

PUBLIC VERSION

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG DISPLAY CO., LTD.,
Petitioner,

v.

PICTIVA DISPLAYS INTERNATIONAL LTD.,
Patent Owner.

Case No. IPR2026-00129
Patent No. 12,158,250

PATENT OWNER'S STATEMENT ON DISCRETIONARY DENIAL

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EXHIBIT LIST

Exhibit¹	Description
2001	250 Disclaimer
2002	Intentionally Left Blank
2003	Intentionally Left Blank
2004	Intentionally Left Blank
2005	Intentionally Left Blank
2006	Intentionally Left Blank
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2014	Intentionally Left Blank
2015	Intentionally Left Blank
2016	Intentionally Left Blank

¹ To the extent possible, Patent Owner uses the same exhibit numbering as in IPR2024-01095 to make the cross-referencing easier for the Director and the Board.

Exhibit¹	Description
2017	Intentionally Left Blank
2018	2025-05-05 Declaration of P. Morgan Pattison, Ph.D. from IPR2024-01095
2019	2025-04-24 Holmes Transcript
2020	2025-04-18 Holmes Transcript
2021	Intentionally Left Blank
2022	Screen shot of https://www.ossila.com/products/8-quinolinolato-lithium (last visited 05/04/2025)
2023	Intentionally Left Blank
2024	Intentionally Left Blank
2025	Intentionally Left Blank
2026	Intentionally Left Blank
2027	Intentionally Left Blank
2028	Intentionally Left Blank
2029	Intentionally Left Blank
2030	Intentionally Left Blank
2031	District Court Claim Construction Order
2032	Intentionally Left Blank
2033	Verdict Form, Dkt. 577 in <i>Pictiva Displays International Ltd. v. Samsung Electronics Co., Ltd.</i> , et al, Case No. 2:23-cv-00495-JRG
2034	[Under Seal] Excerpted Trial Testimony from October 28, 2025 and October 30, 2025 in <i>Pictiva Displays International Ltd. v. Samsung Electronics Co., Ltd. et al</i> , Case No. 2:23-cv-00495-JRG (E.D. Tex.)

Exhibit ¹	Description
2035	Xu Wei, et al., Organic Light-Emitting Diodes by Doping Liq into an Electronic Transport Layer, <i>Journal of Semiconductors</i> 2008, Vol. 29, No. 1 (“Wei”) (JX-48)
2036	U.S. Publication No. 2006/0134460 A1 (Kondakova) (DX-32)
2037	Excerpted PD4 Kirk Schanze Demonstratives (PD4.29)
2038	Screen shot of https://www.ossila.com/products/balq
2039	Screen shot of https://www.ossila.com/products/tpbi
2040	[Under Seal] Samsung’s Motions for Judgment as a Matter of Law Under Rule 50(B), Dkt. 617 in <i>Pictiva Displays International Ltd. v. Samsung Electronics Co., Ltd.</i> , et al, Case No. 2:23-cv-00495-JRG
2041	Email correspondence regarding litigation developments dated November 6, 2025
2042	[Under Seal] Petitioner's Response to Patent Owner's Statement Regarding District Court Trial in IPR2024-01095
2043	Email servicing ‘250 claim chart
2044	Samsung’s Opposition to Plaintiff’s Second Motion for Leave to Amend Complaint, Dkt. 117 in <i>Pictiva Displays International Ltd. v. Samsung Electronics Co., Ltd.</i> , et al, Case No. 2:23-cv-00495-JRG
2045	Pictiva’s Motion to Withdraw Plaintiff’s Motion for Leave To File Second Amended Complaint (Dkt. 111 & 112), Dkt. 125 in <i>Pictiva Displays International Ltd. v. Samsung Electronics Co., Ltd.</i> , et al, Case No. 2:23-cv-00495-JRG
2046	[Under Seal] Patent Owner's Statement Regarding District Court Trial in IPR2024-01095
2047	Patent Owner's Response in IPR2024-01095
2048	[Under Seal] Samsung’s Reply in Support of its Motions for Judgment as a Matter of Law Under Rule 50(B), Dkt. 636 in <i>Pictiva Displays</i>

Exhibit¹	Description
	<i>International Ltd. v. Samsung Electronics Co., Ltd.</i> , et al, Case No. 2:23-cv-00495-JRG
2049	Redacted version of EX2040
2050	Redacted version of EX2048
2051	EX3002 from IPR2024-1095
2052	EX3102 from IPR2024-1095
2100	U.S. Patent No. 7,911,129 to Hofmann et al. (Novaled AG)
2101	K. Walzer et al., <i>Highly Efficient Organic Devices Based on Electrically Doped Transport Layers</i> , 107 Chem. Rev. 1233-71 (2007)

I. INTRODUCTION

To simplify disputes, Patent Owner has filed a statutory disclaimer (EX2001) to disclaim claims 6-8, 10-11 and 13-15. The Director should exercise his discretion to deny the Petition on the remaining claims for at least four reasons. First, the examiner has already considered the same art and arguments before allowing the claims. Second, as against materially the same claim 2 of the parent '425 patent, the Board has already considered the same art and arguments in IPR2024-01095 (“the '425 IPR”) and a jury has recently rejected obviousness theories that are cumulative of the ones raised in the petition. Third, the Petition fails to apply either party’s interpretation of the claim term “n-doped” advanced in the district court action, and Petitioner fails to explain its inconsistent application of the claim interpretation. Fourth, the appropriateness of discretionary denial is bolstered by Petitioner’s repeated failures to observe the Board’s rules.

II. BACKGROUND

A. The Examiner Reviewed the Same Asserted Art Before Issuing the '250 Patent

The '250 patent is a continuation of the '425 patent. The '425 Patent is the subject of the '425 IPR.² During the prosecution of the '250 patent, the Applicants

² Patent Owner plans to seek Director Review of the '425 IPR because the Board failed to properly consider and did not address the prior district court proceeding.

submitted the '425 IPR petition and supporting exhibits. *See* EX1001, p.3 (“Other Publications,” listing the '425 petition, certified translations for Diekmann and Suzuki, Holmes declaration, Ma and Lee). The Petition asserts the same art and advances the same arguments as in the '425 IPR. *Compare* Pet. with EX1049, EX1050. The examiner has thus already “considered” the same art and arguments as presented here before allowing the claims. EX1002-503, 491-496.

B. The Remaining Claims of the '250 Patent Are Narrower Than and Include the Limitations of Claim 2 of the '425 Patent

As seen below, claim 1 of the '250 patent adds the underlined text below in element 1D, but is otherwise identical to claim 2 of the '425 patent. Claims 2-5 depend on claim 1 and also include all the limitations of claim 2 of the '425 patent.

'250 Patent, claim 1 (numbering as on Pet. viii)	'425 Patent, claim 2 (numbering as in 495 Action, <i>see</i> EX2037 at PD4.29)
1Pre. A device comprising:	1a. A device comprising:
1A. an organic light-emitting diode comprising:	an organic light-emitting diode comprising:
1B. an organic layer sequence,	1b. an organic layer sequence,
1C. a radiation exit area, and	a radiation exit area, and
1D. an encapsulation <u>wherein the encapsulation forms a seal of the organic layer sequence against environmental influences</u>	an encapsulation
1E. wherein the organic layer	1c. wherein the organic layer

sequence and the encapsulation are disposed on a carrier	sequence and the encapsulation are disposed on a carrier
1F. wherein the organic layer sequence comprises at least one radiation-emitting region configured to generate electromagnetic radiation in a spectral range from infrared radiation to UV radiation during operation	1d. wherein the organic layer sequence comprises at least one radiation-emitting region configured to generate electromagnetic radiation in a spectral range from infrared radiation to UV radiation during operation
1G. wherein the organic layer sequence comprises an electron transport layer that is n-doped; and	1e. wherein the organic layer sequence comprises an electron transport layer that is n-doped; and
1H. wherein the organic layer sequence comprises an emission layer comprising an iridium-containing compound; and	1f. wherein the organic layer sequence comprises an emission layer comprising an iridium-containing compound; and
1I. wherein the electron transport layer comprises 8-hydroxyquinolinolato-lithium.	2. The device of claim 1, wherein the electron transport layer comprises 8-hydroxyquinolinolato-lithium.

Likewise, other remaining claims of the '250 patent include all the limitations of claim 2 of the '425 patent, as summarized below. The element numbering for the '250 patent follows that set forth on pages x-xvii of the Petition.

'425 patent	'250 patent			
Claim 2	Claim 9	Claim 10	Claim 12	Claim 16

1Pre to 1d	6Pre to 6F	10Pre to 10F	11Pre to 11F	16Pre to 16F
1e	6G	10G	11G	16G
1f	6H	10H	11H	16H
Claim 2	Claim 9	10I	Claim 12I	16I

C. The '250 Patent Was Withdrawn from District Court Cases to Avoid Delay

Pictiva asserted certain OLED patents against Samsung, including the '425 patent, in *Pictiva Displays International Ltd. et al. v. Samsung Electronics Co., Ltd. et al.*, Case No. 2:23-cv-00495-JRG (E.D. Tex.) (“the '495 Action”). When Samsung later sought to dismiss the '495 Action for failing to name Pictiva’s parent company, Pictiva refiled the case as Case No. 2:24-cv-00532 (“the '532 Action”) in addition to naming the parent company in the '495 Action. Pictiva served Samsung with the '250 patent’s infringement chart in both cases. EX2043. Samsung then sought to use the inclusion of the '250 patent as a reason to delay the case schedule. EX2044 at 6-9. To avoid the delay and to streamline the issues for trial, Pictiva withdrew its request for leave to add the '250 patent. EX2045.

D. The Jury Found Claim 2 of the '425 Patent Infringed and Not Invalid in the 495 Action

In a trial concluded in October 2025 in the '495 Action, a jury found that Samsung willfully infringed claim 2 of the '425 patent and that the claim was not invalid. EX2033 at 4, 6. The co-defendants in the '495 Action are real parties-in-

interest in this IPR. *See* Pet. 2. In addition, Petitioner’s engineers voluntarily testified at the trial. *See, e.g.*, EX2034, 838:20-25. As noted above, the remaining claims of the ’250 patent include the same limitations as claim 2 of the ’425 patent.

III. ARGUMENTS

A. The Director Should Deny the Petition under 325(d)

The Petition concedes that “Applicant submitted an information disclosure statement ... listing over 30 documents—including Suzuki, Diekmann, Ma, and Lee—identified in the [425] petition.” Pet., 7. The examiner stated that “the information disclosure statement is being considered by the examiner,” and added to the IDS the annotation “ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /T.X.L./.” EX1002, 503, 491-496. Among the art submitted and not lined through—and were hence considered—are Suzuki, Diekmann, Ma and Lee, the basis of the instant petition. *Id.*, 491(#2 Lee), 493 (#5-6, Diekmann & Suzuki), 494 (#19, Ma). The examiner also considered the ’425 Petition and the ’425 Holmes declaration (*id.*, 493, #8, 494, #21), which advanced the same arguments as the Petition. *Compare* EX1049, 17-26, 36-38, 51-58, 69-70 *with* Pet. 16-29, 49-62. Thus, contrary to Petitioner’s assertion, the examiner considered the same art and argument and *Advanced Bionics* Part 1 is met. *Advanced Bionics* Part 2 is also satisfied because the Petition identified no material errors made by the examiner, as opposed to a difference in opinion with Samsung. Pet., 7. As discussed below and in

the forthcoming POPR, the examiner had it right, as confirmed by the jury's rejection of Samsung's cumulative grounds of invalidity challenges.

Denial under 325(d) is also appropriate because the Board has already instituted a trial against the '425 patent which includes all the material limitations and relies on the same art and arguments. *See* EX1049 ('425 Petition). Instituting trial on substantially similar claims based on the same art and argument is not a good use of the Board's limited resources.

B. The Jury Has Already Rejected Materially the Same Arguments

As discussed in Section II.B above, all remaining claims include the same requirements as claim 2 of the '425 patent. At trial, Pictiva's technical expert, Dr. Schanze, testified that the combination of elements 1e, 1f and claim 2 of the '425 patent, which are also present in all the remaining claims of the '250 patent (*see* Section II.B), makes claim 2 novel and non-obvious:

Q. And is the '425 Patent directed towards something called a phosphorescent OLED?

A. Yes, ma'am, it is.

Q. And what is a phosphorescent OLED?

A. That's an OLED that uses a metal complex like [REDACTED] to generate the light in the emission layer.

Q. Had the combinations of these elements, specifically element 1e, 1f, and 2, had those ever been used in a phosphorescent OLED before the '425 invention?

A. No, ma'am.

Q. And so what is the novel aspect of the claim?

A. Again, the novel aspect is a collection of all the elements that are presented in claims 1 and 2, but in particular 1e, 1f, and 2 combined.

EX2034, 471:3-16. Samsung did not dispute that these are key elements to the validity of claim 2 of the '425 patent, but presented two grounds of invalidity against claim 2 of the '425 patent at trial. As explained below, both grounds are cumulative of the theories presented in the Petition.

Samsung first relied on a product called Clix2 combined with Wei (EX2035). Clix2 included an [REDACTED], and an [REDACTED] [REDACTED] having a mixture of [REDACTED] (which was very different from those used in the accused products). EX2034, 917:1-6. Samsung conceded that the [REDACTED] in Clix2 was *not n-doped*. EX2034, 917:7-13 (arguing that n-doping was not shown), 920:8 (Samsung counsel: "Now, Clix2 doesn't use an N-doped [REDACTED]"), 1208:9-20 (Jo: "Q: Does [Clix2] include an N-doped [REDACTED] [REDACTED]? ... A. No") (clarification omitted).

Samsung's expert then made the conclusory assertion that "if one were motivated to N-dope the ETL," a reference called Wei "would have been evidence that you could indeed go ahead and do that." EX2034, 920:8-16. The jury rejected that argument. EX2033 at 6. *Wei has materially the same disclosure as Ma*, the reference that serves as the basis of an allegedly n-doped ETL in the Petition.

Compare EX2035 (Wei) with EX1011 (Ma) (sharing Wei Xu/Xu Wei, Zhang Zhilin/Z.L. Zhang, and Jiang Xueyin/X.Y. Jiang as coauthors as well as substantively identical abstracts, disclosures and figures); Pet., 13, 26, 59.

The Petition's obviousness theory relies in part on an argument that a POSITA would have found it obvious to use Liq disclosed in Ma to n-dope an undoped ETL the same theory as covered by the Clix2-Wei ground presented at trial. *See* Pet., 24 (arguing that it would be obvious to use an n-doped ETL in Suzuki's OLED), 26 (arguing that "[a] POSITA would have been motivated to use an Liq-doped ETL in Suzuki's OLED to obtain the benefits provided by Liq doping of the ETL in improving OLED performance), *id.* (citing Ma's disclosure of alleged benefits of using Liq compared to an undoped ETL).

By rejecting the Clix2-Wei combination, the jury thus rejected a theory that is materially the same as one of the two theories presented in the Petition; namely, that a POSITA would substitute an ETL layer that is not n-doped with Wei/Ma's Liq-containing ETL to arrive at a Liq-n-doped ETL. Pet., 26-29, 59-62. Moreover, Petitioner's admitted failure to obtain an n-doped [REDACTED] in its Clix2 prior art product by mixing [REDACTED] (EX2034, 917:1-8, 920:8-14) undermines its argument of a reasonable expectation of success of obtaining an n-doped [REDACTED] by adding [REDACTED]. That failure, carried out by its own engineers who presumably had at least ordinary skills, evidences unpredictability in obtaining [REDACTED]-

n-doped ETL by mixing [REDACTED].

Samsung's second ground of invalidity at trial relied on a reference called Kondakova (EX2036). EX2034, 920:21-922:6. Samsung's district court expert alleged that Kondakova discloses all limitations, including an n-doped [REDACTED]. *Id.* He conceded, however, that Kondakova's [REDACTED] was not n-doped with [REDACTED], but with an alkaline metal such as lithium ("Li") and cesium ("Cs"). *Id.* The expert nevertheless asserted that Kondakova would anticipate or render obvious claim 2 of the '425 patent because, for [REDACTED], Kondakova disclosed that "any metal chelated oxynoid can be used, of which [REDACTED] is an example." *Id.*

The Kondakova ground therefore represents the second theory argued in the Petition; namely, that it would be obvious to replace known n-dopants such as Cs with Liq to obtain a PHOLED with an ETL n-doped with Liq. *See* Pet. 27 (arguing that "Liq was known to be more stable when used to n-dope an ETL, compared to n-dopants contemplated by Suzuki, like cesium"); EX2034, 920:21-922:6 (Samsung expert testifying that Kondakova disclosed [REDACTED] n-doped with Cs, but also disclosed [REDACTED]-based ETL). By finding claim 2 not invalid in light of Kondakova, the jury necessarily found that (1) a POSITA would not have been motivated to n-dope ETL with Liq over other known n-dopants and/or (2) there was not a reasonable expectation of success to obtain an n-doped PHOLED with [REDACTED]. Either finding is fatal to Petitioner's invalidity theory.

Because the '250 patent's remaining claims include all the requirements of claim 2 of the '425 patent, they are no broader than claim 2 of the '425 patent. Thus, the jury's finding that claim 2 of the '425 patent is not invalid would also apply to the remaining claims of the '250 patent. *See, e.g., Azurity Pharms., Inc. v. Exelxis, Inc.*, IPR2025-00427, Paper 13 (P.T.A.B., Jul. 2, 2025) (institution denied on a petition that “presents challenges ... that are substantially similar to those raised against a related patent—containing substantially similar claim language—in a prior district court proceeding and a prior Board proceeding”).

In summary, Samsung advanced the same theories at trial as in the Petition—i.e., a POSITA would have used [REDACTED] as an n-dopant, because [REDACTED] allegedly would have helped improve performance over undoped [REDACTED] and/or because there were alleged benefits to use [REDACTED] over other n-dopants. The jury rejected both theories; and Petitioner should not be allowed to advance the same theories here because the IPR should serve as an *alternative* forum and not as an additional forum for Samsung to relitigate theories that it already lost elsewhere. Otherwise, inconsistency may result.

C. The Board Should Exercise Its Discretion to Deny the Petition Because Petitioner Fails to Comply with Rule 104(c) and Bases the Petition on a Claim Interpretation that is Inconsistent with Either Party's Interpretation of the Term “n-Doped” in the 495 Action

All remaining claims of the '250 patent require an “organic layer sequence [that] comprises an electron transport layer that is n-doped” and that the “electron

transport layer comprises 8-hydroxyquinolinolato-lithium” (*i.e.*, Liq). *See* Pet. viii-xvii (elements 1G, 1I, 10G, 10I, 11G, 11I, 16G, 16I). The Petition interprets the combination of these two elements as requiring an ETL n-doped with Liq. *E.g.*, Pet. 26 (“It would have been obvious to a POSITA to use 8-hydroxyquinolinolato-lithium (‘Liq’) as the dopant in Suzuki’s n-doped ETL as taught by Ma. Ma discloses an OLED with an ETL n-doped with Liq and teaches its benefits.”); Pet. 59 (“It would have been obvious to a POSITA to use 8-hydroxyquinolinolato-lithium (‘Liq’) as the dopant in Diekmann’s n-doped ETL as taught by Ma.”).

The same limitations appear as the combination of element 1e and claim 2 of the ’425 patent. *See* pp. 2–3 above. Samsung’s non-infringement defense focused solely on these two elements, and in particular, whether [REDACTED] is an n-dopant. *See* EX2040 at 1, 4-14. In the 495 Action, Samsung argues that [REDACTED] n-dopes an [REDACTED] only if its HOMO is higher than the LUMO of the organic [REDACTED] material to which it is added. EX2040 at 8-11. Here, however, the Petition insists that it would be obvious for Liq to n-dope organic materials whose LUMOs also lie far above Liq’s HOMO. *See* illustration (blue for LUMOs of ETLs in the relied-on prior art and red for LUMOs of accused products). The Petition ignores this inconsistency.



Specifically, at trial, Pictiva’s expert, Dr. Schanze explained that “n-doping,”

as related to the term “n-doped,” means “adding a material to some other material to increase the concentration or number of electrons in the material.” EX2034, 323:22-324:2; *see also id.*, 423:11-12 (“N-doping is increasing the concentration of electrons or number of electrons”); 473:2-3 (“N-doping, just broadly speaking, is the act of increasing the number of electrons in a material.”). Dr. Schanze then explained that whether [REDACTED] acts as an n-dopant when added to an [REDACTED] material “depends specifically on the interaction between the two materials.” *Id.*, 324:3-12.³ He explained that, in the accused products, [REDACTED] [REDACTED]. EX2034, 327:1-329:9 (Schanze); 592:10-14 (Seo) (“Q: So [REDACTED] helps increase the amount of electrons entering into the [REDACTED]. Correct? A. I believe so.”).

Samsung insisted, however, that, for infringement, Dr. Schanze must show that [REDACTED] has a HOMO that is higher than the LUMO of the ETL material so it can “[REDACTED]” EX2040, 8-9; EX2034, 450:9-24, 449:9-24, 423:9-23 (Schanze cross) (Samsung counsel repeatedly attempted to get admission that n-doping occurs “as a situation where the HOMO of

³ [REDACTED] does not always act as an n-dopant when added to an ETL. *See* pp. 7-8 above ([REDACTED], when mixed with an [REDACTED], in Samsung’s legacy product Clix2 is admittedly not an n-dopant); EX2034, 437:2-5, 920:8-16.

the electron donor is higher than the LUMO of the acceptor” so that an electron is transferred from the donor to the LUMO of the acceptor). Samsung then tried to drive home this requirement for n-doping through its witness’s testimony, asserting [REDACTED] is not an n-dopant because its HOMO is lower than the ETL’s LUMO:

Q. What is your role at Samsung Display?

A. I’m a principal engineer and I lead Materials Development Group.

...

Q. Okay. Now, what does this document tell us about whether or not the [REDACTED] is an N-dopant?

A. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

EX2034, 859:14-16, 868:19-25 (Seo) (cited on p. 11 of EX2040, Samsung’s post-trial motion). Likewise, when discussing the prior art, Samsung’s expert testified:

Q. Okay. Is this an N-doped [REDACTED]?

A. I don't believe it's been shown that it is.

Q. What is the LUMO of the [REDACTED] organic material in this [REDACTED]?

A. The LUMO value for [REDACTED] is [REDACTED] EV, which is similar to what Dr. Seo testified yesterday for all of the allegedly infringing products.

EX2034, 917:7-13 (Katona, expert) (discussing alleged prior art Clix2).

That is, under Samsung’s interpretation of “n-doping”/“n-doped” in the 495 Action, [REDACTED] n-dopes an ETL only if [REDACTED] HOMO is higher than the LUMO of the

ETL material [REDACTED] is added to. But this condition is not met for the ETL materials in the prior art references that form the basis of its petition, just like it's not met in the infringing products. *See* illustration on p. 11 and table below. Yet, the Petition insists that it would be obvious for [REDACTED] to serve as n-dopants in these ETLs whose LUMOs also lie far above [REDACTED]'s HOMO. Pet. 26-29, 59-62. The Petition does not attempt to reconcile these inconsistent positions in the district court and in the Petition.

HOMO of [REDACTED] ⁴	ETL Material	ETL's LUMO Level
[REDACTED] eV (EX2022; EX2034, 846:16-22)	BPhen	-3.0 eV (Ma, 813; EX1019, Fig. 1)
	Alq ₃ ⁵	-3.0 eV (EX1034, L800)
	BAIq	-2.9 eV (EX2038)
	TPBi	-2.7 eV (EX2039)
	[REDACTED] [REDACTED]	[REDACTED] eV (EX2034, 868:19-25 (Seo)) (cited above on p. 13)

As the Director explained in *Revvo Technologies, Inc. v. Cerebrum Sensor Technologies, Inc.*, IPR2025-00632, Paper 20 (Squires November 3, 2025) (precedential), “although a petitioner is not necessarily precluded from arguing different claim construction positions before a district court and the Board, the

⁴ HOMO and LUMO energy levels are all negative values. EX2034, 409:23-410:2.

⁵ Pet. 29 (“Alq₃ (identified as ETL in Suzuki)”); EX1009, 5 (Diekmann listing Alq₃, BAIq and TPBi as materials for ETL).

petitioner must explain sufficiently why the different positions are warranted, even in instances that do not implicate Section 112(f).” Here, Petitioner advances one interpretation of “n-doped”/“n-doping”/n-dopant for infringement in the district court, and another for invalidity before the Board, without even attempting to offer any explanation as required by Rule 104(c).

The omission is not excusable because in IPR2024-01095 challenging the ’425 patent (“the ’425 IPR”), Pictiva pointed out this inconsistency to Petitioner’s counsel after the trial in an email nearly two weeks before their filing of the Petition. *Compare* EX2041 at 3 (dated Nov. 6, 2025) *with* Pet. (filed Nov. 18, 2025). Petitioner also cannot claim ignorance of *Revvo Technologies* because Pictiva cited the same case in its email to Petitioner’s counsel. EX2041 at 3.

Petitioner will likely argue, as it did in the ’425 IPR, that because the jury found infringement, it must have rejected Samsung’s claim interpretation. EX2042 at 1-2. There are multiple problems with this argument. First, Samsung is still advocating for its interpretation of “n-doped”/“n-doping” in its post-trial briefing (EX2040 at 8-12; EX2048 at 2) and presumably will also do so in its appeal to the Federal Circuit. Thus, there is a continued risk of inconsistent results. To minimize this risk, the Director should let the District Court and the Federal Circuit determine the proper claim interpretation for both infringement and validity in one proceeding, rather than allowing Samsung to treat claim construction as a “nose of wax,” seeking

one interpretation in the district court and another before the PTAB.

Second, as Pictiva explained in the '425 IPR, while n-doping is not limited to the specific mechanism that Samsung advocates for non-infringement,⁶ it is relevant to Petitioner's theory that a POSITA would have used Liq as a "molecular n-dopant." EX1003, ¶ 41; EX2046 at 1-2; Pet. 27 ("Doping with large molecules like Liq ..."). As Pictiva noted in its '425 POR, *molecular n-dopants* dope by transferring electrons from the n-dopant's HOMO to the acceptor's LUMO and their HOMO energy levels thus need to be at least comparable to the ETL's LUMO. EX2047 at 30. Because the Petition's invalidity theory is premised on Liq serving as a molecular n-dopant, under Petitioner's unpatentability theories and the fact that Liq's HOMO is lower than the LUMO of the ETLs, Liq cannot act as a molecular n-dopant as the Petition argues.

Third, Petitioner is also not applying Pictiva's interpretation of the term. As noted above, Pictiva's expert interpreted n-doping as an act of "adding a material to

⁶ As Dr. Schanze explained, n-doping can occur "by ways other than just the mechanism of adding electrons from a -- from the dopant itself" (as Samsung insists), such as by using "electrode" as "a source of electrons to increase a concentration in the electron transport layer" as in the accused products. EX2034, 471:25-473:9.

some other material to increase the concentration or number of electrons in the material.” EX2034, 323:22-324:2. Pictiva presented evidence that, in the accused products, [REDACTED] increased the number of the electrons entering the [REDACTED] by helping with electron injection from the cathode. EX2034, 592:10-14. In contrast, Petitioner’s own expert conceded that, in the Ma reference—the sole base reference for allegedly teaching using [REDACTED] as an n-dopant in an [REDACTED]—there is no evidence that [REDACTED] actually improves electron injection or increases electrons:

Q: So in Ma, does the addition of Lithium Q to the Bphen layer help reduce injection barrier?

A. That’s a good question. I don’t think it does.

EX2019 (Holmes), 291:16-22. Ma does not disclose, and the Petition does not assert that Ma discloses, that adding Liq would lead to more electrons in the ETL, as required under Pictiva’s understanding of the term “n-doping.” Instead, as Petitioner’s expert admitted, “Ma specifically focuses on the change of in mobility and specifically via the improvement in hopping transport in the electron transport material.” EX2019, 47:12-18; *see also* Ma at 813 (reduced hopping distance accounts for observed electrical properties); EX2018, ¶ 110.

Put another way, although Ma characterizes Liq as an n-dopant, that characterization is based on interpreting n-dopant as “a dopant that increases the conductivity of an electron transport material.” EX2019, 46:14-47:10. For example, in the ’425 IPR, Petitioner argued “[t]he purpose of doping is to increase

conductivity, which may be achieved by increasing the number *or mobility* of charge carriers.” EX1050 at 7. Merely increasing mobility without increasing the concentration or number of electrons does not qualify as n-doping under either party’s interpretation of n-doping advanced in the district court.

Hence, Petitioner has not shown that Ma—the alleged basis for using Liq as an n-dopant in the combination—discloses an n-dopant under either party’s district court claim construction position. And Petitioner does not explain why it chooses to apply a different claim interpretation for the Petition, as required under *Revvo Technologies*. Denial of institution is thus warranted, especially given that Samsung was aware of such inconsistencies before it filed the Petition.

D. The Board Should Exercise Its Discretion to Deny the Petition in View of Petitioner’s Flagrant Disregard for the Board’s Rules

The Petition and Petitioner’s habitual disregard of Board’s rules further supports the Director’s discretionary denial. As one example, it has been long established that a petition may not incorporate by reference exhibits and other papers to circumvent the word limit. *Cisco Systems, Inc. v. C-Cation Techs., LLC*, IPR2014-00454 (PTAB Aug. 29, 2014) (Paper 12) (informative). But the Petition does exactly that. The Director need not look any further than pages 13-14 of the Petition where Petitioner incorporates 53 paragraphs or 22 pages of materials from EX1005, ¶¶11-63. If one counts the documents cited in those 53 paragraphs, that would be another few hundred pages. *See* EX1005. The Petition also does not explain what in the

incorporated declaration and exhibits specifically support its argument. *See* Pet. 13-14. The Director should deny the Petition to discourage such blatant attempt to circumvent the word limit.

As another example, the Petition submitted the same Garland declaration as it did in prior IPRs. *See* Pet. 13-14 (citing EX1006 in various places); EX2051. In prior IPRs, while Petitioner used the Garland declaration to gain institution (*e.g.*, EX1047, 16-19), it failed to produce Ms. Garland for a deposition as required by the Consolidated Trial Practice Guide (“CTPG”). EX2052 at 2-3; CTPG at § 1.F.1.b (requiring production of “non-party witnesses” for examination). Petitioner does not represent that anything has changed since the ’425 IPR; and the testimony from such an unavailable witness generated for another proceeding is nothing more than inadmissible hearsay, warranting discretionary denial. *OpenSky Inds., LLC v. VLSI Tech. LLC*, IPR2021-01056, Paper 18 (Dec. 23, 2021) (denying institution when Petition relied on a declaration from an unavailable expert).

As yet another example, the rules require petitioner to serve “information that is inconsistent with a position advanced by the party during the proceeding concurrent with the filing of the documents or things that contains the inconsistency.” 37 C.F.R. § 42.51(b)(1)(iii). Petitioner did not do that. For example, the Petition argues that “[c]ombining Suzuki [or Diekmann] and Ma would have merely amounted to applying a known technique (Ma’s Liq-doping the ETL) to

improve similar OLEDs (Suzuki's [or Diekmann's] devices with n-doped ETLs) in the same way." Pet. 27, 61. But Petitioner fails to inform the Board that its engineers failed to obtain an n-doped [REDACTED] when mixing [REDACTED]. EX2034, 917:1-8, 920:8-14. That failure, carried out by Petitioner's own engineers with at least ordinary skills, undermines its argument that it would be obvious to obtain [REDACTED]-n-doped [REDACTED] by mixing [REDACTED] with a reasonable expectation of success. *See also, e.g.*, EX2042 at 3 (arguing that Kondakova's disclosure on use of [REDACTED] was not about using [REDACTED] as an n-dopant, but as an ETL); EX2048 at 1 (the parties agree that "the presence of [REDACTED] alone does not establish that the mixed ETL layer is n-doped or that [REDACTED] serves as an n-dopant"). These facts show that adding Liq to an ETL does not necessarily, and often does not, yield an n-doped ETL, thus undermining Petitioner's obviousness arguments. Petitioner's failure to disclose this material information to the Board disregards Rule 42.51 and the duty of candor.

The Board should not waste its limited resources on a party who repeatedly disregards the Board's rules, especially when the Office has already considered the same art and arguments and a jury has rejected substantially the same arguments.

IV. CONCLUSIONS

The Director should exercise his discretion to deny the Petition to reduce the risk of inconsistent outcomes and to ensure integrity of the IPR proceeding.

Dated: February 2, 2026

Respectfully submitted,

By: /Hong Zhong/

H. Annita Zhong. (Reg. No. 66,530)

IRELL & MANELLA LLP

1800 Avenue of the Stars, Suite 900

Los Angeles, CA 90067

Tel: (310) 277-1010

Fax: (310) 203-7199

Email: hzhong@irell.com

Jonathan Lindsay (Reg. No. 45,810)

IRELL & MANELLA LLP

840 Newport Center Drive, Suite 400

Newport Beach, CA 92660

Telephone: (949) 760-0991

Facsimile: (949) 760-5200

Email: jlindsay@irell.com

Philip Warrick (Reg. No. 54,707)

IRELL & MANELLA LLP

750 17th Street NW, Suite 850

Washington, DC 20006

Telephone: (310) 777-6500

Facsimile: (310) 317-7252

Email: pwarrick@irell.com

CERTIFICATE OF SERVICE

I hereby certify, pursuant to 37 C.F.R. § 42.6, that on February 2, 2026, a complete copy of the **PATENT OWNER'S STATEMENT ON DISCRETIONARY DENIAL** and **EXHIBITS 2001, 2018-2020, 2022, 2031, 2034-2052 AND 2100-2101** were served upon the following, by ELECTRONIC MAIL:

COVINGTON & BURLING LLP

Scott C. Weidenfeller (Reg. No. 54,531)

sweidenfeller@cov.com

David A. Garr (Reg. No. 74,932)

dgarr@cov.com

SDC-Pictiva-IPR@cov.com

/Pia S. Kamath/

Pia S. Kamath