

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 OPPOSITION TO
PETITIONER'S MOTION TO EXCLUDE EVIDENCE (PAPER 59)**

Table of Contents

I.	INTRODUCTION	1
II.	EX2008, ¶¶136, 138–144 SHOULD NOT BE EXCLUDED....	3
III.	EX2018 SHOULD NOT BE EXCLUDED.....	5
IV.	EX2021–EX2023 SHOULD NOT BE EXCLUDED	6
V.	EX2024–EX2025 SHOULD NOT BE EXCLUDED	7
VI.	EX2026–EX2042 SHOULD NOT BE EXCLUDED	9
VII.	EX2043 SHOULD NOT BE EXCLUDED.....	10
VIII.	EX2047 SHOULD NOT BE EXCLUDED.....	11
IX.	EX2049 SHOULD NOT BE EXCLUDED.....	12
X.	EX2051–EX2052 SHOULD NOT BE EXCLUDED	13
XI.	EX2054 SHOULD NOT BE EXCLUDED.....	14
XII.	CONCLUSION	15

TABLE OF AUTHORITIES

	Page(s)
Cases	
<i>Advanced Display Sys., Inc. v. Kent State Univ.</i> , 212 F.3d 1272 (Fed. Cir. 2000)	2, 8
<i>Advanced Micro Devices, Inc. v. Aquila Innovations, Inc.</i> , IPR2019-01526, Paper 37 (PTAB March 10, 2021)	7, 9, 11
<i>Alaska Fuel Distrib. Inc. v. Flac Shack Inc.</i> , IPR2019-00995, Paper 32 (PTAB Oct. 15, 2020).....	6, 8, 9
<i>Analog Devices, Inc. v. Xilinx, Inc.</i> , IPR2020-01606, Paper 63 (PTAB Apr. 20, 2022)	6
<i>Ashworth Bros., Inc. v. Laitram, LLC</i> , IPR2020-00593, Paper 63 (PTAB Aug. 23, 2021).....	5
<i>Banerji v. Leggett & Platt, Inc.</i> , 2016 WL 11759104 (C.D. Cal. Dec. 21, 2016).....	4, 10
<i>Daubert v. Merrell Dow Pharms., Inc.</i> , 509 U.S. 579 (1993).....	3
<i>Edwards Lifesciences Corp. v. Aortic Innovations, Inc.</i> , IPR2021-01527, Paper 51 (PTAB Feb. 10, 2023)	12
<i>EMC Corp. v. Personal Web Techs., LLC</i> , IPR2013-00085, Paper 73 (PTAB May 15, 2014)	13
<i>Fox Factory, Inc. v. SRAM, LLC</i> , IPR2017-00472, Paper 64 (PTAB Apr. 18, 2018)	<i>passim</i>
<i>Graham v. John Deere Co. of Kansas City</i> , 383 U.S. 1 (1996).....	2
<i>Int’l Land Acquisitions, Inc. v. Fausto</i> , 39 F. App’x 751 (3d Cir. 2002).....	14
<i>Kyocera Senco Indus. Tools Inc. v. Int’l. Trade Comm’n.</i> , 22 F.4th 1369 (Fed. Cir. 2022)	15

<i>L'Oréal USA, Inc. v. Liqwd, Inc.</i> , PGR2018-00025, Paper 78 (PTAB July 30, 2019)	8
<i>Liqwd, Inc. v. L'Oreal USA, Inc.</i> , 941 F.3d 1133 (Fed. Cir. 2019)	2, 5
<i>Luxshare Precision Indus. Co., Ltd. v. Bing Xu Precision Co., Ltd.</i> , IPR2017-01657, Paper 47 (PTAB Jan. 10, 2019).....	6
<i>Marinus Pharms., Inc. v. Ovid Therapeutics, Inc.</i> , PGR2023-00020, Paper 42 (PTAB Aug. 1, 2024)	3
<i>Med-El Elektromedizinische Gerate GES.M.B.H. v. Advanced Bionics AG</i> , IPR2020-00190, Paper 45 (PTAB June 2, 2021).....	7
<i>Medtronic, Inc. v. Teleflex Life Scis. Ltd.</i> , IPR2020-01344, Paper 69 (PTAB Feb. 23, 2022)	5
<i>Merck Sharp & Dohme Corp. v. Pfizer, Inc.</i> , IPR2017-02131, Paper 59 (PTAB March 13, 2019).....	13
<i>Mylan Pharms. Inc. v. Regeneron Pharms. Inc.</i> , IPR2021-00880, Paper 89 (PTAB Nov. 9, 2022).....	11
<i>New World Med., Inc. v. Microsurgical Tech., Inc.</i> , IPR2020-01573, Paper 63 (PTAB Feb. 16, 2022)	1
<i>OddzOn Prods., Inc. v. Just Toys, Inc.</i> , 122 F.3d 1396 (Fed. Cir. 1997)	2
<i>Paragon 28, Inc. v. Wright Med. Tech., Inc.</i> , IPR2019-00894, Paper 41 (PTAB Sept. 23, 2020)	1, 11
<i>Polygroup Ltd. v. Willis Elec. Co., Ltd.</i> , IPR2016-01610, Paper 187 (PTAB Feb. 26, 2018)	5, 13
<i>RTI Surgical, Inc. v. Lifenet Health</i> , IPR2019-00571, Paper 79 (PTAB Aug. 4, 2020).....	5
<i>Tekni-Plex, Inc. v. Converter Mfg., LLC</i> , IPR2021-00919, Paper 77 (PTAB Oct. 20, 2022).....	9, 10

<i>U.S. v. Jones</i> , 29 F.3d 1549 (11th Cir. 1994)	14
<i>U.S. v. Lizarrago-Tirado</i> , 789 F.3d 1107 (9th Cir. 2015)	12
<i>Valve Corp. v. Ironburg Inventions Ltd.</i> , 8 F.4th 1364 (Fed. Cir. 2021)	6
<i>Volvo Penta of the Ams., LLC v. Brunswick Corp.</i> , 81 F.4th 1202 (Fed. Cir. 2023)	10, 13
<i>WBIP, LLC v. Kohler Co.</i> , 829 F.3d 1317 (Fed. Cir. 2016)	4, 5, 7
<i>Yita LLC v. MacNiel IP LLC</i> , IPR2020-01139, Paper 82 (Apr. 15, 2022).....	5
Other Authorities	
37 C.F.R. § 42.6, I.....	17
37 C.F.R. §§ 42.20(c), 42.62(a).....	1
37 C.F.R. § 42.64(b)(2).....	14
FRE 401	7
FRE 403	<i>passim</i>
FRE 403 and 703	4
FRE 803(16).....	13
Rule 703	3
Rule 902(6)	12

Table of Exhibits

Exhibit	Description
Ex.2001	Certified File History for U.S. Patent No. 7,414,599
Ex.2002	U.S. Patent Publication No. 2004/0041750 (“Abe”)
Ex.2003	U.S. Patent Publication No. 2004/0145547 (“Oh”)
Ex.2004	Digital Integrated Circuits, A Design Perspective 2nd ed. (2003)
Ex.2005	Claim Construction Order, Inv. No. 337-TA-1351
Ex.2006	Declaration of Jared Frisch
Ex.2007	Declaration of Derek Andros
Ex.2008	[PROTECTIVE ORDER MATERIAL – NCT INFORMATION] Declaration of Andrew Wolfe, Ph.D.
Ex.2009	Replay the Display, <i>Mass Production of AMOLED – Samsung’s Dramatic Success That Changed the History of Displays</i> , Samsung Display Newsroom (Feb. 17, 2003) (https://global.samsungdisplay.com/31098)
Ex.2010	Society of Information Display, <i>Mobile Displays Technology and Applications</i> (Achintya K. Bhowmik et al.) (2008)
Ex.2011	Dawson et al., <i>Design of an Improved Pixel for a Polysilicon Active-Matrix Organic LED Display</i> , Society of Information Display (1998)
Ex.2012	Akimoto et al., <i>An Innovative Pixel-Driving Scheme for 64-Level Grey-Scale Full-Color Active Matrix OLED Displays</i> , Society of Information Display (2002)
Ex.2013	Shirasaki et al., <i>Full Color Polymer OLED Display Driven by a-Si:H TFT Utilizing a New Current-Programmed Method</i> , International Display Workshop (2003)

Exhibit	Description
Ex.2014	Chih-Lung, Lin, <i>Pixel Circuit with High Immunity to the Degradation of TFTs and OLED for AMOLED Displays</i> , IMD/IDMC/ASIA Display Digest (2008)
Ex.2015	Yoo et. al., <i>302-ppi High-Resolution AMOLED using Laser-Induced Thermal Imaging</i> , Society of Information Display (2005)
Ex.2016	Yoon Jeong-hyun, <i>Samsung Display Achieves the Highest Definition Quality With Tenacity. Full HD AMOLED “Revolution,”</i> BIZ Insight (2013) (including certified English translation)
Ex.2017	Sung-eun Kim, <i>Climbing Mt. Fuji on Handstand?</i> (including certified English translation)
Ex.2018	[PROTECTIVE ORDER MATERIAL – NCT INFORMATION] Samsung Galaxy S21 AMOLED Display Claim Chart
Ex.2019	[PROTECTIVE ORDER MATERIAL – NCT INFORMATION] Samsung Display Galaxy S21 Circuit PDR (including certified English translation)
Ex.2020	Teardown Photos of Samsung Galaxy S21 Product
Ex.2021	Baek Byung-yuel, <i>Professor Kwon Wins Top Scientist Award of 2021</i> , The Korea Times (2021)
Ex.2022	Jeon Ha-yeon, <i>Distinguished Professor Oh-Kyung Kwon, An Authority on Displays, Received the Korea’s Best Scientist and Technology Award</i> , Hanyang News Portal (2021)
Ex.2023	Sung Kyun Kwan University, <i>2016 Karl Ferdinand Braun Prize for AMOLED</i> , Society for Information Display (2016)
Ex.2024	U.S. Patent No. 9,666,132
Ex.2025	U.S. Patent No. 8,941,309

Exhibit	Description
Ex.2026	Teardown Photos of MobileSentrix Product
Ex.2027	Teardown Photos of Mengtor Product
Ex.2028	Teardown Photos of Phone LCD Parts Product
Ex.2029	Teardown Photos of Mobile Defenders Product
Ex.2030	Teardown Photos of Injured Gadgets Product
Ex.2031	Teardown Photos of Gadgetfix Product
Ex.2032	Teardown Photos of Group Vertical Product
Ex.2033	Teardown Photos of eTech Parts Plus Product
Ex.2034	Teardown Photos of Parts4Cells Product
Ex.2035	Teardown Photos of SEGMobile Product
Ex.2036	Teardown Photos of Captain Mobile Parts Product
Ex.2037	Teardown Photos of Repairs Universe Product
Ex.2038	Teardown Photos of Sourcely Plus Product
Ex.2039	Teardown Photos of Fixez Product
Ex.2040	Teardown Photos of Wholesale Gadget Parts Product
Ex.2041	Teardown Photos of Parts4LCD Product
Ex.2042	Teardown Photos of DFW Product
Ex.2043	Declaration of Aris Silzars, Ph.D.
Ex.2044	INTENTIONALLY LEFT BLANK
Ex.2045	INTENTIONALLY LEFT BLANK
Ex.2046	[PROTECTIVE ORDER MATERIAL – NCT INFORMATION] Declaration of Kwangsae Lee

Exhibit	Description
Ex.2047	<i>Samsung Display Co., Ltd. v. BOE Tech. Co., Ltd. et al.</i> , Case No. 2- 23-cv-00309, Compl. (E.D. Tex. Jun. 26, 2023)
Ex.2048	Curriculum Vitae of Andrew Wolfe, Ph.D.
Ex.2049	Study of Leakage Current in n-channel and p-channel Polycrystalline Silicon Thin-film Transistors by Conduction and Low Frequency Noise Measurements, C.T. Angelis, et. al, J. Appl. Phys. 82, 4095- 4101 (1997)
Ex.2050	Transcript of February 23, 2024 Deposition of Daniel Foty, Ph.D.
Ex.2051	Sourcely Plus AMOLED Display Claim Chart
Ex.2052	Injured Gadgets AMOLED Display Claim Chart
Ex.2053	Transcript of June 24, 2024 Deposition of Daniel Foty, Ph.D.
Ex.2054	Order No. 60: Granting Complainant’s Motion <i>In Limine</i> No. 1, Inv. No. 337-TA-1351
Ex.2055 ¹	Supplemental Declaration of Andrew Wolfe, Ph.D.

¹ Exhibit 2055 was originally served as “Exhibit 2053.” Patent Owner has renumbered the exhibit to avoid a numbering conflict.

I. INTRODUCTION

Petitioner’s Motion to Exclude Evidence (Paper 59, “Motion”) should be denied. Despite bearing “the burden of proving that ... that the material sought to be excluded is inadmissible under the Federal Rules of Evidence,” *New World Med., Inc. v. Microsurgical Tech., Inc.*, IPR2020-01573, Paper 63 at 3 (PTAB Feb. 16, 2022) (citing 37 C.F.R. §§ 42.20(c), 42.62(a)), with respect to most, if not all, exhibits, Petitioner fails to even properly articulate reasons why it contends the exhibit is purportedly inadmissible—let alone justify exclusion. Petitioner offers no supporting analysis applying the law to the substance of the exhibits.

Petitioner provides little more than boilerplate laundry lists of objections without explanation, contrary to the Consolidated Trial Practice Guide (Nov. 2019) (“TPG”) at 79 (“A motion to exclude evidence should: ... (d) Explain the basis and grounds for each objection.”). This is insufficient to meet Petitioner’s burden for excluding evidence from this proceeding. *See, e.g., Paragon 28, Inc. v. Wright Med. Tech., Inc.*, IPR2019-00894, Paper 41 at 9 (PTAB Sept. 23, 2020) (“Patent Owner’s relevancy, unfair prejudice, misleading, and hearsay objections are unsupported by any analysis at all applying the law to the substance of [the Exhibits], so these objections are not persuasive.”).

Moreover, Petitioner’s motion is based on large part on an erroneous legal premise. Throughout its motion, Petitioner contends that documents concerning

objective indicia of nonobviousness are not even relevant to this proceeding—arguing objective indicia are “collateral matters” that are “a waste of time and confuse[] the issues, which should focus on whether the prior art ... meets the claim limitations.” Motion at 10. Petitioner’s argument that the Board should exclude evidence of objective indicia in assessing Petitioner’s obviousness challenge, and deem such evidence “irrelevant,” is plainly at odds with precedent, including the Supreme Court’s framework set out in *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 36 (1996). Indeed, the Federal Circuit “has consistently held that objective indicia ‘may often be the most probative and cogent evidence of nonobviousness,’” and that “[o]bjective indicia are essential safe-guards that protect against hindsight bias.” *Liqwd, Inc. v. L’Oreal USA, Inc.*, 941 F.3d 1133, 1136–37 (Fed. Cir. 2019) (quoting *Advanced Display Sys., Inc. v. Kent State Univ.*, 212 F.3d 1272, 1285 (Fed. Cir. 2000)). Thus, evidence of objective indicia far surpasses the “low threshold for relevancy,” *OddzOn Prods., Inc. v. Just Toys, Inc.*, 122 F.3d 1396, 1407 (Fed. Cir. 1997), required by the Federal Rules of Evidence (“FRE”).

Petitioner further contends that the Board should ignore relevant evidence under FRE 403 (“Excluding Relevant Evidence for Prejudice, Confusion, Waste of Time, or Other Reasons”), raising this boilerplate objection for every exhibit in its motion. “Petitioner has offered no concrete assertion[] of prejudice,” for any of its FRE 403 arguments, so the Board may “deny the[se] request[s] on that basis alone.”

Fox Factory, Inc. v. SRAM, LLC, IPR2017-00472, Paper 64 at 59–60 (PTAB Apr. 18, 2018). Moreover, Petitioner does not and could not show there is “a danger” in considering this relevant evidence that “substantially outweigh[s]” its probative value. FRE 403. Petitioner often fails even to identify which ground under FRE 403 it claims would justify (let alone require) exclusion of a particular exhibit, let alone why. *See, e.g.*, Motion, at 7–8. Additionally, any “risks of unfair prejudice are minimal” in this proceeding “because the Board sits as a non-jury tribunal with administrative expertise, and as such is well positioned to determine and assign appropriate weight to evidence.” *Marinus Pharms., Inc. v. Ovid Therapeutics, Inc.*, PGR2023-00020, Paper 42 at 6 (PTAB Aug. 1, 2024). Finally “Petitioner has offered no concrete assertion of prejudice,” for any of its FRE 403 arguments, so the Board may “deny the[se] request[s] on that basis alone.” *Fox Factory, Inc. v. SRAM, LLC*, IPR2017-00472, Paper 64 at 59–60 (PTAB Apr. 18, 2018).

II. EX2008, ¶¶136, 138–144 SHOULD NOT BE EXCLUDED

Petitioner’s objections to paragraphs 136 and 138–144 of Dr. Wolfe’s declaration are meritless. “Rule 703 provides that expert opinions based on otherwise inadmissible hearsay are to be admitted ... if the facts or data are ‘of the type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject.’” *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 595 (1993) (quoting FRE 703). The factual information Dr. Wolfe obtained from Mr.

Ka is of the type reasonably relied on by testifying technical experts: e.g., SDC first used the patented pixel circuit in the Reigncom MP3 Player display. Ex. 2008, ¶ 136. Nor is Dr. Wolfe doing “nothing more than serv[ing] as a mouthpiece for a non-declarant,” as Petitioner asserts. Motion at 1. On the contrary, his testimony in paragraphs 136, 138, and 141–143 summarizes a conversation in which Dr. Wolfe received factual information that he used to form his own opinions (as experts commonly do).

Moreover, Petitioner had the opportunity to depose Dr. Wolfe about the substance of his conversation with Mr. Ka, but chose not to. *See, e.g., Banerji v. Leggett & Platt, Inc.*, 2016 WL 11759104, at *2 (C.D. Cal. Dec. 21, 2016) (denying motion to exclude under FRE 403 and 703; “[T]o the extent that plaintiff challenges the reliability of the information provided by the recruiters, either because Remas did not provide sufficient details regarding his conversations with the these recruiters in his report or because plaintiff questions their methodology, plaintiff could have deposed Remas to explore these issues, which he chose not to do.”).

Petitioner’s arguments that paragraphs 139–144 “waste the parties’ and the Board’s resources and time on collateral matters,” Motion at 3, is likewise incorrect. In these paragraphs Dr. Wolfe explains that the ’599 Patent is practiced by the Galaxy S21 and other successful Galaxy smartphones that garnered industry praise. This is directly relevant to nexus and praise. *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1331,

1334 (Fed. Cir 2016). It is well settled, for instance, that “[e]vidence that the industry praised a claimed invention ... weighs against an assertion that the same claim would have been obvious.” *Id.* at 1334.

III. EX2018 SHOULD NOT BE EXCLUDED

Petitioner’s objection to Exhibit 2018—a claim chart showing the Galaxy S21 practices the ’599 Patent to support Patent Owner’s objective indicia arguments—is meritless. Petitioner’s argument that the Board should not consider Exhibit 2018 because it is purportedly “unrelated to the prior art at issue” and because evidence of objective indicia of nonobviousness purportedly “wastes the parties’ and the Board’s time/resources on collateral matters,” is contrary to established precedent as explained above. *See, e.g., WBIP*, 829 F.3d at 1331 & 1334; *Liqwd*, 941 F.3d at 1136–37. Indeed, the Board routinely considers such charts as part of the nexus analysis. *See, e.g., Polygroup Ltd. v. Willis Elec. Co., Ltd.*, IPR2016-01610, Paper 187 at 10–11 (PTAB Feb. 26, 2018) (rejecting objections of relevance, prejudice, and hearsay because the “claim chart[] [is] relevant to [Patent Owner’s] secondary considerations case”); *see also Medtronic, Inc. v. Teleflex Life Scis. Ltd.*, IPR2020-01344, Paper 69 at 51 (PTAB Feb. 23, 2022) (considering claim charts as part of a nexus analysis); *Yita LLC v. MacNiel IP LLC*, IPR2020-01139, Paper 82 at 72–73 (Apr. 15, 2022) (similar); *Ashworth Bros., Inc. v. Laitram, LLC*, IPR2020-00593, Paper 63 at 65 (PTAB Aug. 23, 2021) (similar); *RTI Surgical, Inc. v. Lifenet Health*,

IPR2019-00571, Paper 79 at 47 (PTAB Aug. 4, 2020) (similar). Finally, Petitioner’s allegation that Patent Owner’s use of Exhibit 2018 “is an improper attempt to incorporate material by reference,” Motion at 4, is incorrect for the reasons explained in Patent Owner’s Opposition Petitioner’s Second Motion to Strike, Paper 47.

IV. EX2021–EX2023 SHOULD NOT BE EXCLUDED

Petitioner’s objections to Exhibits 2021–2023—which are articles praising the work of the named inventors and the ’599 Patent’s pixel circuit—are without merit. First, the exhibits are “authentic,” as they “are archived copies of ... webpages” and “are, therefore, inherently reliable.” *Analog Devices, Inc. v. Xilinx, Inc.*, IPR2020-01606, Paper 63 at 7–8 (PTAB Apr. 20, 2022) (citing *Valve Corp. v. Ironburg Inventions Ltd.*, 8 F.4th 1364, 1374–75 (Fed. Cir. 2021); *see also Luxshare Precision Indus. Co., Ltd. v. Bing Xu Precision Co., Ltd.*, IPR2017-01657, Paper 47 at 52 (PTAB Jan. 10, 2019) (“We find the indicia on the web pages and the fact that they are not offered to prove the existence of a fact on a particular date, is sufficient to rely on these web pages as authenticated.”). Further, Dr. Wolfe’s testimony as these documents’ contents, Ex.1003, ¶¶152–54, itself “is adequate to support a finding that these materials are what Patent Owner says they are.” *Alaska Fuel Distrib. Inc. v. Flac Shack Inc.*, IPR2019-00995, Paper 32 at 13 (PTAB Oct. 15, 2020). Petitioner “has not carried its burden of establishing that [any Exhibit] is inadmissible. Notably, [Petitioner] never challenged that [any Exhibit] is what it purports to be or that the

exhibit was somehow altered.” *Advanced Micro Devices, Inc. v. Aquila Innovations, Inc.*, IPR2019-01526, Paper 37 at 99 (PTAB March 10, 2021).

Exhibits 2021–2023 are also plainly relevant examples of industry praise that have a nexus to the claims. *See, e.g., WBIP*, 829 F.3d at 1334 (industry praise “weighs against an assertion that the same claim would have been obvious”). As in its Reply Brief, Paper 41, Petitioner mischaracterizes the articles as merely praise “for the inventors,” when Patent Owner and Dr. Wolfe showed the praise is specifically linked to the claimed inventions. *See* PO Response at 56–58; Ex. 2008, ¶¶ 151-155. For example, Exhibit 2022 praises Dr. Kwon’s work in developing a “pixel circuit that can compensate for the deviation in the [current] characteristics of the TFT for current control,” Ex. 2022 at 2, i.e., the pixel circuit structure claimed in the ’599 Patent. Finally, the Board should not exclude the documents as “irrelevant” simply because Petitioner seeks to dispute nexus. *See Med-El Elektromedizinische Gerate GES.M.B.H. v. Advanced Bionics AG*, IPR2020-00190, Paper 45 at 62 (PTAB June 2, 2021) (finding articles relied by patent owner to show industry praise and commercial success are relevant under FRE 401 notwithstanding a nexus dispute).

V. EX2024–EX2025 SHOULD NOT BE EXCLUDED

Petitioner’s purported relevance objection lacks merit. Exhibits 2024 and 2025 are patent filings of Mianyang BOE that demonstrate it tried to develop its own AMOLED pixel circuits before copying Patent Owner’s pixel circuits, reflecting

failures of others. *See* PO Response at 60. Patent Owner and Dr. Wolfe showed that many companies and research groups, including Petitioner Mianyang BOE, attempted but failed to develop suitable pixel circuit structures that would address the technical challenges that had caused a major bottleneck in allowing AMOLED displays to be used in mobile devices. PO Response at 48–56; Ex. 2008, ¶¶127–134. Numerous alternative pixel circuit structures were proposed—none of which, as Dr. Wolfe explains, was successfully implemented in any mass-produced AMOLED display. This includes Petitioner Mianyang BOE’s pixel circuit using 5-transistors and 1-capacitor (Ex. 2024) or 4-transistors and 1-capacitor (Ex. 2025). Far from being a “collateral issue[,]” such real-world evidence of “failure of others” is considered weighty objective evidence of non-obviousness. *See Advanced Display Sys.*, 212 F.3d at 1285 (“[E]vidence of failed attempts by others could be determinative on the issue of obviousness.”).

At best, Petitioner’s relevance objection incorrectly “attacks the merits of Patent Owner’s substantive arguments on objective indicia and does not establish an evidentiary basis” for excluding the exhibits. *Alaska*, IPR2019-00995, Paper 32 at 11; *see also L’Oréal USA, Inc. v. Liqwd, Inc.*, PGR2018-00025, Paper 78 at 87–88 (PTAB July 30, 2019) (“Petitioner contends the exhibits are being used by Patent Owner to support its allegations of copying.... Even if the exhibits relate largely to [redacted text] as Petitioner argues, that argument goes to the weight we should give

these documents on the issues of copying and praise.”). As to its FRE 403 objection, “Petitioner has offered no concrete assertion of prejudice, so [the Board should] deny this request on that basis alone.” *Fox Factory*, IPR2017-00472, Paper 64 at 59–60.

VI. EX2026–EX2042 SHOULD NOT BE EXCLUDED

Petitioner’s objections to Exhibits 2026–2042 lack merit. For authenticity, “there exists sufficient evidence to support a finding that the images ... [Dr. Wolfe] relies upon are in fact what [Dr. Wolfe] purports them to be. Specifically, the images ... were photographs taken by [Dr. Silzars] from samples he obtained from [Patent Owner’s Counsel].” *Tekni-Plex, Inc. v. Converter Mfg., LLC*, IPR2021-00919, Paper 77 at 72 (PTAB Oct. 20, 2022). “Notably, [Petitioner] never challenged that [any Exhibit] is what it purports to be or that the exhibit was somehow altered.” *Advanced Micro*, IPR2019-01526, Paper 37 at 99.

Patent Owner provided a declaration from Dr. Aris Silzars attesting that the photographs are true and accurate photographs from teardowns of AMOLED displays Dr. Silzars performed. *See* Ex. 2043. Petitioner’s speculation that “it is possible that these displays are all sourced from a small number or even a single manufacturer,” Motion at 6 (cleaned up) is not only dubious but “attacks the merits of Patent Owner’s substantive arguments on objective indicia”—e.g., seeking to question the number of entities copying the ’599 Patent—“and does not establish an evidentiary basis for excluding” the exhibits. *Alaska*, IPR2019-00995, Paper 32 at

11. Additionally, Petitioner’s assertion that Dr. Silzars purportedly “had no personal knowledge of where the products were sourced,” Motion at 7, n.3, is misleading at best. Dr. Silzar’s declaration explains he understands where the samples were purchased from. Ex. 2043, ¶2. And Petitioner chose not to depose Dr. Silzars.

Petitioner’s relevance objection is likewise misplaced. A “determination of copying [is] ‘strong evidence of nonobviousness.’” *Volvo Penta of the Ams., LLC v. Brunswick Corp.*, 81 F.4th 1202, 1213 (Fed. Cir. 2023). As for Petitioner’s objection under FRE 403, “Petitioner has offered no concrete assertion of prejudice, so [the Board should] deny this request on that basis alone.” *Fox Factory*, IPR2017-00472, Paper 64 at 59–60.

VII. EX2043 SHOULD NOT BE EXCLUDED

Petitioner’s objections to Exhibit 2043—Dr. Silzar’s declaration—are meritless. Petitioner had the opportunity to depose Dr. Silzars, where it could have explored any alleged deficiencies, but chose not to. *See Banerj*, 2016 WL 11759104, at *2 (“[T]o the extent that plaintiff challenges the reliability of the information ... plaintiff could have deposed Remas to explore these issues”). There also “exists sufficient evidence to support a finding that the images and samples [Dr. Silzars] relies upon are in fact what [Dr. Silzars] purports them to be. Specifically, the images of [the] samples were photographs taken by [Dr. Silzars] from samples he obtained himself from [counsel for Patent Owner].” *Tekni-Plex*, IPR2021-00919, Paper 77 at

72–73. If Petitioner had questions regarding the photograph’s authenticity, foundation, or completeness, it could and should have deposed Dr. Silzars.

Finally, Petitioner’s argument that “Patent Owner does not cite EX2043 at all” (Motion at 7) is misplaced; Exhibit 2043 was cited and considered by Dr. Wolfe in forming his opinions, *see* Ex. 2008, ¶159; *Mylan Pharms. Inc. v. Regeneron Pharms. Inc.*, IPR2021-00880, Paper 89 at 19 (PTAB Nov. 9, 2022) (“Exhibits 2059 ... are not cited in Patent Owner’s Preliminary Response, Response, or Sur-Reply. Nevertheless, they are cited in various Declarations of Patent Owner’s experts.... We consequently find that these Exhibits are relevant....”).

VIII. EX2047 SHOULD NOT BE EXCLUDED

Petitioner’s assortment of objections to Exhibit 2047—a district court complaint of which only discrete portions are cited for images of Petitioner Mianyang BOE’s pixel circuits that evidence copying—are all misplaced. Petitioner’s authenticity, relevance, and FRE 403 “objections are unsupported by any analysis at all applying the law to the substance of Exhibit [2047], so [are thus] not persuasive.” *Paragon*, IPR2019-00894, Paper 41 at 9.

Notably, Petitioner Mianyang BOE does not actually dispute that the photos *are* of its own display. Accordingly, as in *Advanced Micro*, Petitioner’s authenticity objections fail. IPR2019-01526, Paper 37 at 99 (“Patent Owner has not carried its burden of establishing Exhibit 1005 is inadmissible. Notably, Patent Owner never

challenged that Exhibit 1005 is what it purports to be or that the exhibit was somehow altered.”). Moreover, as Petitioner acknowledges, “Patent Owner cites EX2047 for its *images* of various pixel circuits.” Motion at 8 (emphasis added). A “photograph isn’t hearsay because it makes no ‘assertion.’ Rather, a photograph merely depicts a scene as it exists at a particular time.” *U.S. v. Lizarrago-Tirado*, 789 F.3d 1107, 1109 (9th Cir. 2015) (citations omitted). Petitioner has put forward no facts to contest that Petitioner Mianyang BOE manufactured the displays shown in the images. Moreover, the photos constitute evidence of copying by others the industry even if they were manufactured by a company other than Mianyang BOE.

IX. EX2049 SHOULD NOT BE EXCLUDED

Petitioner’s conclusory objections to Exhibit 2049 lack merit. Exhibit 2049 is a technical article regarding leakage current in NMOS and PMOS transistors “published in [a] peer-reviewed professional publication[]” i.e., the Journal of Applied Physics—an established journal that “provide[s] specific publication numbers, printing dates and publisher information, all of which are indicia understood, at least under Rule 902(6), as characteristics of self-authenticating documents,” and is thus “self-authenticating under Federal Rule of Evidence 902(6).” *Edwards Lifesciences Corp. v. Aortic Innovations, Inc.*, IPR2021-01527, Paper 51 at 11 (PTAB Feb. 10, 2023).

Petitioner’s hearsay objection is likewise incorrect. Exhibit 2049 “was offered

simply as evidence of what it described,” i.e., that a POSITA would have understood NMOS transistors are less susceptible to leakage current, “and, thus, is not hearsay.” *Merck Sharp & Dohme Corp. v. Pfizer, Inc.*, IPR2017-02131, Paper 59 at 78–79 (PTAB March 13, 2019) (citing *EMC Corp. v. Personal Web Techs., LLC*, IPR2013-00085, Paper 73 at 66 (PTAB May 15, 2014)). Further, it was published on October 15, 1997, and thus falls within the hearsay exception of FRE 803(16) in any event. Exhibit 2049 is also relevant to whether a POSITA would have modified Kimura due to differences in NMOS and PMOS transistors. *E.g.*, Ex. 2008 (Wolfe Decl.), ¶63. Petitioner’s objection under FRE 403 lacks merit, as “Petitioner has offered no concrete assertion of prejudice.” *Fox Factory*, IPR2017,00472, Paper 64 at 59–60.

X. EX2051–EX2052 SHOULD NOT BE EXCLUDED

Petitioner’s objections to Exhibits 2051 and 2052—which are claim charts prepared by Dr. Wolfe to show that others copied—are meritless. As Petitioner acknowledges, “Patent Owner cites EX2051-EX2052 ... as evidence of purported copying by others.” Motion at 10. This information is relevant, as “copying [is] ‘strong evidence of nonobviousness.’” *Volvo Penta*, 81 F.4th at 1213 (citation omitted). Petitioner’s assertion that evidence of copying is not relevant contravenes precedent. Accordingly, Petitioner’s relevance and FRE 403 arguments are misplaced. *See Polygroup*, IPR2016-01610, Paper 187 at 10–11 (rejecting Petitioner’s relevance, prejudice, and hearsay objections because “these claim charts

are relevant to [Patent Owner's] secondary considerations case").

Consistent with 37 C.F.R. § 42.64(b)(2), Patent Owner timely served a supplemental declaration from Dr. Wolfe, which is being filed concurrently with this opposition as Exhibit 2055. *See* TPG at 79 ("Supplemental evidence is not filed at the time of the objection, but simply served, and is filed only in support of an opposition to a motion to exclude."). Dr. Wolfe's supplemental declaration confirms Exhibits 2051 and 2052 are claim charts he prepared as part of his analysis, thus addressing any authentication and foundation objections.

XI. EX2054 SHOULD NOT BE EXCLUDED

Petitioner's objections to Exhibit 2054 are incorrect. As Patent Owner explained in opposing Petitioner's motion to strike this exhibit, Exhibit 2054 is a copy of a publicly accessible order from an Administrative Law Judge that Patent Owner cites not as substantive evidence, but rather as a legal ruling that is pertinent to the parties' disputes in this matter. Paper 47 at 1.

Thus, Petitioner is wrong to argue that this ALJ order is "inadmissible evidence," based on cases assessing whether legal rulings could be presented to juries or used to prove a factual matter. Motion at 11 (citing *U.S. v. Jones*, 29 F.3d 1549, 1554 (11th Cir. 1994); *Int'l Land Acquisitions, Inc. v. Fausto*, 39 F. App'x 751, 756 (3d Cir. 2002)). Here, in contrast, Patent Owner cites the ALJ order as relevant authority that the Board may consider in its legal function of assessing whether

Petitioner’s declarant qualifies as an expert. *See* Paper 58.

Petitioner’s argument that Exhibit 2054 “is a waste of time because the Board may consider Dr. Foty’s testimony regardless of EX2054” is contrary to Federal Circuit precedent holding 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.” *Kyocera Senco Indus. Tools Inc. v. Int’l. Trade Comm’n.*, 22 F.4th 1369, 1376-77 (Fed. Cir. 2022). The cases cited by Petitioner on this topic predate the Federal Circuit’s *Kyocera* opinion.

As for Petitioner’s objection under FRE 403, Petitioner again “has offered no concrete assertion of prejudice, so [the Board should] deny this request on that basis alone.” *Fox Factory*, IPR2017,00472, Paper 64 at 59–60. Petitioner’s objection that Exhibit 2054 is misleading is similarly meritless. Petitioner has not cited any support for the proposition that a legal ruling is misleading simply because it is potentially subject to further review. Nor does Petitioner explain how Exhibit 2054 confuses the issues. In any event, the probative value outweighs these unsubstantiated concerns.

XII. CONCLUSION

For the foregoing reasons, the Board should deny Petitioner’s motion to exclude evidence.

Date: August 30, 2024

Respectfully submitted,

By /David A. Garr/

David A. Garr

Registration No.: 74,932

Scott C. Weidenfeller

Registration No.: 54,531

Jared R. Frisch (*pro hac vice*)

Derek J. Andros (*pro hac vice*)

Counsel for Patent Owner

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6, I hereby certify that the foregoing Patent Owner's Opposition to Petitioner's Motion to Exclude Evidence, together with Exhibit 2055, was served by electronic mail on the following counsel of record for petitioner:

Travis Jensen (T61PTABDocket@orrick.com)
Johannes Hsu (PTABDocketJ1H1@orrick.com)
Xiang Wang (XW0PTABDocket@orrick.com)
ORRICK, HERRINGTON & SUTCLIFFE, LLP

Date: August 30, 2024

/David A. Garr/
David A. Garr
Registration No.: 74,932