

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CURRENT LIGHTING SOLUTIONS, LLC
D/B/A GE CURRENT

Petitioner,

v.

JIAXING SUPER LIGHTING ELECTRIC APPLIANCE CO., LTD.

Patent Owner.

Case No. IPR2023-00269

Patent No. 10,560,989

PATENT OWNER'S PRELIMINARY RESPONSE

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Exhibit List

Exhibit	Description
Ex. 2003	First Amended Complaint for Patent Infringement in <i>Jiaxing Super Lighting Electric Appliance Co., Ltd. and Obert, Inc. v. CH Lighting Technology Co., Ltd. Elliott Electric Supply, Inc. and Shaoxing Ruising Lighting Co. Ltd.</i> , Case No. 6:20-CV-00018-ADA (W.D. Tex.)
Ex. 2004	Proof of Service on Ruising in <i>Jiaxing Super Lighting Electric Appliance Co., Ltd. and Obert, Inc. v. CH Lighting Technology Co., Ltd. Elliott Electric Supply, Inc. and Shaoxing Ruising Lighting Co. Ltd.</i> , Case No. 6:20-CV-00018-ADA (W.D. Tex.)
Ex. 2005	Order of Final Judgment in <i>Jiaxing Super Lighting Electric Appliance Co., Ltd. and Obert, Inc. v. CH Lighting Technology Co., Ltd. Elliott Electric Supply, Inc. and Shaoxing Ruising Lighting Co. Ltd.</i> , Case No. 6:20-CV-00018-ADA (W.D. Tex.)
Ex. 2006	
Ex. 2007	Declaration of Miguel Bombach in Support of Patent Owner's Preliminary Response
Ex. 2008	Case Docket for <i>Jiaxing Super Lighting Electric Appliance Co., Ltd. and Obert, Inc. v. Current Lighting Solutions, LLC</i> , Case No. 6:22-CV-00534-ADA-DTG (W.D. Tex.)
Ex. 2009	Scheduling Order in <i>Jiaxing Super Lighting Electric Appliance Co., Ltd. and Obert, Inc. v. Current Lighting Solutions, LLC</i> , Case No. 6:22-CV-00534-ADA-DTG (W.D. Tex.)
Ex. 2010	Defendant Current Lighting Solutions, LLC d/b/a GE Current's Preliminary Invalidity Contentions in <i>Jiaxing Super Lighting Electric Appliance Co., Ltd. and Obert, Inc. v. Current Lighting Solutions, LLC</i> , Case No. 6:22-CV-00534-ADA-DTG (W.D. Tex.)

I. INTRODUCTION

Current's Petition challenging the '989 Patent is time-barred because [REDACTED] Shaoxing Ruising Lighting Co., Ltd., was sued more than a year ago for infringing the same '989 Patent. Given the preexisting substantive legal relationship between the two entities, Ruising is a time-barred privy of Current. Moreover, given Ruising is a clear beneficiary of this proceeding that has a preexisting, established relationship with Current, Ruising is a time-barred real party in interest as well.

Even if the Petition was not time-barred, its obviousness arguments fail on the merits. The Petition proposes to modify a first LED lamp reference, Li, to add features of a second LED lamp reference, Ono. But the Petition fails to show how the proposed combination improves on Ono's LED lamp in any way. In other words, the Petition fails to show why a POSITA considering Ono would bother combining it with Li rather than simply using Ono on its own.

Finally, institution should be denied under § 314(a) given the '989 patent is at issue in a litigation set to go to trial several months before this IPR proceeding would conclude. Notwithstanding the Director's Memo addressing *Sotera Wireless* stipulations and *Fintiv*, Petitioner elected not to present a *Sotera Wireless* stipulation here. As a result, instituting a trial based on this Petition would be an inefficient use of the Board's resources under *Fintiv*.

II. THE PETITION IS TIME-BARRED UNDER 35 U.S.C. § 315(B)

35 U.S.C. § 315(b) states that “[a]n *inter partes* review may not be instituted if the petition requesting the proceeding is filed more than 1 year after the date on which the petitioner, real party in interest, or privy of the petitioner is served with a complaint alleging infringement of the patent.”

“It is ‘the IPR petitioner who bears the burden of persuasion to demonstrate that its petitions are not time-barred under § 315(b) based on a complaint served on a real party in interest more than a year earlier.’” *Ventex Co., Ltd. v. Columbia Sportswear N.A., Inc.*, IPR2017-00651, Paper 148 at 4 (PTAB Jan. 24, 2019) (precedential) (quoting *Worlds Inc. v. Bungie, Inc.*, 903 F.3d 1237, 1242 (Fed. Cir. 2018)). The petitioner also bears the burden of persuasion regarding privity. *Ventex*, Paper 148 at 4-5.

The present Petition is time-barred because Shaoxing Ruising Lighting Co., Ltd. (“Ruising”) was served with a complaint alleging infringement of the ’989 patent more than one year before Petitioner filed the present Petition. Ruising was served on November 12, 2020. Ex. 2003 (amended complaint); Ex. 2004

(proof of service).¹ Petitioner filed the present Petition more than two years later on December 14, 2022.

A. Factual Background

1. The *Ruising* Litigation

In 2020, Patent Owner filed a patent infringement suit against Ruising and its affiliate CH Lighting Technology Co., Ltd. (“CH”). *Jiaxing Super Lighting Electric Appliance Co. Ltd. v. CH Lighting Technology Co. Ltd.*, No. 6:20-cv-00018-ADA (W.D. Tex.) (“*Ruising* litigation”). The ’989 Patent was among the asserted patents. Ex. 2003 (amended complaint). The case proceeded to trial in November 2021 and a jury returned a unanimous verdict finding that Ruising and CH willfully infringed three of Patent Owner’s patents. Ex. 2005 (order of final judgment). The ’989 patent was part of the *Ruising* litigation through expert discovery, but Patent Owner narrowed its case prior to trial and elected not to try the ’989 patent.

2. Petitioner’s Preexisting Legal Relationship with Ruising

[REDACTED]

[REDACTED]

[REDACTED]

¹ On November 11, 2020, Ruising filed a “Statement of Non-Opposition to Motion for Alternative Service” in which it consented to electronic service of process through its counsel. *Ruising* litigation, Dkt. 61.

[REDACTED]

[REDACTED]

[REDACTED]

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[illegible]

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B. Ruising is a Time-Barred Privy of Petitioner.

1. Legal Standard

The Board’s precedential decision in *Ventex* provides a helpful introduction to the concept of privity:

Privity “prevent[s] successive challenges to a patent by those who previously have had the opportunity to make such challenges in prior litigation.” [*WesternGeco LLC v. ION Geophysical Corp.*, 889 F.3d 1308, 1319 (Fed. Cir. 2018) (citation omitted).] In *Taylor v. Sturgell*, 553 U.S. 880, 894–95 (2008), the Supreme Court provided a non-exhaustive list for examining whether the legal relationship between two parties establishes that one is the privy of the other: “(1) an agreement between the parties to be bound; (2) pre-existing substantive legal

relationships between the parties; (3) adequate representation by the named party; (4) the nonparty's control of the prior litigation; (5) where the non-party acts as a proxy for the named party to relitigate the same issues; and (6) where special statutory schemes foreclose successive litigation by the non-party (e.g., bankruptcy and probate).” [*Applications in Internet Time, LLC v. RPX Corp.*, 897 F.3d 1336, 1360 (Fed. Cir. 2018) (“*AIT*”)] (Reyna, J., concurring) (citing *Taylor*, 553 U.S. at 894–95).

Ventex, Paper 148 at 11-12.

“Analysis under any one of the factors can support a finding of privity.” *Id.* at 12 (citations omitted). For example, in *Ventex* itself, the Board found that “at least [*Taylor*] factors 2 and 5 support[ed its] conclusion that [Ventex’s customer] Seirus and Ventex [we]re privies.” *Id.*

2. Petitioner and Ruising are Privies Based At Least on *Taylor* Factors 2 and 5.

(a) *Taylor* Factor 2

In *Ventex*, the Board reasoned that the second Taylor factor (*i.e.*, pre-existing substantive legal relationships between the parties) supported a finding of privity. *Ventex*, Paper 148 at 12. The Board explained that “the parties had a preexisting substantive legal relationship in the form of two contracts, a Supplier

Agreement with an obligation to indemnify and defend, and an Exclusive Manufacturing agreement.” *Id.*; *see also id.* at 7 (discussing agreements).

[REDACTED]

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[REDACTED] Thus, as in *Ventex*, finding Petitioner and Ruising “in privity with one another comports with the goal of ‘tak[ing] into account the practical situation, and [extending privity] to parties, to transactions, and other activities *relating to the property in question.*’” *Ventex*, Paper 148 at 12-13 (quoting Trial Practice Guide, 77 Fed. Reg. at 48,759) (alterations and emphasis original).

The present facts are also similar to those in *Microsoft Corp. v. Science Applications International Corp.*, IPR2019-01311, Paper 35 (PTAB Jan. 27, 2020), another case in which the Board found privity based primarily on a preexisting contractual relationship. There, “Petitioner [Microsoft had] entered into a contract with the government to develop a system incorporating the allegedly infringing feature.” *Microsoft*, Paper 35 at 7. Patent Owner had brought a suit against the government in the Court of Federal Claims. *Id.* The Board found that “both Petitioner and the government share a common interest in canceling the allegedly infringed claims.” *Id.* at 8. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

In *Microsoft*, the Board analyzed provisions of the agreement and determined that Microsoft and the government’s “preexisting relationship [wa]s not insignificant” given Microsoft’s obligations under the agreement in the event infringement was found. *Id.* (“According to Petitioner, “[i]f the RTA feature is found to infringe the [patents-at-issue], Microsoft may be compelled to violate its contractual obligations, negotiate with SAIC for authorization to comply with its contractual obligations, or undertake some other action.”). [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Accordingly, the preexisting legal relationship between Petitioner and Ruising here is a significant one.

The Board’s decision in *PayPal, Inc. v. PersonalWeb Technologies, LLC*, also supports a finding of privity here. IPR2019-01111, Paper 27 (PTAB Nov. 22, 2019). In *PayPal*, the Board found that “[t]he evidence of record shows that the relationship between Amazon and these Petitioner Entities went beyond typical transactions between supplier and buyer because there exists a substantive legal relationship between them that is defined by legal obligations and a sufficient degree of commonality of interest.” *Id.* at 20. The Board focused on Amazon’s indemnification obligations to the petitioners which pertained to an Amazon product implicated in the infringement lawsuits the patent owner had filed against the petitioners. *Id.* at 22 (“Tellingly, Petitioner Entities do not deny the existence of the indemnification agreements, nor contest that those indemnification agreements pertained to Amazon’s S3, one of the accused

products.”). The Board noted that the Federal Circuit has indicated that indemnification agreements can support findings of privity.

As noted by the Federal Circuit, “an indemnification agreement . . . has alone been enough to find privity.” *Intel Corp. v. U.S. Int’l Trade Comm’n*, 946 F.2d 821, 839 (Fed. Cir. 1991); *AIT*, 897 F.3d at 1362 (Reyna, J. concurring) (Under *Taylor*, “non-party preclusion could apply between an indemnitor and an indemnitee.”) (citing *Intel Corp.*, 946 F.2d at 839).

Id. at 22.

[REDACTED]

The Board rejected the petitioners’ arguments in *PayPal* “that Amazon [wa]s not a privy because [the petitioners] ha[d] additional interests related to non-Amazon products” accused of infringement by Patent Owner. *PayPal*, Paper 27 at 25.

The Federal Circuit has explained that, “in drafting § 315(b), Congress ‘chose language that bars petitions where proxies or privies would benefit from an instituted IPR, even where the petitioning party might separately have its own interest in initiating an IPR.’” *Power Integrations, Inc. v. Semiconductor Components Indus., LLC*, 926 F.3d 1306, 1316 (Fed. Cir. 2019)] (second emphasis added) (quoting [*Applications in Internet Time, LLC v. RPX Corporation*, 897 F.3d 1336, 1347 (Fed. Cir. 2008)]). Thus, representing their own interests in addition to those of Amazon[] does not negate a finding [] privity. Similarly, Petitioner Entities’ potential liability concerning the non-S3 products does not negate the shared interest in S3 or Amazon’s indemnity obligations and defense related to their shared interest in S3.

PayPal, Paper 27 at 26. In the event Petitioner here tries to argue that its separate interests in invalidating the ’989 Patent somehow negate a finding of privity with Ruising, the argument should be rejected by the Board for the same reasons.

(b) Taylor Factor 5

In *PayPal*, the Board analyzed the fifth *Taylor* factor and found “that Petitioner Entities [we]re representing Amazon’s interests in th[e IPR] proceeding.” *PayPal*, Paper 27 at 34. Given Amazon’s indemnification obligations to the petitioners, the Board reasoned that it was Amazon that would

“bear the cost” of a determination of infringement by the petitioners. *Id.* at 35 (“Petitioner Entities, then, are representing Amazon’s continued interests, as well as their own, in the instant IPR proceeding, at least as to those interests pertain to S3 and the ‘310 patent. We, thus, conclude that Petitioner Entities are serving as proxies of Amazon.”) (citing *Taylor*, 553 U.S. at 895).

Accordingly, just as the Board explained in *PayPal*, “[Ruising] has the same interest as Petitioner ... in this proceeding, and has already pursued that interest in district court. [Ruising] should not be permitted to relitigate the unpatentability of the [’989] patent claims through Petitioner ... acting as prox[y] for [Ruising].” *PayPal*, Paper 27 at 35.

C. Ruising is Also a Time-Barred Real Party in Interest.

“Determining whether a non-party is a ‘real party in interest’ demands a flexible approach that takes into account both equitable and practical considerations, with an eye toward determining whether the non-party is a clear beneficiary that has a preexisting, established relationship with the petitioner.” *AIT*, 897 F.3d at 1351. “[T]he terms ‘real party in interest’ and ‘privy’ were included in § 315 to serve two related purposes: (1) to ensure that third parties that have sufficiently close relationships with IPR petitioners would be bound by

the outcome of instituted IPRs under § 315(e), the related IPR estoppel provision; and (2) to safeguard patent owners from having to defend their patents against belated administrative attacks by related parties via § 315(b).” *Id.* at 1350.

In *Ventex*, the Board found that Ventex’s customer, Seirus, who had been sued by the patent owner for infringement was a real party in interest. Ventex, Paper 148 at 7-11. Ventex exclusively manufactured Heatwave fabric for Seirus and indemnified Seirus against legal claims related to that material. *Id.* at 7. Seirus’ products that were accused of infringement incorporated the Heatwave fabric made by Ventex pursuant to the parties agreements. *Id.* Based on their agreements, the Board reasoned that “the parties had a mutual interest in the continuing commercial and financial success of each other.” *Id.* at 8; *see also id.* at 10 (“Based on our review of the contractual relationship between the parties and the record as a whole, we conclude that Seirus will benefit from Ventex’s actions and Ventex represents Seirus’s interests in this action.”). The Board found that the parties’ agreements “incentivize[d] both parties to invalidate claims of the [asserted patents].” *Id.* “In that sense,” the Board explained, “Seirus is a clear beneficiary of Ventex’s efforts in this *inter partes* review, and it follows readily that Ventex represents Seirus’s interests in this proceeding.” *Id.* And given Seirus was time-barred from filing an IPR itself, “the evidence suggests that

Ventex filed this action, in part, to benefit Seirus.” *Id.* (citing *AIT*, 897 F.3d at 1353).

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] And, as in *Ventex*, given Ruising is time-barred from filing an IPR itself, the evidence suggests that Petitioner filed this action, at least in part, to benefit Ruising. *Ventex*, Paper 148 at 8. That Petitioner may also have distinct interests in invalidating the ’989 Patent has no bearing on whether Ruising is an RPI. *Ventex*, Paper 148 at 9 (“That Ventex had interest in invalidating claims in the [asserted] patents does not address whether Seirus is a real party in interest—‘it is not an either-or proposition.’”) (quoting *AIT*, 897 F.3d at 1353).

In *Ventex*, the Board found that Seirus’ would benefit substantially from a finding that the asserted patent was invalid because Seirus was accused of infringing the claims challenged in the IPR. *Ventex*, Paper 148 at 10. “Furthermore,” the Board explained, “it [was] clear that Ventex and Seirus had a

specially structured, preexisting, and well established business relationship with one another, including indemnification and exclusivity arrangements.” *Id.* “In the [Board’s] view, those circumstances [we]re the type that, when adhering to the guidance articulated in AIT, give rise to a determination that Seirus should have been named a real party in interest.” *Id.*

[REDACTED]

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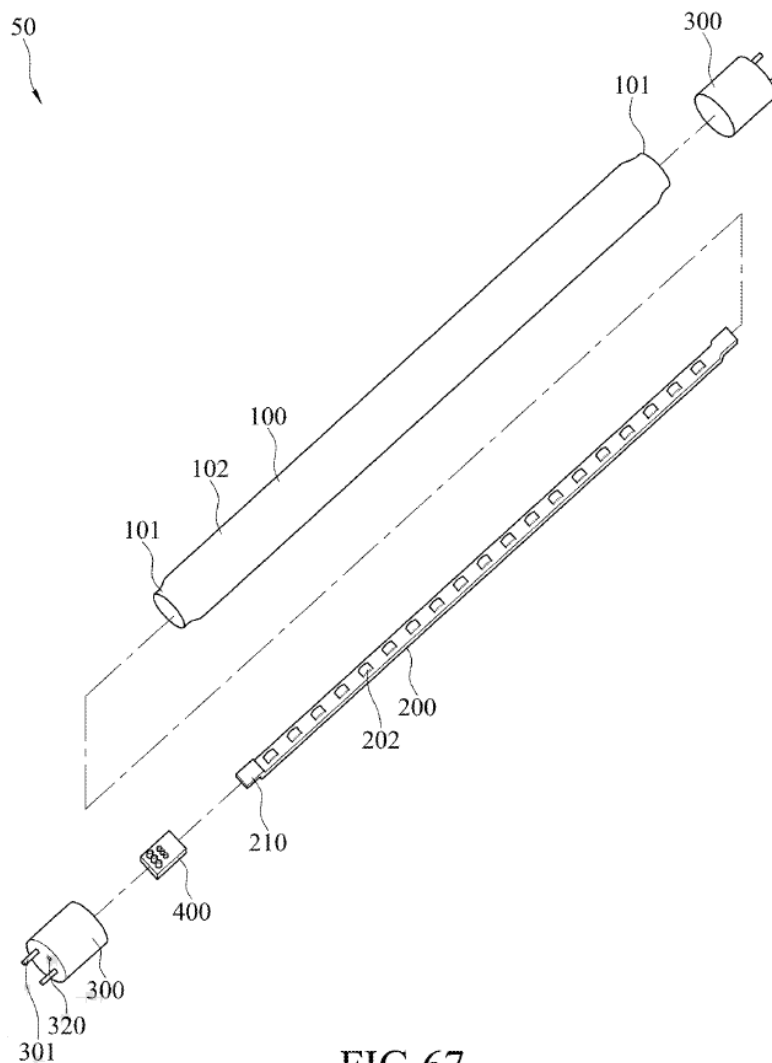
[REDACTED] Accordingly, the record here shows that Ruising should have been named a real party in interest, and the Petition is time-barred under § 315(b) on that basis.

III. THE ’989 PATENT

The ’989 Patent, titled “LED Tube Lamp” issued on February 11, 2020 from a continuation application filed on Feb. 5, 2018. The ’989 Patent claims priority to several earlier-filed U.S. and Chinese applications dating as far back as 2014.

The '989 Patent describes improved LED tube lamp designs and features for improving such products by addressing issues such as heat dissipation. *See* Ex. 1001 (" '989 Patent") at 2:50-54 (discussing prior art design that insufficiently addresses dissipation of heat generated by power supply in end caps).

Fig. 67 of the '989 Patent depicts "an embodiment of an LED tube lamp 50 which comprises a tube 100, an LED light strip 200, and end caps 300." *Id.* at 98:1-4.



Id. at Fig. 67. “[S]everal LED light sources 202 are disposed on the LED light strip 200, and a power supply 400 is disposed in the end cap 300.” *Id.* at 98:9-11.

As depicted in Fig. 49C (below), the power supply may include “a rectifying circuit 510 [blue], a filtering circuit 520 [orange], and an LED driving module 530 [green].” *Id.* at 40:41-45.

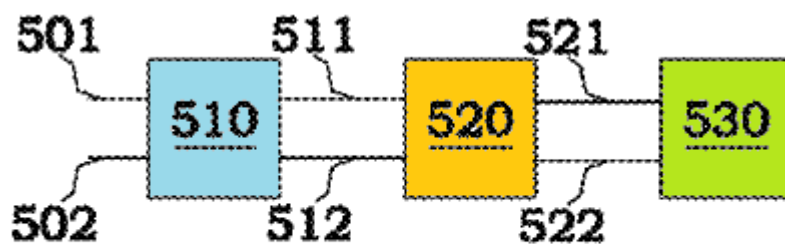


Fig. 49C

Id. at Fig. 49C (color-coding added). The patent describes Fig. 49C as follows:

Rectifying circuit 510 is coupled to pins 501 and 502 to receive and then rectify an external driving signal, so as to output a rectified signal at output terminals 511 and 512. The external driving signal may be the AC driving signal or the AC supply signal described with reference to FIGS. 49A and 49B, or may even be a DC signal, which embodiments do not alter the LED lamp of the present invention. Filtering circuit 520 is coupled to the first rectifying circuit for filtering the rectified signal to produce a filtered signal, as recited in the claims. For instance, filtering circuit 520 is coupled to terminals 511 and 512 to receive and then filter the rectified signal, so

as to output a filtered signal at output terminals 521 and 522. LED driving module 530 is coupled to filtering circuit 520, to receive the filtered signal for emitting light. For instance, LED driving module 530 may be a circuit coupled to terminals 521 and 522 to receive the filtered signal and thereby to drive an LED unit (not shown) in LED driving module 530 to emit light.

Id. at 40:45-63.

Figures 50A - 50D depict different rectifier circuit embodiments. *See generally id.* at 41:61-44:21. The rectifier circuit embodiment in Fig. 50A includes “rectifying diodes 611, 612, 613, and 614, configured to full-wave rectify a received signal.” *Id.* at 41:62-65.

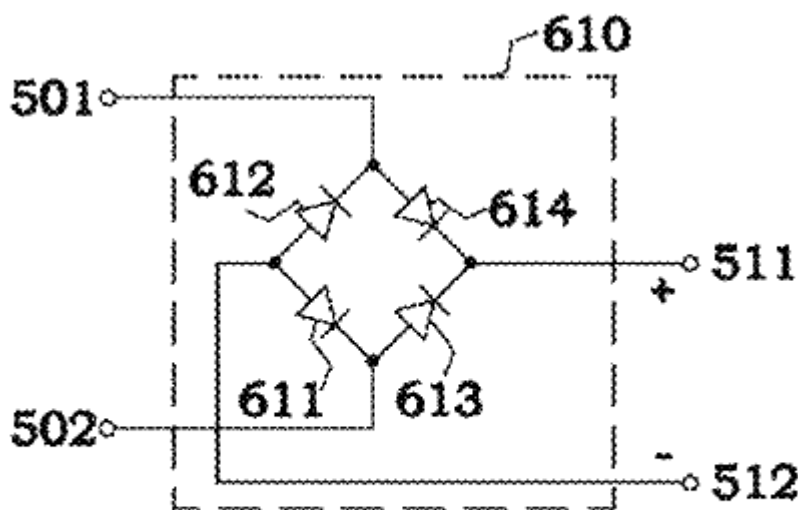


Fig. 50A

Id. at Fig. 50A. Rectifying circuit 610 “can output a proper rectified signal regardless of whether the received input signal is an AC or DC signal.” *Id.* at 42:37-39; *see also id.* at 42:5-36.

Fig. 52A (below) includes a block diagram of an embodiment of a filtering circuit. *Id.* at 46:1-2.

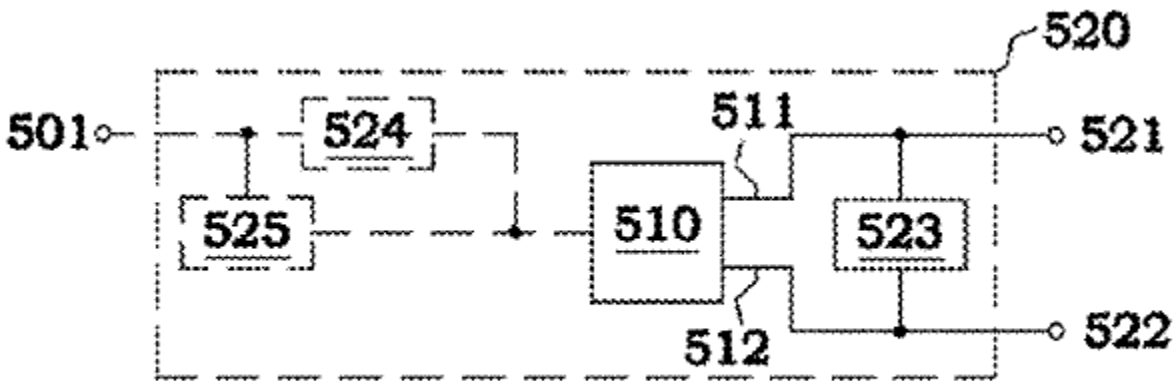


Fig. 52A

Id. at Fig. 52A. “[F]iltering circuit 520 includes a filtering unit 523 coupled to rectifying output terminals 511 and 512 to receive, and to filter out ripples of, a rectified signal from rectifying circuit 510, thereby outputting a filtered signal whose waveform is smoother than the rectified signal.” *Id.* at 46:5-11. The ’989 Patent describes several embodiments of filtering unit in connection with Figures 52B - 52E. *Id.* at 46:31-47:61.

As depicted in Figs. 3 and 4, end caps may include “an electrically insulating tube 302, a thermal conductive member 303 sleeving over the

electrically insulating tube 302, and two hollow conductive pins 301 disposed on the electrically insulating tube 302.” *Id.* at 19:6-11.

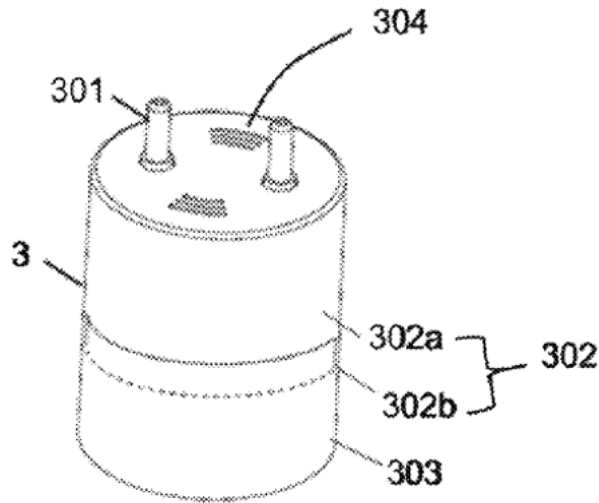


Fig. 3

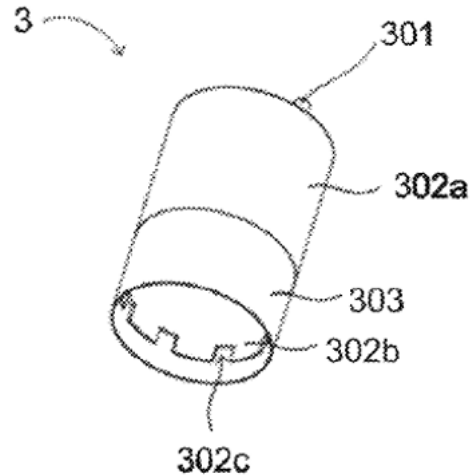


Fig. 4

Id. at Figs. 3, 4. “The thermal conductive member 303 can be a metal ring that is tubular in shape.” *Id.* at 19:11-12.

The end caps may include “openings 304 to dissipate heat generated by the power supply modules inside the end cap 3 so as to prevent a high temperature condition inside the end cap 3 that might reduce reliability.” *Id.* at 26:40-44; *see also, e.g., id.* at 103:41-44 (“The two symmetrical openings 320 shown in FIG. 73 are beneficial to convection of heated air and cool air. The better the convection is, the better the effect of heat dissipation is.”). The openings can utilize a variety of shapes and configurations. *Id.* at 26:45-50.

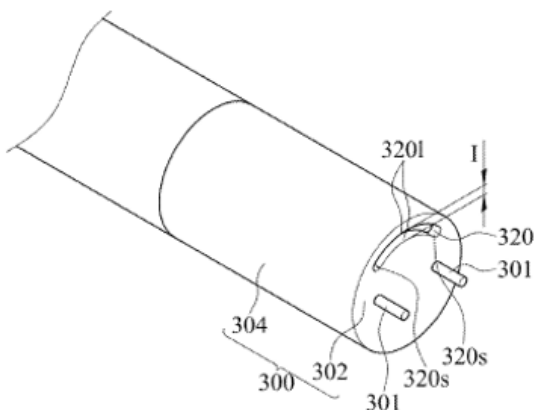


FIG. 72

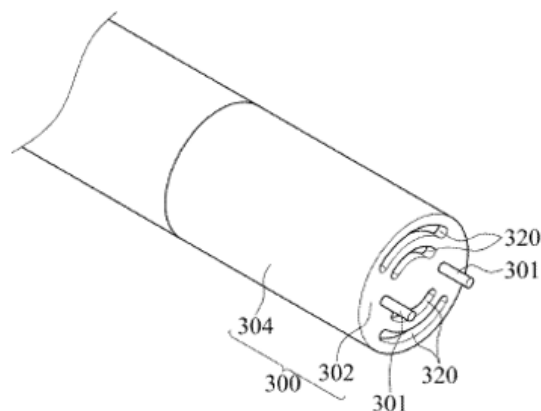


FIG. 75

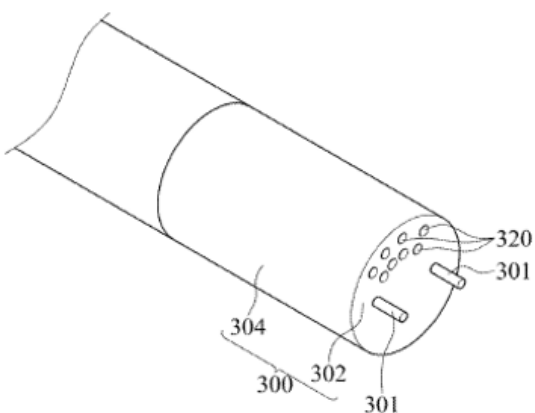


FIG. 78

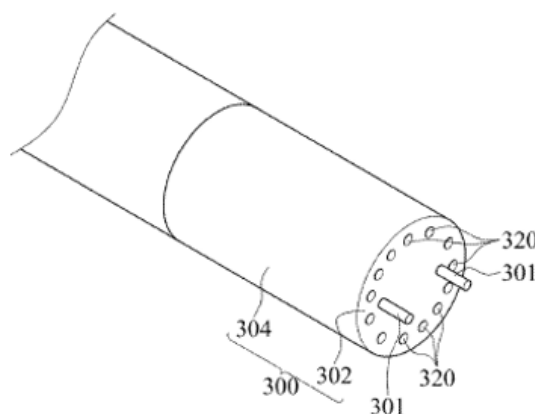


FIG. 79

Id. at Figs. 72, 75, 78, 79; *see also generally id.* at 101:61-104:41.

In addition to the end cap openings, the '989 Patent discloses a variety of techniques for improved heat dissipation within LED lamps. For example, heat generating components can be located nearest to the end wall of the end cap. *Id.* at 3:55-57 ("Accordingly, the closest element will have better heat dissipation effect and this makes the LED tube lamp operate normally."); 94:6-10 (heat-generating inductors may be placed closest to the end wall of the end cap); *see also id.* at 5:9-12 (either resistor or inductor is placed closest to end wall of end

cap); 5:38-42 (capacitor may be placed closest to end wall); 6:10-16 (capacitor or resistor may be placed closest to end wall). As another example, a heat dissipating element may be used to transfer heat generated by the PCB for cooling by outside air. *Id.* at 106:51-107:20; Fig. 83 (depicting heat-dissipating element or driving module 440).

The '989 Patent further describes a ballast-compatible circuit, an embodiment of which is depicted in Fig. 58F.

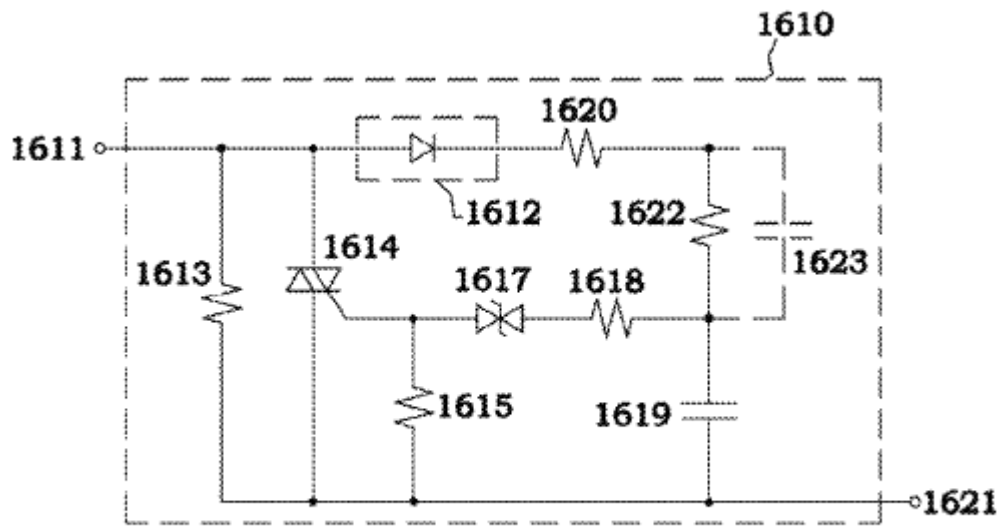


Fig. 58F

Id. at Fig. 58F; 74:8-47 (describing figure). Initially an AC driving signal is used to charge capacitor 1619 until its voltage reaches a threshold at which point input terminal 1611 and output terminal 1621 are connected to start the operation of the power supply module. *Id.* at 74:48-75:32.

The '989 Patent also describes a filament simulating circuit, an embodiment of which is depicted in Fig. 60F.

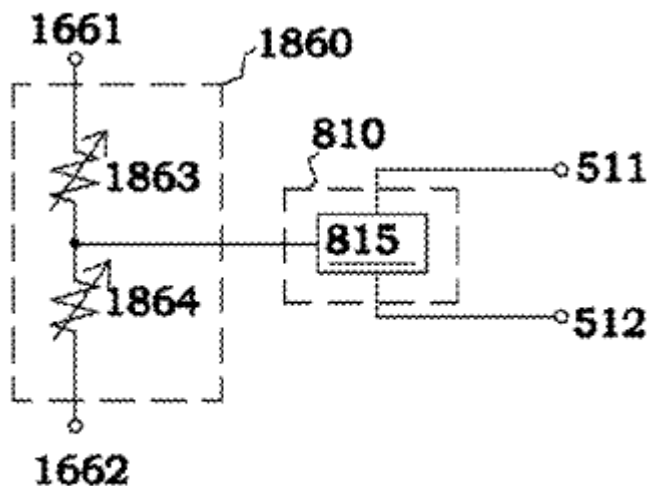


Fig. 60F

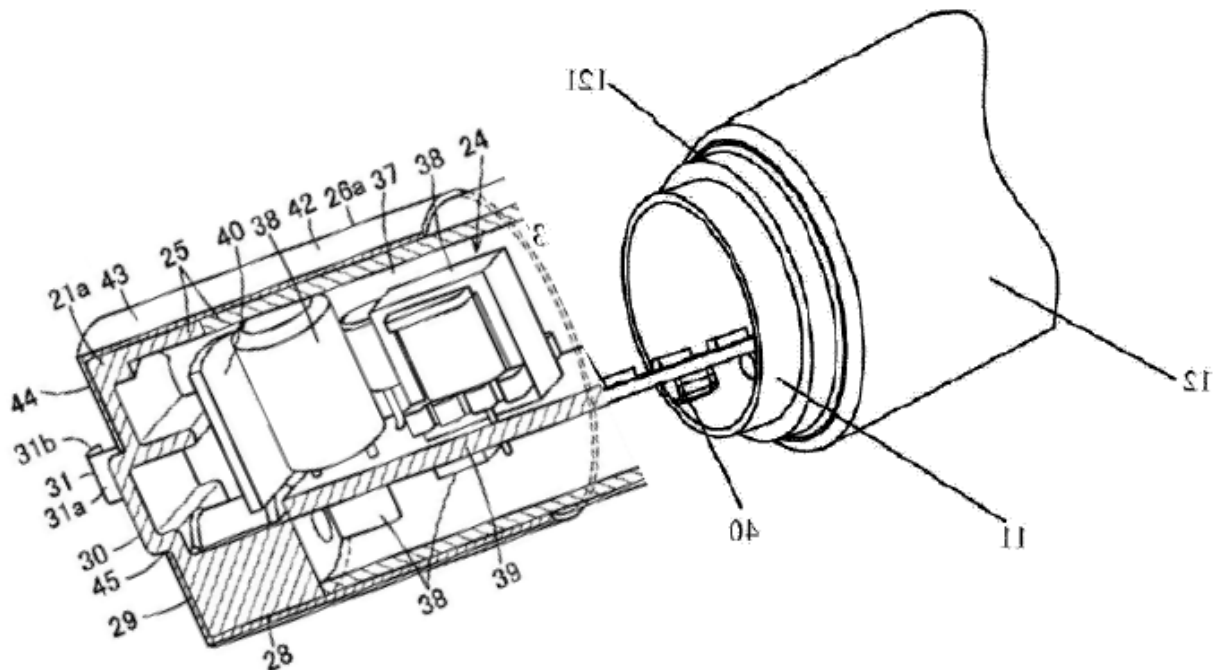
Id. at 60F; 82:22-41 (describing figure). The filament simulating circuit gradually decreases the impedance of NTC resistors 1863 and 1864 during the preheat process and then further reduces the impedance of the resistors when the lamp driving circuit enters into the normal state to start the LED lamp normally. *Id.* at 82:42-62.

IV. PETITIONER HAS NOT ESTABLISHED A REASONABLE LIKELIHOOD OF PROVING ANY CHALLENGED CLAIMS INVALID

A. Petitioner Has Not Shown That Any Challenged Claims Are Obvious Based on Ground 1.

1. Petitioner Has Failed to Meet Its Burden of Showing That A POSA Would Have Combined Li with Ono in the Manner Petitioner Proposes.

Petitioner's proposed combination of Li and Ono relies on Li for the overall design of the LED lamp and relies on Ono for several features including (1) Ono's insulator end caps and non-combustible covers and (2) Ono's double-sided PCB implementation for a drive circuit. *See* Pet. at 20-24. The Petition contains the below mock-up that combines Fig. 1 of Ono and Fig. 3 of Li.



Id. at 25.

Petitioner's proposed combination ignores the fact that Ono standing alone already discloses an LED lamp that already achieves the supposed benefits of the proposed combination. Petitioner and Dr. Ackley acknowledge that Ono's LED lamp, like Li's, is suitable for replacing a conventional fluorescent bulb. Pet. at 24 ("Ono successfully implements its own lamp-end configuration in an identical application, i.e., an LED lamp bulb for replacement of a conventional fluorescent bulb."); *see also* Ex. 1003 ¶ 83 ("Ono itself successfully implements its lamp-end configuration in LED tube lamps used to replace conventional fluorescent bulbs. This is an identical application as Li."); *see also* Ex. 1006 ("Ono") at ¶ [0017] ("The lighting circuit 24 receives commercial alternating current power from the cap 21a on one end, converts the alternating current power into direct current power for lighting the light emitting elements 33, and supplies the direct current power to the light emitting elements 33.").

While the Petition identifies several benefits that flow from incorporating features of Ono's LED lamp, it fails to identify a single concrete benefit that flows from utilizing Li's teachings *for anything*. Although the Petition suggests that Li's drive circuit could be combined with Ono's PCB design (*e.g.*, Pet. at 23), the Petition never shows or even suggests that use of Li's drive circuit (Li Fig. 6) over Ono's own drive circuit (Ono Fig. 3) would provide any benefit whatsoever. Given Petitioner's admission that Li is vague about its drive circuit (Pet. at 20-

21), a POSA would have little incentive to figure out a way to marry the drive circuits between the two references when Ono's specific drive circuit implementation could be used without modification to achieve the same result.

Petitioner's proposed combination of Li and Ono also ignores important heat dissipation teachings of Li. Li discloses, for example, that "in order to improve the heat dissipation capability, the substrate surface can be covered with an infrared radiation material, or the substrate can be made of a material with excellent thermal conductivity and infrared radiation performance, so that the heat from the LED units and the driver power supply module is dissipated by means of heat conduction and heat radiation at the same time." Ex. 1005 ("Li") at ¶ [0096]. Given Li already discloses features to dissipate heat from the drive circuit, Petitioner fails to show why a POSA would view Ono's distinct heat dissipation features as necessary or worthwhile, particularly when they rely on additional components (*e.g.*, non-combustible covers 26a) that would complicate the manufacturing process—contrary to Li's stated goal (*see* Li at ¶ [0006]). Because Li is already complete in this regard, there would have been no reason to modify it or add parts from Ono.

In addition to glossing over the issues above, Petitioner offers arguments concerning motivation to combine that are superficial and conclusory. For example, Petitioner suggests that Ono's "end cap configuration" would somehow

“reduce the number of parts and improve the efficiency of assembly” Pet. at 22. But swapping Ono’s two end caps (21a, 21b) for Li’s two end caps (21, 22) would not reduce the number of parts, and adding Ono’s non-combustible covers, as proposed,² would *increase the number of parts* and add steps to the manufacturing process.

Petitioner’s “obvious to try” argument (*see* Pet. at 22-23) is wholly conclusory. Petitioner and its expert baldly assert “there were a finite number of identified, predictable solutions as POSITA would have pursued” to implement Li’s drive circuit. Pet. at 22; Ex. 1003 ¶ 80. But neither Petitioner nor its expert actually present *any evidence or support* for their claim that Ono’s drive circuit implementation was one of only a small number of solutions. *See* Pet. at 22; Ex. 1003 ¶ 80.

Petitioner’s “simple substitution” argument (*see* Pet. at 23) is also flawed because, as already discussed, the interchangeability of the drive circuits between the two references would motivate a POSA simply to utilize Ono’s drive circuit,

² *See* Pet. at 21 (“A POSITA would have been motivated to configure the ends of Li’s lamp ... with the insulator end caps *within a non-combustible cover like Ono’s* for each of several independent reasons.”) (emphasis added).

not to try to devise a new drive circuit by combining Li's drive circuit with Ono's for no good reason as Petitioner proposes.

Finally, Petitioner's "reasonable expectation of success" argument (*see* Pet. at 24) does not provide any motivation to combine the teachings of Li and Ono in the manner that Petitioner proposes. At most, the argument addresses why a POSA would expect the proposed combination to be successful. *See, e.g., Unified Patents, LLC v. Velos Media, LLC*, IPR2019-01663, Paper 9, at 14 (Apr. 17, 2020) (allegations of reasonable expectation of success, even if true, "are insufficient, because they do not establish a reason *why* the skilled artisan would have gone down that path in the first place") (emphasis original) (citing *KSR Int'l Co., v. Teleflex Inc.*, 550 U.S. 398, 418 (2007)).

2. Li and Ono Do Not Render Obvious Independent Claim 1 or Its Dependent Claims.

Element 1[h] of claim 1 recites: "wherein the plurality of electronic components comprise a resistor which is positioned closest to the end wall of the first end cap and connecting to one of the input terminals of the rectifying circuit[.]" Petitioner fails to show that it would have been obvious to combine Li with Ono in a manner that discloses this limitation.

Petitioner relies primarily on Li's Fig. 6 to argue that this limitation is met. *See* Pet. at 34-36. Petitioner's argument fails for several reasons. First, Li does not disclose or suggest that Li's circuit diagram reflects the physical layout of the

components on substrate 310. Indeed, there is no clear correspondence between the circuit diagram shown in Li's Fig. 6 and the depiction of substrate 310 in Fig. 3.

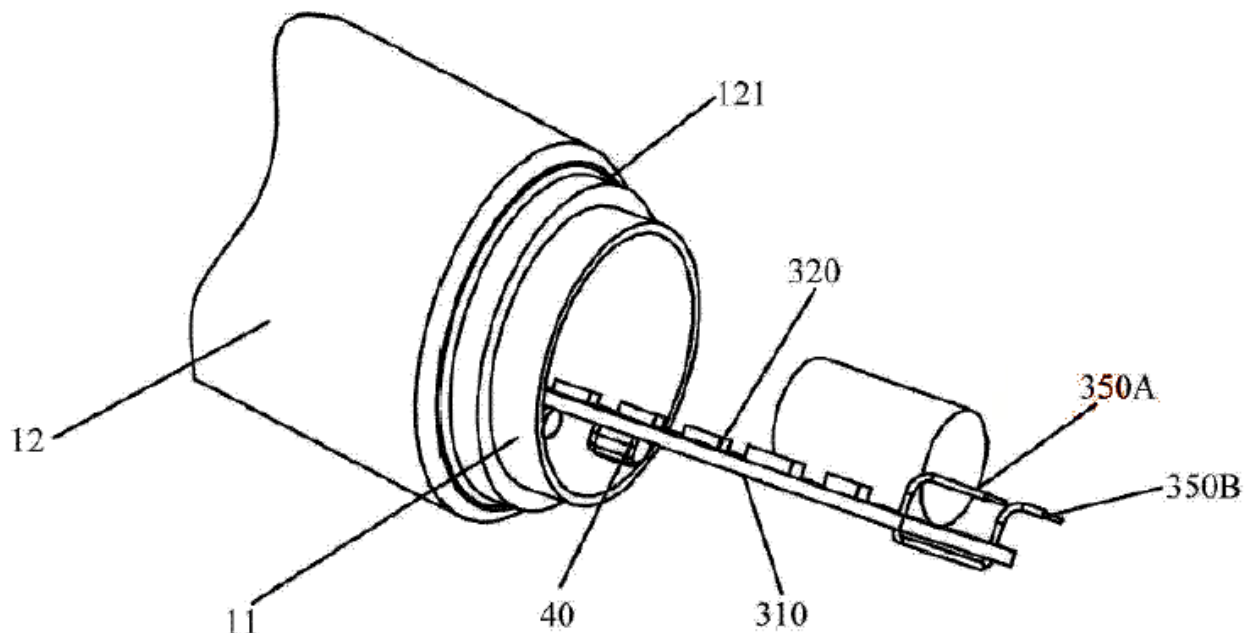


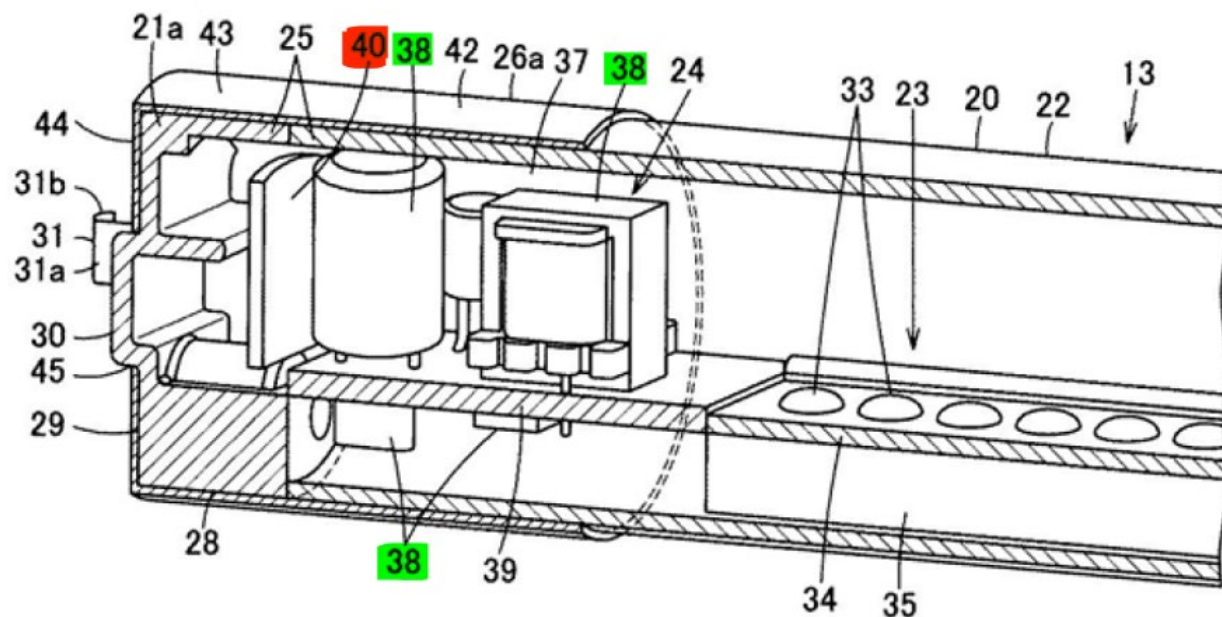
Fig. 3

Id. at Fig. 3.

Second, in combining Li's drive circuit with Ono's PCB, a POSA would follow the more detailed disclosures of Ono, as Petitioner itself argues elsewhere in the Petition. *See* Pet. at 20-21, 23-24. However, Ono never discloses or suggests placing a resistor (or any other particular component) closest to the end wall. Ono uses the generic identifier 38 to refer to a variety of components including resistors, switching elements, capacitors, and inductors. Ono at

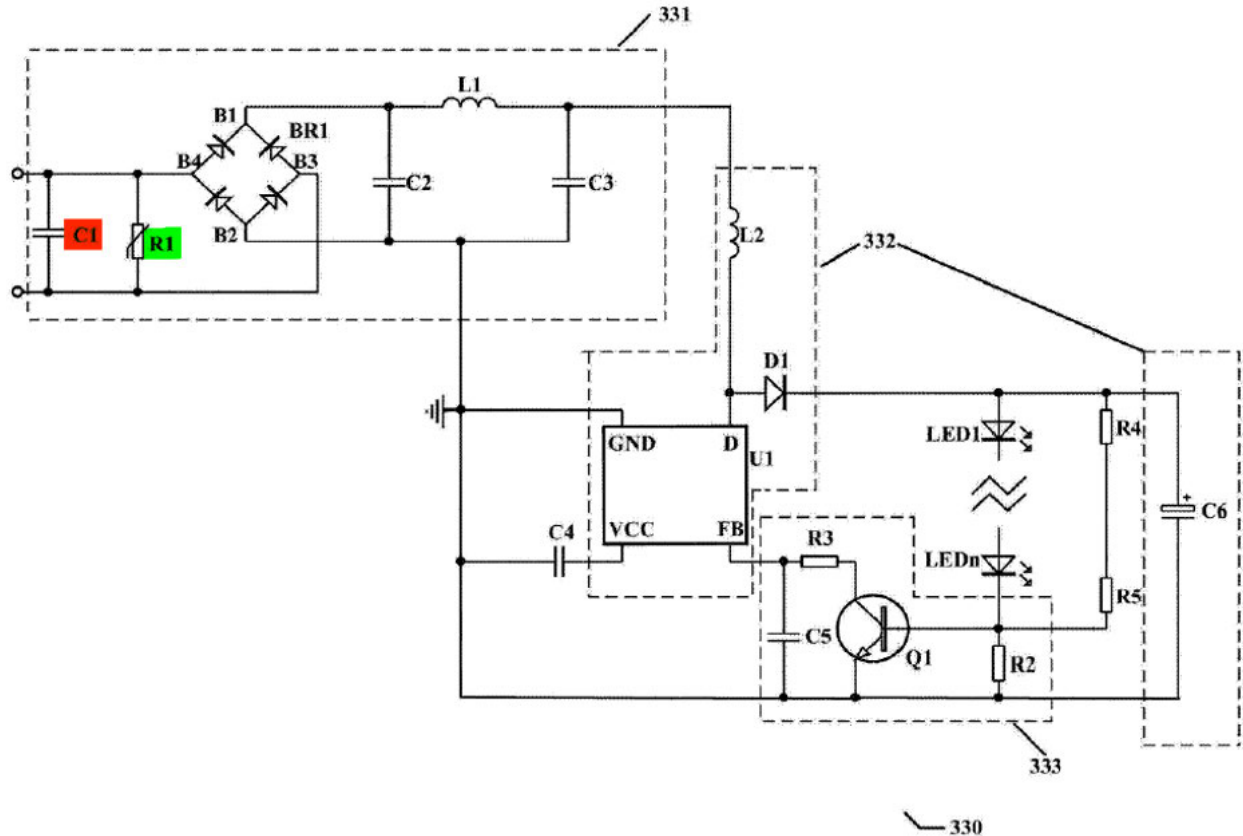
¶ [0017]. Beyond failing to describe any resistor as being closest to the end wall of the end cap 21a, none of the components labeled 38 in Fig. 1 are positioned closest to the end wall of the end cap.

[Fig. 1]



Id. at Fig. 1 (highlighting added). Indeed, Ono's figure 1 (above) shows auxiliary board 40 as closer to the end wall of the end cap than any of the components labelled 38. *Id.* at ¶ [0017] (discussing auxiliary board 40). Ono does not disclose a resistor on auxiliary board 40, let alone disclose that any such resistor would be closest to the end wall of the end cap.

Third, even if Li did suggest that the circuit diagram in Fig. 6 reflected the actual layout of the circuit elements on substrate 310, Li's diagram actually shows capacitor C1, not resistor R1, as being closest to the pins.



Li at Fig. 6 (highlighting added).

Finally, it must be noted that Petitioner relies on essentially the same evidence for element 1[h] which recites that *a resistor* is positioned closest to the end wall of the first end cap and for element 30[h] which recites that *a capacitor* is positioned closest to the end wall of the first end cap. *Compare* Pet. at 34-36 with Pet. at 45-47; *compare* Ex. 1003 at ¶¶ 98-100 with Ex. 1003 at ¶¶ 120-122. To the extent Dr. Ackley suggests switching the position of capacitor C1 and varistor R1, he provides no motivation for this proposed modification of Li's circuit diagram beyond suggesting it "can be" done. Ex. 1003 ¶ 98. Further, Dr. Ackley's attempt to rely on the heat dissipation teachings of the '989 patent itself

as a reason to position a resistor closest to the end wall of the end cap smacks of hindsight bias. *Id.* at ¶ 100; *see Otsuka Pharm. Co. v. Sandoz, Inc.*, 678 F.3d 1280, 1296 (Fed. Cir. 2012) (“The inventor’s own path itself never leads to a conclusion of obviousness; that is hindsight. What matters is the path that the person of ordinary skill in the art would have followed, as evidenced by the pertinent prior art.”) (citation omitted).

3. Li and Ono Do Not Render Obvious Independent Claim 30 or Its Dependent Claims.

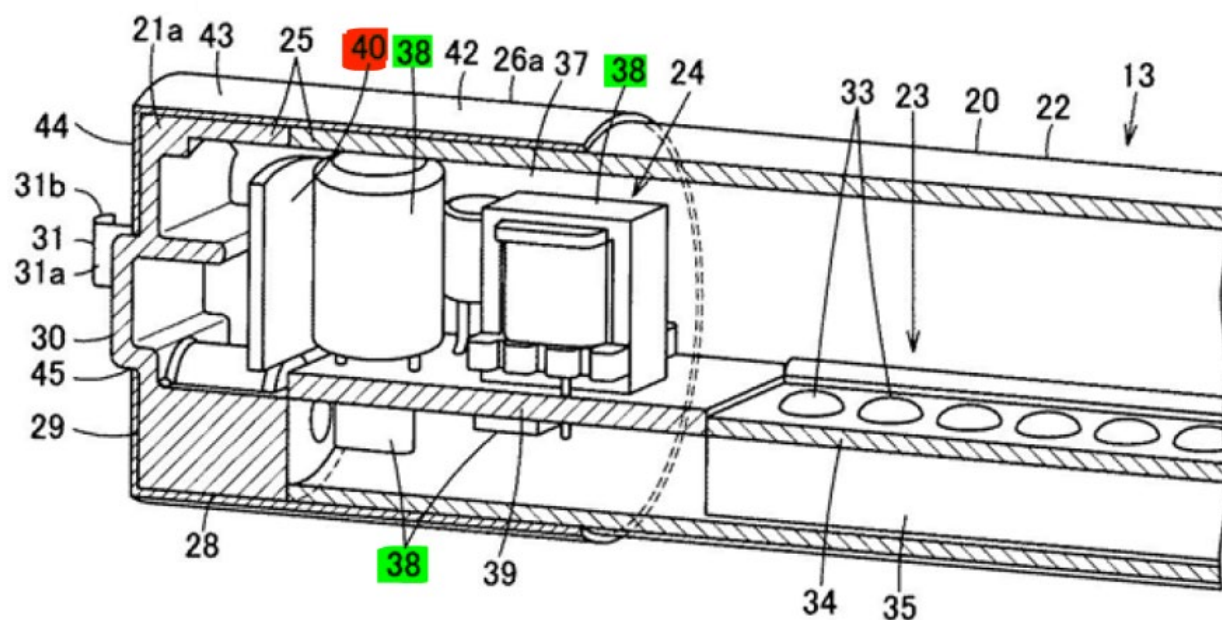
Element 30[h] of claim 30 recites: “wherein the plurality of electronic components comprise a capacitor which is positioned closest to the end wall of the first end cap[.]” For similar reasons discussed above for element 1[h], Petitioner fails to show that it would have been obvious to combine Li with Ono in a manner that discloses this limitation.

Here, again, Petitioner relies primarily on Li’s Fig. 6 to argue that this limitation is met. *See* Pet. at 45-47. Petitioner’s argument fails for several reasons. First, Li does not disclose or suggest that Li’s circuit diagram reflects the physical layout of the components on substrate 310. Indeed, there is no clear correspondence between the circuit diagram shown in Li’s Fig. 6 and the depiction of substrate 310 in Fig. 3.

Second, in combining Li’s drive circuit with Ono’s PCB, a POSA would follow the more detailed disclosures of Ono, as Petitioner itself argues elsewhere

in the Petition. *See* Pet. at 20-21, 23-24. However, Ono never discloses or suggests placing a capacitor closest to the end wall. Ono uses the generic identifier 38 to refer to a variety of components including capacitors, switching elements, resistors, and inductors. Ono at ¶ [0017]. Beyond failing to describe any capacitor as being closest to the end wall of the end cap 21a, none of the components labeled 38 in Fig. 1 are positioned closest to the end wall of the end cap.

[Fig. 1]



Id. at Fig. 1 (highlighting added). Indeed, Ono's figure 1 (above) shows auxiliary board 40 as closer to the end wall of the end cap than any of the components labelled 38. *Id.* at ¶ [0017] (discussing auxiliary board 40). Ono does not

disclose a capacitor on auxiliary board 40, let alone that any such capacitor would be closest to the end wall of the end cap.

Finally, as discussed above, it is noteworthy that Petitioner relies on the same evidence for element 1[h] which recites that *a resistor* is positioned closest to the end wall of the first end cap and for element 30[h] which recites that *a capacitor* is positioned closest to the end wall of the first end cap. *Compare* Pet. at 34-36 *with* Pet. at 45-47; *compare* Ex. 1003 at ¶¶ 98-100 *with* Ex. 1003 at ¶¶ 120-122.

4. Conclusion

At least for the reasons discussed above, Petitioner has failed to meet its burden to show that there is a reasonable likelihood that Petitioner would prevail with respect to at least one claim challenged.

B. Petitioner Has Not Shown That the Challenged Claims Are Unpatentable Under Grounds 2 through 5 either.

Grounds 2-5 exclusively address dependent claims that depend from independent claims 1 and 30. *See e.g.*, Pet. at 4. These grounds do not address the defects in the proposed Li-Ono combination discussed above for independent claims 1 and 30. Accordingly, for at least the same reasons, Grounds 2-5 do not render obvious any challenged claim.

V. THE BOARD SHOULD DENY INSTITUTION UNDER 35 U.S.C. § 314(a) / *FINTIV*

A. Legal Standard

The Board’s precedential decision in *Apple, Inc. v. Fintiv, Inc.* identified six factors for consideration in determining whether to deny institution under § 314(a) where there is a parallel district court litigation:

1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
2. proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision;
3. investment in the parallel proceeding by the court and the parties;
4. overlap between issues raised in the petition and in the parallel proceeding;
5. whether the petitioner and the defendant in the parallel proceeding are the same party; and
6. other circumstances that impact the Board’s exercise of discretion, including the merits.

IPR2020-00019, Paper 11 at 6 (PTAB Mar. 20, 2020) (precedential).

On June 21, 2022, the USPTO issued a Director’s Memorandum, titled “Interim Procedure for Discretionary Denials in AIA Post Grant Proceedings with Parallel District Court Litigation” (“Director’s Memo”). Among other things, the

Director’s Memo stated “Consistent with *Sotera Wireless, Inc.*, the PTAB will not discretionarily deny institution in view of parallel district court litigation where a petitioner presents a stipulation not to pursue in a parallel proceeding the same grounds or any grounds that could have reasonably been raised before the PTAB.” Director’s Memo at 3 (referencing *Sotera Wireless Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 (PTAB Dec. 1, 2020) (precedential as to § II.A).

Petitioner has not presented any *Sotera Wireless* stipulation here and the *Fintiv* factors discussed below weigh in favor of a discretionary denial in view of the parallel district court litigation.

B. The Co-Pending District Court Litigation

On May 24, 2022, Patent Owner filed a patent infringement complaint against Petitioner. Ex. 2008 (docket report) at ECF 1. On September 16, 2022, Patent Owner filed an amended complaint which asserted infringement of the ’989 patent. *Id.* at ECF 12.

A scheduling order was entered on December 12, 2022. Ex. 2009 (scheduling order). Fact discovery opened on April 20, 2023 and is scheduled to close on November 15, 2023. *Id.* at 2, 3. Final infringement and invalidity contentions are due June 14, 2023. A jury trial is scheduled for April 2024—four months before any final written decision would be due in this proceeding. *Id.* at 4.

Claim construction briefing has been completed and a claim construction hearing is set for June 2, 2023. Ex. 2008 (docket report) at ECF 74.

Petitioner moved to transfer the district court case to the Northern District of Ohio. Following venue discovery and a hearing, the transfer motion was denied on April 20, 2023. Ex. 2008 (docket report) at ECF 69.

Petitioner has also filed a motion to dismiss certain claims in the litigation, and that motion has been fully briefed. *Id.* at ECF Nos. 14, 18, and 19.

C. Factor 1: The Court Has Not Stayed the District Court Case and Is Very Unlikely to Do So

Petitioner has not moved to stay the district court case in view of its IPR filings nor even indicated it intends to do so.³ Even if Petitioner does so move, Judge Albright has typically denied motions to stay litigations based on instituted IPR proceedings. *See, e.g., Ravgen, Inc. v. Lab'y Corp. of Am. Holdings*, No. W-20-CV-00969-ADA, 2022 WL 4240937 (W.D. Tex. Aug. 16, 2022); *Sonrai Memory Ltd. v. LG Elecs. Inc.*, No. 6:21-CV-00168-ADA, 2022 WL 2307475 (W.D. Tex. June 27, 2022) (both denying post-institution motions to stay). Judge Albright is even less likely to stay the district court case given Petitioner has filed

³ Recently, on May 12, 2023, Petitioner did move to stay the district court case pending resolution of its objections to Magistrate Judge Gilliland's denial of Petitioner's transfer motion. Ex. 2008 (docket report) at ECF 75.

IPRs on just a subset of the patents-in-suit. Accordingly, *Fintiv* Factor 1 favors discretionary denial.

D. Factor 2: The District Court’s Trial Date is Four Months Before the Expected Date of any Final Written Decision

Jury Trial is currently set for April 17, 2024. Ex. 2009 (scheduling order) at 4. A final written decision in this case is unlikely to be due much before August 17, 2024 (*i.e.*, one year and 3 months after the May 17, 2023 filing date of the present paper). Accordingly, *Fintiv* Factor 2 favors discretionary denial.

E. Factor 3: Both Parties And The Court Have Invested Substantial Effort Into This Case And Will Invest Even More Before an Institution Decision

The parties have already invested substantial effort into this case. The claim construction process is almost complete and the parties are already into fact discovery. Final infringement and invalidity contentions are due in less than a month on June 14, 2023—roughly two months before the Board is likely to issue an institution decision in this proceeding. Moreover, Patent Owner already prevailed on Petitioner’s transfer motion and Petitioner’s motion to dismiss has been fully briefed. Accordingly, *Fintiv* Factor 3 favors discretionary denial. *See Fintiv*, Paper 15 at 15 (reasoning that factor 3 favored discretionary denial based on efforts already invested into claim construction and invalidity conventions).

F. Factor 4: Overlap Of Issues Raised In The Petition And District Court Case

Petitioner's invalidity contentions in the district court case rely on the same prior art advanced in the Petition. Ex. 2010 (invalidity contentions cover pleading) at 32 (listing Ono, Li, Xu, Guang, Zhang and Halliwell as prior art for the '989 patent). Accordingly, *Fintiv* Factor 4 favors discretionary denial. *See Fintiv*, Paper 15 at 15. As noted above, Petitioner opted not to present a *Sotera Wireless* stipulation in its Petition. Petitioner apparently intends to pursue the same invalidity theories simultaneously before the PTAB and in district court. This is inefficient and increases the chance of inconsistent outcomes between the two fora.

G. Factor 5: Petitioner and the Defendant in the District Court Case Are the Same Party

Petitioner here is itself a defendant in the parallel district court proceeding. Accordingly, *Fintiv* Factor 5 favors discretionary denial. *See Fintiv*, Paper 15 at 15.

H. Factor 6: Fatal Flaws in the Petition Favor Discretionary Denial

Given the flaws in the proposed Li-Ono combination discussed above in Section IV, the present Petition falls well short of the "compelling merits" standard required to avoid a discretionary denial based on *Fintiv* Factors 1-5. *See* Director's Memo at 4 (When determining whether there is a compelling unpatentability challenge, the Board evaluates whether the Petition presents challenges "in which the evidence, if unrebutted in trial, would plainly lead to a

conclusion that one or more claims are unpatentable by a preponderance of the evidence.”).

I. Conclusion

Similar to *Fintiv*, “the District Court case is ongoing, trial is scheduled to begin [four] months before [the Board] would reach a final decision in this proceeding, the District Court has expended effort resolving substantive issues in the case, the identical claims are challenged based on the same prior art in both the Petition and in the District Court, and the defendant in District Court and the Petitioner here are the same party.” *Fintiv*, Paper 15 at 17. Given that the *Fintiv* factors decidedly favor a discretionary denial, instituting a trial based on this Petition would be an inefficient use of the Board’s resources. Accordingly, the Board should deny institution under § 314(a).

VI. CONCLUSION

For all the reasons discussed above, the Board should deny institution of Petitioner’s Petition for *inter partes* review of the ’989 Patent.

Dated: May 17, 2023

Respectfully submitted,

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CERTIFICATION OF WORD COUNT UNDER 37 C.F.R. § 42.24(d)

Pursuant to 37 C.F.R. § 42.24(d), the undersigned hereby certifies that the word count for the foregoing Patent Owner's Preliminary Response totals 7,805, excluding the parts exempted by 37 C.F.R. § 42.24(a). Accordingly, this Petition is under the word count limit of 14,000 words.

This word count was calculated by using the built-in word-count tool in Microsoft Word 2016, the software used to prepare the document.

Dated: May 17, 2023

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CERTIFICATE OF SERVICE

I hereby certify that on this 17th day of May 2023, true and correct copies of the foregoing PATENT OWNER'S PRELIMINARY RESPONSE and Exhibits 2003-2010 were served via electronic mail upon the following counsel of record for Petitioner:

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