx9691-9692, 695:21-696:15; Appx9694-9695, 698:8-699:1; Appx9700-9702, 704:8-706:9; Appx9715, 719:2-24.

IOENGINE offered invoices it argued were for Mr. McNulty's work on prototypes, but Mr. McNulty testified that he had no evidence that any invoice was actually paid, or by whom. Appx9177-9178, 269:17-270:7; Appx11397; Appx11398-11399; Appx16800-16801; Appx16802. An individual hired by Mr. McNulty, Mr. Harkabi, testified that his work with Mr. McNulty was insignificant, and he only remembered working on the "blimp" device that was likely paid for by Fuji, not by Mr. McNulty. Appx9700-9703, 704:8-707:1.

II. SUMMARY OF THE ARGUMENT

First, substantial evidence supports a finding that the DiskOnKey System was publicly used, sold, or offered for sale in the U.S. before March 23, 2003, and that the DiskOnKey System anticipated and rendered obvious the asserted claims. IOENGINE is not entitled to JMOL and the decision below should be affirmed. Second, IOENGINE is not entitled to a new trial because there were no errors, much less clear error, in the jury instructions, and any alleged errors were harmless. Finally, Ingenico's evidence of the Firmware Upgrader application was not barred by IPR estoppel, and IOENGINE has not met its burden to prove otherwise

III. ARGUMENT

A. Standard of Review

Denial of JMOL is reviewed *de novo*, applying the law of the regional circuit. *TransWeb, LLC v. 3M Innovative Properties Co*., 812 F.3d 1295, 1301 (Fed. Cir.

2016).[2] The Third Circuit standard is "whether there is evidence upon which a reasonable jury could properly have found its verdict." *Id.* (citing *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.* (citing *Lightning Lube, Inc. v. Witco Corp.*, 4 F.3d 1153, 1166 (3d Cir. 1993)). 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).

The Third Circuit reviews a denial of a motion for new trial for abuse of discretion, and a new trial should only be granted only when the verdict is contrary to the weight of the evidence. *Seachange Int'l, Inc. v. C-COR, Inc.*, 413 F.3d 1361, 1368 (Fed. Cir. 2005) (new trial considered "extraordinary relief" only granted "where a miscarriage of justice would result if the verdict were to stand.").

B. The Invalidity Verdict Was Supported By Substantial Evidence

IOENGINE does not question the jury's finding that the DiskOnKey and its associated Firmware Upgrader and SDK capabilities (the "DiskOnKey System") anticipates and renders obvious the asserted claims. Rather, the sole issue on appeal

[2] Internal citations and quotations omitted, unless otherwise noted.

is whether there was substantial evidence that the DiskOnKey System was "on sale," in "public use," or "known or used by others" before the critical dates. IOENGINE has not met, and cannot meet, its burden to prove that there was insufficient evidence from which a jury could reasonably have found that the DiskOnKey System was prior art for purposes of § 102(b) or § 102(a). Instead, as the District Court held below, there *was* sufficient evidence, from witnesses and contemporaneous documents, that the DiskOnKey System was both on sale or in public use prior to the critical date of March 23, 2003, and known or used by others in this country prior to the date of the alleged invention.

IOENGINE asks this Court to ignore evidence establishing that the DiskOnKey System was aggressively marketed, made publicly available, offered for sale, and sold in the U.S. and instead accept IOENGINE's conjecture to the contrary. Critically, the Federal Circuit's "job is not to review whether [IOENGINE's] losing position was also supported by substantial evidence or to weigh the relative strength of [IOENGINE's] evidence against [Ingenico's] evidence." *Apple Inc. v. Samsung Elecs. Co.*, 839 F.3d 1034, 1052 (Fed. Cir. 2016). Rather, this Court is "limited to determining whether there was substantial evidence for the jury's findings, on the entirety of the record." *Id.* Indeed, the evidence must be viewed as a whole and in

the light most favorable to Ingenico, which must be given the "advantage of every fair and reasonable inference." *TransWeb,* 812 F.3d at 1301.

1. The DiskOnKey System was "On Sale" Under 35 U.S.C. § 102(b)

Under pre-AIA § 102(b), a device is prior art to a patented invention if it was "on sale in this country, more than one year prior to the date of the application for patent in the United States," which in this case is March 23, 2003. *See* 35 U.S.C. § 102(b) (2006). Whether the on-sale bar applies is a question of law based on underlying factual findings. *See Grp. One, Ltd. v. Hallmark Cards, Inc.*, 254 F.3d 1041, 1045–46 (Fed. Cir. 2001). The underlying factual findings are "reviewed for substantial evidence following a jury verdict." *Leader Techs., Inc. v. Facebook, Inc.*, 678 F.3d 1300, 1305 (Fed. Cir. 2012).

a. Substantial evidence supports that the DiskOnKey was sold with the Firmware Upgrader and SDK capabilities

Ingenico presented substantial evidence that M-Systems began including the Firmware Upgrader on physical DiskOnKey devices sold to customers at least as early as November 8, 2002. *See* Appx7-8. An archived November 8, 2002, M-Systems webpage stated that the DiskOnKey "comes with" several applications, including the Firmware Upgrader, that demonstrate the ability to "run applications straight from the device – not from a host computer. This means...there's no need to carry around CDs or Install any software…***DiskOnKey already comes with several***

applications that demonstrate this terrific new potential. Users can secure their devices and files using the KeySafe application, ***or upgrade their firmware using the Upgrade program.***" Appx10931 (emphasis added). These facts were corroborated by unrebutted witness testimony. Appx9778-9779, 782:3-783:21.

DiskOnKey Technology

M-Systems has already proven itself as the creator and leader of the **keychain storage market,** bringing end-users a solid-state, ultra-portable storage alternative, and is continuing to lead the revolution in portable flash storage technologies.

DISKonKEY

DiskOnKey technology is the only portable keychain storage device that can run applications. That's what sets us apart from our competition - we offer raw computing power. Proving our pioneering spirit once again, we offer a powerful on-board ARM7 32-bit processor that will change the way consumers are using their portable storage devices. The processor runs applications straight from the device - not from the host computer. This means applications are now just as mobile as data, and there's no need to carry around CDs or install any software.

Along with the computing power, we provide the platform required to develop applications and translate this power into user productivity. Our partners will be able to develop custom applications and extend their offerings to target niche markets. This value-added application solution will drive customer demand and offer them more than ever before.

DiskOnKey already comes with several applications that demonstrate this terrific new potential. Users can secure their devices and files using the KeySafe application, or upgrade their firmware using the Upgrade program.

Click here to go to the DiskOnKey web site.

As the District Court held, the most reasonable interpretation of the M-Systems webpage, Appx10931, is that the DiskOnKey devices "came with" the Firmware Upgrader loaded on them as of November 8, 2002, and could run the Firmware Upgrader "straight from the device – not from the host computer" and did not require the user to download or "install any software." *See* Appx10931; Appx7.

That these devices were on sale is supported by unrebutted evidence of M-Systems' sales of DiskOnKey devices in the U.S. from late 2002 to early 2003 onward. *See* Appx7-8; Appx11118; Appx11119.

IOENGINE argues—without *any* authority in support—that because this language was not literally read aloud to the jury, the jury cannot rely on it. Br., 17-18. However, there is no dispute that this entire one-page exhibit, Appx10931, was admitted into evidence *and* presented to the jury on a large screen. This is not a situation where a relevant passage is buried in a voluminous document. Additionally, Mr. Geier testified about this exhibit and that it touted the DiskOnKey's ability to "run applications straight from the device." Appx9778-9779, 782:3-783:7. IOENGINE made no objections, and did not seek to limit the jury's consideration of the exhibit.

Under IOENGINE's logic, both the jury and this Court would be prohibited from fully considering exhibits admitted into evidence. To the contrary, the case law is clear that juries, and courts reviewing a jury verdict on a motion for JMOL, are ***required*** to fully consider and weigh *all* of the evidence in the trial record. *See Summit Tech., Inc. v. Nidek Co.*, 363 F.3d 1219, 1223 (Fed. Cir. 2004) (citing *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000). This "requires an examination not merely of isolated snippets of testimony or abbreviated excerpts from documentary evidence divorced from the context in which they appear, but of

all relevant evidence on which the jury verdict may have been based." *Id.* at 1223. *See also i4i Ltd. P'ship v. Microsoft Corp.*, 598 F.3d 831, 849 (Fed. Cir. 2010) ("we assume the jury considered all the evidence").

Additionally, the jury was repeatedly instructed that exhibits admitted into evidence—as a category separate and apart from witness testimony—were part of the record to be weighed in reaching a verdict. *See, e.g.,* Appx8859-8898 (jury instructions). Those instructions support the already-existing assumption that the jury considered the exhibit in its entirety. *See i4i,* 598 F.3d at 849.

Further, in an effort to explain away the plain reading that the DiskOnKey "comes with" the Firmware Upgrader, Appx10931, IOENGINE tries in vain to criticize the District Court for using "the" prior to "DiskOnKey" when discussing Appx10931 in its decision, and tries to distinguish between the phrase "DiskOnKey" and "DiskOnKey Technology." Br., 19-21. In doing so, IOENGINE conveniently—and improperly—provides only abbreviated excerpts from this webpage, "divorced from the context in which they appear." *Summit Tech*, 363 F.3d at 1223. This Court is not required to accept IOENGINE's tortured and out-of-context reading, especially where the interpretation that reasonably supports the jury's verdict takes

into account the context of the document and the trial record as a whole. *See* Appx10931; Appx7-8.

With respect to the SDK, IOENGINE contests whether the SDK was on sale only in a footnote in its brief and therefore has forfeited that argument. Appx8-9 (citing cases). Regardless, even if IOENGINE had not forfeited that argument, it has no merit. IOENGINE mistakenly argues that Ingenico relied on the SDK as evidence that the Firmware Upgrader was on sale. However, as the District Court explained, "the critical question is whether the DiskOnKey devices that were sold in the U.S. prior to March 23, 2003, had SDK capabilities." Appx9. The DiskOnKey SDK documentation was in evidence, and Mr. Geier explained that the DiskOnKey SDK is a set of functions that allow a software developer to access certain functionality on the DiskOnKey device, including the capability of performing authentication (or verification) using an authentication protocol based on Public Key Infrastructure ("PKI"). *See* Appx9801-9802, 805:8-806:5; Appx9810-9814, 814:6-818:8; Appx11267-11268. Mr. Sobol, a former M-Systems employee familiar with the product, testified that the SDK documentation accurately described the capabilities of the DiskOnKey device. Appx9731, 735:5-8; Appx9740, 744:18-21. Evidence established that the SDK capabilities became available on the DiskOnKey in September 2002. *See* Appx11116-11117; Appx11197-11281. Thus, the District Court determined that "[b]ased on the evidence before it, the jury could reasonably

have concluded that the DiskOnKey devices that were sold in the U.S. after September 2002 had SDK capabilities, and thus that the DiskOnKey devices that were on sale during late 2002 and early 2003 satisfied all the limitations of the claims that the jury found invalid." Appx10.

b. Factual inferences must be in Ingenico's favor

IOENGINE posits an unsupported theory that the Firmware Upgrader was *only* available separately for download, or that the version sold with the devices must have been a different version. However, this Court cannot "disturb[] the jury's credibility determinations or substitut[e] [its] resolutions of conflicting evidence for those of the jury." *Tec Air, Inc. v. Denso Mfg. Mich. Inc.*, 192 F.3d 1353, 1357-58 (Fed. Cir. 1999).

That M-Systems made the Firmware Upgrader available for download from its website is not evidence that the Firmware Upgrader was not *also* included with as-sold DiskOnKey devices. There was abundant trial evidence—which IOENGINE ignores—that DiskOnKey devices had sophisticated processors that could run applications, including the Firmware Upgrader, directly from the devices. *See, e.g.* Appx10931; Appx11041-11042; Appx11043 ("Since DiskOnKey has its own central processing unit (CPU), it can directly support and run multiple applications"); Appx9696, 700:14-23, Appx9778-9779, 782:3-783:21. IOENGINE insists, without evidentiary support, that every DiskOnKey USB device was "blank"

when sold. IOENGINE relies on the sale of "blank" devices either (a) solely relating to **Fuji** selling blank DiskOnKey devices—not those sold by M-Systems; or (b) relating to the *initial* devices sold by M-Systems when it launched in 2000. *See* Br., 17 (citing Appx9074-9075, 166:15-167:7; Appx9132, 224:1-8; Appx9685-9688, 689:13-692:18; Appx9695, 699:2-12; Appx9697-9698, 701:22-702:3). IOENGINE's conjecture cannot supplant record evidence that the DiskOnKey "came with" the Firmware Upgrade program.

Alternatively, IOENGINE theorizes that the Firmware Upgrader that came with the DiskOnKey was somehow different from the Firmware Upgrader available for download. However, IOENGINE's theory is unsupported because there is no evidence that the Firmware Upgrader offered in November 2002 was substantively different from the version released in July 2002 and that Mr. Geier analyzed. Indeed, the evidence points in the opposite direction. Mr. Geier analyzed the July 2002 version of the Firmware Upgrader that was released just four months prior to the November 2002 webpage, and there is no evidence of any other version of the Firmware Upgrader available in 2002 or 2003. Indeed, the November 2002 webpage discussing the ability of the DiskOnKey to run applications from the device and not from the host computer (Appx10931) is identical to the language in the July 2002 press release announcing the launch of the Firmware Upgrader available on its website: "The automatic upgrade capability…solidifies that the DiskOnKey is the

only product in the keychain storage category offering storage capabilities combined with the functionality to run applications from the device." Appx10932-11036.

IOENGINE's only counter evidence is a reference by a witness to the fact that "even before there was an application, all the USB drives could remotely be updated." Appx9696-9697, 700:24-701:5. This is *not* evidence that there were in fact different substantive versions of the Firmware Upgrader once there was an application. In *Leader Techs.*, this Court rejected a similar argument by a patent owner that the version of the software that existed prior to the patent's critical date was substantively different from the post-critical date software, because the jury was entitled to disbelieve "such a transparently convenient assertion in light of all of the evidence before them" and it is not the appellate court's role "to overturn the jury's verdict when it was supported by substantial evidence." 678 F.3d at 1307-08. In any event, it is up to the jury, not this Court, to weigh the evidence and make credibility determinations.

Because the evidence was sufficient to show that the DiskOnKey devices that were on sale during the critical period had processors, the Firmware Upgrader, and SDK capabilities, the Court should affirm the verdict of invalidity.

2. The DiskOnKey System Was "In Public Use" Under 35 U.S.C. § 102(b)

IOENGINE misstates the legal test for public use and ignores abundant evidence presented at trial to argue there was insufficient evidence that the DiskOnKey and its associated Firmware Upgrader and SDK capabilities were "in public use" prior to March 23, 2003. In doing so, IOENGINE ignores binding precedent and again improperly asks this Court to make factual inferences in its favor.

Under pre-AIA 35 U.S.C. § 102(b), a device is prior art to a patented invention if it was "in public use…in this country, more than one year prior to the date of the application for patent in the United States." The Federal Circuit has explained that "[T]he Supreme Court articulated the principal inquiry regarding public use: Was the invention's use public in the sense that it was made available to others with no limitation or restriction?" *Pronova Biopharma Norge AS v. Teva Pharms. USA, Inc.*, 549 F. App'x at 934, 938-39 (Fed. Cir. 2013) (citing *Egbert v. Lippmann*, 104 U.S. 333, 336 (1881)).

The proper test for § 102(b) "public use" is whether "the ***invention*** was accessible to the public or was commercially exploited." *Minerva Surgical, Inc. v. Hologic, Inc.*, 59 F.4th 1371, 1377 (Fed. Cir. 2023) (emphasis added) (citing *Delano Farms Co. v. California Table Grape Comm'n*, 778 F.3d 1243, 1247 (Fed. Cir. 2015). Bizarrely, IOENGINE faults the District Court for applying this as the legal

standard, Br., 38, but conveniently ignores that the Federal Circuit embraced this standard, ***verbatim***, as recently as February 2023 in *Minerva*. 59 F.4th at 1377.

As the Federal Circuit has explained, "[a]n 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). Factors courts consider include: the "nature of and public access to activities involving the invention; confidentiality obligations imposed upon observers; commercial exploitation; and the circumstances surrounding testing and experimentation." *Id*. For public use by a third party, courts apply § 102(b) "when the third party made no attempt to maintain confidentiality or to deliberately evade disclosure, made no discernible effort to maintain the [invention] as confidential, or made no efforts to conceal the device or keep anything about it secret." *Dey, L.P. v. Sunovion Pharm., Inc*., 715 F.3d 1351, 1354-55 (Fed. Cir. 2013).

a. Substantial evidence supports that the DiskOnKey System was in public use

At trial, Ingenico presented numerous pieces of evidence that supports a conclusion by the jury that the DiskOnKey System was in public use in the U.S. before the critical date of the alleged invention. The trial record demonstrates that the DiskOnKey, Firmware Upgrader, and SDK capabilities were accessible to the

public, commercially exploited, and shown to others without any restrictions, and there was significant circumstantial evidence of use.

First, there was uncontested evidence that large numbers of sales were made in late 2002 and early 2003 of DiskOnKey devices that already contained the Firmware Upgrader and SDK capabilities, which as the District Court noted, provides "strong circumstantial evidence that devices containing that feature were in use in this country." *See, supra*, §§ I.B.1, III.B.1; Appx15; Appx10931. Even ignoring those sales, substantial evidence established that M-Systems publicly disclosed, marketed, and made available its Firmware Upgrader, SDK functionalities, and associated documentation within the U.S. prior to March 2003.

With respect to the Firmware Upgrader, the jury saw a July 2002 email M-Systems sent to its employees, including those in California, announcing the launch of the Firmware Upgrader. Appx11174-11176. 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] website…starting from [July 10, 2002]." *Id.* This email was accompanied by the DiskOnKey "ReadMe" user guide, Appx11177-11182, which disclosed important details about the Firmware Upgrader's functionality under no limitations or restrictions. Next, the jury saw a concurrent July 11, 2002, press release issued by M-Systems in Fremont, California that promoted the launch of the

Firmware Upgrader, explaining the application's benefits and touting it as a major differentiator from other storage devices. *See* Appx11041-11042.

Additionally, the jury saw an archived 2002 M-Systems website page in which the Firmware Upgrader was available for download. Appx11305. Next, given the volume of U.S. DiskOnKey sales, Mr. Geier testified that "there would be…many people that would think they need to upgrade the firmware and would be downloading the firmware [upgrader]" and the ReadMe file from the M-Systems website. Appx10177, 1142:15-25. IOENGINE cannot dispute the abundant evidence in the record that the Firmware Upgrader (and its user guide) was publicly available and shown to the public. Indeed, throughout its brief, IOENGINE acknowledges that the Firmware Upgrader was made available to the public through the DiskOnKey website. Br., 13-14, 17, 26. This evidence thus meets the public use test because "the invention was accessible to the public," "commercially exploited," and "shown to…others…under no limitation, restriction, or obligation of confidentiality." *Minerva*, 59 F.4th at 1377; *Am. Seating*, 514 F.3d at 1267. *See also* Appx46 ("The product, the firmware upgrade application, and the SDK were all publicly available and commercially exploited by M-Systems. In fact, they were aggressively marketed. Thus, they were plainly in public use.").

Courts routinely accept evidence like this as corroboration of public use. In assessing whether the standard is met, "[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). Indeed, Courts treat circumstantial evidence of public accessibility such as press releases, download websites, and advertisements as appropriate evidence of public use. *See, e.g.*, *Zenith Elecs. Corp. v. PDI Commc'n Sys., Inc.*, 522 F.3d 1348, 1358 (Fed. Cir. 2008) (no genuine issue of material fact concerning "in public use" where product literature sheet and testimony supported conclusion that the product was "available for use" at least as early as the critical date); *Dzinesquare, Inc. v. Armano Luxury Alloys, Inc.*, No. 14-cv-1918, 2014 WL 12597154, at *6 (C.D. Cal. Dec. 22, 2014) (evidence of prior art product being advertised in a catalog and on Facebook sufficient to create a triable issue regarding public use); *Phoenix Sols., Inc. v. W. Interactive Corp.*, No. 09-cv-8156, 2010 WL 6032841, at *7 (C.D. Cal. Aug. 25, 2010), *aff'd*, 438 F. App'x 897 (Fed. Cir. 2011) (evidence that a prior art system was "regularly publicized…through conferences, workshops, and published articles," and "could be launched anywhere through the Web or over the telephone" was evidence of public use); *Finjan, Inc. v. Symantec Corp.*, No. 10-cv-593, 2013 WL 5302560, at *6-7 (D. Del. Sept. 19, 2013), *aff'd*, 577 F. App'x 999 (Fed. Cir. 2014) (considering, among other evidence, user manuals and press releases that supported a finding of public use).

With respect to the SDK, IOENGINE does not contest that the DiskOnKey devices that were in public use had SDK capabilities prior to March 23, 2003. As the District Court noted, "[t]he evidence that the SDK was available as of September 2002 and that its documentation reflected how the DiskOnKey devices 'actually function[ed]' is sufficient evidence for a jury to find that the DiskOnKey devices that were in public use had SDK capabilities." Appx16; Appx11115-11117 (SDK press release); Appx11039-11040 (DiskOnKey webpage); Appx11306 (SDK data sheet); Appx11197-11181 (SDK manual); Appx9731, 735:5-8 (testimony from Mr. Sobol that the information in the SDK manual "reflect[ed] how the product actually function[ed]").

Strangely, IOENGINE instead focuses on the fact that public use of the SDK does not prove whether the Firmware Upgrader was in public use, but Ingenico never made such an allegation. Rather, Ingenico presented substantial evidence that the DiskOnKey and its associated software (including both the Firmware Upgrader and SDK capabilities) anticipates the asserted claims, and to the extent that not everything was disclosed in that system, it would have been obvious to POSITA to modify or combine the DiskOnKey with the SDK functionalities or information known to a POSITA at the time, all of which is § 102(b) art. *See, e.g.*, Appx9772-9777, 776:18-781:14; Appx9812-8915, 816:3-819:10; Appx9855-9856, 859:22-860:9; Appx9865, 869:11-23.

Additionally, as the District Court noted, substantial evidence supports public use of the DiskOnKey System in the U.S. Appx16. The physical location of M-Systems' servers housing firmware updates has no bearing on whether the DiskOnKey System, including the Firmware Upgrader, was in public use in the U.S. Although M-System was founded in Israel, it had U.S. offices and sold hundreds of devices in the U.S. as early as November 2002. *See, supra*, §§ I.B.1, III.B.1. The press releases announcing the Firmware Upgrader and SDK were issued from Fremont, California, and the email that encouraged employees to notify others about the Firmware Upgrader was sent to U.S. employees. Appx11041-11042; Appx11115-11117; Appx11174-11176. Additionally, the webpage that contained the link to download the Firmware Upgrader was in English and accessible to American users. Appx11305. *See also Finjan*, 2013 WL 5302560, at *7 (Evidence that online bulletin board regarding prior art "was accessible to people in the United States who had modems" supported finding of public use even though manual suggested availability only in the Netherlands.).

b. IOENGINE misapprehends the legal standard for public use

Given the substantial evidence that the DiskOnKey System was publicly available, commercially exploited, and shown to others before the critical date, IOENGINE moves the goal posts by alleging that there is insufficient evidence of "actual use" of the Firmware Upgrader with the DiskOnKey together.

Despite IOENGINE's proclamations, there is simply no requirement to provide direct evidence that someone physically used the Firmware Upgrader. As the Federal Circuit recently explained: "our standard for disclosure rising to the level of public use is not predicated on a device being physically handled by the public. Rather, public use may also occur where, as here, the inventor used the device such that at least one member of the public without any secrecy obligations understood the invention." *Minerva*, 59 F.4th at 1379. In *Minerva*, the plaintiff disputed the district court's finding that a prior art device was "in public use" since the only evidence involved a "disclosure" of a prototype at a booth and in a technical presentation at an industry event. *Id*. at 1378. The Federal Circuit explained that the "[t]he district court correctly determined that disclosing the Aurora device at AAGL 2009 constituted the invention being 'in public use' for the purposes of § 102(b) because the invention was 'shown to…individual[s] other than the inventor under no limitation, restriction, or obligation of confidentiality.'" *Id*. (citing *Am. Seating*, 514 F.3d at 1267). Indeed, "[e]ven limited disclosure to those who are skilled enough to know, understand, and easily demonstrate the invention to others, may mean that there was no reasonable expectation of secrecy and that the invention was therefore in public use." *Dey*, 715 F.3d at 1355-56 (collecting cases).

Here, not only is there evidence that the DiskOnKey came with the Firmware Upgrader (and SDK capabilities) loaded onto the device, Appx10931, but there is

also substantial evidence of disclosure of the Firmware Upgrader and its functionality to the public, including by making the Firmware Upgrader and ReadMe file available for download on the website, announcing it in press releases and on webpages, and distributing them widely to employees and encouraging distribution to customers, distributors, and reps. Appx11174-11176; Appx11177-11182; Appx11040-11042; Appx11305. *See, e.g.*, *Elec. Storage Battery Co. v. Shimadzu*, 307 U.S. 5, 20 (1939) (use of a process in the ordinary course of business, where the process was "well known to the employees" and no "efforts were made to conceal" it from anyone else, is a public use); *Art+Com v. Innovationpool GmbH v. Google LLC*, 712 F. App'x 976, 984 (Fed. Cir. 2017) (anticipation by public use of a third party prior art system where there was evidence of a demonstration of a working prototype in a video displayed at conferences); *Baxter Int'l, Inc. v. COBE Labs., Inc.*, 88 F.3d 1054, 1058 (Fed. Cir. 1996) (invention was in public use when observers included co-workers under no restrictions); *Eolas Techs. Inc. v. Microsoft Corp.*, 399 F.3d 1325, 1334 (Fed. Cir. 2005) (demonstration of invention to "two Sun Microsystems employees without confidentiality agreements" was an invalidating public use under § 102(b) even though no evidence the employees personally "used" the invention).

Moreover, that the Firmware Upgrader was widely available is strong circumstantial evidence that it was "actually used" in the U.S. A jury is entitled to

"make reasonable inferences" about whether the evidence demonstrates a public use. *BASF Corp. v. SNF Holding Co.*, 955 F.3d 958, 967 (Fed. Cir. 2020). Indeed, the role of circumstantial evidence is particularly important where, as here, "so much time has elapsed between the key events and the suit." *TransWeb*, 16 F. Supp. 3d at 393. Here, over twenty years have passed.

The cases IOENGINE relies upon are inapposite. In those cases, unlike here, the failure of proof hinged on a lack of evidence that the product in use was actually configured in a way that met or disclosed the claim requirements. In *Minn. Min. & Mfg. Co. v. Chemque, Inc.*, the accused product that was sent out in sample form was a two-part composition, and there was no evidence that the two separate parts were mixed together, or were applied to a "signal transmission device" as required by the claims. 303 F.3d 1294, 1303 (Fed. Cir. 2002). The District Court explained, "IOENGINE's argument over reads the court's opinion in *Minnesota Mining*" and "the context of the court's statement makes clear that the court was not setting forth a proof requirement for all cases." Appx12-14. Similarly, in *IBM Corp. v. Priceline Group Inc.*, evidence describing a prior art system did not create a genuine issue of material fact on public use because the evidence "only addressed what could be done in the future and never discussed any of the configurations that the [defendant's expert] relie[d] on." 271 F. Supp. 3d 667, 680-81 (D. Del. 2017). The defendants in *IBM* and *Minn. Mining* lacked evidence of how the allegedly invalidating products

were actually configured.

Here, however, substantial evidence confirmed that the DiskOnKey System, as provided to the public, embodied and enabled the asserted claims. Mr. Geier testified regarding the functionality of the DiskOnKey System, as disclosed in the executable file and user guides, explaining how this evidence showed the product and its accompanying software met each asserted claim on a limitation-by-limitation basis. Appx9776-9860, 780:19-864:3; Appx10168-10177, 1133:7-1142:25; Appx11177-11182; Appx11171; Appx11043, Appx11121-11170; Appx11197-11281. Indeed, IOENGINE's own expert made numerous admissions admitting that, using the Firmware Upgrader and its ReadMe file and the SDK documentation, a POSITA would understand how to make or use the product in a way that would meet the claim limitations. *See*, *supra*, § I.B.2. In view of that evidence, a jury could reasonably have found public use of the DiskOnKey System.

c. Factual inferences must be in Ingenico's favor

As with the on-sale bar, IOENGINE again improperly ignores copious evidence supporting a finding of public use and draws improper inferences from other evidence. For example, IOENGINE demands an inference that the Firmware Upgrader *must* not have been in use (or on sale) because it was not explicitly mentioned in an SEC Report. However, reading that document in context actually supports the finding the DiskOnKey came with applications such as the Firmware

Upgrader: "Since the DiskOnKey has its own central processing unit ("CPU"), it can also support and run multiple software applications directly from the product itself." Appx10953. IOENGINE further tries to force an inference that M-Systems encouraged users to buy a new device *rather* than use the Firmware Upgrader. But the sentence IOENGINE cites refers to a completely different product, a flash disk known as DiskOnChip. *See* Br., 35 (citing Appx10953).

Similarly, IOENGINE seizes on an out-of-context statement in a single internal M-Systems document stating that "[n]ormally there is no need to use DOK Upgrade" and "[w]e hope there will never be a need to use it." Appx11286. Based solely on this statement, IOENGINE asserts that the *only possible* inference is that the Firmware Upgrade was not in public use. However, the jury is presumed to have read this page in the context of the document as a whole, as well as in the context of the entire trial record, and this Court reviews the evidence with all reasonable inferences in Ingenico's favor. *Summit Tech.*, 363 F.3d at 1223. The same document explains that the "DOK Upgrade is a secure client-server application that allows a DiskOnKey firmware to be remotely upgraded" and that the "user can quickly upgrade the DiskOnKey without leaving home." Appx11283. This presentation touts the functionality of the Firmware Upgrader and corroborates that M-Systems made it commercially available and exploited it as a differentiating feature to customers. Even if M-Systems hoped there "will never be a need to use" the Firmware Upgrader

to fix a "critical bug" in the firmware, the Firmware Upgrader could still have been used for upgrading devices, such as to take advantage of new SDK features or functionality.

Additionally, as the District Court noted, "if even a single person downloaded the firmware upgrade application from the M-Systems website, the application would have been in public use regardless of whether that person ever ran the application to update the firmware of a DiskOnKey device." Appx19. Furthermore, "[w]hat is required is that there was public accessibility to the upgrade application, not that any person in possession of a DiskOnKey actually used the upgrade application to update the DiskOnKey firmware." *Id. See also Minerva*, 59 F.4th at 1379.

3. The DiskOnKey System Is Prior Art Under 35 U.S.C. § 102(a)

To the extent the jury came to its conclusion of anticipation or obviousness based on § 102(a), Ingenico provided sufficient evidence that "the invention was known or used by others in this country…before the invention thereof by the applicant for patent." 35 U.S.C. § 102(a). Courts uniformly interpret the "known or used" prong of § 102(a) to mean "knowledge or use which is accessible to the public" upon reasonable inquiry. *BASF*, 955 F.3d at 964 (citing cases). In determining public accessibility of knowledge or use, courts consider confidentiality obligations and affirmative steps to conceal the invention, its contribution to the public knowledge

in the art, and whether it was enabling to an ordinary skilled artisan. *Id*. For all of the same reasons discussed with respect to § 102(b), Ingenico presented substantial evidence that the DiskOnKey System was known or used in a way that was "accessible to the public."

Additionally, Ingenico presented substantial evidence (through examining its own expert and cross-examining IOENGINE's expert) that the DiskOnKey System and accompanying documentation enabled one with ordinary skill in the art to practice the invention. *See* Appx9776-9860, 780:19-864:3; Appx10168-10177, 1133:7-1142:25; Appx9749-9775, 753:8-779:12; Appx9865, 869:8-23; Appx10128, 1093:5-24; Appx10130-10131, 1095:1096:7; Appx10135-10136, 1100:10-1101:14; Appx10134, 1099:13-16; Appx10124, 1089:12-13. Ultimately, "[t]he dispositive question regarding anticipation is whether one skilled in the art would reasonably understand or infer from the prior art reference's teaching that every claim element was disclosed in that single reference." *Art+Com*, 712 F. App'x at 981. Additionally, even if the Firmware Upgrader did not actually work exactly as described in the documentation, Mr. Geier testified it would have been obvious to modify DiskOnKey or combine it with the knowledge of a POSITA to practice the asserted claims. *See, e.g.*, Appx9812-8915, 816:3-819:10; Appx9855-9856, 859:22-860:9; Appx9865, 869:11-23. Ingenico thus submitted substantial evidence from which the jury reasonably could conclude that the DiskOnKey System provided a basis for

both a finding of anticipation and obviousness under § 102(a).

IOENGINE argues that the Firmware Upgrader is not prior art under 35 U.S.C. § 102(a) because the proper date of invention is July 26, 2001, not March 23, 2004. IOENGINE misconstrues the burden of proof and ignores the substantial evidence at trial that supported a finding that Mr. McNulty is not entitled to an earlier invention date. IOENGINE essentially suggests that this Court and the jury *must* accept that the invention date of the asserted claims is July 26, 2001, solely because IOENGINE and Mr. McNulty say so, but that is wrong: the invention date is presumed to be the filing date of the relevant patent application unless an earlier date of invention is proved. *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 796 F.2d 443, 449 (Fed. Cir. 1986). As the party seeking the benefit of an earlier invention date, IOENGINE has the initial burden to come forward with evidence that it is entitled to the earlier invention date; "that means producing sufficient evidence and argument to show that [the PDR memo] contains a [disclosure] that supports all the limitations of…the claim[s] being asserted." *See Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1327-28 (Fed. Cir. 2008). If IOENGINE meets its burden of production, only then does the burden of persuasion shift to Ingenico to show that IOENGINE is not entitled to the earlier invention date. *Id.*; *Mahurkar v. C.R. Bard, Inc.*, 79 F.3d 1572, 1576 (Fed. Cir. 1996) (party seeking earlier invention date bears burden of production, and opposing party bears burden

of persuasion).

Substantial evidence supports the jury's assumed finding that IOENGINE was not entitled to its alleged July 26, 2001 invention date. First, the jury was free to find that IOENGINE did not meet its initial burden of production. IOENGINE asserts that the simple act of sending the question of invalidity to the jury means that IOENGINE met its burden of production, but the District Court did not rule that the burden of production had been met. Instead, it explained that it was "going to have the jury have the first crack at [conception and reduction to practice]" and would return to those questions "at a point at which there is going to be some resolution on which we can work from the jury." Appx10204, 1169:2-9. Even under the rule of reason analysis that IOENGINE argues applies here, Mr. McNulty's testimony concerning conception and diligence is simply not credible and not supported by the trial record when "all pertinent evidence," including the lack thereof, is examined. *TransWeb*, 812 F.3d at 1301-02 (under a "rule of reason" analysis "all pertinent evidence is examined in order to determine whether the inventor's story is credible."). Second, even if IOENGINE had met its burden of production, there was substantial evidence at trial to support a jury finding that Ingenico met its burden to disprove conception or diligence toward reduction to practice.

a. Conception

Conception happens when an inventor has formed "a definite and permanent

idea of the complete and operative invention," *Burroughs Wellcome Co. v. Barr Labs., Inc.*, 40 F.3d 1223, 1228 (Fed. Cir. 1994), including ***every*** limitation of the claimed invention, *Singh v. Brake*, 317 F.3d 1334, 1340 (Fed. Cir. 2003). At trial, Mr. McNulty testified that he conceived the invention in June of 2001, and IOENGINE offered the PDR Memo, purportedly dated July 26, 2001, to support Mr. McNulty's claim. Appx16798-16799. Critically, the jury was presented with substantial evidence that the PDR Memo did ***not*** disclose the PDII and verification limitations found in the asserted claims at issue on appeal. This is fatal to IOENGINE's asserted earlier invention date. *See Singh*, 317 F.3d at 1340; *Burroughs Wellcome*, 40 F.3d at 1228.

As evidence of disclosure of these limitations, IOENGINE points to a single sentence from the PDR Memo: "Hi. I am here from a person's pocket and I would like to copy your content" (Appx16798). However, Mr. Geier explained that that a POSITA "would not understand that [sentence] as identifying the device or verifying the device," because there is "no indication of whether or not that could even be used for any sort of authentication or verification with the server." Appx9862-9863, 866:12-867:14. Instead, that sentence would be understood as "just making the notice that I want to copy your content…like a request to copy content." *Id*. He concluded that a POSITA "looking at this would not read this and see there is any form of verification that is being done here or even teaching that verification needs

to be done." Appx10166-10168, 1131:21-1133:6.

As the District Court found below, Mr. Geier's testimony constitutes substantial evidence sufficient to support the jury's verdict, and "the jury was entitled to reject [Mr. McNulty's and Dr. Rubin's] testimony in favor of Mr. Geier's testimony that the PDR memo did not disclose the 'portable device identifier' and 'verification' limitations." *See* Appx20-21. *See also XY, LLC v. Trans Ova Genetics, LC*, 890 F.3d 1282, 1295-96 (Fed. Cir. 2018) ("jury holds the exclusive function of appraising credibility…[and] weight to be given to the testimony."); *Mahurkar*, 79 F.3d at 1577-78 ("The trier of fact can conclude for itself what documents show, aided by testimony as to what the exhibit would mean to one of skill in the art."). Indeed, the very next sentence of the PDR Memo shows that it discloses only the ability to retrieve data: "In other words: the portable device would have the ability to get data from the internet and bring it back to the device as long as two things happen: the first is that"—and then it cuts off abruptly. Appx16798. To the extent that the PDR Memo or conflicting expert testimony leaves anything open to interpretation, this Court must "view[] the evidence in the light most favorable [Ingenico] and giv[e] it the advantage of every fair and reasonable inference." *Amgen Inc. v. Hospira, Inc.*, 944 F.3d 1327, 1333 (Fed. Cir. 2019). *See also Tec Air*, 192 F.3d at 1357-58 (this Court cannot "disturb[] the jury's credibility determinations or substitut[e] [its] resolutions of conflicting evidence for those of the jury.").

Alternatively, the jury was free to find that IOENGINE did not meet its initial burden of production based on the lack of corroboration of conception. When a party seeks to prove conception through the oral testimony and documents of an inventor, it must proffer "independent corroborating evidence in addition to [the inventor's] own statements and documents." *Brown v. Barbacid*, 276 F.3d 1327, 1335 (Fed. Cir. 2002) ("*Brown I*").[3]

Based on the trial record, the jury was also free to find that Mr. McNulty did not conceive an invention that a POSITA could reduce to practice "without extensive research or experimentation" or the "exercise of the inventive faculty." *Mahurkar*, 79 F.3d at 1577; *Gunter v. Stream*, 573 F.2d 77, 79 (CCPA 1978). Mr. McNulty's unfinished and convoluted PDR Memo itself provides substantial evidence that he did not have a "complete mental picture of the invention" prior to March, 23, 2004. PX-235. *See Burroughs Wellcome*, 40 F.3d at 1228 ("The conception analysis necessarily turns on the inventor's ability to describe his invention with particularity. Until he can do so, he cannot prove possession of the complete mental picture of the invention."). The fact that no functional prototype was ever created or reduced to

[3] The only support of Mr. McNulty's testimony is the PDR Memo, but it is not independent evidence. *See Brown I*, 276 F.3d at 1335 (an inventor's own statements and documents are not independent corroborating evidence). Further, IOENGINE's witness, Mr. Rzonca, could only confirm that he saw a document titled "Portable Devices Rule," but he could not recall the substance of the document and could not testify concerning the completeness or operability of Mr. McNulty's invention at the time. Appx9280-9282, 333:15-335:4; Appx9285-9286, 338:12-339:21.

practice after years of trying further demonstrates Mr. McNulty's lack of a complete mental picture of his invention in 2001. In fact, Mr. Harkabi, hired by Mr. McNulty, testified that he did not believe that Mr. McNulty conceived of a "realistic" or workable invention because he "couldn't understand really how [Mr. McNulty's ideas] connect to anything which made sense." Appx9703-9707, 707:8-711:6.

b. Diligence

Even if the PDR memo did provide sufficient evidentiary support for Mr. McNulty's claim of conception, the jury was presented with substantial evidence that Mr. McNulty was not diligent in reducing the invention to practice. Reasonable diligence requires "evidence…that the alleged earlier inventor was diligent throughout the entire critical period." *Monsanto Co. v. Mycogen Plant Sci.*, 261 F.3d 1356, 1369 (Fed Cir. 2001). The inventor must "account for the entire period during which diligence is required," and must be "specific as to dates and facts" to establish reasonable diligence. *Creative Compounds, LLC v. Starmark Labs.*, 651 F.3d 1303, 1312-13 (Fed. Cir. 2011); *Kendall v. Searles*, 173 F.2d 986, 1054 (C.C.P.A. 1949). Gaps of inactivity during the critical period must be adequately explained and corroborated. *Monsanto*, 261 F.3d at 1369; *Brown v. Barbacid*, 436 F.3d 1376, 1380 (Fed. Cir. 2006) ("*Brown II*"). IOENGINE failed to set forth specific dates and facts concerning Mr. McNulty's alleged diligence and failed to "account for significant gaps in Mr. McNulty's efforts." Appx21. Thus, the District Court correctly found

that "the jury heard evidence that could support a conclusion that Mr. McNulty was not diligent in reducing his inventions to practice." *Id.*

Evidence in support of reduction to practice "must show that the…inventor was diligent throughout the entire critical period," though not necessarily every day. *Monsanto,* 261 F.3d at 1369. IOENGINE's evidence of diligence consisted of Mr. McNulty's self-serving testimony that he worked "non-stop…every evening, every weekend, all weekend" on his inventions (Appx9082, 174:10-11) and purported corroboration that accounts for only a small portion of the critical period between July of 2001 and March of 2004. IOENGINE presented no evidence of any activity for the majority of the critical period, including "significant gaps in Mr. McNulty's efforts, such as between July 2001 and April 2002, and between April 2002 and February 2003." Appx21. As noted by the District Court below, the jury "could properly have found Mr. McNulty's claim that he worked 'nonstop' on his inventions after that to be implausible." *Id.*

Importantly, most of Mr. McNulty's testimony was entirely uncorroborated. "[B]ased on the gaps in the corroborating evidence the jury could have found that Mr. McNulty was not diligent in reducing his invention to practice before March 23, 2004." *Id.* None of Mr. McNulty's testimony concerning his work with Dr. Bernstein was independently corroborated through any agreements, emails, invoices, or prototypes. The metadata page introduced by IOENGINE, Appx18161, cannot serve

as independently corroborating evidence because it is Mr. McNulty's own file, nor does it make any reference to Dr. Bernstein. *See Brown II*, 486 F.3d at 1380 (inventor's testimony on diligence must be independently corroborated); *Kenexa Brassring Inc. v. Taleo Corp.*, 751 F. Supp. 2d 735, 760-61 (D. Del. 2010) (inventor's own time stamped source code file was not independent corroboration of his testimony). With regard to the work performed by Mr. Harkabi and Mr. Elazar, the software development agreement depicted a *plan* to provide deliverables in May and September of 2003, but there was no evidence that any of that work was ever performed. Appx9075-9076, 167:14-168:20; Appx16485-16501.

Mr. McNulty testified that he created approximately 90 prototypes between late-2002 and mid-2004, but he provided no specific dates and offered only irrelevant testimony about attempts to market his alleged invention to Fuji, Pepsi, and J.P. Morgan. Appx9077-9082, 169:24-174:1. *See Griffith v. Kanamaru*, 816 F.2d 624, 627 (Fed. Cir. 1987) (commercial development and marketing not relevant to diligence toward reduction to practice). Instead of corroborating Mr. McNulty's testimony, Mr. Harkabi testified that his work for Mr. McNulty was "not a significant [amount of] time nor a significant project," and he only remembered working on the device that "was probably paid [for] by Fuji"—Mr. McNulty's employer at the time. Appx9700-9703, 704:8-707:1. Mr. Elazar likewise could not recall any work performed for Mr. McNulty and instead testified he did work for

Fuji under Mr. McNulty's direction. Appx9715, 719:2-24; Appx9719-9720, 723:21-724:22. With respect to other vendors allegedly hired to work on the prototypes, IOENGINE's corroborating evidence covers only three months. *See* Appx16800-16801 (July-August of 2003), Appx16802 (January of 2024), Appx11397 (July of 2003), Appx11398-11399 (August of 2003). IOENGINE offered no independent testimony from any of these entities, no specific facts relating to these invoices that connect them to work performed in furtherance of reduction to practice, and no evidence of what work was done before, after, or in-between the dates accounted for by these invoices. Further, Mr. McNulty admitted on cross-examination that IOENGINE had no evidence that these invoices were ever paid, or by whom. Appx9177-9178, 269:17-270:7.

Given the scarcity of and significant gaps in IOENGINE's evidence of diligence, the jury had substantial evidence to support a finding that Mr. McNulty was not diligent in reducing his invention to practice.

4. Substantial Evidence Supports the Anticipation and Obviousness Verdicts

Because substantial evidence supported that the DiskOnKey System was prior art under § 102, and IOENGINE has not met its burden to prove otherwise, the verdict on anticipation and obviousness must be upheld.

C. The Jury Instructions Were Correct and Free of Reversible Error

IOENGINE contends that it is entitled to a new trial due to errors in the jury

instructions. Specifically, IOENGINE argues that the District Court gave incomplete instructions concerning conception, diligence, and the meaning of "public use" and "on sale" under § 102(b), and also erroneously failed to instruct the jury on the presumption of validity. To prevail, IOENGINE must establish that the jury instructions were erroneous, the errors were prejudicial, and it requested alternative instructions that would have remedied the errors. *Seachange*, 413 F.3d at 1381. "When the error in a jury instruction could not have changed the result, the erroneous instruction is harmless." *Ecolab Inc. v. Paraclipse, Inc.*, 285 F.3d 1362, 1374 (Fed. Cir. 2002).

IOENGINE fails to establish that there were *any* errors in the jury instructions, let alone prejudicial errors warranting a new trial. The instructions given by the District Court were correct and, to the extent there were any errors, they were harmless and did not impact the jury's verdict.

1. Conception and Diligence

IOENGINE contends that the District Court failed to instruct the jury that "Ingenico bore the burden of disproving IOENGINE's conception and diligence" by clear and convincing evidence. Br., 52. That is not true. The instructions on conception and diligence, particularly when reviewed in the context of the overall jury instructions, make clear that Ingenico had the ultimate burden of proof by clear and convincing evidence on all issues relating to invalidity, including the invention

date.

The District Court began the instructions on conception and diligence by explaining to 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." Appx10372, 1293:9-12. It then explained what is meant by "conception" and "diligence," including the impact on the issues to be decided by the jury:

> 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…any 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…any 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…**Ingenico must prove by clear and convincing evidence that the prior art item predated the claimed invention**.

Appx10375-10376, 1296:20-1297:16 (emphasis added). As the District Court noted, "the court instructed the jury several times that Ingenico had the burden of proof of providing [sic] invalidity by clear and convincing evidence with respect to each invalidity issue," including twice at the beginning of trial, again via the Federal Judicial Center's video presentation to the jurors, and twice on the verdict form. Appx29; Appx8995, 87:3-5; Appx9000-9001, 92:21-93:4; Appx9001-90002, 93:25-94:2; Appx10362, 1283:4-19; Appx10365, 1286:23-1287:2; Appx10372, 1293:9-12; Appx10376, 1297:14-16; Appx10379, 1300:8-10; Appx10384, 1305:4-7;

Appx10495, 1416:22-24; Appx10496, 1417:11-13.

Not only were the instructions clear in terms of Ingenico's ultimate burden of proof, they track directly with prevailing case law from this Court explaining 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." *Mahurkar*, 79 F.3d at 1578; *Loral Fairchild Corp. v. Matsushita Elec. Indus. Co.*, 266 F.3d 1358, 1361 (Fed. Cir. 2001) (defendant must prove that prior art reference was published prior to invention date); *Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.*, 585 F. Supp. 2d 568, 575-76 (D. Del. 2008) ("[T]he defendant [must] establish by clear and convincing evidence that the patentee's invention date does not precede the date of the ostensible prior art reference."); Appx28-29 (citing cases). The instructions given "advised the jury that it could find invalidity only if it found that Ingenico proved by clear and convincing evidence that the prior art item pre-dated the invention" and "unambiguously provided that the burden of proof on invalidity by pre-conception prior art rested on Ingenico and could be met only by clear and convincing evidence." Appx29.

Even if the conception and diligence instructions were unclear, the jury instructions as a whole and statements made by IOENGINE's counsel in closing arguments made Ingenico's burden clear for the jury. *See Lab'y Skin Care, Inc. v. Ltd. Brands, Inc.*, No. 06-601-LPS, 2011 WL 4005444, at *4-5 (D. Del. Sept. 8,

2011), *aff'd*, 478 F. App'x 672 (Fed. Cir. 2012) ("An otherwise proper jury verdict…should not be disturbed for an erroneous jury instruction that was harmless"). "In reviewing jury instructions, the full trial record and the jury instructions in their entirety must be examined because instructions take on meaning from the context of what happened at trial, including how the parties tried the case and their arguments to the jury." *Therasense, Inc. v. Becton, Dickinson & Co.*, 593 F.3d 1325, 1331 (Fed. Cir. 2010). Just moments before the jury began its deliberations, IOENGINE's counsel explained that:

> **It's Ingenico that bears the burden of proof by clear and convincing evidence that any prior art item predated Mr. McNulty's invention date**. That includes proving that Mr. McNulty is not entitled to his invention date in July of 2001, and all other aspects of invalidity. In other words, **Mr. McNulty and we do not need to convince you that he thought of his invention by July 26, 2001. Instead…Ingenico must prove by clear and convincing evidence that Mr. McNulty did not conceive of his invention by July 26th, 2001**…just like conception, **the law does not require Mr. McNulty [to] convince you he was reasonably diligent. Instead, it's Ingenico's burden to convince—by clear and convincing evidence to prove to you that he was not**.

Appx10409-10413, 1330:20-1334:4-8 (emphasis added). In total, "counsel for IOENGINE emphasized the clear and convincing evidence standard to the jury no fewer than 14 times during his closing argument." Appx29. *See* Appx10398-10399, 1319:24-1320:18; Appx10400, 1321:21-25; Appx10402, 1323:4-7; Appx10403, 1324:18-20; Appx10405, 1326:9-11; Appx10409-10410, 1330:25-1331:20; Appx10413, 1334:4-8; Appx10447, 1368:8-13; Appx10448-10449, 1369:24-

1370:3. Indeed, IOENGINE used nearly identical language at trial to that included in the jury instructions that it now claims warrants reversible error. *Compare* Appx10409-10410, 1330:25-1131:2 (IOENGINE: "**It's Ingenico that bears the burden of proof by clear and convincing evidence that any prior art item predated Mr. McNulty's invention date**.") *with* Appx10376, 1297:14-16 (Jury instructions: "**Ingenico must prove by clear and convincing evidence that the prior art item predated the claimed invention**.").

In any event, any alleged errors were harmless and would not have changed the jury's verdict. *See Environ Prods., Inc. v. Furon Co.*, 215 F.3d 1261, 1266-67 (Fed. Cir. 2000) ("When the error as to the weight of proof could not have changed the result, the erroneous instruction is harmless."). The jury's invalidity findings could have rested on § 102(b) alone, thus any alleged error did not affect the outcome of the case. *See Cordance*, 658 F.3d at 1339 ("A general jury verdict of invalidity should be upheld if there was sufficient evidence to support any of the alternative theories of invalidity.").

IOENGINE also suggests that Ingenico dropped its § 102(a) theory when it focused its closing arguments on § 102(b) invalidity, however "the Third Circuit does not require that the defendant explicitly argue a theory in order for it to be before the jury," instead the jury instructions are "the benchmark for determining whether an issue is before the jury." *Monsanto*, 261 F.3d at 1369; Appx20.

In view of the jury instructions as a whole and IOENGINE's own statements to the jury in closing arguments emphasizing Ingenico's burden, it is simply implausible to believe that the jury rendered its verdict "under the mistaken impression that it had to be persuaded by IOENGINE of its conception and diligence." Br., 53. No new trial is warranted on this basis.

2. Public Use

IOENGINE next contends that the District Court erred by failing to give an instruction that, when the "public use" at issue was use by someone other than the inventor, "the claimed features of the invention [must be] discernible from a prior art product that is accessible to the public" under § 102(b). Br., 54. IOENGINE asks this Court to recognize a distinction between third-party uses "related to the inventor"—which are actually inventor use cases according to IOENGINE—and third-party uses completely unrelated to the inventor. The case law does not draw such a distinction. Instead, the District Court is correct that, "[i]n cases involving disclosure by a third party not under an obligation of confidentiality, courts have consistently rejected IOENGINE's argument that a device is not in public use if its contents would not have been apparent to an ordinary user of the device." Appx35-36 (collecting cases). Thus, no instruction regarding discernibility was necessary.

At the outset, IOENGINE is wrong that *Egbert* is an "inventor-use" case. *See* Br., 56. The District Court correctly explained below that "*Egbert* involved a public

use by a party other than the inventor," and use by a person other than the inventor who "was not under any obligation of secrecy" to the inventor is third-party use. *See* Appx35-36. Indeed, "[p]ublic use under 35 U.S.C. § 102(b) includes **any use** of the claimed invention **by a person other than the inventor** who is under no limitation, restriction or obligation of secrecy to the inventor." *Minn. Min.*, 303 F.3d at 1301 (emphasis added). Third-party public use is invalidating as long as it "relates to a device that embodies the invention." *Zenith*, 522 F.3d at 1356. *See also New Railhead Mfg., L.L.C. v. Vermeer Mfg. Co.*, 298 F.3d 1290, 1297 (Fed. Cir. 2002) ("The statutory phrase 'public use' does not necessarily mean open and visible in the ordinary sense"); *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1570 (Fed. Cir. 1997) ("[T]he public need not have access to the 'inner workings' of a [third party] device for it to be considered 'in public use'"). Importantly, "the manufacturers of the DiskOnKey did not conceal that product or its contents, nor did they otherwise seek to keep the contents of the product confidential." Appx46. Instead, "[t]he product, the firmware upgrade application, and the SDK were all publicly available and commercially exploited by M-Systems. In fact, they were aggressively marketed. Thus, they were plainly in public use." *Id.*

The District Court did not conclude "that the requirement of discernibility applies only in cases involving concealment or a promise of confidentiality" (Br., 56); instead, it simply explained that each of the cases that IOENGINE cited to

support its contention are inapposite:

> [T]he cases cited by IOENGINE…make clear that a third party's use of an invention will not be deemed public if it is secret, subject to a pledge of confidentiality, or experimental in nature. Otherwise, however, a third party's use of the invention will be deemed an invalidating public use even if the use does not disclose the details of the invention to the public.

Appx42-43; *see also Art+Com v. Innovationpool GmbH v. Google, Inc.*, No. 14-217, 2016 WL 9954312, at *8 (D. Del. Sept. 9, 2016) (Dyk, J., sitting by designation) (rejecting argument that third party public use requires "that the public must be able to ascertain the individual elements of an invention for it to constitute a public use"), *aff'd*, 712 F. App'x 976 (Fed. Cir. 2017). Like below, none of the cases cited by IOENGINE here support its position that the jury must have been instructed on discernibility. For example, the Court in *Metallizing* held that "a non-secret public use by a third party is invalidating even if the use does not inform the public of the nature of the product or process in question." Appx39-40; *Metallizing Eng'g Co. v. Kenyon Bearing & Auto Parts Co.*, 153 F.2d 516 (2d Cir. 1946). Likewise, "[t]he *BASF* court acknowledged that the commercial exploitation of a process before the critical date of the patent on the process would normally be an invalidating use of the process, regardless of whether the use was by the inventor or by a third party." Appx40; *BASF*, 955 F.3d at 968. Finally, the Court in *Dey* did not hold that the claimed features of an invention must be immediately apparent to members of the public, as IOENGINE suggests. Appx40; *Dey*, 715 F.3d at 1355 ("third-party use

accessible to the public is a section 102(b) bar.").

Even if it were error to not instruct on discernibility, such an error would be harmless. *See Lab'y Skin Care*, 2011WL4005444, at *5. The jury could also have found for Ingenico under IOENGINE's proposed rule given the ample evidence that the DiskOnKey System was publicly available and, with accompanying user guides, would enable a POSITA to make or use the claimed invention. Additionally, the jury's invalidity verdict could have alternatively rested on § 102(a), and thus should be upheld. *Cordance*, 658 F.3d at 1339.

In any event, the jury was explicitly instructed that prior art must disclose each of the elements found in the asserted claims and be enabling to a POSITA, so there was no confusion as to the overall standard to be applied with respect to invalidity. *E.g.*, Appx10378-10379, 1299:24-1300:6 ("to anticipate a claim, each element of the claim must be present in a single item of prior art…so that a person of skill in the art, considering that one item, could make and use the invention in the asserted claims"). Thus, no new trial is warranted here.

3. On Sale

IOENGINE next contends that the District Court erred by refusing to give an instruction that "only an offer that the other party could make into a binding contract simply by accepting it constitutes an offer for sale" or that "an advertisement is not an offer for sale." Br., 60-61. IOENGINE's argument is based entirely on the

premise that only "blank" DiskOnKey devices (*i.e.*, without Firmware Upgrade software) were sold. *Id*. But, as explained *supra* § III.B.1, this is contrary to the trial record and improperly draws factual inferences in IOENGINE's favor. Thus, IOENGINE's argument fails.

IOENGINE's suggested jury instructions were more likely to confuse the jury than educate the jury. The District Court correctly noted that IOENGINE's first proposed instruction would have "left hanging in the air the questions of what constitutes a binding contract and what constitutes a manifestation of acceptance sufficient to create such a binding contract." Appx48-49. IOENGINE's second proposed instruction "would have required the jury to struggle over what constitutes a mere advertisement and what sorts of promotional activities might satisfy the legal requirements to be deemed an offer for sale." Appx49. Neither of IOENGINE's proposed instructions were likely to cure any error, to the extent there was any error needing a cure. *See Seachange.*, 413 F.3d at 1381 (to prevail, IOENGINE must show that it "requested alternative instructions that would have remedied the error.").

Because the instructions that IOENGINE requested could not have changed the result, any error was harmless. As the District Court correctly explained:

> [T]he existence of an on-sale bar in this case did not depend on the definition of an offer for sale. Instead, it turned on what was in the products that were sold…. With respect to that issue…the evidence was amply sufficient to show that the DiskOnKey devices that were sold to customers in the United States…included [the Firmware Upgrader].

Appx47-48. It concluded that "[b]ecause the issue of validity turned not on whether particular conduct constituted an offer for sale, but instead on whether the DiskOnKey devices…contained the firmware upgrade[r]…there is no force to IOENGINE's complaint." Appx48. Moreover, the evidence that IOENGINE targeted with its self-serving proposed jury instructions at trial—Appx10931, Appx11041-11042, and Appx11115-11117—were presented merely as evidence that DiskOnKey devices were available for sale and in public use, and not as examples of specific offers for sale, thus "instruction[s] along the lines of those proposed by IOENGINE would have added no value to the jury's consideration of the evidence in this case." Appx49-50.

4. Presumption of Validity

IOENGINE's final complaint with the jury instructions fares no better: IOENGINE contends that the failure to instruct the jury on presumption of validity was reversible error. The Federal Circuit, however, has expressly held that "declining to include a jury instruction on the presumption of validity" is not error if "the jury applied the correct clear and convincing evidence standard." *Chiron Corp. v. Genentech, Inc.*, 363 F.3d 1247, 1258-59 (Fed. Cir. 2004). IOENGINE cites no relevant authority in support of its contention that the jury should have been instructed on the presumption of validity. Along with irrelevant cases concerning the presumption of innocence in criminal trials, IOENGINE relies on *i4i* to suggest that

the presumption of validity is "weakened" without a corresponding jury instruction (Br., 62), but the quote that IOENGINE relies on "has nothing to do with the question [of] whether a court errs if it does not instruct a jury on the presumption of validity". Appx34. Instead, the Supreme Court was merely considering whether a "preponderance standard would apply in such circumstances" or a clear and convincing standard. *i4i*, 564 U.S. at 110.

Here, the District Court repeatedly instructed the jury on the clear and convincing standard, including defining what is meant by that standard; thus there was no error in declining to instruct the jury on the presumption of validity. *E.g.*, Appx10362, 1283:8-14. As this Court explained in *Chiron*, "the presumption of validity and heightened burden of proving invalidity are static and in reality different expressions of the same thing—a single hurdle to be cleared." 363 F.3d at 1258. For that reason, and because "the presumption is one of law, not fact, and does not constitute evidence to be weighed against the challenger's evidence," there is no error in declining to instruct the jury on presumption of validity. Appx33. Further, "to add a separate instruction on the presumption of validity would be potentially confusing to the jury." *Id.* No new trial is warranted on this basis either.

D. IPR Estoppel Does Not Apply

IOENGINE argues that the District Court erred in allowing Ingenico to present Firmware Upgrader documents as part of its invalidity presentation.

IOENGINE mischaracterizes Ingenico's evidence and does not meet its burden to prove that the DiskOnKey System was "merely cumulative" of documents that were "reasonably available during the IPR." Br., 63-64. Regardless, the evidence that Ingenico presented was not merely cumulative and could not have reasonably been brought in IPR.

In general, under § 315(e)(2), IPR estoppel applies to any invalidity "ground that the petitioner raised or reasonably could have raised during" the IPR. 35 U.S.C. § 315(e)(2). The Federal Circuit in *Koninklijke Philips N.V. v. Google LLC* characterized each "ground" as a distinct prior art reference or combination of prior art references. 948 F.3d 1330, 1335-36 (Fed. Cir. 2020). *See also Ironburg Inventions Ltd. v. Valve Corp.*, 64 F.4th 1274 (Fed. Cir. 2023) (characterizing distinct prior art references as "grounds."); *Microchip Tech. Inc. v. Aptiv Servs. US LLC*, No. 1:17-CV-01194, 2020 WL 4335519, at *4 (D. Del. July 28, 2020) (applying IPR estoppel to publications but not to device art used in combination with those publications).

The District Court characterized "grounds" the same way as the post-*Wasica* case law, which allows Ingenico to rely on ***references*** that could have been raised in the IPR proceeding, provided they are combined with device art to create a combination "substantively different from the ***grounds*** that were raised or reasonably could have been raised by Ingenico in its petitions for IPR." Appx51-52

(emphasis added). In order to claim that Ingenico relied on the same grounds at IPR and at trial, IOENGINE argues that Ingenico's arguments at trial were merely cumulative of the arguments it made at IPR. Br., 63.

However, Ingenico did not rest its invalidity theory on a single document. Instead, the jury was presented with a physical DiskOnKey device and over a dozen documents regarding the functionality of the DiskOnKey System and heard testimony from three fact witnesses and Mr. Geier analyzing the documents, DiskOnKey device, executable file, and testimony. *See, supra*, § I.B.1. After trial, the District Court found that IOENGINE's argument improperly discounted the evidence relied upon by Ingenico with respect to the DiskOnKey System. Appx51-52. IOENGINE does the same on appeal.

1. IOENGINE has not met its burden that the DiskOnKey System is merely cumulative of the Firmware Upgrader documents

Despite IOENGINE's sweeping statements regarding the holding in *Wasica Fin. v. Schrader Int'l*, it has not met the burden of proof adopted by courts.[4] 432 F. Supp. 3d 448, 454 (D. Del. 2020), *appeal dismissed*, No. 2020-2124, 2020 WL 8374870 (Fed. Cir. Sept. 24, 2020). When claiming IPR estoppel applies to a

[4] The District of Delaware has declined to follow its own analysis in *Wasica*, absent further guidance from the Supreme Court and Federal Circuit. *Chemours Co. FC, LLC v. Daikin Indus., Ltd.*, No. 17-1612 (MN), 2022 WL 2643517, at *2 (D. Del. July 8, 2022).

physical device that could not have been presented in IPR because it is merely cumulative of evidence that could have been raised in IPR, the patentee must show that "each and every material limitation present in the physical device" is disclosed in one or more estopped references. *Bos. Sci. Corp. v. Cook Grp. Inc.*, No. 117CV03448JRSMJD, 2023 WL 1452172, at *34 (S.D. Ind. Jan. 31, 2023); *MacNeil Auto. Prod. Ltd. v. Yita*, LLC, No. C20-278 TSZ, 2023 WL 2611798, at *5 (W.D. Wash. Mar. 23, 2023). The burden then shifts to the patent challenger to identify a material limitation that is disclosed in the physical device, but not in any estopped reference. *Bos. Sci*, 2023 WL 1452172 at *34. It is then necessary for the patentee to demonstrate that the limitation identified by the challenger is (i) not material, or (ii) actually disclosed in an estopped reference. *Id.*

Rather than offer the claim-by-claim proof that is required to show the Firmware Upgrader is disclosed in a document, such as the Readme file, IOENGINE improperly makes conclusory assertions that they are the same. Br., 64. Even if IOENGINE attempted to present the necessary proof, it would not be sufficient to prove that the DiskOnKey System was "merely cumulative" of documents that Ingenico could have brought in IPR. For example, Ingenico used additional evidence to show that the DiskOnKey facilitated authentication and contained a processor, which is a required element of the "portable device." As the District Court noted, Ingenico's invalidity presentation included analysis of the DiskOnKey's "public key

infrastructure" and a microprocessor, which are not present in the ReadMe document but were substantial evidence in Ingenico's invalidity case. Appx52-53.

2. IOENGINE has not met its burden that that the DiskOnKey Evidence could have been reasonably raised at IPR

The Federal Circuit has recently clarified that the burden of proof here is on IOENGINE to "prove, by a preponderance of the evidence, that a skilled searcher conducting a diligent search reasonably would have been expected to discover the" invalidity grounds. *Ironburg*, 64 F.4th at 1299. IOENGINE does not meet its burden.

IOENGINE contends that Ingenico "reasonably could have raised" documents describing the Firmware Upgrader, namely the Readme user guide, but points to no evidence to support this other than the fact that Ingenico argued at trial that the ReadMe file was once publicly available, back in 2002. However, the Firmware Upgrader documentation is over 20 years old and was no longer publicly available at the time of IPR, therefore it was not reasonably available. *See, CliniComp Int'l, Inc. v. Athenahealth, Inc.*, No. A-18-CV-00425-LY, 2020 WL 7011768, at *2 (W.D. Tex. Oct. 28, 2020) (declining to apply estoppel where defendant used non-public, confidential, documents); *Milwaukee Elec. Tool Corp. v. Snap-On Inc.*, 271 F. Supp. 3d 990, 1033 (E.D. Wis. 2017) (declining to apply estoppel where Defendant did not have and could not reasonably have obtained the document before the IPR). The only available version of the ReadMe file is attached to an M-Systems email, which Western Digital designated as Confidential—though

the ReadMe file itself was not confidential in 2002—and was only obtained by Ingenico after the IPR was filed through months of searching and a third-party subpoena. Appx11177-11182 (marked "Confidential-Attorneys' Eyes Only"). IOENGINE has offered no evidence suggesting how a skilled searcher could have found those documents, a burden which it must meet to prove that Ingenico could have reasonably raised those documents at IPR. Therefore, the District Court did not err by allowing Ingenico to use the Readme file when making its invalidity presentation at trial.

Moreover, IOENGINE did not raise any objections to the admission of Appx11177-11182 on this basis before or during trial, nor did IOENGINE object to any related testimony, thus waiving any objection on this basis. Fed. R. Evid. 103(a); *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1325 (Fed. Cir. 2009) ("[a]ny implicit objection on appeal is deemed waived by failing to object at trial).

IV. CONCLUSION

For the foregoing reasons, Appellees respectfully request that this Court affirm the District Court's decisions below.

Dated: November 9, 2023

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE

1. This brief complies with the relevant type-volume limitations of Federal Circuit Rules ("FCR") and Federal Rules of Appellate Procedure ("FRAP") because this brief contains 13,949 words, excluding the parts of the brief exempted by FRAP 27(d)(2), FRAP 32(f), and FCR 32(b)(2).

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