Filed on behalf of: Meta Platforms, Inc.

Entered: October 18, 2023

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

META PLATFORMS, INC.,
Petitioner,

v.

EIGHT KHZ, LLC,
Patent Owner.

Case IPR2023-01020
Patent 10,448,184 B1

PETITIONERS' REPLY TO THE PATENT OWNER'S PRELIMINARY RESPONSE

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1001	U.S. Patent No. 10,448,184 ("the '184 Patent")
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1004	*Curriculum Vitae* of Dr. Agnieszka Roginska
1005	U.S. Patent No. 9,690,374 ("Clement")
1006	U.S. Patent No. 9,037,468 ("Osman")
1007	U.S. Patent No. 7,876,903 ("Sauk")
1008	U.S. Patent Application Publication No. 2017/0188168 ("Lyren")
1009	U.S. Patent Application Publication No. 2018/0373412 ("Reif")
1010	U.S. Patent Application Publication No. 2011/0206209 ("Ojala")
1011	U.S. Patent No. 1,624,486 ("Fletcher")
1012	U.S. Patent No. 1,855,149 ("Jones")
1013	U.S. Patent No. 7,330,197 ("Kobayashi")
1014	U.S. Patent No. 7,710,654 ("Ashkenazi")
1015	U.S. Patent No. 8,520,872 ("Jang")
1016	U.S. Patent No. 8,520,873 ("Mahabub")
1017	U.S. Patent No. 9,041,622 ("McCulloch")
1018	U.S. Patent No. 9,367,811 ("Ramachandran")
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1027	U.S. Patent No. 10,095,031 ("Katz")
1028	File History for U.S. Patent Application 16/106,140
1029	U.S. Patent No. 10,509,466 ("Miller")
1030	U.S. Patent Application Publication No. 2012/0183161 ("Agevik")
1031	U.S. Patent Application Publication No. 2016/0124502 ("Sawyer")
1032	U.S. Patent Application Publication No. 2016/0292924 ("Balachandreswaran")
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1034	U.S. Patent Application Publication No. 2017/0115488 ("Ambrus")
1035	Korean Patent Application Publication No. KR 10-2011-0022252, including English Translation and Certification ("Moon")
1036	Christoph Anthes et al., *State of the Art of Virtual Reality Technology*, 2016 IEEE Aerospace Conf. 1-19 (Mar. 2016) ("Anthes")
1037	*Average Cost of RAM per Gigabyte Chart*, HumanProgress ("HumanProgress")
1038	Durand R. Begault, *3-D Sound for Virtual Reality and Multimedia* (NASA/TM-2000-209606) (Aug. 2000) ("Begault")
1039	Tom Emrich, *Virtual Reality North: A Look at the Major VR Players in Canada*, betakit.com (July 15, 2015), betakit.com/virtual-reality-north-a-look-at-the-major-vr-players-in-canada/ ("Emrich")
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1041	Douglas S. Brungart et al., *The Interaction Between Head-Tracker Latency, Source Duration, and Response Time in the Localization of Virtual Sound Sources*, Proc. ICAD 04- 10th Meeting Int'l Conf. Auditory Display 1-7 (July 6-9, 2004) ("Brungart 2004")
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1044	Christof Faller, *Coding of Spatial Audio Compatible with Different Playback Formats*, AES 117th Convention 1-12 (Oct. 28-31, 2004) ("Faller")
1045	Mohammad Dashti et al., *Traffic Management: A Holistic Approach to Memory Placement on NUMA Systems*, ASPLOS 1-13 (Mar. 16-20, 2013) ("Dashti")
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1048	Mats Liljedahl, *Sound for Fantasy and Freedom* in GAME SOUND TECHNOLOGY AND PLAYER INTERACTION: CONCEPTS AND DEVELOPMENTS 22 (Mark Grimshaw ed., 2011) ("Grimshaw")
1049	Eric Growney & Agnieszka Roginska, *Effect of Spatial Audio Processing on Attention Redirection and Speech Intelligibility in Multi-Talker Communication*, AES 152nd Convention 1-10 (May 2022) ("Growney")
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1055	Joel D. Miller et al., *Latency Measurements of a Real-Time Virtual Acoustic Environment Rendering System*, Proc. 2003 Int'l Conf. Auditory Display 111-114 (July 6-9, 2003) ("Miller")
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1060	Ben Kuchera, *Google Cardboard Adds 'Inexpensive' Spatial Audio to its SDK*, POLYGON (Jan. 13 2016, 12:00pm PST) ("Kuchera")
1061	Paul Sauk & Duane Satorius, *Creating a Multi-Dimensional Communication Space to Improve the Effectiveness of 3-D Audio*, IEEE Military Comm'cns Conf. 1-7 (Oct. 29-31, 2007) ("Sauk 2007")
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1063	Jaka Sodnik & Sašo Tomažič, *Spatial Auditory Human-Computer Interfaces*, SPRINGER BRIEFS COMPUT. SCI. (2015) ("Sodnik")
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1068	Elizabeth M. Wenzel et al., *Development of a Three-Dimensional Auditory Display System*, 20 SIGCHI BULL. 52 (Oct. 1988) ("Wenzel 1988a")
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1079	Stanley P. Lipshitz, *Stereo Microphone Techniques……Are the Purists Wrong?* 34 J. AUDIO ENG'G SOC'Y 716 (1986) ("Lipshitz")
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1081	U.S. Patent No. 9,787,846 ("Srinivasan")
1082	U.S. Patent Application Publication No. 2015/0094142 ("Stafford")
1083	U.S. Patent Application Publication No. 2019/0043259 ("Wang")
1084	Plaintiff's Second Supplemental Infringement Contentions, Exhibit 22, *Eight kHz, LLC v. Meta Platforms, Inc*., No. 6:22-cv-00575 (W.D. Tex. Mar. 3, 2023)
1085	Oculus Connect 5 Spatial Audio for Oculus Quest and Beyond video clips (May 12, 2023)
1086	Oculus Connect 5 Spatial Audio for Oculus Quest and Beyond video clip transcriptions (May 12, 2023)
1087	Oculus Connect 5 Keynote Day 01 video clips (May 16, 2023)
1088	Oculus Connect 5 Keynote Day 01 video clip transcriptions (May 16, 2023)

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1089	Defendants' Opening Claim Construction Brief, *Eight kHz, LLC v. Meta Platforms, Inc*., No. 6:22-cv-00575 (W.D. Tex. Apr. 12, 2023), ECF No. 83
1090	Plaintiff's Claim Construction Reply Brief, *Eight kHz, LLC v. Meta Platforms, Inc*., No. 6:22-cv-00575 (May 3, 2023), ECF No. 92
1091	Declaration of Durand R. Begault, Ph.D. in Support of Plaintiff's Reply Claim Construction Brief, *Eight kHz, LLC v. Meta Platforms, Inc*., No. 6:22-cv-00575 (W.D. Tex. May 3, 2023), ECF No. 92-7
1092	Plaintiff's Second Supplemental Infringement Contentions, Exhibit 23, *Eight kHz, LLC v. Meta Platforms, Inc*., No. 6:22-cv-00575 (W.D. Tex. Mar. 3, 2023)
1093	U.S. Patent No. 5,173,944 ("Begault '944")
1094	U.S. Patent No. 5,438,623 ("Begault '623")
1095	Deposition transcript of Durand Begault, Ph.D., *Eight kHz, LLC v. Meta Platforms, Inc*., No. 6:22-cv-00575 (W.D. Tex. May 22, 2023) ("Begault Dep.")
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1141	Defendants' Stipulation Regarding Invalidity Challenges, *Eight kHz, LLC v. Meta Platforms, Inc*., No. 6:22-cv-00575 (W.D. Tex. Oct. 17, 2023), ECF No. 149
1142	Order Resetting Markman Hearing Via Zoom, *Eight kHz, LLC v. Meta Platforms, Inc*., No. 6:22-cv-00575 (W.D. Tex. Sept. 11, 2023), ECF No. 142
1143	Order Granting Joint Motion to Amend Scheduling Order, *Eight kHz, LLC v. Meta Platforms, Inc*., No. 6:22-cv-00575 (W.D. Tex. Aug. 30, 2023), ECF No. 140

I. Institution Is Appropriate Under *Fintiv*

Petitioners have executed a stipulation pursuant to *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 at 16-19 (PTAB Dec. 1, 2020) (precedential as to § II.A), agreeing not to pursue in the parallel district court litigation the same grounds or any grounds that could have reasonably been raised before the PTAB. *See Sotera* Stipulation (Ex. 1141). Specifically, Petitioners stipulate:

> If the PTAB institutes the pending IPR in IPR2023-01020 challenging the patentability of claims 1-20 of the '184 patent, then [Defendants Meta Platforms, Inc., Meta Platforms Technologies, LLC, and Twisted Pixel Games, LLC] will not pursue as to the challenged claims any ground raised or that could have been reasonably raised in the IPR in the above-captioned district court litigation (No. 6:22-cv-00575-ADA). *See Sotera*, IPR2020-01019, Paper 12 at 16-19.

Sotera Stipulation at 3. Such a *Sotera* stipulation "mitigates any concerns of duplicative efforts between the district court and the Board, as well as concerns of potentially conflicting decisions," and the PTAB should not discretionarily deny institution in view of the parallel district court litigation given that stipulation. *Sotera*, Paper 12 at 19; *see Fintiv* Memo (Ex. 2003) at 7.

Indeed, the Director's *Fintiv* Memo instructs that "the PTAB will not discretionarily deny institution of an IPR or PGR in view of parallel district court litigation where a petitioner" provides a *Sotera* stipulation. *Fintiv* Memo at 7. It

explains that "[w]hen a petitioner stipulates not to pursue in a parallel district court proceeding the same grounds as in the petition or any grounds that could have reasonably been raised in the petition, it mitigates concerns of potentially conflicting decisions and duplicative efforts between the district court and the PTAB." *Id.* (citing *Sotera*, Paper 12 at 18-19). "With such a stipulation, if an IPR … is instituted, the grounds the PTAB resolves will differ from those present in the parallel district court litigation." *Id.*

II. Patent Owner Inaccurately Represented the District Court Schedule

In arguing that the Board should discretionarily deny institution under *Fintiv*, Patent Owner asserted that fact discovery opened on July 6, 2023 and closes on December 21, 2023. POPR at 48-52 (citing April 18, 2023 Scheduling Order (Ex. 2002)). But as of the time the POPR was filed, discovery was slated to open, and in fact opened, on October 5, 2023, and was slated to close on February 16, 2024. Ex. 1142 (setting Markman hearing for October 3, 2023); Ex. 1143 (scheduling fact discovery to open two days after the Markman hearing); POPR at 51-52.

* * *

Petitioners' *Sotera* stipulation mitigates any concerns of potentially conflicting decisions and duplicative efforts between the District Court and the PTAB. The Board should decline Patent Owner's request to deny institution under *Fintiv*.

Respectfully submitted,

Dated: October 18, 2023

By: / Inge A. Osman /

Inge A. Osman (Reg. No. 74,480)
inge.osman@lw.com
Latham & Watkins LLP
555 Eleventh Street, NW, Ste. 1000
Washington, DC 20004-1304
Telephone: 202.637.2200
Fax: 202.637.2201

Counsel for Petitioners
Meta Platforms, Inc., Meta Platforms Technologies, LLC, and Twisted Pixel Games, LLC

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), I certify that on this 18th day of October, 2023, a true and correct copy of the foregoing **Petitioners' Reply to the Patent Owner's Preliminary Response and all Exhibits** were served by electronic mail on Patent Owner's lead and backup counsel at the following email addresses:

Kevin S. Tuttle (Reg. No. 52,307)
Kyle L. Elliott (Reg. No. 39,485)
Homayoon Rafatijo (Reg. No. 80,870)
Spencer Fane LLP
1000 Walnut Street, Suite 1400
Kansas City, MO 64106
Tel: (816) 474-8100
Fax: (816) 474-3216
ktuttle@spencerfane.com
kelliott@spencerfane.com
hrafatijo@spencerfane.com

Erick S. Robinson (Reg. No. 51,354)
Patrick M. Dunn (Reg. No. 70,474)
Spencer Fane LLP
3040 Post Oak Boulevard, Suite 1300
Houston, TX 77056
Tel: (713) 212-2638
Fax: (713) 963-0859
erobinson@spencerfane.com
pdunn@spencerfane.com

By: / Inge A. Osman /

Inge A. Osman (Reg. No. 74,480)
inge.osman@lw.com
Latham & Watkins LLP
555 Eleventh Street, NW, Ste. 1000
Washington, DC 20004-1304

Telephone: 202.637.2200
Fax: 202.637.2201

Counsel for Petitioners
Meta Platforms, Inc., Meta Platforms Technologies, LLC, and Twisted Pixel Games, LLC