

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CIRRUS LOGIC, INC. and
OMNIVISION TECHNOLOGIES, INCORPORATED, and
TEXAS INSTRUMENTS INCORPORATED.

Petitioners,

v.

GREENTHREAD, LLC,
Patent Owner.

IPR2024-00018¹
U.S. Patent No. 9,190,502

PATENT OWNER'S CURRENT LIST OF EXHIBITS

¹ Texas Instruments Incorporated, which filed a petition in IPR2024-00773, has been joined as a party to this proceeding.

EXHIBIT LIST

Exhibit No.	Description	Submitted Previously
Ex. 2001	<i>Greenthread, LLC v. Intel Corp.</i> , No. 6:22-cv-00105-ADA, Dkt. 1 (Complaint) (W.D. Tex. Jan. 27, 2022)	X
Ex. 2002	Definition of “privity” in Black’s Law Dictionary (11 th ed. 2019) available from Westlaw at westlaw.com	X
Ex. 2003	<i>Greenthread, LLC v. Intel Corp.</i> , 6:22-cv-00105-ADA, Dkt. 38 (First Amended Complaint for Patent Infringement) (W.D. Tex., filed Apr. 29, 2022)	X
Ex. 2004	<i>Greenthread, LLC v. Intel Corp.</i> , No. 6:22-cv-00105-ADA, Dkt. 113 (Redacted Memorandum Opinion and Order) (W.D. Tex. Dec. 27, 2022)	X
Ex. 2005	<i>Greenthread, LLC v. Intel Corp.</i> , 6:22-cv-00105-ADA, Dkt. 38-8 (Greenthread’s Amended Preliminary Infringement Contentions) (W.D. Tex., filed Apr. 29, 2022)	X
Ex. 2006	<i>Greenthread, LLC v. Intel Corp.</i> , 6:22-cv-00105-ADA, Dkt. 38-12 (Exs. D-1, D-2, D-3, D-6 to Greenthread’s Preliminary Infringement Contentions) (W.D. Tex., filed Apr. 29, 2022)	X
Ex. 2007	<i>Greenthread, LLC v. Intel Corp.</i> , 6:22-cv-00105-ADA, Dkt. 49 (Notice of Appearance of Additional Counsel) (W.D. Tex., filed June 9, 2022)	X
Ex. 2008	Petition (Paper 1) in <i>Sony Group Corp. v. Greenthread, LLC</i> , IPR2023-00376	X

Exhibit No.	Description	Submitted Previously
Ex. 2009	<i>Greenthread, LLC v. Dell Inc.</i> , No. 6:22-cv-105-ADA, Dkt. 120 (Second Amended Complaint)	X
Ex. 2010	<i>Greenthread, LLC v. Intel Corp.</i> , 6:22-cv-00105-ADA, Dkt. 135 (Motion for Admission Pro Hac Vice of L. Popovski on Behalf of Sony) (W.D. Tex., filed January 30, 2023)	X
Ex. 2011	Email communication from Patent Owner's counsel to Petitioner's counsel dated October 20, 2023	X
Ex. 2012	Email Attachment – Cirrus Logic Technical Support Article Number 000207340	X
Ex. 2013	Email Attachment - Cirrus Logic Investor Presentation as of April 28, 2015	X
Ex. 2014	Email Attachment - GlobalFoundries 2022 Capital Markets Day, available at https://investors.gf.com/static-files/65f5f1b9-2aea-47a3-8455-10413c6560f4	X
Ex. 2015	Email Attachment - Intel RealSense Product Family D400 Series, dated 2019	X
Ex. 2016	Email communication from Petitioner's counsel to Patent Owner's counsel dated October 24, 2023	X
Ex. 2017	Email communication from Patent Owner's counsel to Board, copying Petitioner's counsel dated November 1, 2023	X
Ex. 2018	<i>Greenthread, LLC v. Cirrus Logic, Inc.</i> , No. 1:23-cv-00369 (Supplemental Preliminary Infringement Contentions) (W.D. Tex., served Oct. 13, 2023)	X
Ex. 2019	<i>Greenthread, LLC v. Cirrus Logic, Inc.</i> , No. 1:23-cv-00369, Dkt. 29 (Scheduling Order) (W.D. Tex. Aug. 18, 2023)	X

Exhibit No.	Description	Submitted Previously
Ex. 2020	Article entitled “Cirrus Logic Helps Ease PC Industry Transition to New MIPI SoundWire® Interface” available at https://investor.cirrus.com/news-and-events/investor-news/news-details/2023/Cirrus-Logic-Helps-Ease-PC-Industry-Transition-to-New-MIPI-SoundWire-Interface/default.aspx	X
Ex. 2021	<i>Greenthread, LLC v. Intel Corp.</i> , 6:22-cv-00105-ADA, Dkt. 120-8, Greenthread’s Amended Preliminary Infringement Contentions (W.D. Tex., filed Jan. 23, 2023)	X
Ex. 2022	Confidential agreement	X
Ex. 2023	CS42L42, Low Power Audio Codec with SoundWire and Audio Processing, available at https://www.cirrus.com/pubs/proBulletin/cs42l43-cs36l56-bulletin.pdf	X
Ex. 2024	Cirrus Logic Immersive PC Audio Solution, available at https://www.cirrus.com/pubs/proBulletin/cs42l43-cs36l56-bulletin.pdf	X
Ex. 2025	Cirrus Logic – What Drives Our Success, available at https://investor.cirrus.com/company-overview/what-drives-our-success/default.aspx	X
Ex. 2026	Cirrus Logic, Inc. Terms and Conditions of Sale, available at https://www.cirrus.com/legal/productterms/	X
Ex. 2027	<i>Greenthread, LLC v. OmniVision Technologies Inc.</i> ; 2:23-cv-212, Dkt. 1 (Complaint) (E.D. Tex May 10, 2023)	X
Ex. 2028	Confidential declaration	X

Exhibit No.	Description	Submitted Previously
Ex. 2029	<i>Greenthread, LLC v. OmniVision Technologies Inc.</i> , 2:23-00212, Preliminary Infringement Contentions for OmniVision Technologies Inc.	X
Ex. 2030	Deep Dive Teardown of the PlayStation VR2 CFIZVR1 VR Headset, available at https://www.techinsights.com/blog/deep-dive-teardown-playstation-vr2-cfi-zvr1-vr-headset	X
Ex. 2031	Intel RealSense Product Family D400 Series, dated September 2023	X
Ex. 2032	Confidential declaration	X
Ex. 2033	GlobalFoundries Annual Report on Form 20-F for the fiscal year ended December 31, 2022, available at https://investors.gf.com/static-files/cc73efd0-09c1-442a-b4dd-0bcb74610e31	X
Ex. 2034	Confidential agreement	X
Ex. 2035	TechInsights Report on Sony Xperia 5111	X
Ex. 2036	TechInsights Report Ad	X
Ex. 2037	Email communication from Petitioner's counsel to Patent Owner's counsel dated between January 9, 2024 through January 10, 2024	X
Ex. 2038	Email communication from Petitioner's counsel to Patent Owner's counsel dated between October 20, 2023 through October 31, 2023	X

Exhibit No.	Description	Submitted Previously
Ex. 2039	<i>Greenthread, LLC v. Intel Corp.</i> , No. 6:22-cv-00105-ADA, Dkt. 7 (summons returned executed) (W.D. Tex. Feb. 7, 2022)	X
Ex. 2040	Petition (Paper 2) in <i>Sony Group Corp. v. Greenthread, LLC</i> , IPR2023-00324	X
Ex. 2041	Petition (Paper 3) in <i>Sony Group Corp. v. Greenthread, LLC</i> , IPR2023-00325	X
Ex. 2042	Petition (Paper 1) in <i>Sony Group Corp. v. Greenthread, LLC</i> , IPR2023-00375	X
Ex. 2043	<i>Greenthread, LLC v. OmniVision Technologies Inc.</i> ; 2:23-cv-212 (OmniVision's Responses and Objections to Greenthread's Fourth Set of Common Interrogatories)	X
Ex. 2044	Email communication from Petitioner's counsel to Patent Owner's counsel dated between November 28, 2023 through December 6, 2023	X
Ex. 2045	Samsung Supplier List, dated June 8, 2022, available at https://image-us.samsung.com/SamsungUS/home/pdf/062822/2022_Supplier_List_220608_F.pdf	X
Ex. 2046	Email communication to Petitioner's counsel attaching production dated October 5, 2023	X
Ex. 2047	Email communication to Petitioner's counsel attaching production dated June 30, 2023	X
Ex. 2048	<i>Greenthread, LLC v. Samsung Electronics Co., Ltd. et al</i> , EDTX-2-19-cv-00147, Dkt. 1 (Complaint) (E.D.Tex., April 30, 2019)	X

Exhibit No.	Description	Submitted Previously
Ex. 2049	<i>Greenthread, LLC v. Samsung Electronics Co., Ltd. et al</i> , EDTX-2-19-cv-00147, Dkt. 6 (Order granting Motion for Extension of Time, and Waiver of Foreign Service Requirement) (E.D.Tex., May 31, 2019)	X
Ex. 2050	Correspondence from Patent Owner's counsel to Petitioner's counsel dated May 4, 2023	X
Ex. 2051	Webpage from DigiKey for Cirrus Logic CS35L41 (https://www.digikey.com/en/products/detail/cirrus-logic-inc/CS35L41-CWZR/16377919)	X
Ex. 2052	Webpage from DigiKey for Cirrus Logic CS40L25 (https://www.mouser.com/ProductDetail/Cirrus-Logic/CS40L25-CWZR?qs=xZ%2FP%252Ba9zWqYWfeisEtcaTA%3D%3D)	X
Ex. 2053	Webpage from Mouser for Cirrus Logic CS40L25 (https://www.mouser.com/ProductDetail/Cirrus-Logic/CS40L25-CWZR?qs=xZ%2FP%252Ba9zWqYWfeisEtcaTA%3D%3D)	X
Ex. 2054	Webpage from ArduCam for OmniVision OV9282 (https://www.arducam.com/product/ov9282-monochrome-globalshutter-camera-module-depthai-oak/)	X
Ex. 2055	Webpage from Uctronics for OmniVision OV9282 (https://www.uctronics.com/ov9282-monochrome-global-shutter-camera-module-depthai-oak.html)	X
Ex. 2056	Excerpts of the Deposition Transcript of Scott Warrick taken on June 7, 2024 along with marked Exhibits 3-5 in <i>Greenthread, LLC v. Cirrus Logic, Inc.</i> , 1:23-cv-00369-DC (W.D. Tex.)	X

Exhibit No.	Description	Submitted Previously
Ex. 2057	Declaration of Dr. Alexander Glew	X
Ex. 2058	Transcript of Deposition of Dr. Sanjay Banerjee taken on July 19, 2024	X
Ex. 2059	Excerpts from Chen, J. Y., <u>CMOS Devices and Technology for VLSI</u> , Prentice-Hall (1990)	X
Ex. 2060	U.S. Patent No. 5,384,476 (“Nishizawa”)	X
Ex. 2061	CV of Dr. Alexander Glew	X
Ex. 2062	U.S. Patent No. 8,421,195	X
Ex. 2063	U.S. Patent No. 9,190,502	X
Ex. 2064	U.S. Patent No. 11,121,222	X
Ex. 2065	U.S. Patent No. 10,510,842	X
Ex. 2066	U.S. Patent No. 11,316,014	X
Ex. 2067	File History of U.S. Patent No. 8,421,195	X
Ex. 2068	File History of U.S. Patent No. 9,190,502	X
Ex. 2069	File History of U.S. Patent No. 11,121,222	X

Exhibit No.	Description	Submitted Previously
Ex. 2070	File History of U.S. Patent No. 10,510,842	X
Ex. 2071	File History of U.S. Patent No. 11,316,014	X
Ex. 2072	Declaration of Mohan Rao	X
Ex. 2073	Statista Information	X
Ex. 2074	<i>Greenthread, LLC v. Cirrus Logic Inc.</i> , No. 1:23-cv-369-DC-DTG, Dkt. 53 (Claim Construction Order and Memorandum in Support Thereof) (W.D. Tex. Mar. 13, 2024)	X
Ex. 2075	<i>Greenthread, LLC v. Samsung Electronics Co., Ltd. Et Al.</i> , 2:19-cv-00147, Dkt. No. 67 (Claim Construction Memorandum Opinion and Order) (E.D. Tex. Apr. 20, 2020)	X
Ex. 2076	<i>Intel Corp. v. Greenthread LLC</i> , IPR2023-00420, Ex. 1003 (Dr. Blalock Declaration), Dec. 28, 2022	X
Ex. 2077	<i>Greenthread, LLC v. Cirrus Logic, Inc.</i> , No. 1:23-cv-00369-DC, Dkt. 86 (W.D. Tex. Jul. 11, 2024)	X
Ex. 2078	Transcript of Deposition of Dr. Sanjay Banerjee, taken on December 6, 2024	X
Ex. 2079	Demonstratives of Patent Owner Greenthread, LLC	X
Ex. 2080	Declaration of Terence Ng in IPR2024-00017, -00018, -00019, -00020, -00021	
Ex. 2081	Declaration of Elizabeth Leach in IPR2024-00017, -00018, -00019, -00020, -00021	

Exhibit No.	Description	Submitted Previously
Ex. 2082	Declaration of Robert Cleary Jr. in IPR2024-00017, -00018, -00019, -00020, -00021	
Ex. 2083	[SEALED] Transcript of Deposition of Terence Ng, <i>Greenthread, LLC v. Cirrus Logic Inc.</i> , IPR2024-00017, -00018, -00019, -00020, -00021, taken on July 28, 2025	
Ex. 2084	[SEALED] Transcript of Deposition of Elizabeth Leach, <i>Greenthread, LLC v. Cirrus Logic Inc.</i> , IPR2024-00017, -00018, -00019, -00020, -00021, taken on July 29, 2025	
Ex. 2085	[SEALED] Transcript of Deposition of Robert Cleary, Jr., <i>Greenthread, LLC v. Cirrus Logic Inc.</i> , IPR2024-00017, -00018, -00019, -00020, -00021, taken on July 29, 2025	

Dated: August 12, 2025

Respectfully submitted,

/Alan Whitehurst/

Alan Whitehurst
Reg. No. 43,263
awhitehurst@mckoolsmith.com
Arvind Jairam
Reg. No. 62,759
ajairam@mckoolsmith.com
MCKOOL SMITH, P.C.
1717 K St. NW, Suite 1000
Washington, DC 20006
Telephone: (202) 370-8300
Facsimile: (202) 370-8344

Scott W. Hejny
Reg. No. 45,882
shejny@mckoolsmith.com
MCKOOL SMITH, P.C.
300 Crescent Court, Suite 2100
Dallas, TX 75201
Telephone: (214) 978-4000
Facsimile: (214) 978-4044

Archis "Neil" Ozarkar
Reg. No. 71,265
nozarkar@mckoolsmith.com
McKool Smith, P.C.
600 Travis Street, Suite 600
Houston, TX 77002
Telephone: (713) 485-7300
Facsimile: (713) 485-7344

Counsel for Patent Owner

CERTIFICATION OF SERVICE

The undersigned hereby certifies that a copy of this **PATENT OWNER'S CURRENT LIST OF EXHIBITS** has been served on Petitioner electronically via email on the following counsel of record for Petitioner:

Scott Weidenfeller
sweidenfeller@cov.com
Covington & Burling LLP
One CityCenter
850 Tenth Street, NW
Washington, DC 20001-4956
Telephone: (202) 662-5923

Anupam Sharma
asharma@cov.com
Covington & Burling LLP
3000 El Camino Real,
5 Palo Alto Square,
Palo Alto, CA 94306
Telephone: (650) 632-4720

Bert Greene
bgreene@duanemorris.com
DUANE MORRIS LLP
Las Cimas IV
900 S. Capital of Texas Hwy., Suite 300
Austin, TX 78746
Telephone: (512) 277-2246

David H. Bluestone
dbluestone@beneschlaw.com
Benesch Friedlander Coplan & Aronoff LLP
71 South Wacker Drive, Suite 1600
Chicago, IL 60606 4637
Telephone: (312) 517-9564

GT-OmniVisionIPR@beneschlaw.com

GT-Cirrus-IPR@cov.com

Joshua A. Griswold
Patrick J. Bisenius
Fish & Richardson P.C.
60 South Sixth Street, Suite 3200
Minneapolis, MN 55402
griswold@fr.com
bisenius@fr.com

IPR12189-0085IP1@fr.com
PTABInbound@fr.com

Dated: August 12, 2025

By: /Alan Whitehurst/
Alan Whitehurst, Reg. No. 43,263