

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.

Case No.: IPR2024-01133

Patent 9,263,509

**PATENT OWNER'S MOTION TO
EXCLUDE EXPERT DECLARATIONS
EX 1003 and 1020**

Table of Contents

I.	INTRODUCTION	1
II.	ARGUMENT	1
A.	Dr. Baker is Not a POSITA	2
B.	Dr. Baker’s Hindsight on the Record is Excluded by FRE 702(c)	4
C.	Dr. Baker’s Contradictory Positions Should Result in Exclusion or Termination	5
D.	Dr. Baker Fundamentally Misunderstood the Technology	7
1.	The ’509 Patent Allows for Improvements to the Overall Luminous Uniformity of a Display Panel	7
2.	Dr. Baker Premised His Analysis on Reducing the Resistance <i>To</i> the Pixel Structure, Which Would Not Improve Luminous Uniformity	9
III.	CONCLUSION.....	12

Table of Authorities

Cases

<i>Billerud Aktiebolag (Publ) v. Westrock MWV, LLC</i> , IPR2023-01206, Paper 60 (PTAB Mar. 12, 2025).....	2
<i>Interactive Communications International, Inc. v. Blackhawk Network Inc.</i> , IPR2024-00465, Paper 39 (PTAB Oct. 1, 2025).....	1, 6, 7, 12
<i>Kyocera Senco Indus. Tools Inc. v. Int’l Trade Comm’n</i> , 22 F.4th 1369 (Fed. Cir. 2022).....	2
<i>Sensonics, Inc. v. Aerosonic Corp.</i> , 81 F.3d 1566 (Fed. Cir. 1999).....	4

Rules

Fed. R. Evid. 702(c).....	passim
Fed. R. Evid. 702(d)	1, 11

Patent Owner's Exhibit List for IPR2024-01133

Exhibit No.	Description
2001	Docket Control Order from <i>Optronic Sciences LLC v. BOE Tech. Group Co., Ltd.</i> , No. 2:23-cv-00549-JRG, Dkt. 33 (E.D. Tex. Aug. 5, 2024(
2002	Optronic Sciences LLC's Infringement Contentions from <i>Optronic Sciences LLC v. BOE Tech. Group Co., Ltd.</i> , No. 2:23-cv-00549-JRG (E.D. Tex. July 19, 2024).
2003	BOE Technology Group Co., LTD's Invalidity Contentions from <i>Optronic Sciences LLC v. BOE Tech. Group Co., Ltd.</i> , No. 2:23-cv-00549-JRG (E.D. Tex. Oct. 25, 2024).
2004	Declaration of Benjamin T. Wang in Support of Motion to Appear <i>Pro Hac Vice</i>
2005	Declaration of Andrew D. Weiss in Support of Motion to Appear <i>Pro Hac Vice</i>
2006	Declaration of Christian W. Conkle in Support of Motion to Appear <i>Pro Hac Vice</i>
2007	Time to Trial for Rodney Gilstrap Report from Docket Navigator, accessed December 12, 2024.
2008	Declaration of Paul A. Kroeger in support of Motion to Appear <i>Pro Hac Vice</i> .
2009	[Intentionally Omitted].
2010	<i>POS Solutions</i> , Cirque: Innovative Touch Solutions, available at https://web.archive.org/web/20131109010416/http://www.cirque.com/solutions/posSolutions.aspx (archived by the Wayback Machine on Nov. 9, 2013).
2011	COMPREHENSIVE DICTIONARY OF ELECTRICAL ENGINEERING (2d ed. 2005).
2012	WILEY ELECTRICAL AND ELECTRONICS ENGINEERING DICTIONARY (2004).
2013	MCGRAW-HILL DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS (6th ed. 2003)
2014	THE AMERICAN HERITAGE COLLEGE DICTIONARY (3rd ed. 1997)
2015	WEBSTER'S NEW WORLD DICTIONARY AT 94 (3rd College Ed. 1994)
2016	WEBSTER'S II NEW COLLEGE DICTIONARY (2001)

2017	Disclosure of Dr. Eric Bretschneider in Compliance with P.R. 4-3(B), <i>Optronic Sciences LLC v. BOE Tech. Group. Co., Ltd.</i> , No. 2:23-cv-005549-JRG (E.D. Tex.).
2018	Exhibit 9 from the Deposition of Dr. Baker, <i>IPR2024-01130, IPR2024-01133, IPR2024-01134</i> , Volume 1.
2019	Exhibit 10 from the Deposition of Dr. Baker, <i>IPR2024-01130, IPR2024-01133, IPR2024-01134</i> , Volume 1.
2020	Exhibit 11 from the Deposition of Dr. Baker, <i>IPR2024-01130, IPR2024-01133, IPR2024-01134</i> , Volume 1.
2021	<i>Solid-State Lighting Research and Development Multi-Year Program Plan</i> , U.S. DEPARTMENT OF ENERGY (Apr. 2013).
2022	Part 1 of Video Excerpt from April 2, 2025, Deposition Transcript of Dr. Jacob Baker, <i>IPR2024-01130, IPR2024-01133, IPR2024-01134</i> , Volume 1.
2023	Part 2 of Video Excerpt from April 2, 2025, Deposition Transcript of Dr. Jacob Baker, <i>IPR2024-01130, IPR2024-01133, IPR2024-01134</i> , Volume 1.
2024	Part 3 of Video Excerpt from April 2, 2025, Deposition Transcript of Dr. Jacob Baker, <i>IPR2024-01130, IPR2024-01133, IPR2024-01134</i> , Volume 1.
2025	Part 4 of Video Excerpt from April 2, 2025, Deposition Transcript of Dr. Jacob Baker, <i>IPR2024-01130, IPR2024-01133, IPR2024-01134</i> , Volume 1.
2026	Declaration of Dr. Eric Bretschneider in support of Patent Owner's Response ("Bretschneider Decl.").
2027	<i>Curriculum vitae</i> of Dr. Eric Bretschneider.
2028	April 2, 2025, Deposition Transcript of Dr. Jacob Baker, <i>IPR2024-01130, IPR2024-01133, IPR2024-01134</i> , Volume 1.
2029	April 3, 2025, Deposition Transcript of Dr. Jacob Baker, <i>IPR2024-01130, IPR2024-01133, IPR2024-01134</i> , Volume 2.

I. INTRODUCTION

Patent Owner moves 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 (Ex. 1003). This exhibit should be excluded because Dr. Baker is not a POSITA and because Dr. Baker's opinion is not "the product of reliable principles and methods" and does not reflect "a reliable application of the principles and methods to the facts of the case" as required by Fed. R. Evid. 702(c) and 702(d), respectively.

Further, because Dr. Baker's testimony is riddled with inconsistencies, the Board should not only exclude his testimony but further terminate this proceeding under *Interactive Communications International, Inc. v. Blackhawk Network Inc.*, IPR2024-00465, Paper 39 (PTAB Oct. 1, 2025). There, Director Squires terminated the proceeding in view of "expert testimony that has multiple material contradictions and . . . lacked credibility at least in certain respects." *Id.* at 3. As explained below and at length in Patent Owner's Response and Sur-Reply, Dr. Baker's testimony similarly contains numerous material contradictions and lacks credibility. *See* Paper 24 ("POR") at 14–18; Paper 31 ("PO Sur-Reply") at 5–7.

II. ARGUMENT

Dr. Baker is not a POSITA and his declaration is irrelevant as a matter of law. "[T]o be qualified to offer expert testimony on issues from the vantage point of an

ordinarily skilled artisan in a patent case, an expert must at a minimum possess ordinary skill in the art.” *Kyocera Senco Indus. Tools Inc. v. Int’l Trade Comm’n*, 22 F.4th 1369, 1377-78 (Fed. Cir. 2022); see *Billerud Aktiebolag (Publ) v. Westrock MWV, LLC*, IPR2023-01206, Paper 60 at 10, 61 (PTAB Mar. 12, 2025) (excluding expert testimony because “although [the witness had] a Master’s of Science in chemical engineering, he lack[ed] any experience or specialization in paperboard manufacturing” as required by the Board’s definition of a POSITA). Further, Dr. Baker’s declarations are not the product of reliable principles or methods as applied to the facts of the case because he 1) misunderstood the novelty and benefits of the ’509 Patent and 2) was caught in the act of hindsight, working backwards with the claims as a guide for how to combine references. As a result of his misunderstanding, Dr. Baker presents theories of obviousness that a POSITA would not have made.

A. Dr. Baker is Not a POSITA

Dr. Baker is not a POSITA for the ’509 Patent. As explained in Patent Owner’s Response, Dr. Baker expanded the proper definition of a POSITA to fit his background. POR at 1, 10–12. A POSITA for the ’509 Patent would have had experience with panel displays—particularly the design and manufacture of LED or OLED pixel technology. *Id.* at 10. Thus, Patent Owner proposed, based on Dr.

Bretschneider's opinion, that a POSITA "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." *Id.*

Dr. Baker is not a POSITA because he does not have experience in the design and manufacture of LED or OLED pixels for flat panel displays. As explained by Dr. Bretschneider, "LED and OLED pixel design is a sophisticated technology, and requires a deep technical understanding in areas unique to LEDs, OLEDs, and displays." PO Sur-Reply at 3 (quoting Ex. 2026, ¶¶ 60). The '509 Patent itself notes that the field of invention relates to "a pixel structure and particularly relates to a pixel structure capable of improving the overall luminous uniformity of a display panel." Ex. 1001, 1:17–20. Dr. Bretschneider has "over 30 years of experience with LEDs, displays, lighting fixtures, and lighting," including the design of flat panel displays like that of the '509 Patent. Ex. 2026, ¶¶ 10, 9–30; *see* Ex. 2027. Dr. Baker does not.

At deposition, Dr. Baker identified his closest experience as his work at Cirque, Inc., but the experience he highlighted in his CV was about capacitive touch technology, not the design of LEDs or OLEDs in display panels. *See* POR at 10–11

(citing Ex. 2028, 37:19–38:3; Ex. 1003, p. 113). Similarly, Dr. Baker's work at Micron and with CRTs is not relevant to LED or OLED pixel design. POR at 11.

Accordingly, Dr. Baker is not a POSITA because he does not have at least two years of (or any) professional experience related to the design and manufacture of LED or OLED pixels for flat panel displays, and his opinions should be excluded entirely.

B. Dr. Baker's Hindsight on the Record is Excluded by FRE 702(c)

Dr. Baker's testimony is unreliable and should be excluded under Fed. R. Evid. 702(c). Dr. Baker openly and impermissibly relies on hindsight to reconstruct the language of the claims. *See Sensonics, Inc. v. Aerosonic Corp.*, 81 F.3d 1566, 1570 (Fed. Cir. 1999) (“To draw on hindsight . . . is to use the invention as a template for its own reconstruction—an illogical and inappropriate process by which to determine patentability”). As identified in the POR, for example, Dr. Baker demonstrates reliance on hindsight on the record and could not reconstruct the claims without reliance on hindsight, even after spending 115 hours reviewing the prior art. POR at 12–13, 12–21.

Patent Owner identified numerous instances where Dr. Baker was caught looking at the language of the claims and working backwards, even after spending 115 hours analyzing the prior art and thoroughly concocting his theories. *See, e.g.*,

Ex. 2022, 5:04–5:45, 6:55–7:12; Ex. 2023, 1:28–39; Ex. 2024, 8:23–30; PO Sur-Reply at 4–5; POR at 20–21; Ex. 2028, 197:2–14, 206:16, 206:20–12, 208:3–25, 212:3–15; Ex. 2029, 294:19–296:25.

This is not a case where he merely initially looked at the claim to gain an understanding of what technology was at issue. He tried to perform a modification based on the teachings of the prior art, admitted that “I’m doing something wrong here” in making his modification after realizing that his modification would not work, and then said, “Hold on, let me look at the claim language” to figure out how to fix it. Ex. 2028 at 206:5–25. That Dr. Baker had to resort to reconstructing his theories based on the claim language as a guide for fixing “something wrong” with his combination despite a thorough and lengthy analysis is an explicit example of impermissible hindsight on the record. His opinions formed using an improper hindsight methodology should be excluded under Fed. R. Evid. 702(c)–(d).

C. Dr. Baker’s Contradictory Positions Should Result in Exclusion or Termination

The Board should terminate this proceeding due to Dr. Baker’s materially contradictory testimony, or at a minimum, exclude his testimony under Fed. R. Evid. 702(c) as unreliable. *Interactive Communications v. Blackhawk Network*, IPR2024-00465, Paper 39.

As explained in depth in Patent Owner's Response and Sur-Reply, Dr. Baker repeatedly and emphatically testified that a "POSITA is not a person that is changing the process" in order to avoid the much simpler, significantly more obvious (and non-invalidating) modification of widening/thickening the power bus to reduce resistance. POR at 14–17; 140:14–142:24; *but see id.* at 137:12–138:10 ("would a POSITA who had the Weaver reference have the ability to modify the process? . . . THE WITNESS: I don't know. . . . that's not relevant"). But then, when it came to combining prior art, Dr. Baker proposed modifications that require changing the process. POR at 14–17; Ex. 2028, 139:22–140:2, 137:15–22; Petition at 33, 37. Dr. Bretschneider, who qualifies as a POSITA (and further holds a PhD in Chemical Engineering), identified the exact changes to the fabrication process needed to make the modifications suggested by Dr. Baker. *See, e.g.*, Ex. 2026 at ¶¶ 113–114 (a "POSITA understood that via 428 would have been made with etching and that bus line 430 is an etch stop—this means the etch process stops at the material of bus line 430 and cannot etch into bus line 430. If a POSITA wanted to extend via 428 through bus line 430, as the modified figure above shows, the POSITA would have had to change the process to create the via 428 through bus line 430, shown in the modified figure above."), ¶¶ 25–26, 112–115, 131–133, 137, 153, 160; PO Sur-Reply at 14.

Accordingly, Dr. Baker's pervasive inconsistencies surrounding what a person of ordinary skill in the art would or would not be able to do exposes his unreliable testimony, which should be excluded under Fed. R. Evid. 702(c). Such inconsistencies create grounds for termination of this proceeding under *Interactive Communications v. Blackhawk Network*, IPR2024-00465, Paper 39 at 3 (Director Squires terminating the proceeding because the Board "abused its discretion by improperly crediting expert testimony that has multiple material contradictions and . . . lacked credibility at least in certain respects.").

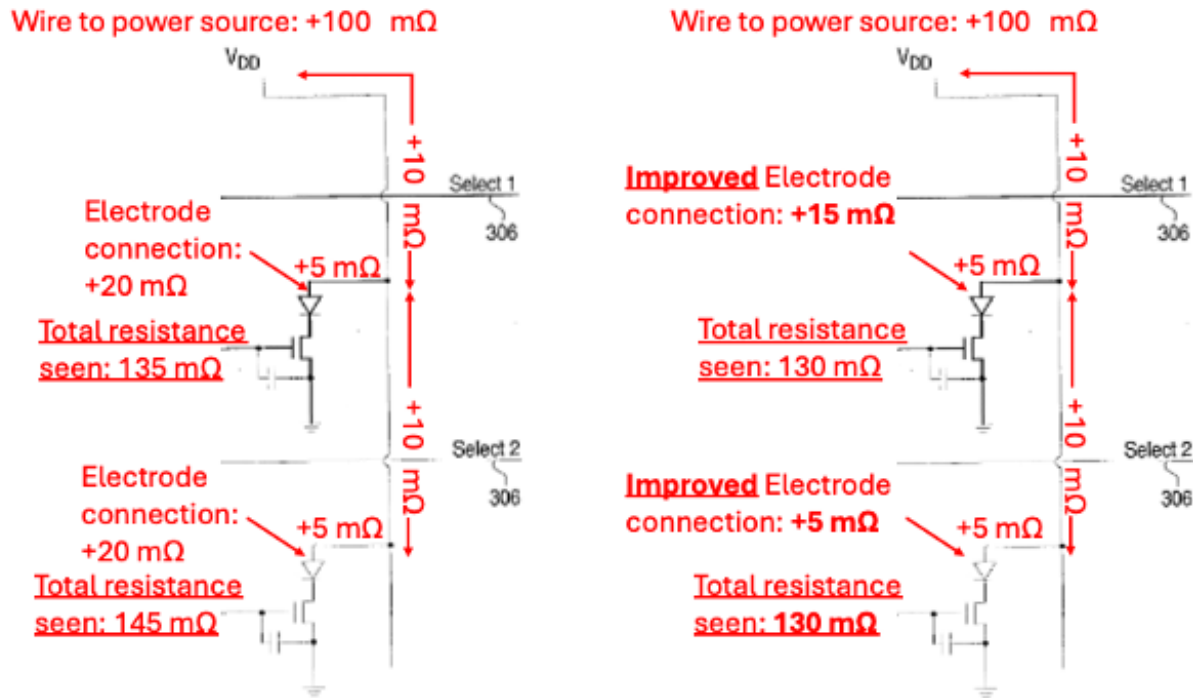
D. Dr. Baker Fundamentally Misunderstood the Technology

1. The '509 Patent Allows for Improvements to the Overall Luminous Uniformity of a Display Panel

The '509 Patent discloses a "pixel structure capable of improving the overall luminous uniformity of a display panel." Ex. 1001, 1:18–19. The '509 Patent proposes a novel way to improve the *overall luminous uniformity* of the display panel by coordinating "the first electrode layer of the light emitting device with the auxiliary electrode decreases the resistance of the first electrode layer through parallel connection, so as to significantly reduce the total resistance of the pixel structure." Ex. 1001, 2:17–23. In other words, the electrode structure can be uniquely adjusted at each individual pixel to reduce the resistance of that pixel, to counterbalance the increased parasitic resistance of longer wires of a pixel array,

thereby “improving the overall luminous uniformity of the display panel.” Ex. 1001 at 2:15–23. It is not an adjusting of the wires or connections that lead up to each electrode in the pixels, as this does not solve the problem of overall luminous uniformity; it is the reduction of pixel resistance to counterbalance increased parasitic resistance.

Consider the following example. The left side shows a traditional diode array, where each diode is identical such that farther diodes have more resistance (135 m Ω or 145 m Ω) to the power supply. Because voltage drops with resistance, the farthest diode will appear slightly dimmer. The right side shows the use of improved electrode connections, counterbalancing the increase in wiring resistance, such that all diodes see 130 m Ω of resistance to the power source and appear equally bright. None of the prior art gets at this idea.



Based on excerpt of Ex. 1004 at Fig. 3; annotated in Red; values made up for convenience

2. Dr. Baker Premised His Analysis on Reducing the Resistance To the Pixel Structure, Which Would Not Improve Luminous Uniformity

Dr. Baker did not grasp this concept before his deposition—not until he was asked leading questions that corrected his understanding. This is seen in pages 91–92 of his deposition transcript. First, Dr. Baker properly acknowledges the problem of voltage drop along a power line (for example, voltage dropping from $[5]^1$ to 4.9 to 4.8), causing progressive shading or color changing in LEDs. Ex. 2028 at 91:3–16. But then when asked “would uniformity improve if you were to lower the

¹ Ex. 2028 at 92:22–25.

resistance to all of those pixels,” he gave the wrong answer and revealed his misunderstanding. *Id.* at 91:20–92:8 (“That’s what’s taught in the patent. . . . I don’t know; that’s not an opinion I’ve formed.”). He lacked a fundamental understanding of how the technology worked to achieve improved uniformity.

Leading, follow up questions by Patent Owner’s counsel caused Dr. Baker to recognize and correct his initial misunderstanding. *Id.* at 92:10–94:23. Eventually, Dr. Baker realized the correct answer using a lightbulb analogy. *Id.* at 93:15–95:3. Dr. Baker reasoned:

If I place a light socket directly next to my breaker box and the length of wire that I run to power that light socket is short, then the resisted drop across that wire will be small – smaller than if I put a light socket a few hundred feet away from the breaker box so that there’s a voltage drop across the wire, that few hundred feet, it’s larger than the one at 2 feet. And the result would be that the lightbulb right next to the breaker box is brighter than the lightbulb that’s a few hundred feet away.

Id. at 93:19–94:4. Dr. Baker eventually recognized:

Q So what resistance would you reduce in the lightbulb example to achieve uniform brightness?

A You could reduce the resistance of the wire, for the long run, the 200-foot run, to and try to match it to the resistance of the wire for the 2-foot run.

Id. at 94:24–95:3. This was a recognition that his initial answer about lowering the resistance to **all** pixels to achieve uniformity was wrong; his later corrected answer is to reduce the resistance to the farther lightbulb.

This fundamental misunderstanding of the technology pervades Dr. Baker's opinions. Before this revelation, he could not, in Figure 1, identify the subpart where resistance is reduced when asked. Ex. 2028 at 79:7–23, 80:12–81:10. He could not give a direct answer regarding where to measure the reduced resistance in Figure 2 and instead gave a rambling, nonresponsive answer. *Id.* at 81:11–82:9. This fundamental inability to identify the correct resistance being reduced prevents him from understanding where the “electrode” is in the pixel and how that is different from common connections leading up to the electrodes—a fundamental claim construction issue.

A POSITA could not have given informed, accurate opinions before understanding the basic electrical principles that allow for achieving improved uniformity described in the patent. Because Dr. Baker fundamentally misunderstood the technology of the '509 Patent, his initial declaration (Ex. 1003) is not “the product of reliable principles and methods” and does not reflect “a reliable application of the principles and methods to the facts of the case” as required by Fed. R. Evid. 702(c) and 702(d), respectively.

III. CONCLUSION

Accordingly, Patent Owner requests that the Board exclude Exhibits 1003 and 1020 from consideration because Dr. Baker is not a POSITA and because his opinions are not reliable as required by Fed. R. Evid. 702(c) and 702(d), or in the alternative, terminate this IPR under *Interactive Communications v. Blackhawk Network*, IPR2024-00465, Paper 39.

Date: October 8, 2025

Respectfully submitted,

/ Qi Tong /

Qi Tong (Reg. No. 74,292)
RUSS AUGUST & KABAT
8080 N. Central Expy, Suite 1503
Dallas, TX 75206
(310) 826-7474

Attorney for Patent Owner

CERTIFICATION REGARDING PAGE COUNT

Pursuant to 37 C.F.R. §42.24(d), Patent Owner hereby certifies that there are under 15 pages in this motion. 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 37 C.F.R. § 42.24(a)(1).

Date: October 8, 2025

/ Qi Tong /

Qi Tong (Reg. No. 74,292)
RUSS AUGUST & KABAT
8080 N. Central Expy., Suite 1503
Dallas, TX 75206
(310) 826-7474

Attorney for Patent Owner

CERTIFICATE OF SERVICE (37 C.F.R. § 42.6(e)(1))

The undersigned hereby certifies that the above document was served on October 8, 2025, by filing this document through the Patent Trial and Appeal Board End to End system as well as delivering a copy via electronic mail upon the following attorneys of record for the Petitioner:

Alan A. Limbach
alan.limbach@us.dlapiper.com
Brian Erickson
Brian.erickson@us.dlapiper.com
Michael Saulnier
Michael.saulnier@us.dlapiper.com
Zachary Loney
Zachary.Loney@us.dlapiper.com
Peiyao Zhang
Peiyao.Zhang@us.dlapiper.com
dla-boe-optronicsciences-IPR@us.dlapiper.com

Date: October 8, 2025

/ Qi Tong /

Qi Tong (Reg. No. 74,292)
RUSS AUGUST & KABAT
8080 N. Central Expy, Suite 1503
Dallas, TX 75206
(310) 826-7474

Attorney for Patent Owner