

Filed on behalf of:

Patent Owner

By: Alison L. McCarthy (Lead Counsel)

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Paper No. _____

Date: April 24, 2025

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD.,
Petitioner,

v.

SIONYX, LLC,
Patent Owner.

Case IPR2024-01431
Patent 11,069,737 B2

**PATENT OWNER'S OBJECTIONS TO EVIDENCE
SUBMITTED PRIOR TO INSTITUTION**

Pursuant to 37 C.F.R. § 42.64(b)(1), and within the time period set forth therein, Patent Owner SiOnyx, LLC ("Patent Owner"), hereby submits the following objections to evidence submitted by Petitioner with the Petition (Paper 1) on September 24, 2024, Petitioner's Notice of Filing of Markman Order and Updated Exhibit List (Paper 13) filed February 6, 2025, and Petitioner's Response to Patent Owner's Supplemental Submission on Discretionary Denial (Paper 17) filed on March 20, 2025 pursuant to the Board's March 6, 2025 order (EX3001) for the reasons set forth below.

Patent Owner reserves the right to present further objections to this or additional evidence submitted by Petitioner, as allowed by the applicable rules or other authority, including without limitation upon conclusion of cross-examination of Petitioner's declarants.

1. Exhibit 1018 (Authoritative Dictionary of IEEE Standard Terms)

Patent Owner objects to Exhibit 1018 under Fed. R. Evid. 401, 402, 403, 901, 1002, 1003, and 1005. The referenced exhibit is illegible, in whole or in part, and/or incomplete. As a result, the exhibit is inadmissible. The exhibit, as presented, is further irrelevant to the issues presented and the exhibit is otherwise misleading or confusing, and its probative value, if any, is outweighed by prejudice. The exhibit has also not been properly authenticated.

2. Exhibit 1019 (Chou et al. 1996)

Patent Owner objects to Exhibit 1019 under Fed. R. Evid. 401, 402, 403, 901, 1002, 1003, and 1005. The referenced exhibit is illegible, in whole or in part, and/or incomplete. As a result, the exhibit is inadmissible. The exhibit, as presented, is further irrelevant to the issues presented and the exhibit is otherwise misleading or confusing, and its probative value, if any, is outweighed by prejudice. The exhibit also has not been properly authenticated.

3. Exhibit 1020 (May 2003)

Patent Owner objects to Exhibit 1020 under Fed. R. Evid. 401, 402, 403, 901, 1002, 1003, and 1005. The referenced exhibit is illegible, in whole or in part, and/or incomplete. As a result, the exhibit is inadmissible. The exhibit, as presented, is further irrelevant to the issues presented and the exhibit is otherwise misleading or confusing, and its probative value, if any, is outweighed by prejudice. The exhibit also has not been properly authenticated.

4. Exhibit 1026 (Gösele 1998)

Patent Owner objects to Exhibit 1026 under Fed. R. Evid. 401, 402, 403, 901, 1002, 1003, and 1005. The referenced exhibit is illegible, in whole or in part, and/or incomplete. As a result, the exhibit is inadmissible. The exhibit, as presented, is further irrelevant to the issues presented and the exhibit is otherwise

misleading or confusing, and its probative value, if any, is outweighed by prejudice. The exhibit also has not been properly authenticated.

5. Exhibit 1028 (Wolf 2004)

Patent Owner objects to Exhibit 1028 under Fed. R. Evid. 401, 402, 403, 901, 1002, 1003, and 1005. The referenced exhibit is illegible, in whole or in part, and/or incomplete. As a result, the exhibit is inadmissible. The exhibit, as presented, is further irrelevant to the issues presented and the exhibit is otherwise misleading or confusing, and its probative value, if any, is outweighed by prejudice. The exhibit also has not been properly authenticated.

6. Exhibit 1029 (Encyclopedia of Physical Science and Technology)

Patent Owner objects to Exhibit 1029 under Fed. R. Evid. 401, 402, 403, 901, 1002, 1003, and 1005. The referenced exhibit is illegible, in whole or in part, and/or incomplete. As a result, the exhibit is inadmissible. The exhibit, as presented, is further irrelevant to the issues presented and the exhibit is otherwise misleading or confusing, and its probative value, if any, is outweighed by prejudice. The exhibit also has not been properly authenticated.

7. Exhibit 1030 (Posch 2010)

Patent Owner objects to Exhibit 1030 under Fed. R. Evid. 401, 402, 403, 901, 1002, 1003, and 1005. The referenced exhibit is illegible, in whole or in part, and/or incomplete. As a result, the exhibit is inadmissible. The exhibit, as presented, is further irrelevant to the issues presented and the exhibit is otherwise misleading or confusing, and its probative value, if any, is outweighed by prejudice. The exhibit also has not been properly authenticated.

8. Exhibit 1004 (Lebby Declaration)

Patent Owner objects to specific paragraphs in Exhibit 1004 (Declaration of Dr. Michael Lebby), and any argument or testimony purporting to rely on those paragraphs, as detailed below using the following codes:

- R = Fed. R. Evid. 401, 402, 403 (Relevance; testimony on United States patent law or patent examination practice not admissible under 37 C.F.R. § 42.65(a); probative value outweighed by prejudice, confusing or misleading, cumulative, or duplicative)
- K = Fed. R. Evid. 602, 901, 1002, 1003, 1005, 1006 (Lack of personal knowledge; no foundation; inaccurate description)
- H = Fed. R. Evid. 801, 802, 805 (Hearsay)
- O = Fed. R. Evid. 701 (Improper opinion testimony)

- B = Fed. R. Evid. 702/703 (Bases/Reliability of an Expert's Opinion

Testimony; speculative; relies on improper principles and/or methodologies)

Exhibit 1004 (Paragraph(s))	Objections(s)
29	B, K, O, H, R [B] (The referenced paragraphs lack reliability because the statements fail to set forth a sufficient basis and supporting grounds and analysis for the opinions offered.); [K] (The referenced paragraphs contain statements and opinions based thereon that are outside the personal knowledge of the declarant. The referenced paragraphs also offer statements for which the declarant has not set forth facts demonstrating that the declarant had a factual foundation for the statements offered. The referenced paragraphs also contain statements that are inaccurate characterizations of references cited by the declarant.); [O] (The referenced paragraphs offer improper opinion testimony on legal/patent law principles, concepts, and rules, which are not a proper subject for opinion testimony from a scientific declarant. This also makes those statements inadmissible under 37 C.F.R. § 42.65(a). The referenced paragraphs also offer opinion testimony not sufficiently explained or documented so that the basis for the opinion offered has not been adequately disclosed, making the statements and conclusions unreliable and improper.); [H] (The referenced paragraphs contain out-of-court statements made by one or more declarants for the purpose of proving the truth of the matter asserted. To the extent the declaration relies on the assertions of others, this amounts to hearsay within hearsay.); [R] (The referenced paragraphs contain statements that are mischaracterizations/paraphrases of the support cited and insufficiently set forth the basis for the opinions offered, undermining the relevance and reliability of the testimony, making the testimony inadmissible, and rendering the probative value of the testimony outweighed by the prejudicial and

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	confusing nature of the testimony.)
31-36	B, K, O, R [B] (The referenced paragraphs lack reliability because the statements fail to set forth a sufficient basis and supporting grounds and analysis for the opinions offered.); [K] (The referenced paragraphs contain statements and opinions based thereon that are outside the personal knowledge of the declarant. The referenced paragraphs also offer statements for which the declarant has not set forth facts demonstrating that the declarant had a factual foundation for the statements offered.); [O] (The referenced paragraphs offer improper opinion testimony on legal/patent law principles, concepts, and rules, which are not a proper subject for opinion testimony from a scientific declarant. This also makes those statements inadmissible under 37 C.F.R. § 42.65(a). The referenced paragraphs also offer opinion testimony not sufficiently explained or documented so that the basis for the opinion offered has not been adequately disclosed, making the statements and conclusions unreliable and improper.); [R] (The referenced paragraphs contain statements that are mischaracterizations/paraphrases of the support cited and insufficiently set forth the basis for the opinions offered, undermining the relevance and reliability of the testimony, making the testimony inadmissible, and rendering the probative value of the testimony outweighed by the prejudicial and confusing nature of the testimony.)
37-48	B, K, O, R [B] (The referenced paragraphs lack reliability because the statements fail to set forth a sufficient basis and supporting grounds and analysis for the opinions offered.); [K] (The referenced paragraphs contain statements and opinions based thereon that are outside the personal knowledge of the declarant. The referenced paragraphs also offer statements for which the declarant has not set forth facts demonstrating that the

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49-51	B, K, O, R [B] (The referenced paragraphs lack reliability because the statements fail to set forth a sufficient basis and supporting grounds and analysis for the opinions offered.); [K] (The referenced paragraphs contain statements and opinions based thereon that are outside the personal knowledge of the declarant. The referenced paragraphs also offer statements for which the declarant has not set forth facts demonstrating that the declarant had a factual foundation for the statements offered.); [O] (The referenced paragraphs offer improper opinion testimony on legal/patent law principles, concepts, and rules, which are not a proper subject for opinion testimony from a scientific declarant. This also makes those statements inadmissible under 37 C.F.R. § 42.65(a). The referenced paragraphs also offer opinion testimony not sufficiently explained or documented so that the basis for the opinion offered has not been adequately disclosed, making the statements and conclusions unreliable and improper.);

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52-54	B, K, O, H, R [B] (The referenced paragraphs lack reliability because the statements fail to set forth a sufficient basis and supporting grounds and analysis for the opinions offered.); [K] (The referenced paragraphs contain statements and opinions based thereon that are outside the personal knowledge of the declarant. The referenced paragraphs also offer statements for which the declarant has not set forth facts demonstrating that the declarant had a factual foundation for the statements offered. The referenced paragraphs also contain statements that are inaccurate characterizations of references cited by the declarant.); [O] (The referenced paragraphs offer improper opinion testimony on legal/patent law principles, concepts, and rules, which are not a proper subject for opinion testimony from a scientific declarant. This also makes those statements inadmissible under 37 C.F.R. § 42.65(a). The referenced paragraphs also offer opinion testimony not sufficiently explained or documented so that the basis for the opinion offered has not been adequately disclosed, making the statements and conclusions unreliable and improper.); [H] (The referenced paragraphs contain out-of-court statements made by one or more declarants for the purpose of proving the truth of the matter asserted. To the extent the declaration relies on the assertions of others, this amounts to hearsay within hearsay.); [R] (The referenced paragraphs contain statements that are mischaracterizations/paraphrases of the support cited and

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55-85	B, K, O, R [B] (The referenced paragraphs lack reliability because the statements fail to set forth a sufficient basis and supporting grounds and analysis for the opinions offered.); [K] (The referenced paragraphs contain statements and opinions based thereon that are outside the personal knowledge of the declarant. The referenced paragraphs also offer statements for which the declarant has not set forth facts demonstrating that the declarant had a factual foundation for the statements offered.); [O] (The referenced paragraphs offer improper opinion testimony on legal/patent law principles, concepts, and rules, which are not a proper subject for opinion testimony from a scientific declarant. This also makes those statements inadmissible under 37 C.F.R. § 42.65(a). The referenced paragraphs also offer opinion testimony not sufficiently explained or documented so that the basis for the opinion offered has not been adequately disclosed, making the statements and conclusions unreliable and improper.); [R] (The referenced paragraphs contain statements that are mischaracterizations/paraphrases of the support cited and insufficiently set forth the basis for the opinions offered, undermining the relevance and reliability of the testimony, making the testimony inadmissible, and rendering the probative value of the testimony outweighed by the prejudicial and confusing nature of the testimony.)
86-103	B, K, O, R [B] (The referenced paragraphs lack reliability because the statements fail to set forth a sufficient basis and supporting grounds and analysis for the opinions offered.);

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104-174	B, K, O, R [B] (The referenced paragraphs lack reliability because the statements fail to set forth a sufficient basis and supporting grounds and analysis for the opinions offered.); [K] (The referenced paragraphs contain statements and opinions based thereon that are outside the personal knowledge of the declarant. The referenced paragraphs also offer statements for which the declarant has not set forth facts demonstrating that the declarant had a factual foundation for the statements offered.); [O] (The referenced paragraphs offer improper opinion testimony on legal/patent law principles, concepts, and rules, which are not a proper subject for opinion testimony from a scientific declarant. This also makes those statements inadmissible under 37 C.F.R. § 42.65(a). The referenced

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175-186	B, K, O, R [B] (The referenced paragraphs lack reliability because the statements fail to set forth a sufficient basis and supporting grounds and analysis for the opinions offered.); [K] (The referenced paragraphs contain statements and opinions based thereon that are outside the personal knowledge of the declarant. The referenced paragraphs also offer statements for which the declarant has not set forth facts demonstrating that the declarant had a factual foundation for the statements offered.); [O] (The referenced paragraphs offer improper opinion testimony on legal/patent law principles, concepts, and rules, which are not a proper subject for opinion testimony from a scientific declarant. This also makes those statements inadmissible under 37 C.F.R. § 42.65(a). The referenced paragraphs also offer opinion testimony not sufficiently explained or documented so that the basis for the opinion offered has not been adequately disclosed, making the statements and conclusions unreliable and improper.); [R] (The referenced paragraphs contain statements that are mischaracterizations/paraphrases of the support cited and insufficiently set forth the basis for the opinions offered, undermining the relevance and reliability of the testimony, making the testimony inadmissible, and rendering the probative value of the testimony outweighed by the prejudicial and

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187-222	B, K, O, R [B] (The referenced paragraphs lack reliability because the statements fail to set forth a sufficient basis and supporting grounds and analysis for the opinions offered.); [K] (The referenced paragraphs contain statements and opinions based thereon that are outside the personal knowledge of the declarant. The referenced paragraphs also offer statements for which the declarant has not set forth facts demonstrating that the declarant had a factual foundation for the statements offered.); [O] (The referenced paragraphs offer improper opinion testimony on legal/patent law principles, concepts, and rules, which are not a proper subject for opinion testimony from a scientific declarant. This also makes those statements inadmissible under 37 C.F.R. § 42.65(a). The referenced paragraphs also offer opinion testimony not sufficiently explained or documented so that the basis for the opinion offered has not been adequately disclosed, making the statements and conclusions unreliable and improper.); [R] (The referenced paragraphs contain statements that are mischaracterizations/paraphrases of the support cited and insufficiently set forth the basis for the opinions offered, undermining the relevance and reliability of the testimony, making the testimony inadmissible, and rendering the probative value of the testimony outweighed by the prejudicial and confusing nature of the testimony.)
223-230	B, K, O, R [B] (The referenced paragraphs lack reliability because the statements fail to set forth a sufficient basis and supporting grounds and analysis for the opinions offered.); [K] (The referenced paragraphs contain statements and opinions based thereon that are outside the personal knowledge of the declarant. The referenced paragraphs also offer statements for which the declarant has not set forth facts demonstrating that the

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231-259	B, K, O, R [B] (The referenced paragraphs lack reliability because the statements fail to set forth a sufficient basis and supporting grounds and analysis for the opinions offered.); [K] (The referenced paragraphs contain statements and opinions based thereon that are outside the personal knowledge of the declarant. The referenced paragraphs also offer statements for which the declarant has not set forth facts demonstrating that the declarant had a factual foundation for the statements offered.); [O] (The referenced paragraphs offer improper opinion testimony on legal/patent law principles, concepts, and rules, which are not a proper subject for opinion testimony from a scientific declarant. This also makes those statements inadmissible under 37 C.F.R. § 42.65(a). The referenced paragraphs also offer opinion testimony not sufficiently explained or documented so that the basis for the opinion offered has not been adequately disclosed, making the statements and conclusions unreliable and improper.);

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260-264	B, K, O, R [B] (The referenced paragraphs lack reliability because the statements fail to set forth a sufficient basis and supporting grounds and analysis for the opinions offered.); [K] (The referenced paragraphs contain statements and opinions based thereon that are outside the personal knowledge of the declarant. The referenced paragraphs also offer statements for which the declarant has not set forth facts demonstrating that the declarant had a factual foundation for the statements offered.); [O] (The referenced paragraphs offer improper opinion testimony on legal/patent law principles, concepts, and rules, which are not a proper subject for opinion testimony from a scientific declarant. This also makes those statements inadmissible under 37 C.F.R. § 42.65(a). The referenced paragraphs also offer opinion testimony not sufficiently explained or documented so that the basis for the opinion offered has not been adequately disclosed, making the statements and conclusions unreliable and improper.); [R] (The referenced paragraphs contain statements that are mischaracterizations/paraphrases of the support cited and insufficiently set forth the basis for the opinions offered, undermining the relevance and reliability of the testimony, making the testimony inadmissible, and rendering the probative value of the testimony outweighed by the prejudicial and confusing nature of the testimony.)
265-269	B, K, O, R [B] (The referenced paragraphs lack reliability because the

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270-290	B, K, O, R [B] (The referenced paragraphs lack reliability because the statements fail to set forth a sufficient basis and supporting grounds and analysis for the opinions offered.); [K] (The referenced paragraphs contain statements and opinions based thereon that are outside the personal knowledge of the declarant. The referenced paragraphs also offer statements for which the declarant has not set forth facts demonstrating that the declarant had a factual foundation for the statements offered.); [O] (The referenced paragraphs offer improper opinion testimony on legal/patent law principles, concepts, and rules, which are not a proper subject for opinion testimony from a

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291-293	B, K, O, R [B] (The referenced paragraphs lack reliability because the statements fail to set forth a sufficient basis and supporting grounds and analysis for the opinions offered.); [K] (The referenced paragraphs contain statements and opinions based thereon that are outside the personal knowledge of the declarant. The referenced paragraphs also offer statements for which the declarant has not set forth facts demonstrating that the declarant had a factual foundation for the statements offered.); [O] (The referenced paragraphs offer improper opinion testimony on legal/patent law principles, concepts, and rules, which are not a proper subject for opinion testimony from a scientific declarant. This also makes those statements inadmissible under 37 C.F.R. § 42.65(a). The referenced paragraphs also offer opinion testimony not sufficiently explained or documented so that the basis for the opinion offered has not been adequately disclosed, making the statements and conclusions unreliable and improper.); [R] (The referenced paragraphs contain statements that are mischaracterizations/paraphrases of the support cited and insufficiently set forth the basis for the opinions offered, undermining the relevance and reliability of the testimony,

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294-302	B, K, O, R [B] (The referenced paragraphs lack reliability because the statements fail to set forth a sufficient basis and supporting grounds and analysis for the opinions offered.); [K] (The referenced paragraphs contain statements and opinions based thereon that are outside the personal knowledge of the declarant. The referenced paragraphs also offer statements for which the declarant has not set forth facts demonstrating that the declarant had a factual foundation for the statements offered.); [O] (The referenced paragraphs offer improper opinion testimony on legal/patent law principles, concepts, and rules, which are not a proper subject for opinion testimony from a scientific declarant. This also makes those statements inadmissible under 37 C.F.R. § 42.65(a). The referenced paragraphs also offer opinion testimony not sufficiently explained or documented so that the basis for the opinion offered has not been adequately disclosed, making the statements and conclusions unreliable and improper.); [R] (The referenced paragraphs contain statements that are mischaracterizations/paraphrases of the support cited and insufficiently set forth the basis for the opinions offered, undermining the relevance and reliability of the testimony, making the testimony inadmissible, and rendering the probative value of the testimony outweighed by the prejudicial and confusing nature of the testimony.)
303-311	B, K, O, R [B] (The referenced paragraphs lack reliability because the statements fail to set forth a sufficient basis and supporting grounds and analysis for the opinions offered.); [K] (The referenced paragraphs contain statements and opinions based thereon that are outside the personal knowledge of the

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312-330	B, K, O, R [B] (The referenced paragraphs lack reliability because the statements fail to set forth a sufficient basis and supporting grounds and analysis for the opinions offered.); [K] (The referenced paragraphs contain statements and opinions based thereon that are outside the personal knowledge of the declarant. The referenced paragraphs also offer statements for which the declarant has not set forth facts demonstrating that the declarant had a factual foundation for the statements offered.); [O] (The referenced paragraphs offer improper opinion testimony on legal/patent law principles, concepts, and rules, which are not a proper subject for opinion testimony from a scientific declarant. This also makes those statements inadmissible under 37 C.F.R. § 42.65(a). The referenced paragraphs also offer opinion testimony not sufficiently explained or documented so that the basis for the opinion offered

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331-338	B, K, O, R [B] (The referenced paragraphs lack reliability because the statements fail to set forth a sufficient basis and supporting grounds and analysis for the opinions offered.); [K] (The referenced paragraphs contain statements and opinions based thereon that are outside the personal knowledge of the declarant. The referenced paragraphs also offer statements for which the declarant has not set forth facts demonstrating that the declarant had a factual foundation for the statements offered.); [O] (The referenced paragraphs offer improper opinion testimony on legal/patent law principles, concepts, and rules, which are not a proper subject for opinion testimony from a scientific declarant. This also makes those statements inadmissible under 37 C.F.R. § 42.65(a). The referenced paragraphs also offer opinion testimony not sufficiently explained or documented so that the basis for the opinion offered has not been adequately disclosed, making the statements and conclusions unreliable and improper.); [R] (The referenced paragraphs contain statements that are mischaracterizations/paraphrases of the support cited and insufficiently set forth the basis for the opinions offered, undermining the relevance and reliability of the testimony, making the testimony inadmissible, and rendering the probative value of the testimony outweighed by the prejudicial and confusing nature of the testimony.)

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339-347	B, K, O, R [B] (The referenced paragraphs lack reliability because the statements fail to set forth a sufficient basis and supporting grounds and analysis for the opinions offered.); [K] (The referenced paragraphs contain statements and opinions based thereon that are outside the personal knowledge of the declarant. The referenced paragraphs also offer statements for which the declarant has not set forth facts demonstrating that the declarant had a factual foundation for the statements offered.); [O] (The referenced paragraphs offer improper opinion testimony on legal/patent law principles, concepts, and rules, which are not a proper subject for opinion testimony from a scientific declarant. This also makes those statements inadmissible under 37 C.F.R. § 42.65(a). The referenced paragraphs also offer opinion testimony not sufficiently explained or documented so that the basis for the opinion offered has not been adequately disclosed, making the statements and conclusions unreliable and improper.); [R] (The referenced paragraphs contain statements that are mischaracterizations/paraphrases of the support cited and insufficiently set forth the basis for the opinions offered, undermining the relevance and reliability of the testimony, making the testimony inadmissible, and rendering the probative value of the testimony outweighed by the prejudicial and confusing nature of the testimony.)
348	B, K, O, R [B] (The referenced paragraphs lack reliability because the statements fail to set forth a sufficient basis and supporting grounds and analysis for the opinions offered.); [K] (The referenced paragraphs contain statements and opinions based thereon that are outside the personal knowledge of the declarant. The referenced paragraphs also offer statements for which the declarant has not set forth facts demonstrating that the declarant had a factual foundation for the statements offered.); [O] (The referenced paragraphs offer improper opinion

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Respectfully submitted,

Date: April 24, 2025

/Alison L. McCarthy/

Alison L. McCarthy (Back-up Counsel)

Registration No. 51,998

Counsel for Patent Owner

Troutman Pepper Locke LLP
125 High Street, 19th Floor
Boston, MA 02110
Tel: (617) 204-5100
Fax: (617) 204-5150
E-mail: Alison.McCarthy@Troutman.com

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), this is to certify that on this 24th day of April, 2025, I caused to be served a true and correct copy of the foregoing **PATENT OWNER'S OBJECTIONS TO EVIDENCE SUBMITTED PRIOR TO INSTITUTION** by e-mail (as agreed in the Service Information section of the Petition):

Scott C. Weidenfeller (Lead Counsel)
Reg. No. 54,531
COVINGTON & BURLING LLP
One CityCenter
850 Tenth Street, NW
Washington, DC 20001
Tel: (202) 662-5923
Fax: (202) 778-5923
Service email:
sweidenfeller@cov.com
Samsung-SiOnyx-IPR-Cov@cov.com

Counsel for Petitioner

David A. Garr (Back-up Counsel)
Reg. No. 74,932
COVINGTON & BURLING LLP
One CityCenter
850 Tenth Street, NW
Washington, DC 20001
Tel: (202) 662-5950
Fax: (202) 778-5250
Service email: dgarr@cov.com

Counsel for Petitioner

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