

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

XU PEICHENG (HONG KONG) OPTOELECTRONIC
TECHNOLOGY CO., LIMITED
Petitioner

v.

SEMISILICON TECHNOLOGY CORP.
Patent Owner

Case No. IPR2024-00157

**PETITIONER'S REQUEST FOR REHEARING OF DECISION DENYING
INSTITUTION OF INTER PARTES REVIEW (PAPER 9)**

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I. PRELIMINARY STATEMENT

Pursuant to 37 C.F.R. § 42.71(c) and (d), Petitioner Xu Peicheng (Hong Kong) Optoelectronic Technology Co., Limited respectfully requests rehearing of the Board’s decision denying institution of *inter partes* review of U.S. Patent No. 8,124,988, dated May 20, 2024. Paper 9.

In the decision, the Board erroneously determined that Petitioner had not demonstrated the Lai prior art, in combination with the knowledge of a person of ordinary skill in the art (POSITA), teaches claim elements 1[E] and 1[H] in Ground #1. Paper 9 at 17-21. But the USPTO reached the opposite conclusion on the same Lai reference when it ordered an *ex parte* reexamination (EPR) proceeding in No. 90/015,328 (“the ’328 EPR”) with respect to the same claims. EX1014.

Further, Dr. E. Fred Schubert’s declaration, relied on in the Petition at issue here and un rebutted, fully supplies the evidence to support his opinions that the Board states is missing.

II. REHEARING STANDARD

“A party dissatisfied with a decision may file a single request for rehearing without prior authorization from the Board.” 37 C.F.R. § 42.71(d). A request for rehearing “must specifically identify all the matters the party believes the Board misapprehended or overlooked, and the place where each matter was previously addressed[.]” *Id.* An abuse of discretion may be determined if a decision is based

on an erroneous interpretation of law, if a factual finding is not supported by substantial evidence, or if the decision represents an unreasonable judgment in weighing relevant factors. *See Star Fruits S.N.C. v. U.S.*, 393 F.3d 1277, 1281 (Fed. Cir. 2005).

III. ARGUMENT

A. The Board Abused Its Discretion By Failing to Institute Because The USPTO Already Ordered An *Ex Parte* Reexamination Based On the Same Prior Art

The Board recognized that the '328 EPR was ordered February 15, 2024. *See* Paper 9 at 2.

The '328 EPR lists eight (8) Substantial New Questions of Patentability (“SNQs”). *See* EX1014, '328 EPR Order, p. 3. The first SNQ is “[c]laims 1-3, 5-12, and 23-24 are alleged to be anticipated by CN Patent 201017882Y published February 6, 2008 (“Lai”).” *See id.* The USPTO found that “teachings of Lai, alone or in combination, forms the basis of SNQ.” *See id.*, p. 6. The USPTO further found that “Lai reasonably teaches a LED light package where a 1st

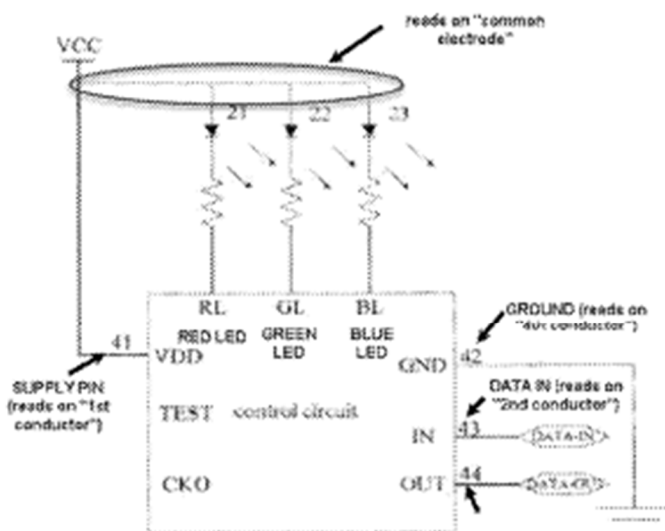


FIG. 3

conductor is a positive DC voltage pad wherein the 1st conductor is connected to a common electrode of each LED and a positive power-in electrode of a control integrated circuit because the supply pin (i.e., “1st conductor”) is connected to the control circuit at VDD and the supply pin (i.e., “1st conductor”) is connected to the common electrode as indicated by the Examiner drawn oval.” *See id.*, p. 9.

The USPTO recognized that “SNQ ground #1 alleges Lai anticipates the claims whereas [IPR2024-00157] Ground #1 alleges Lai makes obvious the claims wherein the limitations anticipated by Lai are bolstered via the general knowledge of a POSITA.” *See id.*, p. 13. The USPTO then acknowledged that IPR2024-00157 “Ground #1 bolsters SNQ Ground #1’s allegation that Lai’s VDD DC voltage pad is a ‘pad’ because POSITA would understand it as such.” *See id.*, p. 14.

Because the USPTO already considered this Petition and found that Lai “reasonably teaches a LED light package where a 1st conductor is a positive DC voltage pad,” the Board abused its discretion when it decided not to institute this proceeding. *Cf. Vicor Corp. v. SynQor, Inc.*, 869 F.3d 1309, 1321-22 (Fed. Cir. 2017) (determining Board’s decision to be clearly erroneous “because the Board reached inconsistent decisions”). In other words, the USPTO’s order of granting the ’328 EPR bolsters Petitioner’s expert opinion that Lai teaches claim elements 1[E] and 1[H], both of which recite the “pad” related claim limitations.

**B. The Board’s Non-Institution Decision Erred When It Rejected
Petitioner’s Argument Regarding the Lai Reference for
Limitations 1[E] and 1[H]**

The Board concluded on pages 17-21 that, regarding Ground #1 in connection with Lai, “Petitioner has failed to make a sufficient showing with respect to limitations 1[E] and 1[H].” In particular, the Board found that “[e]ven if pins and pads may both be types of terminals, claim 1 specifically recites pads, not terminals, and Petitioner has not persuasively shown that a person of ordinary skill in the art would regard pins and pads as interchangeable or that pads would otherwise be suggested by Lai’s disclosure of pins.” Paper 9 at 19.

Dr. Schubert opined that a POSITA “would have understood the terms ‘pad’ and ‘pin’ to both refer to a terminal which connects a device to a mounting substrate.” *See* Pet. 12 (citing Ex. 1103 at ¶ 44). Dr. Schubert further explained that “‘pad’ and ‘pin’ are implementations of a terminal, with both serving the same function.” *Id.* Dr. Schubert also provided technical dictionary support for his testimony that a POSITA “would also have understood that a ‘pad’ is a terminal having a flat shape, whereas a ‘pin’ is a terminal having a pointed shape.” *See* Ex. 1003 at ¶ 44 (citing dictionary definitions for “pad” and “pin”).

The Board affords Dr. Schubert’s opinions in paragraph 44 of his declaration “little weight” and mischaracterizes them as “conclusory.” *See* Paper 9 at 20-21. A conclusory opinion is one that does not state underlying facts on which the opinion

is based. *See, e.g., Massey v. Connor*, No. 2:15CV739-MHT, 2019 WL 3526492, at *2 (M.D. Ala. Aug. 2, 2019) (citing Black’s Law Dictionary to define what a “conclusory” allegation is). Dr. Schubert’s opinion does not merely state that a “pin” and “pad” are interchangeable. Rather, Dr. Schubert explains why they are interchangeable “implementations of a terminal” due to his knowledge as a POSITA and cites to supporting dictionary definitions that are consistent with and support his opinion:

Moreover, a POSITA would have understood the terms “pad” and “pin” to both refer to a terminal which connects a device to, for example, a mounting substrate. That is, “pad” and “pin” are implementations of a terminal, with both serving the same function. A POSITA would also have understood that a “pad” is a terminal having a flat shape, whereas a “pin” is a terminal having a pointed shape. EX1012 at 535 (definition of “pad” to mean “[a] metallized area on the surface of an active substrate as an integral portion of the conductive interconnection pattern to which bonds or test probes may be applied.”) (emphasis added); EX.1013 (definition of “pin” to mean “[a] slender, straight, stiff prong used as a terminal”).

Ex. 1003 at ¶ 44.

In labeling Dr. Schubert’s opinion as “conclusory” and affording it “little weight,” the Board chastises Dr. Schubert’s opinion for allegedly repeating nearly identical text from the Petition. *See* Paper 9 at 20-21. As the Board well understands, it does not consider arguments incorporated by reference. *See, e.g., Group III Int’l, Inc. v. Targus Int’l LLC*, IPR2021-00371, Paper 21 at 28 (“To the extent Petitioner attempts to incorporate arguments from the exhibits into the Petition, we do not consider such arguments.” (citing 37 C.F.R. § 42.6(a)(3)

(“Arguments must not be incorporated by reference from one document into another document.”)). Therefore, copying expert opinion into the Petition verbatim (at least to the extent the 14,000-word limit allows) is the most fail-safe way to ensure those expert opinions are fully considered by the Board. A Petition is not an exercise in creative writing or thesaurus usage such that the evidentiary weight afforded to expert opinion is contingent upon the number of clerical rewrites of that expert’s chosen words and phrases. To the extent the Board dismissed the opinions of Dr. Schubert on this ground, it is not only an abuse of discretion, but it also unreasonably presumes that Dr. Schubert was spoon-fed his opinions by Petitioner’s attorney (who is not a POSITA). This is simply not true, and to presume otherwise from a mere comparison of text cannot justify discounting or disregarding Dr. Schubert’s fully supported and non-conclusory opinions.

Lastly, the Federal Circuit has repeatedly made clear that, “[s]ince KSR, we have explained that it is appropriate to consider the knowledge, creativity, and common sense of a skilled artisan in an obviousness determination.” *Fleming v. Cirrus Design Corp.*, 28 F.4th 1214, 1223 (Fed. Cir. 2022); *see also Arendi S.A.R.L. v. Apple Inc.*, 832 F.3d 1355, 1361 (Fed. Cir. 2016) (“[W]e do consider common sense, common wisdom, and common knowledge in analyzing obviousness.”). Dr. Schubert explains that the distinction between a “pad” and “pin” is one of shape – i.e., flat or pointed, respectively. *See* Ex. 1003 at ¶ 44. However, both “are

implementations of a terminal, with both serving the same function.” *Id.* This is precisely why pads and pins, in Dr. Schubert’s opinion, are interchangeable, and there is nothing conclusory about his reasoning. Rather, it is well founded from the knowledge of a POSITA and the cited dictionary definitions, and the Board abused its discretion by failing to properly consider it despite Patent Owner failing to submit opposing expert testimony. *See, e.g., Spherix Inc. v. Matal*, 703 Fed. Appx. 982, 986 (Fed. Cir. 2017) (concluding that substantial evidence including unrebutted expert testimony supported the Board’s obviousness determination); *Auris Health, Inc. v. Intuitive Surgical Operations, Inc.*, 2022 WL 1419593 at *4 (Fed. Cir., May 5, 2022); *Acoustic Tech., Inc. v. Itron Networked Solutions, Inc.*, 949 F.3d 1366, 1376 (Fed. Cir. 2020); *Unwired Planet, LLC v. Google, Inc.* 841 F.3d 995 (Fed. Cir. 2016) (affirming Board’s adoption of expert testimony that was consistent with the teachings of the prior art).

C. Petitioner Has Made a Sufficient Showing Regarding the Lai Reference for Limitation 1[B]

According to the Board, “we find a close question as to whether Petitioner has made a sufficient showing with respect to this limitation, as the only evidence Petitioner cites in support of its argument that ‘[t]he term GND is often used interchangeably with the term VSS, which refers to negative voltage’ (Pet. 8) is an identical, unsupported assertion in Dr. Schubert’s Declaration (Ex. 1003 ¶ 38) to which we accord little or no weight.”

Similar to arguments already made *supra*, the Petition copies language from Dr. Schubert's declaration because the Board is prohibited from considering evidence incorporated by reference. While somewhat flattering to Petitioner's counsel, there is no underlying basis to (wrongly) presume that Dr. Schubert was spoon-fed his opinions from the Petition, and to discredit his opinions as a result is clear abuse of discretion. Petitioner should not be encouraged or required to rephrase or restate Dr. Schubert's opinions for no better reason than to counter an unfounded presumption that Dr. Schubert's opinions are all blindly adopted non-POSITA attorney arguments.

Furthermore, Dr. Schubert's opinion does not simply state in conclusory fashion that "[t]he term GND is often used interchangeably with the term VSS, which refers to negative voltage." Dr. Schubert explains that "[a] POSITA would have understood that a VDD pin represents positive power voltage connected to the IC and the anodes of the LED chips. A POSITA further understands that a GND or ground pin as labeled in FIG. 3 can reasonably be interpreted as negative supply voltage. The term GND is often used interchangeably with the term VSS, ***which refers to negative voltage.***" Ex. 1003 ¶ 38 (emphasis added). Therefore, Dr. Schubert explains from his common knowledge as a POSITA that the reason "GND" and "VSS" are often used interchangeably is because both GND and VSS can refer to negative voltage.

Dr. Schubert provides more explanation in paragraph 44 of his declaration:

A POSITA would have understood the VDD power supply pin to act as a positive DC voltage pad because “VDD” represents positive DC voltage. In electronic circuits having bipolar transistors, VCC stands for the “common collector voltage” (VCC). Since NPN transistors are common transistors, VCC typically is a positive voltage. Correspondingly, the emitter voltage is negative and can be referred to as VEE. In integrated circuits using MOSFETs, there is no collector and emitter, but rather a drain and a source. Since n-channel MOSFETs are common MOSFETs, VDD typically is a positive voltage. Correspondingly, the source voltage is negative and can be referred to as VSS. To conclude, VCC and VDD commonly are positive voltages, whereas VEE and VSS commonly are negative voltages. ***This is consistent with the '988 patent's disclosure of “negative DC voltage pad (Vss)”. (EX1001 at 2:13). Additionally, in Lai, VCC and GND are connected to the LED anodes and cathodes (see Figure 3 of Lai) and accordingly are a positive and negative voltage, respectively.***

Ex. 1003 at ¶ 44 (emphasis added). Again, there is nothing conclusory about Dr. Schubert's statement that GND and VSS can be used interchangeably because they both can refer to negative voltage. Dr. Schubert's opinions are wholly supported by underlying facts borne from the common knowledge of a POSITA and therefore it is abuse of discretion to discredit them. *See supra* at 7-8 (citing cases holding that it is appropriate to consider common sense, knowledge, and wisdom of a POSITA in assessing obviousness; and that such expert opinions should not be discredited without opposing expert testimony).

D. Petitioner Has Made a Sufficient Showing Regarding the Lai Reference in View of Stoyan and the General Knowledge of a POSITA for Claims 4, 11, and 12

Claim 4 depends from claim 3, which in turn depends from claim 1. Claim 12 depends from claim 11, which in turn depends from claim 1.

According to the Board, “Petitioner does not cite Stoyan as teaching or suggesting the subject matter of independent claim 1 lacking from Lai and the general knowledge of a person of ordinary skill in the art, as discussed in Section II.D.2.f. above, namely, ‘the first conductor being a positive DC voltage pad’ and ‘the fourth conductor being a negative DC voltage pad’ [and] [t]herefore, we determine that Petitioner has not demonstrated a reasonable likelihood it would succeed in its challenge to claims 4, 11, and 12 as unpatentable over Lai, Stoyan, and the general knowledge of a person of ordinary skill in the art.” Paper 9 at 23. For the reasons stated *supra* in Section III.B, claim elements 1[E] and 1[F] are obvious over Lai in view of the general knowledge of a POSITA and further combination with Stoyan is not necessary.

E. Petitioner Has Made a Sufficient Showing Regarding the Lai Reference in View of Yan and the General Knowledge of a POSITA for Claim 15

Claim 15 depends from claim 1. According to the Board, “Petitioner does not cite Yan as teaching or suggesting the subject matter of independent claim 1 lacking from Lai in combination with the general knowledge of a person of ordinary skill in

the art, as discussed in Section II.D.2.f. above, namely, ‘the first conductor being a positive DC voltage pad’ and ‘the fourth conductor being a negative DC voltage pad’ [and] [t]herefore, we determine that Petitioner has not demonstrated a reasonable likelihood it would succeed in its challenge to claim 15 as unpatentable over Lai and Yan.” Paper 9 at 25. For the reasons stated *supra* in Section III.B, claim elements 1[E] and 1[F] are obvious over Lai in view of the general knowledge of a POSITA and further combination with Yan is not necessary.

IV. CONCLUSION

For the reasons set forth above, and in the Petition and Dr. Schubert’s declaration, and the prior art cited therein, Petitioner respectfully submits that the Board should grant this request for rehearing and institute this proceeding.

DATE: June 18, 2024

Respectfully Submitted,

/s/ John Handy

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Registration No. 68,906

Counsel for Petitioner

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing document was served by filing this document through the Patent Trial and Appeal Board as well as providing a copy via email to the following attorneys of record for the Patent Owner listed below:

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