

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MIANYANG BOE OPTOELECTRONICS TECHNOLOGY CO., LTD.;
WUHAN CHINA STAR OPTOELECTRONICS SEMICONDUCTOR
DISPLAY TECHNOLOGY CO., LTD.; TIANMA MICROELECTRONICS
CO., LTD.; AND VISIONOX TECHNOLOGY, INC.,
Petitioner,

v.

SAMSUNG DISPLAY CO., LTD.
Patent Owner.

Case IPR2023-00941
U.S. Patent No. 7,414,599

**PATENT OWNER'S MOTION TO EXCLUDE TESTIMONY OF
DR. DANIEL FOTY DUE TO LACK OF QUALIFICATIONS
(EXS. 1003 AND 1029)**

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I. INTRODUCTION

In *Kyocera Senco Indus. Tools Inc. v. Int’l Trade Comm’n*, 22 F.4th 1369 (Fed. Cir. 2022), the Federal Circuit held that “[t]o offer expert testimony from the perspective of a skilled artisan in a patent case—like for claim construction, validity, or infringement—a witness must at least have ordinary skill in the art.” *Id.* at 1376–77. As the court explained, “[w]ithout that skill, the witness’ opinions are neither relevant nor reliable,” and “[t]hat testimony would ‘amount[] to nothing more than advocacy from the witness stand.’” *Id.* at 1377 (quoting *Sundance, Inc. v. DeMonte Fabricating Ltd.*, 550 F.3d 1356, 1364–65 (Fed. Cir. 2008)).

Petitioner proffers two declarations from Dr. Foty in this proceeding, Exhibits 1003 and 1029, which Petitioner relies on throughout both the Petition and the Reply. Although Petitioner relies on these declarations as purportedly opining on the validity of the ’599 Patent from the perspective of a person of ordinary skill in the art (“POSITA”), the record shows Dr. Foty lacks ordinary skill in the art of the ’599 Patent—as was recently found in parallel ITC proceedings. Ex. 2054 at 4–5. Indeed, Dr. Foty does not possess *any* experience with active matrix display design. Because Dr. Foty lacks even ordinary skill in the art of the ’599 Patent, his opinions are neither relevant nor reliable under Federal Circuit precedent. *See Kyocera*, 22 F.4th at 1376–77; Ex. 2054 at 8. Therefore, Patent Owner respectfully moves to exclude Dr. Foty’s testimony.

II. BACKGROUND

Petitioner submitted two declarations from Dr. Foty in this proceeding: an initial declaration (Ex. 1003) filed with the Petition, and a “supplemental declaration” (Ex. 1029) filed with Petitioner’s Reply.¹

Patent Owner timely objected to both declarations under Federal Rule of Evidence 702 on the grounds that “the witness, whose curriculum vitae identifies no experience in active matrix display design, does not qualify as a person of ordinary skill in the art with respect to U.S. Patent No. 7,414,599, and accordingly lacks qualification to opine on matters requiring the perspective of a person of ordinary skill.” Paper 14 (objecting to Ex. 1003); Paper 42 (objecting to Ex. 1029 “for the same reasons as Patent Owner objected to [Dr. Foty’s] previous testimony”).

In parallel litigation between the parties before the ITC (Inv. No. 337-TA-1351), Petitioner BOE likewise sought to rely on Dr. Foty’s testimony in support of the same obviousness challenges to the ’599 Patent. Patent Owner similarly objected to Dr. Foty’s testimony in that proceeding, moving to exclude it due to his lack of qualifications. On July 2, 2024, the Administrative Law Judge (“ALJ”) granted Patent Owner’s motion to exclude, finding “that Dr. Foty does not meet the level of

¹ Petitioner also moved to submit a separate declaration from Dr. Foty as supplemental information under 37 C.F.R. § 42.123. The Board denied this motion. Paper 27.

ordinary skill in the art for the '599 [Patent],” and therefore excluding his testimony under *Kyocera*. Ex. 2054 at 5, 8. As the ALJ explained, “[T]he question is whether Dr. Foty specifically has experience in active matrix design and electroluminescence. It is clear that he does not.” Ex. 2054 at 5.

III. THE BOARD SHOULD EXCLUDE DR. FOTY’S TESTIMONY

A. A POSITA for the '599 Patent would have had experience in active-matrix display design.

“[A] POSITA with regard to the '599 Patent would have had a relevant technical degree in Electrical Engineering, Computer Engineering, Materials Science, Physics, or the like, and *experience in active matrix display design and electroluminescence*.” P.O. Response at 7. This skill level is supported by Patent Owner’s expert, Dr. Wolfe. Ex. 2008 ¶¶ 45–49. It is the same level of skill that Patent Owner offered and the ALJ adopted in the ITC proceedings. Ex. 2005 at 12–13. In those proceedings, the ALJ considered and specifically rejected a proposal from Dr. Foty omitting any requirement of “experience in active matrix display design and electroluminescence,” because it was inappropriate given the technology of the '599 Patent. *Id.*

The '599 Patent is directed to active matrix displays, namely the pixel circuit driving each pixel in the display, which defines an active matrix display. As explained in Patent Owner’s Response, the '599 Patent is addressed to solving problems specific to active matrix OLED displays which had prevented their

implementation in manufacturable devices, including image quality (relating to inherent manufacturing variability in transistors from one circuit to another within the display that may cause non-uniform light emission between pixels) and aperture ratio (relating to the physical space taken up by the pixel circuit for each pixel). P.O. Response at 8; Ex. 2008 at ¶¶ 48, 122–23, 131–135.

Important aspects and considerations of the '599 Patent's pixel circuit design are unique to active matrix display design and electroluminescent displays. P.O. Response at 8; Ex. 2008 at ¶ 48. For example, the operation of the driving transistor in the pixel circuit (used to modulate the current to the OLED element) and the importance of compensating for deviations in threshold voltage in the particular drive transistor due to inherent manufacturing and aging-relating variabilities to provide uniform light output across pixels are specialized to active matrix displays. *Id.*

Petitioner's proposal in this proceeding (as in its rejected proposal at the ITC) erroneously omits the requirement for any "experience in active-matrix display design and electroluminescence." *See* Petition at 13. Instead, Petitioner's proposal entails only "2-3 years of circuit design/analysis experience," *id.*, which would allow any circuit design/analysis experience to suffice without knowledge, experience, or understanding of active matrix display design or electroluminescence. Petitioner's proposal not only ignores the subject matter of the '599 Patent, which is directed to

solving problems specific to active matrix displays with electroluminescent elements, and the experience of people who actually work in the field of the invention (such as the inventors), but also that a person with only general circuit design experience would not appreciate the issues specific to active matrix displays. *See* P.O. Response at 8–9.

Petitioner’s proposal is also contrary to Dr. Foty’s recent admissions that a POSITA would need familiarity with numerous specific aspects of active matrix display design, including the “operation of the driving transistor, threshold-voltage compensation and its relationship to image quality, the impact of shared signal lines on aperture ratio, and the initialization, e.g., discharging a capacitor, of a pixel circuit,” P.O. Surreply at 20 (quoting Ex. 1029 at ¶ 14), as well as the “operational behavior of light-emitting devices such as LEDs, in the context of pixel circuits in the display,” P.O. Surreply at 20 (quoting Ex. 2053 at 38:4–18).

B. Dr. Foty does not qualify as a POSITA.

Petitioner’s expert Dr. Foty lacks any experience with active matrix display design. Therefore, he does not meet the proper definition of a POSITA for the ’599 Patent, as the ALJ correctly found in the ITC proceedings. Ex. 2054 at 5.

Nowhere in either of Dr. Foty’s declarations (Exs. 1003 and 1029) does Dr. Foty testify that he has experience with active matrix display design, or any display

design. Nor did he testify in his depositions (Exs. 2050 and 2053) to having any such experience.

Instead of showing that he has any experience with active matrix display design, Dr. Foty merely asserts he was familiar with *semiconductor components* used in displays:

I note that even under Samsung's incorrect definition of a POSITA, I possessed electroluminescence experience via fabricating and characterizing semiconductor-based optical emitters (such as LEDs and lasers). Thus, I was very familiar in 2003 with the semiconductor devices that were used in contemporary displays (which basically comprise transistors and LEDs), and how those semiconductor components are organized into circuits that were (and are) used in displays. Further, the types of circuits used in light-emitting display panels (such as shift registers) are circuits used in a wide variety of analog and digital circuit applications.

Ex. 1029 at ¶ 17. To the extent this can be construed as an argument that Dr. Foty has experience in related areas, it is unavailing. As the ALJ explained, “[t]he fact that Dr. Foty has experience in related areas, however, is not the question. Rather, the question is whether Dr. Foty specifically has experience in active matrix design and electroluminescence. It is clear that he does not.” Ex. 2054 at 5; *see also id.* at 4, n.2 (noting that “Dr. Foty admitted at his deposition that, while he had experience in general circuit design, he did not have experience in active matrix display design

and electroluminescence” and compiling Dr. Foty’s admissions; “I have not specifically worked on displays, but it’s the circuitry is general.”).

Dr. Foty’s lack of relevant knowledge is especially pertinent here. As Patent Owner has explained, Petitioner and Dr. Foty’s misunderstanding of Kimura’s teachings—e.g., failing to understand the difference between erasure and initialization—underscores how experience in active matrix displays and electroluminescence (which Dr. Foty lacks) is critical to understand the content of the prior art. *See* P.O. Response at 8–9.

As the Federal Circuit made clear in *Kyocera*, even if a proposed expert has “advanced degrees in engineering and extensive experience in the design and manufacture” of related technologies, the proposed expert lacks ordinary skill in the art if they do not possess experience in the particular area set forth in the definition of a POSITA. *Kyocera*, 22 F.4th at 1376–78 (finding that even extensive experience in design and manufacture of fastener driving tools was not sufficient where the POSITA definition entailed experience designing power nailers); *see also Avail Medsystems, Inc. v. Teladoc Health, Inc.*, IPR2022-00444, Paper 10 at 25–26 (July 21, 2022) (refusing to consider testimony from expert witness, Dr. Stone, on any issue that is analyzed through the lens of an ordinary skilled artisan because “[a]lthough Dr. Stone has advanced degrees in electrical engineering and extensive

experience with medical devices . . . he lacks specific experience researching or engineering teleconferencing systems, such as those used in telemedicine”).

Here, the record is clear that Dr. Foty lacks the requisite experience for the ’599 Patent, considering the technology of the patent and the problems it solved. Accordingly, he does not qualify as a POSITA. Under Federal Circuit precedent, he therefore is not qualified to offer opinions on validity of the patent. *See Kyocera*, 22 F.4th at 1376–77 (“To offer expert testimony from the perspective of a skilled artisan in a patent case—like for claim construction, validity, or infringement—a witness must at least have ordinary skill in the art.”).

IV. CONCLUSION

For the foregoing reasons, Patent Owner respectfully requests that the Board exclude Dr. Foty’s validity opinion testimony, as set forth in Exhibits 1003 and 1029.

Date: August 23, 2024

Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6, I hereby certify that the foregoing Patent Owner's Motion to Exclude Testimony of Dr. Daniel Foty Due to Lack of Qualifications was served by electronic mail on the following counsel of record for petitioner:

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