UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BOE Technology Group Co., Ltd.
Petitioner

v.

Optronic Sciences LLC
Patent Owner

Inter Partes Review No.: IPR2024-01133

U.S. Patent No. 9,263,509

PETITIONER'S RESPONSE TO PATENT OWNER'S MOTION TO EXCLUDE EXPERT DECLARATIONS EX 1003 AND 1020

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INDEX OF EXHIBITS

Exhibit No.	Description
1001	U.S. Patent No. 9,263,509
1002	File History of U.S. Patent No. 9,263,509
1003	Declaration of R. Jacob Baker, Ph.D., P.E.
1004	U.S. Patent Publication No. 2004/0079945 ("Weaver")
1005	U.S. Patent Publication No. 2012/0162053 ("Lee053")
1006	U.S. Patent Publication No. 2014/0183502 ("Song")
1007	Korean Patent Publication No. 10-2014-0088369 ("Song KR")
1008	Certified Translation of Song KR
1009	U.S. Patent 9,088,003 ("Gupta")
1010	U.S. Patent Publication No. 2011/0248309 ("Han")
1011	U.S. Patent Publication No. 2009/0015149 ("Lee149")
1012	U.S. Patent Publication 2006/0119259 ("Bae")
1013	Wiley Electrical and Electronics Engineering Dictionary (2004)
1014	Docket Navigator Report (highlighted)

I. INTRODUCTION

Patent Owner's motion to exclude the Declaration of Dr. R. Jacob Baker in Support of Petition for Inter Partes Review of U.S. Patent No. 9,263,509 mostly regurgitates the same baseless arguments in Patent Owner's Response (POR). Petitioner's Reply (Pet. Reply) refuted those arguments, and Petitioner's arguments from its reply are repeated again below to once again address Patent Owner's meritless arguments.

II. ARGUMENT

A. Dr. Baker is a POSITA

Patent Owner's argument that Dr. Baker is not a POSITA fails because Patent Owner has identified the wrong POSITA for the 509 patent. Mot. at 2-4.

Patent Owner ("PO") asserts a POSITA for the 509 patent "would have at least a Bachelors' degree ***in a field of engineering or physics*** and at least two years of professional experience related to the design and manufacture of LED or OLED pixels for flat panel displays." Mot., 3. Patent Owner's definition should be rejected.

First, a bachelor's degree in (unspecified) engineering incorrectly encompasses engineering fields clearly having nothing to do with displays, such as biomedical, civil, chemical or environmental engineering. This omission is notable, as Patent Owner's expert has his degrees in chemical engineering, not

electrical engineering. EX2026, ¶¶25-26. A POSITA for the 509 patent would have knowledge in the design of optoelectronic circuits at least at the system level where components such as LEDs and transistors are put together to form a working optoelectronic circuit (i.e., one that converts current flow to generated light). EX1020, ¶7. For example, the circuit design and pixel layout as seen in Figs. 1-2 of the 509 patent would require circuit design knowledge. This knowledge would be attained by obtaining a degree having a required curriculum of circuity and electronics courses such as Electrical Engineering. *Id.*

This knowledge would not fall within the scope of a person having knowledge in chemical engineering at any level. Simply knowing about the chemical properties used in the layers of the optoelectronic circuit would not be sufficient to understand the circuit design and layout of a pixel. This is especially the case for the 509 patent, where the alleged novelty is adding an auxiliary electrode electrically connected to the first electrode layer. *Id.*, ¶19; EX1017, 32:13-19. Therefore, Patent Owner's expert lacks the requisite degree of a POSITA for the 509 patent. A thorough review of his background also evidences that he lacks the experience necessary to be a POSITA, and specifically circuit design or circuit layout experience. *See* EX1020, ¶¶18-19. Patent Owner's expert is clearly not a POSITA and his opinions should be given no weight.

Second, separately identifying "design" and "manufacture" ignores the reality that design experience in this field necessarily involves manufacturing experience, because designers must design products that can be manufactured. Circuit designers typically work closely with fabs in an iterative manner to test, modify, and finalize product designs for production. EX1020, ¶8. This is evidenced by Patent Owner's expert's repeated characterization of his experience: "designed and transferred into manufacturing" various products. EX2026, ¶11. He admitted "transfer to manufacture" is within the scope of Patent Owner's "and manufacturing" portion of its POSITA definition. EX1017, 56:18-22.

Patent Owner argues that a POSITA requires professional experience in the design and manufacture of LED or OLED pixels for flat panel displays, citing to the 509 patent field of the invention. Mot., 3. Yet, the field of the invention cited by Patent Owner refers to a pixel structure, with no mention of LED or OLED pixels. EX1001, 1:17-20. This is not surprising, given that the alleged novelty of the 509 patent is not the design of the light emitting portion of the pixel, but rather adding an auxiliary electrode electrically connected to the pixel's anode (i.e., adding a connected wire), which can be coordinated through parallel connection to reduce the resistance of the anode. EX1001, 6:4-9; EX1017, 32:13-19. The problem and solution are common to any electrical circuit, and to any optoelectronic system irrespective of the light emitting mechanism. EX1020, ¶9.

Patent Owner argues Dr. Baker is not a POSITA because he "does not have experience in the design and manufacture of LED and OLED displays." POR, 10. Yet, none of the claims specifically claim a light emitting device that is an LED, OLED, or even "diode." In fact, the terms "diode," "LED," or "OLED" are not found anywhere in the 509 patent's specification. Not claiming the type of light emitting device used is understandable. The 509 patent is about the circuit design and physical layout of a pixel. The 509 patent claims are agnostic to the type of light emitting device the pixel uses, so long as it includes a light emitting layer. EX1020, ¶12.

Finally, Patent Owner argues that Dr. Baker lacks relevant work experience in display panels. Mot., 3-4. To the contrary, Dr. Baker has extensive experience in flat panel display design, including at the pixel level. *See* EX1020, ¶¶13, 16-17 (including his own patent on a flat panel display he designed back in the 1990's; EX1019).

B. Patent Owner's Arguments Regarding Hindsight Fail

Patent Owner alleges hindsight reconstruction in Dr. Baker's deposition, where he was asked what modifications were necessary and obvious (to meet the claim language), and then faulted Dr. Baker for looking at the claims. Mot., 4-5. Patent Owner improperly accuses Dr. Baker of wrongdoing because he was

"caught looking at the language of the claims" while answering counsel's questions during his deposition to ensure his answer were accurate.

Patent Owner's arguments on hindsight were soundly refuted in Petitioner's Reply. Pet. Reply, 4-5, 16-17, 17-18, 19-21, 22-24, 25-28. To summarize, the deposition answers cited by Patent Owner reflect the order of counsel's questioning, not the thought process by which Dr. Baker reached his original conclusions (for which he was never asked).

Patent Owner hides entirely behind a side show created by Patent Owner's counsel at Dr. Baker's deposition. In the remote deposition, counsel drew modifications to Weaver's drawings on the screen, asking Dr. Baker to bless them on the fly over Zoom, and then faulting Dr. Baker for following the claims at issue. Patent Owner's arguments simply fail. Taking Ground 4 as an example, first, it was counsel for Patent Owner that drew Exhibits 9 and 11 during Dr. Baker's deposition. EX2029, 277:14-278:4. Counsel never asked Dr. Baker to make annotations himself to show his actual opinions in his declaration. Second, Dr. Baker repeatedly objected to the process of counsel making drawings during a deposition, admitting he (Dr. Baker) missed mistakes counsel made (intentionally or not) in counsel's drawings. EX2028, 208:8-23, 211:24-212:15. Third, at no time in the deposition did counsel ever ask about, refer to, or follow the modifications identified in ¶183 of Dr. Baker's declaration (corresponding to the above

paragraph from p. 59 of the petition), or ask any questions regarding how Dr. Baker actually reached his opinions. Fourth, Patent Owner's hindsight arguments fail because they are based on the order of counsel's questions, not on how Dr. Baker originally arrived at any of his opinions. Fifth, Dr. Baker testified if he were creating such drawings, he would have drawn them different and he would not have even started with the drawing selected by counsel. EX2029, 278:5-280:22 (for Exhibit 9); 281:6-284:11 (for Exhibit 11). Therefore, Patent Owner's arguments based upon drawings selected and annotated by Patent Owner's counsel are divorced from the actual opinions of Dr. Baker (which Patent Owner conspicuously avoids in their entirety). See Pet. Reply, 19-21.

The same is true for Ground 5. See Pet. Reply, 22-24.

C. Dr. Baker Did Not Take Contradictory Positions

Patent Owner's allegation that Dr. Baker offered materially contradictory testimony regarding changes to the process (Mot., 5-7) is meritless. Pet. Reply, 16-18. Patent Owner and its expert argued a POSITA would not combine Weaver with other prior art because it would involve changing the process. POR, 33-35, 38-39. But Patent Owner and its expert do not understand the difference between process changes and layout changes. Changing the **thickness** of a layer, in a process flow, is a process change that the circuit designer implementing the layout of a pixel may have no control over. EX1020, ¶45. Changing the lithography of existing layers to

provide additional components from the same layers is a layout change that a POSITA would have been able to perform without changing the process. *Id.*

In his original declaration (and repeated in the Petition), Dr. Baker set forth how the modifications to the Weaver device to incorporate the teachings of Lee053 could be implemented ***using the "same layers" already formed in the Weaver device***. EX1003, ¶130; Pet., 33-34. No process change is involved. EX1020, ¶¶46-47. The same was true with respect to modification to the Weaver device to incorporate the teachings of Song using the same layers already formed in the Weaver device. EX1003, ¶157; Pet., 47-48.

D. Patent Owner's Argument that Dr. Baker Did Not Limit Himself to the Motivation Provided by the 509 Patent is Legally Irrelevant

Patent Owner argues the 509 patent proposes a novel way to improve the overall luminous uniformity of the display panel allowing for unique adjustment of each individual pixel, and that Dr. Baker allegedly failed to consider this concept, faulting him for not having an opinion on luminous uniformity. Mot., 7-10. This argument can be quickly dismissed for two simple reasons. First, Dr. Baker's opinions on motivations to combine prior art involve reducing pixel resistance for more efficient manufacture, not increasing luminous uniformity. EX1003, ¶¶128, 137, 145, 155, 164, 172, 182, 190, 201, 210, and 226. What Patent Owner fails to grasp here is that motivations to combine prior art references do not need to

include advantages or motivations in the challenged patent. *Alcon Research, Ltd. v. Apotex Inc.*, 687 F.3d 1362, 1368 (Fed. Cir. 2012) ("We have repeatedly held that the motivation to modify a prior art reference to arrive at the claimed invention need not be the same motivation that the patentee had."). There was no reason for Dr. Baker to form opinions on luminous uniformity to reach his conclusions.

Second, the claims of the 509 patent are all directed to a ***single*** pixel. The concept of luminous uniformity involves multiple pixels (i.e. relative luminous emission among multiple pixels). Therefore, Patent Owner's arguments on luminous uniformity are directed to an unclaimed feature that is not achievable by the claimed technology: a ***single*** "pixel structure." EX1001, claims 1-13.

III. CONCLUSION

Patent Owner's meritless motion should be denied.

CERTIFICATE OF PAGE COUNT

Pursuant to 37 C.F.R. § 42.24(d), Petitioner certifies that there are less than 15 pages in the response. Pursuant to 37 C.F.R. § 42.24, this page count is in compliance with the page limit set forth in 37 C.F.R. § 42.24(a)(1) excluding the portions exempted under § 42.24(a)(1).

Date: October 15, 2025

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CERTIFICATE OF SERVICE

The undersigned certifies that on October 15, a true and correct copy of the Petitioner's Response was served by emailing a copy of same (by agreement) to the following attorneys for the Patent Owner:

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