

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LG ELECTRONICS, INC. AND HISENSE CO. LTD,

Petitioners,

v.

POLARIS POWERLED TECHNOLOGIES, LLC,

Patent Owner.

Case IPR2020-01337

Patent No. 8,223,117

PATENT OWNER'S PRELIMINARY RESPONSE

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EXHIBIT LIST

Exhibit No.	Description
2001	Notice Letter to LG
2002	Notice Letter to Hisense
2003	VIZIO, Inc.'s Translation of Oki and Lise Declaration Submitted in IPR2020-00043 (-0043 IPR Exs. 1004, 1005)

I. INTRODUCTION

Plaintiff Polaris PowerLED Technologies, LLC (“Patent Owner”) submits this Preliminary Response to the Petition filed by LG Electronics, Inc. and Hisense Co. Ltd. (collectively, “Petitioners”) requesting *inter partes* review of claims 1-2, 4-7, 9, 15-16, and 18 of U.S. Patent No. 8,223,117 (“the ’117 patent”). Patent Owner respectfully requests that the Board decline institution because Petitioners failed to show a reasonable likelihood of prevailing as to any challenged claim.

II. LEVEL OF ORDINARY SKILL IN THE ART

To streamline disputes at this stage, this paper applies Petitioners’ level of ordinary skill. Pet., 21.

III. CLAIM CONSTRUCTION

To streamline disputes at this stage, this paper applies Petitioners’ constructions. Pet., 22-23.

IV. THE PETITION SHOULD BE DENIED UNDER 35 U.S.C. §314(a) AS AN IMPROPER FOLLOW-ON PETITION UNDER VALVE I AND GENERAL PLASTIC.

This is one of *four* petitions filed to date against the ’117 patent. The first two petitions (IPR2018-01262 and IPR2020-00043) were denied institution on the

merits. The Petition here is one of two parallel petitions (along with IPR2020-01283) filed by Petitioners.¹

At the time Petitioners filed this Petition, the -1283 IPR had been denied on the merits, but the -0043 IPR's merits had not yet been resolved. The Board initially exercised its discretion to deny the -0043 IPR petition filed by VIZIO under *NHK/Fintiv* in view of the advanced district court litigation. Ex. 1106. Petitioners then took up the mantle and recycled the same primary reference, Oki, and secondary reference, Toffolo, from the -0043 IPR petition. (Toffolo was also used in the -1262 IPR petition.) Petitioners even admit that the “challenge in this petition is similar to the one presented in the [-0043] IPR” Pet., 11. Since the Petition was filed, however, the Board ruled on the merits in the -0043 IPR and found that the alleged grounds in VIZIO's petition—including the grounds based on Oki and Toffolo—failed to demonstrate a reasonable likelihood of success. *VIZIO, Inc. v. Polaris PowerLED Techs., LLC*, IPR2020-00043, Paper 32 (PTAB Sept. 15, 2020) (hereinafter “VIZIO Rh'g”). Therefore, the present Petition is a repeat attack raising grounds and arguments that were already found to lack merit.

¹ The other proceedings are referred to herein as the -1262 IPR, -0043 IPR, and -1283 IPR.

The facts here present a classic example of the kind of harassing, serial IPRs that Congress specifically condemned when passing the AIA. H.R. Rep. No. 112-98, pt. 1, p. 48 (2011) (The “changes made by [this amendment] are not to be used through repeated litigation and administrative attacks on the validity of the patent.”). For the reasons below, the Board should deny institution under §314(a) .

A. The Board Applies The Precedential *General Plastic* Factors In Determining Whether To Deny A Follow-On Petition Under §314(a).

The Board should deny institution of the Petition, following the precedent of *General Plastic Co. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 (PTAB Sept. 6, 2017) (precedential) and *Valve Corp. v. Elec. Scripting Prods., Inc.*, IPR2019-00062, Paper 11 (PTAB Apr. 2, 2019) (precedential) (“*Valve I*”) (denying second petition against same claims filed by different petitioner than first petition).

In exercising its discretion under 35 U.S.C. §314(a) with respect to follow-on petitions, the Board applies the following factors:

1. whether the same petitioner previously filed a petition directed to the same claims of the same patent;
2. whether at the time of filing of the first petition the petitioner knew of the prior art asserted in the second petition or should have known of it;

3. whether at the time of filing of the second petition the petitioner already received the patent owner's preliminary response to the first petition or received the Board's decision on whether to institute review in the first petition;
4. the length of time that elapsed between the time the petitioner learned of the prior art asserted in the second petition and the filing of the second petition;
5. whether the petitioner provides adequate explanation for the time elapsed between the filings of multiple petitions directed to the same claims of the same patent;
6. the finite resources of the Board; and
7. the requirement under 35 U.S.C. §316(a)(11) to issue a final determination not later than 1 year after the date on which the Director notices institution of review.

General Plastic, 16-17.

“[N]ot all the factors need to weigh against institution for [the Board] to exercise [its] discretion under §314(a)” to deny institution. *Abiomed, Inc. v. Maquet Cardiovascular, LLC*, IPR2017-02150, Paper 11, 7 (PTAB Mar. 12, 2018). Nevertheless, here they do.

B. Each Of The *General Plastic* Factors Weighs In Favor Of Denying This Follow-On Petition.**1. Factor 1: Whether The Same Petitioners Previously Filed A Petition Directed To The Same Claims Of The Same Patent.**

The same claims of the '117 patent were challenged in earlier petitions. As noted, this is one of four petitions challenging the '117 patent. As shown in the table below, the claims challenged in this Petition (highlighted in yellow) overlap completely with those claims challenged in the earlier -1262 IPR and -0043 IPR.

IPR No.	Claims Challenged
IPR2018-01262	1-2, 4-7, 9, 13-16, 18-20
IPR2020-00043	1-2, 4-7, 9, 13-16, 18
IPR2020-01283	1-2, 4-7, 9, 15-16
IPR2020-01337	1-2, 4-7, 9, 15-16, 18

Petitioners admit this. Pet., 15 (“[A]ll claims challenged here were challenged in one or more prior petitions....”). That the same claims of the '117 patent were previously challenged in earlier petitions favors denying the Petition. *See Valve I*, 9 (same claims challenged in previous proceeding).

It is immaterial that this Petition and the earlier petitions were filed by different petitioners because there is a relationship between the petitioners. *Id.*, 2 (The Board’s “application of the *General Plastic* factors is not limited solely to instances when multiple petitions are filed by the same petitioner. Rather, when

different petitions challenge the same patent, [the Board] consider[s] any relationship between those petitions when weighing the *General Plastic* factors.”).

Petitioners here contend that “there is no **close** relationship between Petitioners and the prior petitioners (i.e., Samsung and VIZIO).” Pet., 14 (all emphasis within quotations has been added in this paper, unless indicated otherwise). But other than pointing to the fact that different law firms were hired to file their Petition, Petitioners provide no further explanation regarding the choice of the “close” qualifier. *See id.*

But there is no need to investigate how “close” the relationship ultimately was because, by using the prior proceedings as a roadmap, Petitioners created an implied relationship with the prior petitioners. The Board has previously determined that such an implied relationship satisfies Factor 1:

It seems clear that Petitioner is not a codefendant with the prior petitioners. ... We determine, however, that ***Petitioner implicitly created such a relationship by using the prior petitioners' work as a menu and picking and choosing from their work product. The instant Petitioner's decision to use the prior petitions as a roadmap for its own petition ties the interests of all of the petitioners together.*** *See General Plastic*, Paper 19 at 11, 17 (“[m]ultiple, staggered petitions challenging the same patent and same claims raise the potential for abuse.”)

Ericsson Inc. v. Uniloc 2017, LLC, IPR2019-01550, Paper 8, 13 (PTAB Mar. 17, 2020).

Petitioners tacitly admit that they used the prior proceedings as a roadmap. **First**, they admit to studying the previous petitions, Patent Owner's preliminary responses to those petitions, and the Board's related decisions. *See, e.g., LG Elecs., Inc. v. Polaris PowerLED Techs., LLC*, IPR2020-01337, Paper 4, 3 (July 21, 2020) (Petitioner's Notice Ranking Petitions, hereinafter "Notice") ("Patent Owner has alleged that the Oki reference is not prior art and can be sworn behind.") (citing Patent Owner's preliminary response in the -0043 IPR); Pet., 15 ("Petitioners have [Patent Owner's] preliminary responses filed in both earlier IPRs and the decisions denying institution."); Pet., 16 ("Petitioners have seen [Patent Owner's] arguments about VIZIO's application of Oki"). In fact, the Petition expressly acknowledges that "the challenge in this petition is similar to the one presented in the [-0043] IPR," indicating Petitioners' reliance on VIZIO's work product in the -0043 IPR petition. Pet., 11.

Second, Petitioners acknowledge that they made the strategic decision to file two parallel petitions "due to the open question of the prior art status of the Oki reference." Notice, 2. But Petitioners only became aware of that "open question" because it was raised by Patent Owner in its preliminary response in the -0043 IPR.

See also Pet., 13 (“Petitioners have filed two petitions because [Patent Owner] is poised to dispute the priority date and date of invention.”) (capitalization modified).

Because Petitioners have at least an implied relationship with the earlier petitioners created by their analysis of, and reliance on, the earlier petitions and Patent Owner's preliminary responses involving the same claims as the earlier petitions, Factor 1 favors denial.

2. Factor 2: Whether At The Time Of Filing Of The First Petition Petitioners Knew Of The Prior Art Asserted In The Second Petition Or Should Have Known Of It.

One of the Petitioners (LG) here was on notice of its infringement of the '117 patent at least as early as August 29, 2019, about a month-and-a-half before VIZIO filed the -0043 IPR. Ex. 2001. The other (Hisense) was on notice of infringement at least as early as November 25, 2019, about a month after the -0043 IPR's filing date. Ex. 2002. Because the -0043 IPR petition challenges a patent Petitioners were accused of infringing, it is reasonable to conclude that Petitioners knew or should have known about the -0043 IPR at or around its filing date. See *Am. Honda Motor Co. v. Intellectual Ventures II, LLC*, IPR2018-00349, Paper 9, 16 (PTAB June 27, 2018) (denying institution under §314(a); finding Factor 2 weighs against institution where reasonable “monitoring litigation activity” of cases against other defendants would have apprised petitioner of at least some of

the art asserted in petition and petitioner offered no rebuttal to such reasonable assumption).

There are three references in the Petition's proposed grounds: Oki, Henry, and Toffolo. Pet., 24. Petitioners knew or should have known of the Oki and Toffolo references around the time of the -0043 IPR because VIZIO relied on those references in its petition. *VIZIO, Inc. v. Polaris PowerLED Techs., LLC*, IPR2020-0043 IPR, Paper 2, iii (Oct. 15, 2019) (VIZIO's Petition, hereinafter "VIZIO Pet."). Indeed, Toffolo was even applied in Samsung's -1262 IPR petition filed all the way back on June 15, 2018. *Samsung Elecs Co. v. Polaris PowerLED Techs., LLC*, IPR2018-01262, Paper 4, v (June 15, 2018) (Samsung's Petition). Therefore, Factor 2 is plainly satisfied as to Oki and Toffolo. *Valve I*, 11 ("Valve [the later petitioner] knew or should have known of the Welch-HiBall reference around the time HTC [the earlier petitioner] filed its petition ... because it was one of the two references relied upon by HTC.").

The Petition does not indicate when Petitioners first learned of Henry, which is only applied against one dependent claim. But regardless of whether Petitioners *actually* knew of Henry at the time VIZIO filed the -0043 IPR petition, Petitioners could have found it through the exercise of reasonable diligence around the time of VIZIO's petition *because Henry is cited on the face of the '117 patent*. Ex. 1001, [56] (references cited). Henry also has special import in the patent's file

history. First, the Examiner specifically searched for Henry during the original prosecution. Ex. 1122, 116 (“6198234”). Second, the Examiner received and acknowledged review of special non-patent literature related to Henry. Ex. 1122, 137 (391-392), 138 (393-406). So, not only is Henry cited in the patent, but it is also cited *repeatedly*. Ex. 1001, [56]. Petitioners therefore could and should have found this reference quickly. See *Valve I*, 11 (finding factor 2 satisfied where evidence “suggests that [the petitioner] could have found the Maeda and Anderson references through the exercise of reasonable diligence around the time of [the earlier] petition”); *Apple Inc. v. Zomm, LLC*, IPR2019-01030, Paper 8, 11 (PTAB Nov. 14, 2019) (“[A]s Tran is a U.S. Patent and it uses the same terms used in the ’895 patent, in the absence of any explanation as to why a reasonably diligent search would not (or did not) uncover the reference, the second *General Plastic* factor weighs towards exercising our discretion to deny institution.”).

In any event, any negligible lingering question about Henry should not affect resolution of Factor 2, because Petitioners do not allege that Henry is applied differently than the art in the -0043 IPR. On the contrary, Petitioners admit “the challenge in this petition is similar to the one presented in the [-0043] IPR” Pet., 11. The Board should not reward a strategic decision to substitute a “new” reference for one dependent claim that is not applied any differently than the old references original to an earlier IPR in an effort to avoid denial under §314(a) .

Because Petitioners knew or should have known about Oki, Henry, and Toffolo (the references asserted in the Petition) at the time of the -0043 IPR petition, Factor 2 favors denial.

3. Factor 3: Whether At The Time Of Filing Of The Second Petition Petitioners Already Received The Patent Owner's Preliminary Response To The First Petition Or Received The Board's Decision On Whether To Institute Review In The First Petition.

In *Valve I*, the Board held that allowing petitioners to use prior proceedings as a “roadmap” “is unfair to patent owners and is an inefficient use” of the IPR process. *Valve I*, 12. This factor can “weigh[] heavily against institution.” See, e.g., *BMW of N. Am., LLC v. Blitzsafe Tex., LLC*, IPR2018-00926, Paper 7, 11 (PTAB Oct. 19, 2018).

Petitioners filed this Petition on July 21, 2020. By that time, three other petitions had been filed against the '117 patent: in the -1262 IPR, the -0043 IPR, and the parallel -1283 IPR. In two of those proceedings (-1262 IPR and -0043 IPR), Patent Owner had already filed its preliminary responses. In the -1262 IPR, the Board had already denied the petition on the merits and denied the earlier petitioner's request for rehearing of that decision prior to the filing of the Petition in this case. See *Samsung Elecs. Co., Ltd. v. Polaris PowerLED Techs., LLC*, IPR2016-01262, Paper 14 (PTAB Jan. 17, 2019) (denying institution on merits), Paper 16 (PTAB May 8, 2019) (denying the petitioner's request for rehearing). In

the -0043 IPR, the Board had already denied the petition under *NHK/Fintiv*, and the Board would follow-up with a decision denying rehearing on the merits on September 15, 2020. *VIZIO Rh'g*, 38-39.

Petitioners assert that “the Board did not examine the merits of the challenge based on Oki” in the -0043 IPR. Pet., 12. While that may have been the case at the time Petitioners filed their Petition on July 21, 2020, it is no longer true. In the rehearing decision, the Board carefully reviewed Oki's and Toffolo's disclosures, and found that VIZIO had failed to show a reasonable likelihood of showing unpatentability of the challenged claims. *VIZIO Rh'g*, 18-39.

Petitioners concede that “Petitioners have [Patent Owner's] preliminary response in both earlier IPRs and the decisions denying institution.” Pet., 15; see also *id.*, 16 (“Petitioners have seen [Patent Owner's] arguments about VIZIO's application of Oki”). As discussed above, Petitioners tailored their arguments in this proceeding based on Patent Owner's arguments in these other proceedings.

Petitioners argue that Patent Owner's preliminary response in the -0043 IPR is the “only” paper “relevant” to *General Plastic* factor 3 “because it addresses Oki.” Pet., 15. This is not true. Petitioners also had the -0043 IPR petition applying Oki. Moreover, Petitioners had the petition, Patent Owner's preliminary response, **and** the decision denying institution in the -1262 IPR, which address the *same* Toffolo reference. Petitioners further contend that the import of the

preliminary response in the -0043 IPR is somehow diminished because “the Board did not pass on those issues in its decision.” Pet., 16. To be sure, the Board’s on-the-merits denial of the -0043 IPR had not yet issued when this Petition was filed. Still, Petitioners could have studied (and, in fact, did study) the preliminary response in that case, evaluated the strengths and weaknesses of the petition, and impermissibly taken steps to bolster its arguments. *Google LLC v. Uniloc Luxembourg S.A.*, IPR2017-01665, Paper 10, 22 (PTAB Jan. 11, 2018) (denying follow-on petition filed after preliminary response in first case, but before institution decision).

There is little doubt that Petitioners did precisely that because the Petition proactively responds to the preliminary response’s arguments regarding swearing-behind Oki in this Petition and cites the preliminary response repeatedly. Pet., 4-7, 33, 35 & n.4. Indeed, Petitioners admit the reason they filed this Petition as a parallel proceeding is because they did not know exactly how Patent Owner would respond to the art in the parallel -1283 IPR and had greater comfort in the familiarity of Oki and Toffolo. Notice, 5 (“[S]ince Patent Owner has never had to grapple with the teachings of references like Yanagiuchi and Fujimaki before, Petitioners do not know what arguments Patent Owner will present in an attempt to distinguish its claims from those references.”).

4. Factors 4 & 5: The Length Of Time That Elapsed Between The Time Petitioners Learned Of The Prior Art Asserted In The Second Petition And The Filing Of The Second Petition And Whether Petitioners Provide Adequate Explanation For The Time Elapsed Between The Filings Of Multiple Petitions Directed To The Same Claims Of The Same Patent.

Factors 4 and 5 also weigh against institution. As discussed above, Petitioners have had express notice of the '117 patent since at least as early as August 2019 (LG) and November 2019 (Hisense), bookending the -0043 IPR petition's filing on October 15, 2019. Ex. 2001; Ex. 2002.

Petitioners fail to explain their nine-month delay in filing the Petition after the petition in the -0043 IPR was filed. Petitioners contend that it was “time-consuming” to prepare the Petition (Pet., 16), but two of Petitioners' references—Oki and Toffolo—were already used in the -0043 IPR petition and Petitioners here make substantially similar arguments as in the -0043 IPR petition with regard to these references. Indeed, Petitioners admit their Petition is “similar” to the -0043 IPR's petition. Pet., 11.

Petitioners' contention that there was delay because they had to obtain translations of relevant references (Pet., 16) is simply not credible. Oki is the only reference in the Petition that was not originally in English, and it was *already translated* and submitted in the -0043 IPR. Petitioners here file an identical translation as in the -0043 IPR from the *same* translator (William A. Lise of

Kirameki Translations, Inc.) as in the -0043 IPR with a different date. Ex. 1103; Ex. 2003 (Oki translation from -0043 IPR). Far from requiring a time-consuming undertaking, it appears that Mr. Lise used the *same* translation of Oki that he had already prepared for VIZIO. Therefore, there should have been no delay.

Petitioners also generically contend that other activities (*e.g.*, commissioning prior art searches) also delayed the filing of the Petition. Pet., 15-16. It is not credible that any prior-art searching resulted in delay, however, because LG and Hisense were already aware of Oki and Toffolo from the -0043 IPR and Henry was cited on the face of the patent along with 16 non-patent literature references expressly pointing to it in their titles (Ex. 1001, [57]). Therefore, *none of the references were found in a prior art search*. Furthermore, that sales and public uses “cannot be presented in an IPR” (Pet., 16) is and has always been the case. See 35 U.S.C. §311(b). It does not take months-long analysis to reach that conclusion.

Petitioners cite three Board decisions in their analysis of the timing of the Petition under *General Plastic* (Pet., 15, 17), but they are unavailing. In *Alphatech Holdings, Inc. v. Nuvasive, Inc.*, IPR2019-00361, Paper 19 (PTAB July 9, 2019), the Board heavily weighed the fact that the second petition challenged additional claims that were not previously challenged and found that review of such claims

was warranted. *Id.*, 11. Here, by contrast, no additional claims are challenged that were not challenged previously.

In Petitioners' second cited case, *LG Electronics, Inc. v. Bell Northern Research, LLC*, IPR2020-00319, Paper 15 (PTAB June 23, 2020), the Board found it significant that an additional claim was challenged in the second petition and was based on grounds using different lead references. *Id.*, 15. Here, again, no additional claims are challenged, and Oki and Toffolo were already used in the petition in the -0043 IPR.

Finally, in Petitioners' third case, *Microsoft Corp. v. Iron Oak Techs., Inc.*, IPR2019-00107, Paper 8 (PTAB May 15, 2019), the Board found that the petition was filed *before* the filing of the preliminary response in an earlier case, and in another earlier case, the petitioner relied on different primary references. *Id.*, 56-57. Here, however, the Petition was filed *after* two preliminary responses were filed and *after* two earlier institution decisions were issued by the Board. Moreover, the Petition uses Oki and Toffolo, which were already presented in a previous petition and evaluated by the Board.

Finally, Petitioners remonstrate against Patent Owner's "serial litigation tactics," perhaps implying that filing multiple suits somehow favors institution. Pet., 14-15. This narrative is a blatant attempt to change the subject prejudicially. The Board does not weaponize its discretion to institute under §314(a) to punish a

patent owner for asserting a patent it has a constitutional and statutory right to assert. *See Intel Corp. v. VLSI Tech. LLC*, IPR2020-00106, Paper 17, 12-13 (PTAB May 5, 2020) (finding arguments regarding serial litigation unpersuasive in declining to institute review under *NHK/Fintiv*). Petitioners provide no reason why these lawful, appropriate actions are relevant to the Board's analysis. Quite simply, they aren't, any more than Petitioners' persistent and unabashed infringement of the '117 patent is. The fact remains that Petitioners have been on notice of the '117 patent since at least the filing of the -0043 IPR petition and waited over nine months to file this Petition, which, at the end of the day, is admittedly "similar to the one presented in the [-0043] IPR" Pet., 11.

Petitioners' filing delay is inexcusable, and thus Factors 4 and 5 favor institution.

5. Factors 6 & 7: The Finite Resources Of The Board And The Requirement Under 35 U.S.C. §316(a)(11) To Issue A Final Determination Not Later Than 1 Year After The Date On Which The Director Notices Institution Of Review.

"The sixth and seventh factors are efficiency considerations," and consider "the finite resources of the Board." *Valve I*, 15. "In general, having multiple petitions challenging the same patent ... is inefficient and tends to waste resources." *Id.*

The Board has already substantively evaluated not one, but two challenges to the '117 patent. In the second-filed -0043 IPR, the Board even expressly considered Oki and Toffolo, the same references presented here. Compounding the burden on the parties and the Board, Petitioners filed **two** additional petitions challenging the '117 patent. *Valve I*, 15 (“Here, Valve waited until after the institution decision in the 1031 IPR, and then filed not one but three additional petitions. These serial and repetitive attacks implicate the efficiency concerns underpinning *General Plastic*, and, thus, favor denying institution.”).

Such piling on by Petitioners should be rejected, and Factors 6 and 7 also favor denying institution.

Because all *General Plastic* factors favor denying institution, the Board should dismiss this Petition under §314(a).

V. THE BOARD SHOULD ALSO DENY INSTITUTION UNDER 35 U.S.C. §325(D), FOLLOWING *ADVANCED BIONICS*.

Patent Owner further requests that the Board exercise its discretion to deny institution under §325(d) because the *Advanced Bionics* framework strongly favors denial. *Advanced Bionics, LLC. v. Med-El Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6, 8-9 (PTAB Feb. 13, 2019) (precedential). In *Advanced Bionics*, the Board stated that

under §325(d), the Board uses the following two-part framework: (1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office, and (2) if either condition of first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims. If a condition in the first part of the framework is satisfied and the petitioner fails to make a showing of material error, the Director generally will exercise discretion not to institute *inter partes* review. If reasonable minds can disagree regarding the purported treatment of the art or arguments, it cannot be said that the Office erred in a manner material to patentability.

Id., 8-9.

A. Step 1: Whether The Same Or Substantially The Same Art Previously Was Presented To The Office Or Whether The Same Or Substantially The Same Arguments Previously Were Presented To The Office.

With respect to the first step, two of the references in the Petition (Oki and Toffolo) have already been considered by the Office in prior IPR proceedings. The only other reference, Henry, was considered by the Examiner during the original prosecution. Petitioners assert that 8 of the 9 challenged claims (including all challenged independent claims) are anticipated or obvious over Oki alone. Pet., 24. The combination of Oki and Toffolo is asserted for only one dependent claim, and

the combination of Oki and Henry is similarly asserted for only one dependent claim. *Id.*

First, Petitioners assert the *same theories* of anticipation and obviousness using the *exact same Oki reference against the same challenged claims* as in the -0043 IPR in which the Board denied institution on the merits. *VIZIO Rh'g*, 2, 18-28; Pet., 24. In addition to asserting the same Oki reference as in the -0043 IPR petition that was found to be deficient on its merits, Petitioners also make substantially the same prior art arguments that were rejected in the -0043 IPR. For example, both the -0043 IPR petition and the current Petition argue that the display controller in Fig. 5 of Oki shows a “brightness control circuit” in the preamble of claim 1. *VIZIO Pet.*, 28-29; Pet., 39-40. The current Petition and the -0043 IPR petition both assert that photodiode 9 in Oki as the “light sensor” providing a “[sensing/sense] signal indicative of the ambient light level.” *VIZIO Pet.*, 31, Pet., 44, 52-53. For the “multiplier” and “multiplying” limitations of independent claims 1 and 15, Petitioners rely on the same disclosure in Oki as in the -0043 IPR petition in relation to the equation “ $y = (b-a)x + a$.” *VIZIO Pet.*, 31-32; Pet., 44-46, 52. Further, as discussed in detail in Section VII below, the -0043 IPR petition and the current Petition argue that the minimum used luminance value “a” is both a “user [input] signal” and a “dark level bias.” *VIZIO Pet.*, 30, 33-37; Pet., 40-43, 46-49, 52-53. The Board rejected this argument on the merits in the -0043 IPR.

VIZIO Rh'g, 2, 18-28. Therefore, Petitioners rely on the same prior art reference, Oki, and make substantially the same arguments as in the -0043 IPR.

Second, Toffolo, which is asserted in combination with Oki for only dependent claim 9 in Ground 4 (Pet., 24), was considered by Board in the -0043 IPR (VIZIO Rh'g, 28-38), where it was also asserted against claim 9 in addition to claims 1, 2, 4-7, 13-15, 16, and 18 (*id.*, 2). While Toffolo was not specifically asserted in combination with Oki in the -0043 IPR, the Board found that neither Oki nor Toffolo had a reasonable likelihood of prevailing on the merits as to any claim. *Id.*, 38-39. Thus, while the combination of the two has not specifically been previously asserted before the Board, the combination is “substantially the same art previously [...] presented.” *Advanced Bionics*, 8.

Third, Henry, which applies only to claim 6 in Ground 3, was considered by the Examiner during prosecution. Ex. 1001, 3; Ex. 1122, 46, 130. Sixteen litigation documents concerning Henry were also considered during prosecution, including a motion for summary judgment of invalidity and supporting declarations, as noted in Section IV.B.2, *supra*. Ex. 1001, 4-5; Ex. 1122, 137-38. Given the volume of material submitted in relation to Henry, the Examiner was aware of its significance and found the claims to be patentable over Henry.

B. Step 2: Whether Petitioners Demonstrated That The Office Erred In A Manner Material To The Patentability Of Challenged Claims.

Because the first factor of the *Advanced Bionics* framework is met, Petitioners must “demonstrate[] that the Office erred in a manner material to the patentability of challenged claims.” *Advanced Bionics*, 8. Petitioners make no such showing in their Petition. *Cf. Samsung Elecs. Co. v. Neodron Ltd.*, IPR2020-00334, Paper 11, 15 (PTAB July 10, 2020) (finding that petitioner’s failure to raise error until supplemental reply was “indicative of the lack of error” under *Advanced Bionics*). While the Petition was filed prior to issuance of the Board’s rehearing decision in the -0043 IPR, that decision issued on September 15, 2020, *before* the Notice of Accord Filing Date in this proceeding. Petitioners have thus had more than three months to seek authorization to address the Board’s decision before this Preliminary Response was due, but chose not to do so. *Cf. FirstSpear LLC v. Lineweight, LLC*, IPR2019-01169, Paper 6, 2-3 (PTAB Aug. 9, 2019) (authorizing supplemental briefing after filing and before preliminary response to address change in Board practice in considering parallel petitions).

Therefore, because the same or substantially the same prior art and arguments were previously presented to the Office and Petitioners have not demonstrated any error on the part of the Board or Office, let alone a material one, this Petition should be denied under §325(d).

VI. GROUNDS 1-4 FAIL TO COMPLY WITH 37 C.F.R. §§42.22(a)(2), 42.104(b)(4), AND 42.104(b)(5).

A petition must identify in detail how a claim is unpatentable and cite specific portions of evidence supporting each challenge. 37 C.F.R. §§42.104(b)(4)-(5); *Intelligent Bio-Sys., Inc. v. Illumina Cambridge, Ltd.*, 821 F.3d 1359, 1369 (Fed. Cir. 2016). Ground 1 asserts that claims 1-2, 4-5, 7, 15-16, and 18 are anticipated by Oki. Pet., 24. Ground 2 asserts that these same claims are also obvious based on Oki alone (*i.e.*, single-reference obviousness). *Id.* Ground 3 asserts that dependent claim 6 is unpatentable as obvious over Oki in view of Henry. *Id.* Ground 4 asserts that dependent claim 9 is unpatentable as obvious over Oki in view of Toffolo. *Id.* For all four grounds, the Petition fails to comply with 37 C.F.R. §§42.22(a)(2), 42.104(b)(4)-(5).

First, Petitioners, who rely only on Oki for the independent claims, make irreconcilable arguments regarding its disclosure. On one hand, Petitioners assert anticipation of independent claims 1 and 15 arguing that **all** limitations are disclosed by Oki. Pet., 24. On the other hand, Petitioners argue at the same time that Oki renders independent claims 1 and 15 obvious. *Id.* Obviousness is based on (1) there being differences between Oki and the challenged claims and (2) those differences being obvious. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966); *see also KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007).

That Petitioners simultaneously assert that Oki discloses all limitations (*i.e.*, anticipation) and does not disclose all limitations (*i.e.*, obviousness) fails to provide the clarity required in a petition. 37 C.F.R. §§42.22(a)(2), 42.104(b)(4)-(5). For example, because Petitioners are asserting anticipation, they fail to identify the differences between Oki and claims 1 and 15, as required to satisfy *Graham* factor 3 in an obviousness analysis. *Graham*, 383 U.S. at 17-18. In the -0043 IPR, the Board rejected this strategy:

Petitioner does not provide any analysis to support the assertion of obviousness over Oki. In fact, Petitioner instead asserts that Oki discloses all of the limitations in each of claims 1, 2, 4-7, 9, 15, 16, and 18, so it is unclear what modification, if any, is required to Oki, or even the basis of Petitioner's obviousness grounds. E.g., [-0043] Pet. 28-33. Petitioner does not clearly point out the differences between the claimed invention and Oki. Nor does Petitioner explain why a person of ordinary skill in the art would have found the claimed subject matter obvious in spite of those differences. Petitioner has not provided sufficient reasoning or facts on which to base a conclusion that a person of ordinary skill in the art would have found it obvious, in light of Oki's disclosure, to modify Oki to meet the claim limitations.

Accordingly, Petitioner fails to demonstrate a reasonable likelihood that it would prevail on this ground of unpatentability.

VIZIO Rh'g, 28 (emphasis on "all" original). Petitioners' obviousness grounds

thus fail for this reason.

Second, the Petition improperly argues both Ground 1 (anticipation) and Ground 2 (obviousness) *together* without drawing clear distinctions between them, thereby further obfuscating its arguments as to both Grounds in violation of 37 C.F.R. §§42.22(a)(2) and 42.104(b)(4)-(5). Pet., 36-53; 35 U.S.C. §312(a)(3); *Neulion, Inc. v. Costanzo*, IPR2014-00526, Paper 23, 9 (PTAB Sept. 3, 2014) (denying institution; holding that petition failed to comply with 37 C.F.R. §§42.22(a)(2), 42.104(b)(4)-(5) because “[b]y presenting and arguing multiple grounds together, the [p]etition obfuscates the arguments as to each ground individually”); *Zetec Inc. v. Westinghouse Elec. Co., LLC*, IPR2014-00384, Paper 10, 14 (PTAB July 23, 2014) (denying institution; holding that petition failed to comply with 37 C.F.R. §§42.22(a)(2), 42.104(b)(4)-(5) because “numerous grounds are presented and argued together in the [p]etition, thereby obfuscating the arguments as to each ground”). Similarly, for limitations 1A, 1C, 1D, 15A, 15B, and 15C, Petitioners assert that Oki discloses the limitations and argue that any differences would have been obvious, without ever explicitly identifying those differences, which is an improper analysis and obfuscates that argument as to both Grounds 1 and 2. See, e.g., Pet., 40 (“Oki ... discloses or renders obvious the software programming.”), 42, 47; *Graham*, 383 U.S. at 17-18.

Third, because the Petition does not specifically identify any differences

between Oki and the challenged claims, the Petition contains *no analysis* of (1) *how* Oki would be modified to meet the claim limitations, (2) *why* one of ordinary skill in the art would have been motivated to modify Oki, and (3) whether there would be a reasonable expectation of success in modifying Oki.² Critically, in *all* of Petitioners' obviousness arguments, Petitioners *fail to cite or even discuss* the '117 patent to establish any differences between Oki and the challenged claims, as required for obviousness. *Graham*, 383 U.S. at 17-18. Petitioners' position with respect to every obviousness ground is that no modification to the prior art would have been necessary as the claimed method or system is disclosed (*i.e.*, anticipated) by Oki. To the extent that Petitioners argue that a modification would have been possible, Petitioners do not provide any explanation as to *why* or *how* one of ordinary skill in the art would have thought to modify Oki. Instead, Petitioners claim, for example, the modifications would have been "routine,"

² *In re Stepan Co.*, 868 F.3d 1342, 1345-46 & n.1 (Fed. Cir. 2017) (holding that single-reference obviousness "requires finding both that a skilled artisan would have been motivated to combine the teachings of the prior art ... and that the skilled artisan would have had a reasonable expectation of success in doing so").

“predictable,” and “simple.” Pet., 43. But Petitioners offer no substantive analysis on these grounds, and, after taking the position at length that there is no difference between Oki and the claims of the ’117 patent with respect to anticipation, Petitioners do not attempt to justify this sudden shift.

Fourth, Petitioners’ arguments with respect to Henry and Toffolo are similarly deficient as to its Oki obviousness analysis, as they are premised on Petitioners’ claim that Oki discloses all of the limitations of independent claim 1. As discussed in Section VII below, Petitioners made no showing of disclosure of all of claim 1’s limitations by Oki.

Therefore, all four Grounds fail.

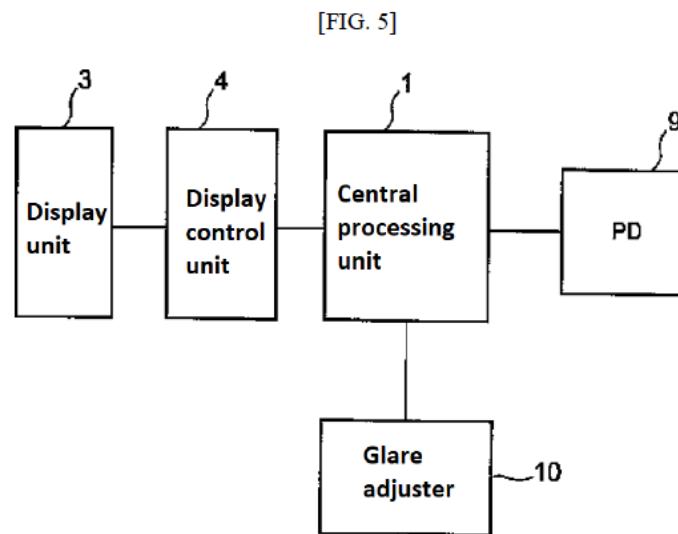
VII. GROUNDS 1-4 FAIL AS OKI DOES NOT ANTICIPATE OR RENDER OBVIOUS INDEPENDENT CLAIMS 1 AND 15.

For all asserted Grounds, Petitioners rely *only* on Oki for disclosure of *all* limitations in the two independent claims (*i.e.*, 1, 15).³ If Oki does not disclose all limitations of claims 1 and 15, Ground 1 fails to demonstrate a reasonable likelihood of prevailing.

³ “Oki” refers to the English translation of the Japanese document in Exhibit 1103.

A. Oki Does Not Disclose The Preamble Of Claim 1.

The district court held that the preamble of claim 1, which states “A **brightness control circuit** with selective ambient light correction,” is a limitation. Ex. 1135, 27 n.10. Petitioners allege that the “display controller” in Fig. 5 is the “brightness control circuit.” Pet., 39. In support, Petitioners cite two paragraphs that do not describe any circuitry or software that performs the “brightness control” that Petitioners allege is disclosed. Ex. 1103 ¶¶6, 26; Pet., 39-40. They merely state the names of generic functional blocks in Fig. 5. Ex. 1103 ¶¶6, 26.



Ex. 1103, Fig. 5. The words “circuit,” “circuitry,” and “software” are not used in Oki. Ground 1 fails as Petitioners have not identified a “brightness control circuit” in Oki.

B. 1[a]: “a first input configured to receive a user signal indicative of a user selectable brightness setting” / 15[a]: “receiving a user input signal indicative of a user selectable brightness setting”

1. Oki Does Not Disclose “A First Input.”

Petitioners do not identify “a *first input* configured to receive a user signal indicative of a user selectable brightness setting.” Petitioners argue that Oki discloses two separate “first inputs,” one consisting of a hardware first input and another consisting of a software first input. Pet., 40-43.

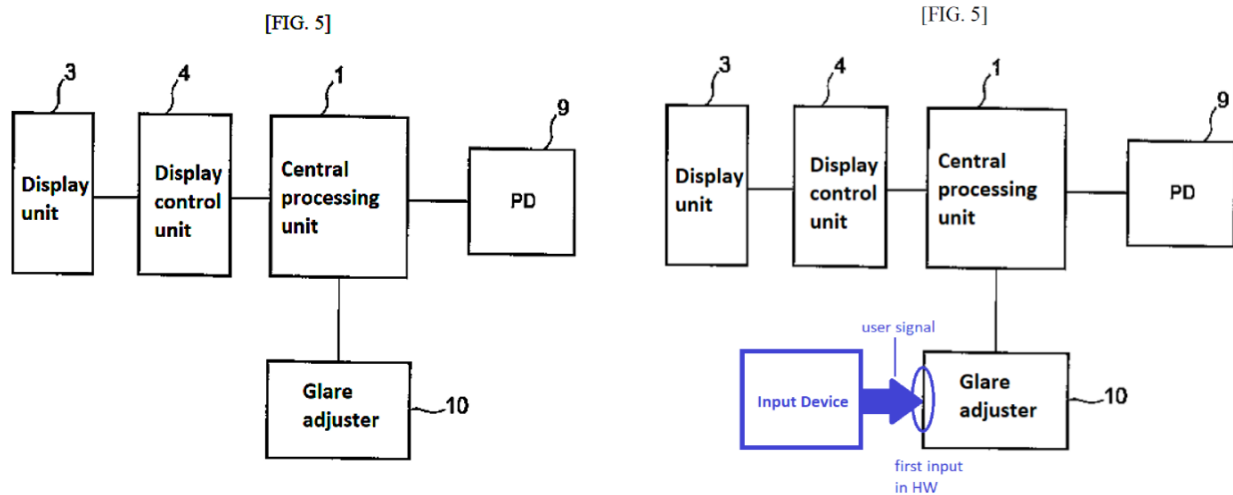
Petitioners offer no explanation how Oki discloses *two different* first inputs, in different incarnations, for receiving the *same* “user signal.” Petitioners do not explain how two entirely separate structures receive the exact same “user signal,” nor do they explain why this would be done. In fact, as will be addressed below, while Petitioners may allege two different first inputs, Petitioners fail to identify *any* “user [input] signal” or “first input” disclosed in Oki. As a result, Petitioners have not satisfied the institution threshold as to Grounds 1-4.

a) Petitioners Fail To Identify A Specific Structure In Oki As A “Hardware First Input.”

Petitioners allege that Oki discloses a “[h]ardware ‘first input.’” Pet., 40. Petitioners’ only identification of the “hardware first input” vaguely alludes to “circuitry,” which is never identified in Oki. Pet., 40-42. **First**, Petitioners’ allegation that “user signals indicative of [the user selectable brightness] settings

are received through circuitry” fails to identify any actual disclosure of a “first input” in Oki. The paragraphs of Oki cited by Petitioners as allegedly supporting this statement contain no discussion of “circuitry” or any “circuit.” Ex. 1103 ¶¶27-30; Pet., 40-42. Petitioners make no attempt to support this conclusory statement with any evidence from Oki.

Second, Petitioners’ only support for a “hardware first input” takes the form of a modified Fig. 5 of Oki that has been *edited specifically to add a “hardware first input”* that ***Petitioners admit is not disclosed in Oki.*** Pet., 41-42. Specifically, Petitioners state: ***“Although not shown in Oki’s figures,*** Ex. 1103, ¶ [0027], the hardware-based first input is illustrated below in annotated Fig. 5.” Pet., 41. Petitioners then provide the following annotations to Fig. 5 where they literally draw in a “first input” (in blue) that is indisputably not disclosed in Fig. 5 of Oki, as shown below in the comparison Oki’s original figure with Petitioners’ annotated figure.



ORIGINAL FIGURE

PETITIONERS' ANNOTATION

Ex. 1103, Fig. 5; Pet., 41-42 (annotations in Petition).

This modification is particularly egregious because, as Petitioners admit, the “hardware first input” is “not shown in Oki’s figures.” Pet., 41. Petitioners imply that this annotation visually represents Oki’s textual disclosure. Yet, there is no such disclosure in Oki, and Petitioners fail to identify any such disclosure. As explained above, Oki does not disclose the “circuitry” that Petitioners wrote into Fig. 5. Petitioners mischaracterize the text of Oki and support this misrepresentation by drawing a “first input” that they admit is not shown in Fig. 5. Because Petitioners do not identify the “circuitry” with any particularity and admit it is not shown in Fig. 5, Petitioners’ argument that Oki discloses a “hardware first input” is unsupported by evidence. Grounds 1-4 thus fail as a result.

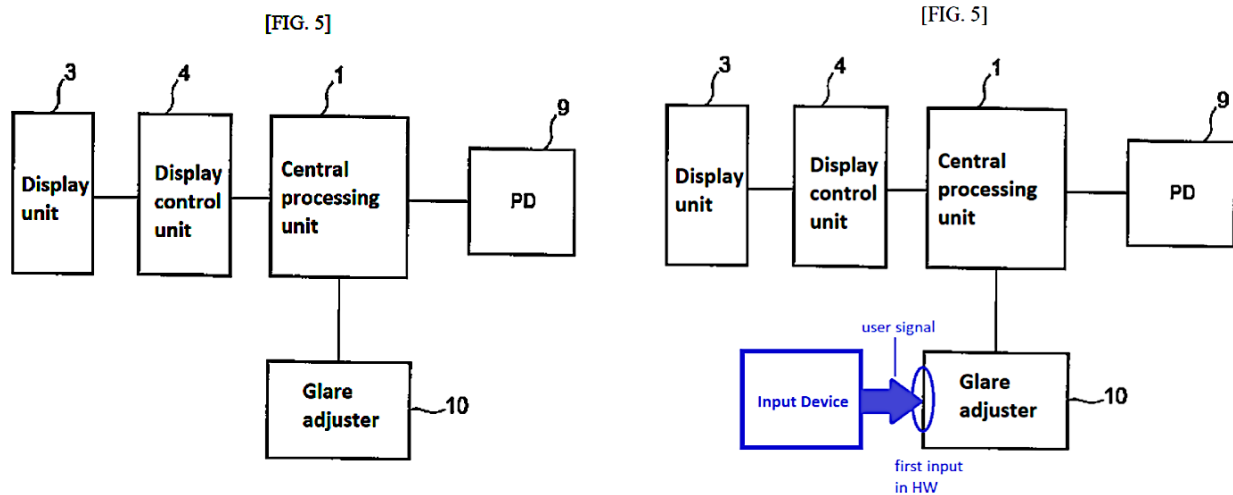
Third, Petitioners’ alleged “first input” is **not** part of the “brightness control circuit” as required by the claims.

1. A **brightness control circuit** with selective ambient light correction
comprising:
a first input configured to receive a user signal...

Ex. 1001, claim 1. Claim 1 is clear that the “first input configured to receive a user signal” is *part of* the “brightness control circuit.”

Contrary to the express language of claim 1, Petitioners argue that the hardware “first input” is outside of the “brightness control circuit” thereby admitting that Oki does not disclose claim 1. Petitioners assert that “[t]he brightness control circuit is shown in Figure 5.” Pet., 39. Then, Petitioners state: “**Although not shown in Oki's figures**, Ex. 1103 ¶ [0027], the hardware-based first input is illustrated below in annotated Fig. 5,” thereby admitting that the “hardware-based first input” is not part of the “brightness control circuit ... shown in Figure 5.” Pet., 39, 41-42. A comparison of Fig. 5 and Petitioners' annotations is shown below, illustrating that the hardware first input is not part of the brightness control circuit in Fig. 5.⁴

⁴ Petitioners allege that the “first input” is unidentified “circuitry” connected to the “glare adjuster” which “fe[eds]” the “user signals” into the glare adjuster. Pet., 40-41.



ORIGINAL FIGURE

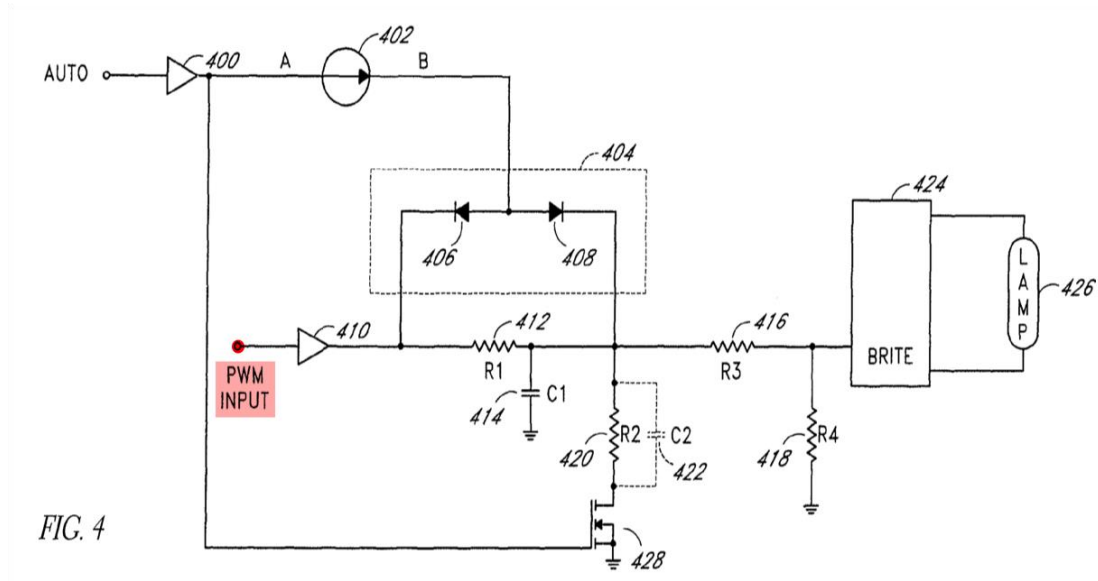
PETITIONERS' ANNOTATION

Ex. 1103, Fig. 5; Pet., 42 (annotations in Petition).

Indisputably, the alleged “brightness control circuit” of Fig. 5 does not show the “circuitry” that Petitioners allege to be the “hardware first input” as shown by their own admissions and annotations. Pet., 41-42 (*i.e.*, the “hardware first input” is “not shown in Oki’s figures”). Because (1) Petitioners allege that Fig. 5 shows the “brightness control circuit” and (2) Petitioners allege that the “hardware first input” is a separate piece of circuitry that Petitioners admit is “not shown” in Fig. 5, Petitioners admit that the “hardware first input” is not part of the “brightness control circuit” and thus does not satisfy the “first input” limitation of claim 1.

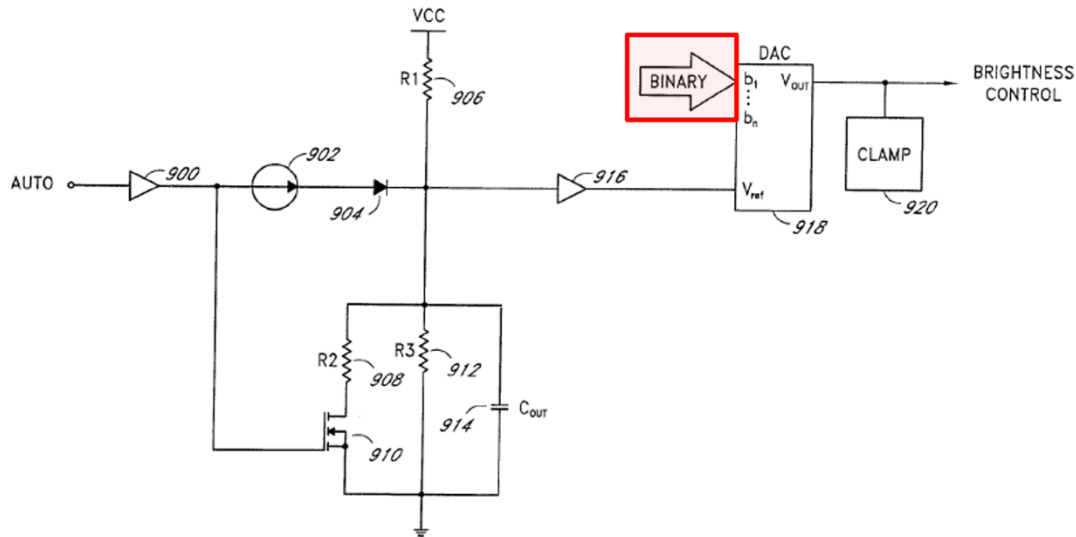
The specification also consistently supports the language of claim 1 that the “first input” is part of the “brightness control circuit.” Figs. 4 and 9 of the ’117 patent show the “first input” that receives the user signal as part of the brightness

control circuit. In Fig. 4, the “PWM input” is the “first input” receiving the PWM user signal.



Ex. 1001, 6:22-32, Fig. 4 (annotation added). In Fig. 9, the “first input” that receives the digital word user signal is the digital-to-analog converter (“DAC”) 918 in the “brightness control circuit.”

FIG. 9



Ex. 1001, 10:33-39, Fig. 9 (annotation added). The construction of “a first input configured to receive a user signal” as “a ***first input actually programmed or implemented with hardware or software*** to receive a user signal” emphasizes that the “first input” is part of the “brightness control circuit.” Ex. 1138, 7; Pet., 22.

b) Petitioners Fail to Identify any Specific Software in Oki as a “Software First Input.”

In addition to arguing that Oki discloses an alleged “hardware first input,” Petitioners also argue that Oki “discloses ... an input actually programmed or implemented with software to receive a user signal indicative of a user selectable brightness setting.” Pet., 42. But Petitioners offer no explanation how Oki discloses *two different* first inputs, in different incarnations, for receiving the *exact*

same “user signal.” Petitioners have thus failed to state their grounds with sufficient particularity.

Oki does not disclose a software “first input configured to receive a user signal.” **First**, as discussed below, Petitioners do not identify a “user [input] signal” in Oki and thus do not identify any “first input configured to receive a user signal.” **Second**, Petitioners incorrectly allege that, because there is a calculation performed by the “glare adjuster,” there must be a software “first input configured to receive a user signal.” Pet., 42-43. As discussed below in relation to the “multiplier” and “multiplying” limitations, no such calculation is performed in Oki, as the system relies on tables to determine brightness. Further, while the CPU may utilize software of some sort, there is no disclosure of the “*glare adjuster*” utilizing any software. This is an important distinction because, as Petitioners note, the “glare adjuster” supposedly performs the relevant calculation. Pet., 43. Indeed, Petitioners tacitly admit that Oki does not actually describe “software” for the “software first input” when Petitioners acknowledge that “[t]he POSA *would have understood* the calculation to be performed in software” (emphasis added), rather than identifying any specific software disclosed in Oki, let alone software that allegedly constitutes a “software first input.” Pet., 42-43.

Petitioners also assume the presence of software in Oki based on Oki’s statement that “the electrical signal from photodiode is read by a CPU, and PD

output value 'x' (reflecting the electrical signal) is then sent to glare adjuster for calculation." Pet., 43. Petitioners do not explain why this statement discloses or even suggests software being utilized in Oki for receiving a "user signal," given that the cited evidence refers to an entirely different signal. Petitioners' failure to identify any specific software disclosure in Oki constituting "a first input" means that Grounds 1-4 fail as a result.

Second, even assuming *arguendo* that Oki does disclose software for operating on signals related to brightness control (which as discussed below it does not), Petitioners do not actually identify a "software first input" at any point. As a primary matter, other than the subheading reading "**Software 'first input,'**" Petitioners' discussion of this term never uses the phrase "a first input" or "software first input." Pet., 42-43. Petitioners do not identify any specific "software first input" or even theorize as to what portion of Oki either does or could be assumed to disclose "a first input" in software. Thus, Petitioners do not identify a "software first input" in Oki, and Grounds 1-4 accordingly fail.

Third, the only mention of obviousness in relation to these limitations concerns the alleged "software input." Pet., 42-43. Regarding obviousness, Petitioners make a series of conclusory statements with no evidentiary support such as "software was ubiquitous" and "using software code to perform that calculation would have required only simple application of software." Pet., 43.

Petitioners cite their expert declaration at paragraphs 98-99, which repeat these same conclusory allegations and should thus be given no weight. *Telemac Cellular Corp. v. Topp Telecom, Inc.*, 247 F.3d 1316, 1329 (Fed. Cir. 2001) (holding that conclusory statements offered by experts are not evidence); 37 C.F.R. §42.65(a). Paragraph 98 of the expert declaration contains one evidentiary citation to Toffolo, but contains no analysis of how any teaching of Toffolo would apply to Oki given their different systems. Further, Petitioners assert single-reference obviousness and do not assert the combination of Oki and Toffolo for claims 1 and 15. Pet., 24.

Furthermore, Petitioners allegations are internally contradictory. On one hand, Petitioners assert anticipation arguing that all limitations are disclosed by Oki while, at the same time, arguing that Oki differs from the asserted claims and that those differences would have been obvious. This fails to provide the clarity required in a petition. 37 C.F.R. §§42.22(a)(2), 42.104(b)(4)-(5).

2. Oki Does Not Disclose “a user [input] signal indicative of a user selectable brightness setting.”

a) The Board Rejected Petitioners’ Same Argument In The -0043 IPR Denying Institution.

Petitioners contend that the “user [input] signal” in claims 1 and 15 are the minimum used luminance value “a” and maximum used luminance value “b” in Oki. Pet., 40-43. But just like in the -0043 IPR petition, Petitioners here provide no explanation or analysis why the minimum used luminance value “a” and

maximum used luminance value “b” are *signals*. The Board denied institution for this same reason in the -0043 IPR, explaining:

We also agree with Patent Owner that another shortcoming of this ground is that ***Petitioner does not sufficiently explain why Oki's minimum used luminance value and maximum used luminance value disclose “user [input] signals.”***

...

Oki describes that the “maximum used luminance value is a value at which the user does not sense glare,” and the “minimum used luminance value is a value at which the user does not sense glare when the mobile terminal is used when it is dark outside.” [Oki] ¶27. Oki describes that these values are “input” or “selected by the user” and “set in the glare adjustor.” [Oki] ¶¶26, 27. ***Nowhere does Oki describe, or does Petitioner provide sufficient explanation, that these values are “signals.”***

Petitioner thus fails to meet the burden required to support institution of inter partes review of independent claims 1 and 15

VIZIO Rh'g, 25-26 (emphasis on “signals” in first quotation original). The Board should thus deny the Petition because it suffers from the same deficiency as VIZIO's petition in the -0043 IPR.

b) Petitioners' Argument That "User [Input] Signal" And "User Selectable Brightness Setting" Are The Same Structure Is Contrary To Federal Circuit Precedent And Intrinsic Evidence.

Petitioners argue that the minimum used luminance value "a" and maximum used luminance value "b" are **both** a "user [input] signal" and a "user selectable brightness setting" in claims 1 and 15. Pet., 40-43, 52. For example, Petitioners argue as follows:

Oki teaches **two user selectable brightness settings**. The first is "the **minimum used luminance value**" and the second is "the **maximum used luminance value**." Ex. 1103, ¶ [0029]. A **user signal** represents each of these settings in Oki's system, as indicated by the variables "**a**" and "**b**."

...

As explained above, Oki describes **two user selectable brightness settings**: "the **minimum used luminance**" (represented as "**a**") and the "**maximum used luminance**" (represented as "**b**").

Pet., 40, 50. Paragraph 29 of Oki, cited by Petitioners, confirms that "a" and "b" respectively refer to the minimum used luminance value and maximum used luminance value.

That is, with the **minimum used luminance value taken as a** and the **maximum used luminance taken as b**, if for example the minimum value and maximum value of the PD output x are 0 and 1, the straight line is given by the equation $Y=(b-a)x+a$.

Ex. 1103 ¶29.

Petitioners' allegation that the "user signal" and "user selectable brightness setting" are the same structures is contrary to Federal Circuit precedent, the claim language, Petitioners' proposed constructions, and the specification of the '117 patent. **First**, Petitioners' argument that these digitized points are both a "user [input] signal" and a "user selectable brightness setting" is contrary to Federal Circuit precedent. A "user [input] signal" and a "user selectable brightness setting" are claimed as two separate claim limitations, and thus, they are distinct and cannot be the same structure as Petitioners erroneously contend. *Becton Dickinson & Co. v. Tyco Healthcare Grp., LP*, 616 F.3d 1249, 1254 (Fed. Cir. 2010) ("Where a claim lists elements separately, the clear implication of the claim language is that those elements are distinct component[s] of the patented invention."); *HTC Corp. v. Cellular Commc'n. Equip. LLC*, 701 F. App'x. 978, 982 (Fed. Cir. 2017) (unpublished) ("The separate naming of two structures in the claim strongly implies that the named entities are not one and the same structure."). Petitioners' allegations are thus contrary to the law.

Second, Petitioners' allegations contradict the claim language. Because the claims require "a user [input] signal *indicative of* a user selectable brightness setting," the "user [input] signal" and "user selectable brightness setting" must be different elements, as one has to be *indicative* of the other. Ex. 1001, claims 1, 15.

Therefore, the points set by the user *cannot be both* a “user [input] signal” and “user selectable brightness setting” under the plain language of the claims.

Third, Petitioners’ allegation that “user [input] signal” and “user selectable brightness setting” are the same structure is contrary to Petitioners’ proposed construction from the district court. Pet., 22. The district court construed these as separate components (*i.e.*, “first input actually programmed or implemented with hardware or software to receive a *user signal* indicative of a *user selectable brightness setting*”). *Id.*

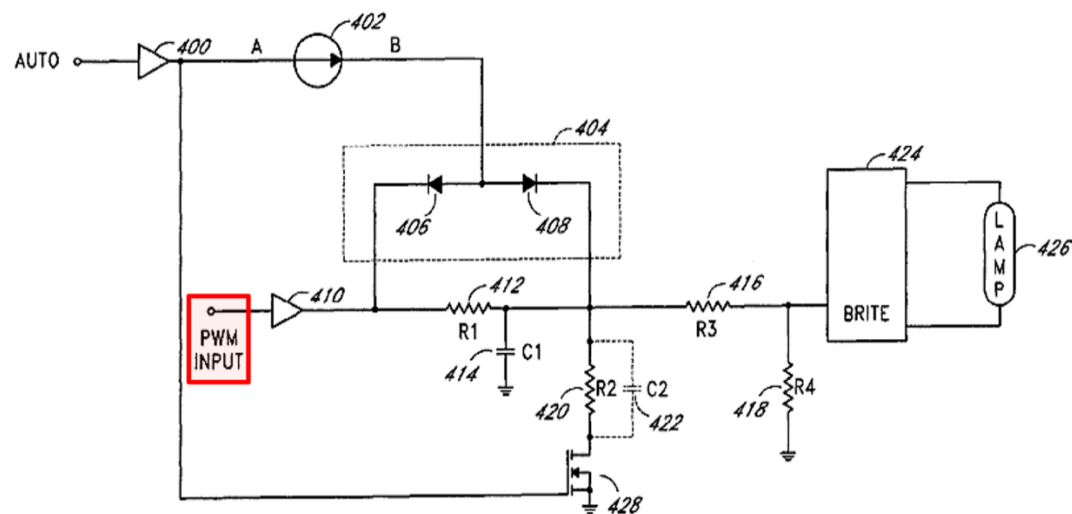
Fourth, Petitioners’ allegation that “user [input] signal” and “user selectable brightness setting” are the same structure is contrary to the specification, which emphasizes the important distinction between “user [input] signal” and “user selectable brightness setting.” The “user selectable brightness setting” is chosen by the user, whereas the “user [input] signal” is a signal (*e.g.*, electrical or software) generated by the internal circuitry and software of the device. For example, in Fig. 4, the user chooses a screen brightness setting. The microprocessor takes that information and generates a pulse width modulation (“PWM”) signal, which is the “user [input] signal” received by the “first input” of the “brightness control circuit.” That PWM user signal generated by the microprocessor is different than the “user selectable brightness setting.”

The **PWM logic signal can be generated by a microprocessor based on user preference.**

...

A microprocessor can generate the user adjustable PWM logic signal based on user input

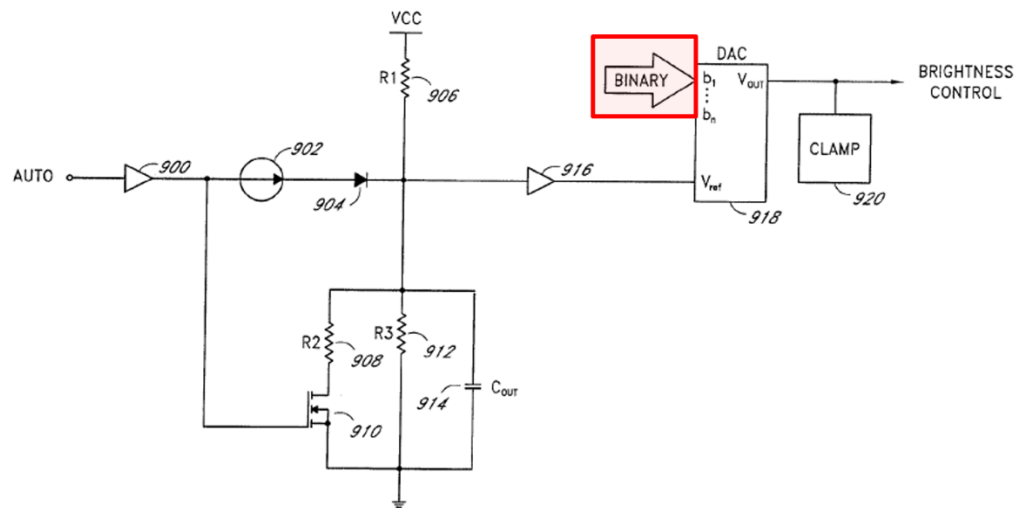
FIG. 4



Ex. 1001, 3:23-24, 6:28-31, Fig. 4 (annotation added).

Similarly, the “user [input] signal” in Fig. 9 is a binary word (e.g., 00101110). Ex. 1001, 3:59-4:4, 4:35-37, 10:33-43. A user does not enter a binary word. The binary word is a “user [input] signal” generated by the device’s software. While it may be indicative of a “user selectable brightness setting,” the binary word “user [input] signal” is *not* a “user selectable brightness setting.”

FIG. 9



Ex. 1001, Fig. 9 (annotation added). Therefore, Petitioners' allegation that the point settings are both a "user [input] signal" and "user selectable brightness setting" is contrary to the specification.

To the extent that Petitioners contend that "a" and "b" are something different from the minimum used luminance value and maximum used luminance value, respectively, Petitioners' allegations are contrary to the express disclosure of Oki and the Board's prior decisions.

Oki explicitly states that "a" is the minimum used luminance value and "b" is the maximum used luminance value for purposes of illustrating an equation.

That is, with the **minimum used luminance value taken as a** and the **maximum used luminance value taken as b**, if for example the minimum value and maximum value of the PD output x are 0 and 1, the straight line is given by the equation $Y=(b-a)x+a$.

Ex. 1103 ¶29.

Further, consistent with Oki's disclosure, the Board's decision in the -0043 IPR finds "a" and b" to be the minimum used luminance value and maximum used luminance value, respectively.

Specifically, "glare adjuster 10" calculates a luminance value "y" according to the equation " $y = (b - a) x + a$," where "**a**" is the **"minimum used luminance value,"** "**b**" is the **"maximum used luminance value,"** and "x" is the photodiode output value. [Oki] ¶29.

...

Patent Owner argues, among other things, that Petitioner has not sufficiently shown that Oki discloses limitation[] [1a] because[] ... Petitioner improperly alleges that Oki's **minimum used luminance value "a"** is both a "user [input] signal" and a "dark level bias"

...

We agree with Patent Owner that Petitioner improperly relies on Oki's **minimum used luminance value "a"** as disclosing two separate claim limitations.

...

Nor does Petitioner explain how the **minimum used luminance value "a"** may both be a *signal* ("user [input] signal") and a *value* ("dark level bias"). Petitioner provides no explanation or discussion of *values* vs. *signals*.

VIZIO Rh'g, 17, 20 (brackets around "1a" and "input" original), 25 (non-bold italics original).

Grounds 1-4 fail because Petitioners have failed to identify a "user [input] signal indicative of a user selectable brightness setting."

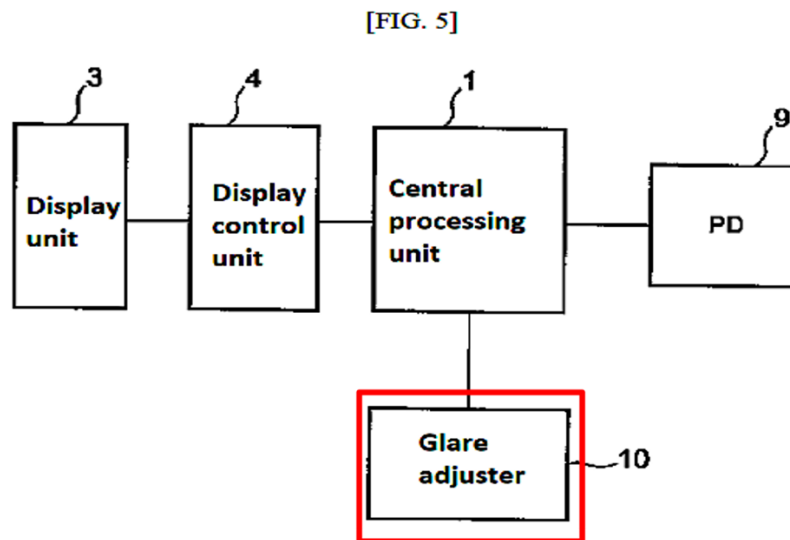
C. 1[c]: "a multiplier configured to selectively generate a combined signal based on both the user signal and the sensing signal" / 15[b]: "selectively multiplying the input signal with a sense signal to generate a combined signal"

Oki fails to disclose these limitations in claims 1 and 15. *First*, Oki does not disclose "a *multiplier* configured to selectively generate a combined signal" or "*multiplying* the input signal with a sense signal to generate a combined signal." By their plain language, these terms require multiplication. Further, the district court construed "combined signal" to require multiplication as "the combined signal" includes, but is not necessarily limited to, "the product of the [user/input] signal and the [sensing/sense] signal." Ex. 1137, 29-30.

Petitioners argue that the alleged "multiplier" (*i.e.*, display controller, glare adjuster 10) uses an equation $Y=(b-a)x+a$ wherein " $(b-a)x$ " is the "combined signal."⁵ Pet., 44-46. Petitioners' theory is not supported by Oki's disclosure. Oki

⁵ Here, "b" and "a" are the maximum and minimum luminance value, respectively; "x" is the output of the photodiode. Ex. 1103 ¶27.

does not disclose any circuitry or software that performs multiplication of signals, including in the glare adjuster of the display controller.⁶ The glare adjuster is merely a black box.



Ex. 1103, Fig. 5 (annotation added). Oki states that brightness can vary linearly with the ambient light level where “the straight line is given by the equation $Y=(b-a)x+a$.” *Id.* ¶29. But Oki **never** states that there is any circuitry or software that performs this equation because, as explained below, Oki uses tables and thus has no such circuitry or software that performs this equation.

⁶ The equation cannot be implemented in software because the glare adjuster, not the “central processing unit,” determines the brightness. Ex. 1103 ¶29.

In the context of the entire Oki reference, this equation is an explanation describing the behavior of the system, which uses lookup tables to calculate the display brightness. Oki's summary of the "present invention" states that "screen brightness" and display "illuminance" are "provided beforehand" and "set beforehand."

[Means for Solving the Problem] To solve the above-noted problem, **the present invention is provided beforehand with a plurality of screen display methods**, that is, display modes in which character sizes, **screen brightness**, display speeds, and the like are defined, by combinations of user vision characteristics, use environment, and the like when a large amount of information is displayed on a small display such as a mobile terminal. In each display mode, **values of the** character size, **illuminance**, and display speed **are set beforehand**, and the display settings are changed by selecting a display mode. Additionally, by automatic adjustment of the illuminance of a screen to which an illuminance sensor has been mounted in a mobile terminal or the like, the above-noted problem is solved.

Ex. 1103 ¶5.

Oki then describes lookup data tables containing "screen brightness" values, which is how the "screen brightness" is "provided beforehand" and "set beforehand" consistent with the description of the "present invention" above.

[0016] An example of the data of the **data table 5 that stores display parameters of the screen** will now be described, using FIG. 4. The

screen display parameters are the size of characters that are displayed, the speed of the character display, the **screen brightness** and contrast, and the color and the like.

[FIG. 4]

Terminal identification information	(A) Mobile telephone			(B) PDA			(C) ○○○	...
Display mode	-	*	+	-	*	+		
Character size (dots)	9 × 9	12 × 12	16 × 16	12 × 12	16 × 16	20 × 20		
Character display speed	18 lines/s	12 lines/s	6 lines/s	16 lines/s	10 lines/s	5 lines/s		
⋮	⋮	⋮	⋮	⋮	⋮	⋮		
⋮	⋮	⋮	⋮	⋮	⋮	⋮		
⋮	⋮	⋮	⋮	⋮	⋮	⋮		

Ex. 1103 ¶16, Fig. 4. There is no other context in Oki for storing “screen brightness” in a lookup table other than in relation to automatic brightness adjustment, as this is the only “brightness” feature in Oki. Manual adjustment would not require lookup tables. Further, because no circuitry or software is disclosed for performing multiplication of [user/input] signals and [sensing/sense] signals, Oki only discloses using lookup tables for adjusting the brightness *without any multiplication*.

Therefore, Oki does not disclose the “multiplier” or “multiplying” limitations because Oki does not disclose any circuitry or software that performs multiplication, including multiplication of [user/input] signals and [sensing/sense] signals.

Second, Oki does not disclose a “combined signal,” which the district court construed as “the combined signal includes, but is not necessarily limited to, the product of the [user/input] signal and the [sensing/sense] signal.” Ex. 1137, 29-30. Petitioners argue that “(b-a)x” is the combined signal where “b” and “a” are the maximum and minimum luminance value, respectively, and “x” is the photodiode output. Pet., 45. As discussed above, the maximum and minimum used luminance values are input by a user with numerical push keys on a mobile terminal. Pet., 40. They are *not* “user [input] signals” like the PWM and digital word signals in the ’117 patent. Ex. 1001, Fig. 4, 9, 6:22-32, 10:33-39. Therefore, “(b-a)x” is not a “combined signal,” as it lacks “the product of the [user/input] signal and the [sensing/sense] signal” required by the construction of “combined signal.”

Further, because “b” and “a” are not “[user/input] signals,” the term “(b-a)x” cannot be a “combined signal” because it is not “based on ... the user signal,” as required by claim 1, and not “multiplying the input signal with a sense signal,” as required by claim 15.

Finally, Petitioners do not explain how “(b-a)x” can be a combined *signal*. This deficiency is significant because, as noted above, Oki does *not* actually perform this multiplicative formula. So, an intermediate step in a formula not actually performed by Oki cannot constitute a “combined signal.”

Third, Petitioners fail to identify a “multiplier configured to generate a combined signal” in Oki. The district court construed “a multiplier configured to generate a combined signal ...” as “a multiplier *actually programmed or implemented with hardware or software* to selectively generate a combined signal” Ex. 1135, 34. Petitioners do not argue that Oki teaches a *hardware* multiplier, and instead, both Petitioners and their expert state that “Oki’s multiplier was implemented in *software*” (Pet., 45) and “Oki’s glare adjuster includes a multiplier ... implemented in a *software* program” (Ex. 1102 ¶102). Yet, despite this highly specific allegation, Petitioners have not identified with particularity *any* multiplier that is programmed or implemented with software in Oki. This is because there is no such software, because brightness is determined using tables as explained above. Instead, Petitioners attempt to conflate obviousness with disclosure, arguing based only on conjecture that “[t]he POSA would have understood Oki’s multiplier was implemented in software [or] [a]t least the POSA would found [*sic*] it obvious to implement the multiplier in software.” Pet., 45 Petitioners’ only support for this statement is an almost identical statement by its expert. Ex. 1102 ¶102. Such conclusory statements unsupported by evidence are insufficient. *Telemac*, 247 F.3d at 1329 (holding that conclusory statements offered by experts are not evidence). Petitioners fail to provide substantive

evidence of actual software disclosed by Oki comprising a “multiplier” or performing “multiplying.”

Fourth, the Petition admits that Oki does not enable the “selectively generate” and “selectively multiplying” limitations of claims 1C and 15B. Petitioners allege that the “selectively” limitations are met by the ability to switch between automatic and manual modes. Pet., 45-46, 52-53. But Petitioners then state that, “while Oki mentions both automatic and manual modes, it does not discuss any implementation details” and that “Toffolo would have provided the *needed circuitry* to Oki to permit the [automatic and manual modes] functionality described in Oki to be implemented.” Pet., 62. Petitioners thus explicitly posit that Oki does not contain the disclosure necessary to enable a POSA to practice the claims of the ’117 patent, specifically with regards to the “selectively” limitation, and must look to additional art in order to enable the “selectively generate” and “selectively multiplying” limitations. This is plainly insufficient to meet the burden of showing anticipation. *Novo Nordisk Pharms., Inc. v. Bio-Tech. Gen. Corp.*, 424 F.3d 1347, 1355 (Fed. Cir. 2005) (“In order to anticipate, a prior art disclosure must also be enabling, such that one of ordinary skill in the art could practice the invention....”); *Impax Labs. Inc. v. Aventis Pharms. Inc.*, 468 F.3d 1366, 1383 (Fed. Cir. 2006) (“[T]he proper issue is whether the ... patent is enabling in the sense that it describes the claimed invention sufficiently to enable a

person of ordinary skill in the art to carry out the invention.”). By Petitioners’ own admission, Oki is not enabling as to this claim element. While Petitioners claim that the combination of Toffolo enables dependent claim 9, Petitioners do **not** claim that this combination renders claims 1 and 15 obvious.

Fifth, Petitioners only include a few passing references to obviousness, which lack substantive analysis or supporting evidence. For example, Petitioners’ entire obviousness argument for “multiplier” is a single sentence stating: “At least the POSA would find it obvious to implement the multiplier in software to perform the calculations set forth in Oki. Ex. 1102, ¶¶ 97-99, 102.” Pet., 45. Petitioners cite four paragraphs of their expert declaration for this one sentence in an improper attempt to incorporate by reference arguments not made in the Petition. *S.S. Steiner, Inc., v. John I. Haas, Inc.*, IPR2014-01491, Paper 7, 15 (PTAB Mar. 16, 2015) (“We will not consider arguments that are not made in the Petition, but instead, are incorporated by reference to [the expert’s declaration].”). Moreover, the four paragraphs contain unsupported, conclusory allegations that are entitled to no weight. 37 C.F.R. §42.65(a) (“Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.”); *Johns Manville Corp. v. Knauf Insulation Inc.*, IPR2015-01633, Paper 10, 13-14 (PTAB Jan. 4, 2016); *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1368 (Fed. Cir. 2004). Other than to Oki, the cited paragraphs from the expert

declaration contain only one evidentiary citation to Toffolo, with no analysis of how any teaching of Toffolo would apply to Oki given their different systems. Pet., 45; Ex. 1102 ¶¶97-99, 102. Further, Petitioners assert single-reference obviousness and do not assert the combination of Oki and Toffolo for claims 1 and 15. Pet., 24.

Furthermore, Petitioners' allegations are internally contradictory. On one hand, Petitioners assert anticipation, arguing that all limitations are disclosed by Oki while, at the same time, arguing that Oki differs from the asserted claims and that those differences would have been obvious. This fails to provide the clarity required in a petition. 37 C.F.R. §§42.22(a)(2), 42.104(b)(4)-(5).

For all the foregoing reasons, Grounds 1-4 fail.

D. 1[d]: “a dark level bias configured to adjust the combined signal to generate a brightness control signal that is used to control a brightness level of a visible display such that the brightness control signal is maintained above a predetermined level when the ambient light level decreases to approximately zero” / 15[d]: “adjusting the combined signal with a dark level bias to generate a brightness control signal for controlling brightness of a visible display such that the brightness control signal is maintained above a predetermined level when the ambient light level decreases to approximately zero”

Petitioners' analysis mischaracterizes “dark level bias” by arguing that it just needs to be a minimum, which is contrary to its proper construction and the Board's prior decision. In denying the -1262 IPR petition, the Board previously

held that the “dark level bias” term in claims 1 and 15 “recites more than merely maintaining screen brightness above a minimum level; it recites maintaining the screen brightness above a minimum level *in a particular way*” Ex. 1133, 14.

The district court construed “a dark level bias configured to adjust the combined signal” as “a dark level bias actually programmed or implemented with hardware or software to adjust the combined signal.” Ex. 1135, 34; Pet., 23. The same court construed “dark level bias” as “a value that causes a deviation from the combined signal, where the value is a voltage value of an electrical signal or value of a software variable.” *Id.*

Petitioners allege that the minimum used luminance value “a” meets **three separate and distinct claim elements**, including a “user selectable brightness setting,” a “user [input] signal,” and a “dark level bias.” Pet., 40-43, 46-49, 53-54.

Oki teaches ***two user selectable brightness settings***. The first is “the ***minimum used luminance value***” and the second is “the ***maximum used luminance value***.” Ex. 1103, ¶ [0029]. A ***user signal*** represents each of these settings in Oki’s system, as indicated by the variables “***a***” and “***b***.”

...

In Oki’s equation $y = (b-a)x + a$, the added variable “***a***” is a ***dark level bias***.

...

As explained above, Oki describes **two user selectable brightness settings**: “the **minimum used luminance**” (represented as “**a**”) and the “**maximum used luminance**” (represented as “**b**”).

Here, the **dark level bias**—*i.e.*, “**+a**” in the following expression: $y = (b-a)x + a$ —is “provided to the multiplier” because it is added to the result of the multiplication.

...

Oki teaches this because in the equation for producing the brightness control signal, the **dark level bias (a)** is added to the result of the multiplication

Pet., 40, 46, 50, 51.⁷

Oki does not disclose a “dark level bias” as Petitioners contend. **First**, Petitioners’ allegation that the minimum used luminance value “a” is a “user selectable brightness setting,” a “user [input] signal,” and a “dark level bias” is

⁷ In Oki, “a” is the minimum used luminance value and “b” is the maximum used luminance value. For example, Oki states, “[t]hat is, with the **minimum used luminance value taken as a** and the **maximum used luminance taken as b**, if for example the minimum value and maximum value of the PD output x are 0 and 1, the straight line is given by the equation $Y=(b-a)x+a$.” Ex. 1103 ¶29.

contrary to the plain language of the claims. The claims separately name each of these elements and discuss their operation in mutually exclusive terms.

1. A brightness control circuit with selective ambient light correction comprising:

a first input configured to receive a ***user signal indicative of a user selectable brightness setting***;

a light sensor configured to sense ambient light and to output a sensing signal indicative of the ambient light level;

a multiplier configured to selectively generate a ***combined signal based on both the user signal*** and the sensing signal; and

a ***dark level bias configured to adjust the combined signal*** to generate a brightness control signal that is used to control a brightness level of a visible display such that the brightness control signal is maintained above a predetermined level when the ambient light level decreases to approximately zero.

2. The brightness control circuit of claim 1, wherein the ***dark level bias*** is provided to the multiplier such that the amount of adjustment to the combined signal is ***dependent on the user selectable brightness setting***.

3. The brightness control circuit of claim 2, wherein the multiplier multiplies a sum of the ***user signal*** and the sensing signal by the ***dark level bias*** to generate an output signal corresponding to the brightness control signal.

4. The brightness control circuit of claim 1, wherein the **dark level bias** is added to the combined signal such that the amount of adjustment to the combined signal is **independent of the user selectable brightness setting**.

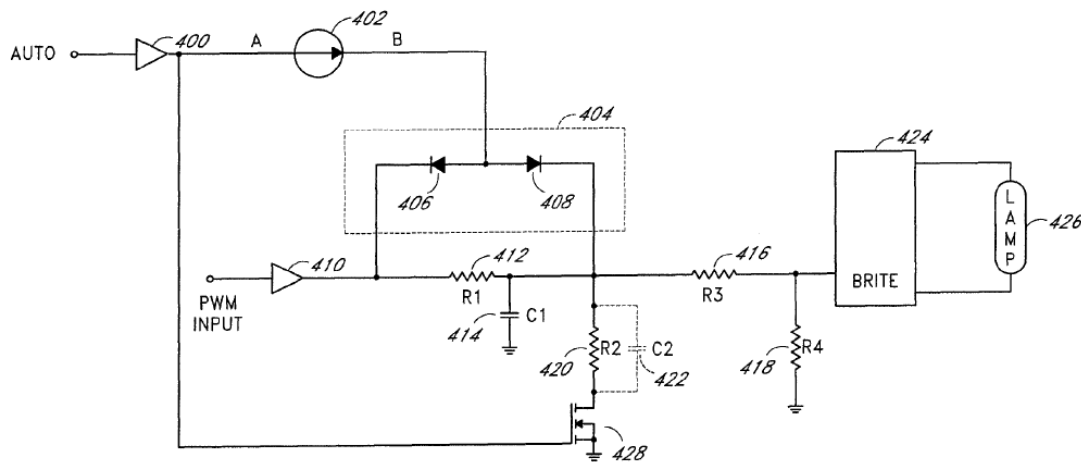
Ex. 1001, claims 1-4. Claims 2 and 4 state that the amount of adjustment by the “dark level bias” can be dependent or independent of the “user selectable brightness setting,” confirming that these are distinct structures. Similarly, claim 3 states that “a sum of the user signal and the sensing signal by the dark level bias,” further confirming that the “user signal” and “dark level bias” are separate structures.

Second, Petitioners’ allegation that minimum used luminance value “a” is three different claim elements is contrary to Federal Circuit precedent. The minimum used luminance value “a” cannot be a “user selectable brightness setting,” a “user [input] signal,” and a “dark level bias,” as these are three separately identified elements of the challenged claims. *Becton*, 616 F.3d at 1254 (“Where a claim lists elements separately, the clear implication of the claim language is that those elements are distinct component[s] of the patented invention.”); *HTC*, 701 F. App’x. at 982 (“The separate naming of two structures in the claim strongly implies that the named entities are not one and the same structure.”); *see also* *VIZIO Rh’g*, 24 (“The Specification does not indicate that the ‘user [input] signal’ and the ‘dark level bias’ may be the same thing.”) (brackets in parenthetical

original); *id.*, 25 (“In other words, dark level bias and user setting (or input) are different.”).

Third, Petitioners’ argument is also contrary to all embodiments, which show the “dark level bias” and “user [input] signal” as different elements as illustrated in the equations accompanying Figs. 4, 8, and 9.

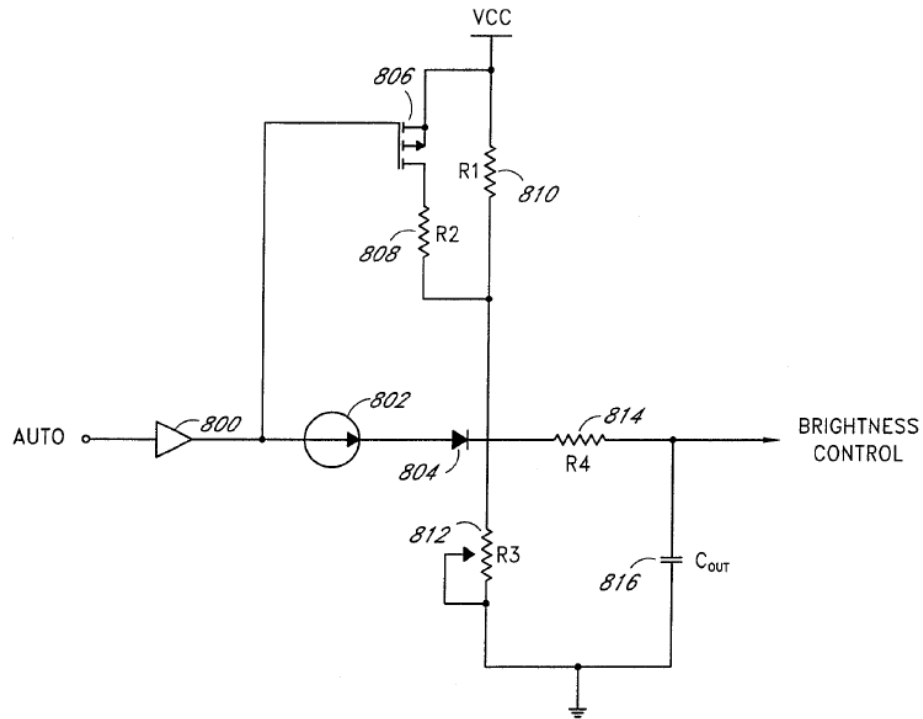
FIG. 4



$$BCS1 = \text{User Signal} \times \left[\left(\frac{VCC \times R2 \times R4}{[(R1 + R2) \times (R3 + R4)] + (R1 \times R2)} \right) + \right. \\ \left. \text{Sensing Signal} \times \left(\frac{ISRC \times R1 \times R2 \times R4}{[(R1 + R2) \times (R3 + R4)] + (R1 \times R2)} \right) \right]$$

Ex. 1001, Fig. 4, 7:17-32 (annotations added).

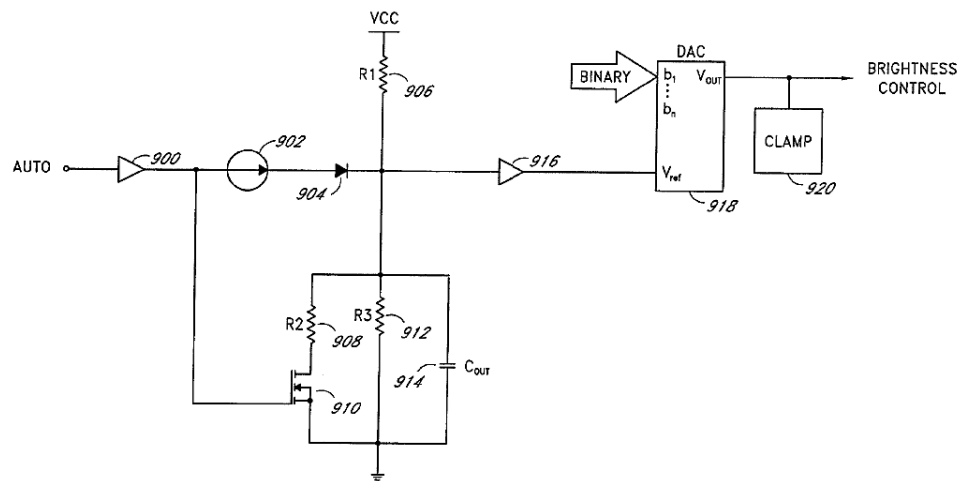
FIG. 8



$$BCS3 = \left[VCC \times \frac{R3}{(R1 + R3)} \right] + \left[\text{Sensing Signal } ISRC \times \frac{(R1 \times \text{User Signal } R3)}{(R1 + R3)} \right]$$

Id., Fig. 8, 10:9-12 (annotations added).

FIG. 9



$$BCS5 = \text{User Signal} \times \left[\frac{VCC \times (R2 \times R3) + ISRC \times R1 \times R2 \times R3}{(R1 \times R2) + (R1 \times R3) + (R2 \times R3)} \right]$$

User Signal Dark Level Bias Sensing Signal

Id., Fig. 9, 11:10-15 (annotations added).

Fourth, the **Board has already rejected Petitioners' same argument.** VIZIO Rh'g, 18-26. In the -0043 IPR, VIZIO similarly argued that Oki's minimum used luminance value "a" was both a "user [input] signal" and a "dark level bias." The Board rejected VIZIO's argument and denied institution. The Board explained:

Specifically, *Patent Owner argues that "minimum used luminance value 'a' cannot be both the 'dark level bias' and the 'user [input] signal' because they are two different limitations."*

...

We agree with Patent Owner that Petitioner improperly relies on Oki's minimum used luminance value "a" as disclosing two separate claim limitations. "Where a claim lists elements separately, 'the clear implication of the claim language' is that those elements are 'distinct component[s]' of the patented invention."

...

The Specification of the '117 patent supports that the "user (input) signal" is a distinct, separately identifiable element from the "dark level bias."

...

Thus, ***we determine that the claim language, figures, and written description of the '117 patent demonstrate that the "user (input) signal" and "dark level bias" are separate components....*** Therefore, Petitioner has not provided sufficient explanation or argument as to its reliance on Oki's minimum variable use luminance "a" as disclosing two separate and distinct claim elements, i.e., the user (input) signal and the dark level bias.

...

Petitioner thus fails to meet the burden required to support institution of inter partes review of independent claims 1 and 15, and, for the same reasons, dependent claims 2, 4-7, 9, 16, and 18 based on anticipation by Oki.

Id., 20-26 (alterations original, citations omitted). The Board has thus rejected Petitioners' same argument that the minimum used luminance value "a" is both a

“[user/input] signal” and a “dark level bias.” The Board should deny institution on this same basis here.

Furthermore, given Petitioners' allegation that minimum used luminance value “a” is both a “user [input] signal” and a “dark level bias,” which Petitioners construe as “a value” (Pet., 18), the failure of the Petition to explain how the minimum used luminance value “a” can be **both** a “signal” and a “value” requires denial of institution. In the -0043 IPR, the Board explained:

Nor does Petitioner explain how the minimum used luminance value “a” may both be a *signal* (“user [input] signal”) and a *value* (“dark level bias”). Petitioner provides no explanation or discussion of *values* vs. *signals*.

Id., 25 (emphasis in original).

Fifth, Oki does not disclose “a dark level bias configured to adjust the combined signal” or “adjusting the combined signal with a dark level bias.” Petitioners' theory rests on the $Y=(b-a)x+a$ equation. But Oki never discloses any hardware circuitry or software algorithms that implement that equation because there is none. The equation is an explanation describing the result of lookup tables for display brightness. Oki's “present invention” summary states that “screen brightness” is “provided beforehand” and “set beforehand.”

[Means for Solving the Problem] To solve the above-noted problem, **the present invention is provided beforehand with a plurality of**

screen display methods, that is, display modes in which character sizes, **screen brightness**, display speeds, and the like are defined, by combinations of user vision characteristics, use environment, and the like when a large amount of information is displayed on a small display such as a mobile terminal. In each display mode, **values of the** character size, **illuminance**, and display speed **are set beforehand**, and the display settings are changed by selecting a display mode. Additionally, by automatic adjustment of the illuminance of a screen to which an illuminance sensor has been mounted in a mobile terminal or the like, the above-noted problem is solved.

Ex. 1103 ¶5.

Oki describes lookup tables containing the “screen brightness” that are “provided beforehand” and “set beforehand.”

[0016] An example of the data of the **data table 5 that stores display parameters of the screen** will now be described, using FIG. 4. The **screen display parameters** are the size of characters that are displayed, the speed of the character display, the **screen brightness** and contrast, and the color and the like.

[FIG. 4]

Terminal identification information	(A) Mobile telephone			(B) PDA			(C) ○○○	...
Display mode	-	*	+	-	*	+		
Character size (dots)	9 × 9	12 × 12	16 × 16	12 × 12	16 × 16	20 × 20		
Character display speed	18 lines/s	12 lines/s	6 lines/s	16 lines/s	10 lines/s	5 lines/s		
...	...	...	...	...	...	...		

Ex. 1103 ¶16, Fig. 4. There is no other context in Oki for storing “screen brightness” in lookup tables other than for automatic brightness adjustment as this is the only “brightness” feature of Oki.

The equation $Y=(b-a)x+a$ describes the result of lookup tables. That is why Oki states that “the straight line **is given by** the equation $Y=(b-a)x+a$ ” rather than disclosing circuitry or a software algorithm for performing this computation. Ex. 1103 ¶29.

Therefore, the “dark level bias configured to adjust the combined signal ...” and “adjusting the combined signal with a dark level bias ...” limitations are not disclosed in Oki.

Sixth, Oki does not disclose a “dark level bias,” which was construed as “a value that causes a deviation from the combined signal, where the value is a **voltage value of an electrical signal** or **value of a software variable**.” Petitioners assert that the minimum used luminance value “a” is the “dark level bias.” Pet., 46.

As Petitioners admit, the minimum used luminance value “a” is entered by a human using the numerical keys of the mobile terminal. Pet., 40. Therefore, the minimum used luminance value “a” in Oki is **not** an electrical signal with a voltage value or a software variable. Because Petitioners do not identify any disclosure of any signals, circuitry, or software algorithms in Oki, Petitioners failed to identify a “dark level bias” in Oki as properly construed.

Seventh, Oki does not disclose “a dark level bias configured to adjust the combined signal” in claim 1. “A dark level bias configured to adjust the combined signal” was construed as “a dark level bias *actually programmed or implemented with hardware or software* to adjust the combined signal.” Ex. 1135, 34; Pet., 23. The same court construed “dark level bias” as “a value that causes a deviation from the combined signal, where the value is a voltage value of an electrical signal or value of a software variable.” *Id.* Thus, as construed, this claim element requires a dark level bias (*i.e.*, voltage value of an electrical signal or value of a software variable) actually programmed or implemented with hardware or software to adjust the combined signal. Petitioners have not identified any hardware circuitry or software algorithms in Oki that actually implement the “dark level bias” as an electrical signal or software variable.

Eighth, Petitioners only include a few passing references to obviousness, which lack any substantive analysis or supporting evidence.

Oki discloses or renders obvious implementing its disclosed automatic brightness control technique in software for the reasons discussed above. *Supra* [Pet.] §IV.A.2.b.

...

This is taught by Oki, or at least rendered obvious by Oki. Specifically, for the reasons discussed above, a POSA would have understood that Oki's equation was implemented in software, or at the very least would have found it obvious to implement Oki's equation in software, such that "a" is a software variable actually programmed or implemented in software. Ex. 1102, ¶¶ 97-99, 106.

Pet., 47-48. Petitioners provide no substantive analysis or evidence to support their claim of obviousness as to the "dark level bias" limitations. Petitioners again cite four paragraphs of their expert declaration for one sentence in an improper attempt to incorporate by reference arguments not made in the Petition. *S.S. Steiner*, 15 ("We will not consider arguments that are not made in the Petition, but instead, are incorporated by reference to [expert's declaration]."). Moreover, the four paragraphs cited (Ex. 1102 ¶¶ 97-99, 106) contain unsupported, conclusory allegations and are entitled to no weight. 37 C.F.R. §42.65(a) ("Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight."); *Johns Manville*, 13-14; *Am. Acad.*, 367 F.3d at 1368.

Other than to Oki and the claim construction order, the cited paragraphs from the expert declaration contain only one evidentiary citation to Toffolo with no analysis of how any teaching of Toffolo would apply to Oki given their different systems. Pet., 45; Ex. 1102 ¶¶97-99, 102. Further, Petitioners assert single-reference obviousness and do not assert the combination of Oki and Toffolo for claims 1 and 15. Pet., 24.

Furthermore, Petitioners allegations are internally contradictory. On one hand, Petitioners assert anticipation, arguing that all limitations are disclosed by Oki, while, at the same time, arguing that Oki differs from the asserted claims and that those differences would have been obvious. This fails to provide the clarity required in a petition. 37 C.F.R. §§42.22(a)(2), 42.104(b)(4)-(5).

For the foregoing reasons, Grounds 1-4 fail, requiring denial of institution.

VIII. CONCLUSION

The Petition is deficient for the aforementioned reasons and, therefore, fails to demonstrate that the claims are more likely than not unpatentable. The Petition should thus be denied as to all challenged claims.

Respectfully submitted,

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Dated: December 17, 2020

WORD COUNT CERTIFICATION PURSUANT TO 37 C.F.R. §42.24(d)

Pursuant to 37 C.F.R. §42.24(d), counsel for Patent Owner certifies that this document contains approximately 13,512 words, which complies with the type-volume limitation of 37 C.F.R. §42.24(b). In preparing this certification, Patent Owner relied on the word count of Microsoft Word, the word-processing system used to prepare the paper.

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CERTIFICATE OF SERVICE

I hereby certify that, pursuant to 37 C.F.R. §42.6(e) and with the agreement of counsel for Petitioner, a true and correct copy of **PATENT OWNER'S PRELIMINARY RESPONSE** and **EXHIBITS 2001-2003** are being served electronically on the date below, to the names and email addresses below:

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