

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

VERANCE CORP.,
Petitioner,

v.

MZ AUDIO SCIENCES, LLC,
Patent Owner.

IPR2022-01544
Patent 7,289,961 B2

PATENT OWNER'S SUR-REPLY

TABLE OF CONTENTS

I.	PETITIONER FAILS TO DEMONSTRATE THAT THE CHALLENGED CLAIMS ARE OBVIOUS	1
A.	<i>Cabot</i> Teaches Away from the Proposed Combinations	1
B.	Petitioner Distorts the Teachings of <i>Srinivasan</i>	3
C.	Petitioner Cannot Strip Away the '961 Patent's Emphasis on Hiding Data	5
D.	Petitioner Ignores the Fact that a POSA Would Not Have Believed Petitioner's Combination Would Have Been Beneficial.....	6
E.	Petitioner's Attempts to Discredit the POR Fail.....	8
F.	Petitioner Fails to Overcome Patent Owner's Showing that <i>Kudumakis</i> Teaches Away	10
G.	Petitioner Fails to Establish <i>Hobson</i> as Analogous Art	12
i.	<i>Hobson</i> Is Not in the Same Field of Endeavor	13
ii.	<i>Hobson</i> Is Not Reasonably Pertinent to the Problem to Be Solved.....	15
H.	Petitioner's Arguments Concerning Ground 3 Fail	17
I.	Petitioner Does Not Adequately Support Its Assertions Regarding <i>Tilki</i>	18
i.	Petitioner Is Wrong About <i>Cabot</i>	20
ii.	Petitioner Again Fails to Explain How a POSA Would Implement Its Proposed Combination	20
iii.	Petitioner's "Bit Rate" Arguments Fail	24
II.	CONCLUSION.....	26

TABLE OF AUTHORITIES

Cases

<i>Adidas AG v. Nike, Inc.</i> , IPR2016-00922, Paper 31 (P.T.A.B. Feb. 19, 2019).....	5
<i>In re Bigio</i> , 381 F.3d 1320 (Fed. Cir. 2004).....	14
<i>In re Clay</i> , 966 F.2d 656 (Fed. Cir. 1992)	15, 16
<i>Schott Gemtron Corp., v. SSW Holding Co., Inc.</i> , IPR2013-00358, Paper 106 (P.T.A.B. Aug. 20, 2014).....	12
<i>Securitypoint Holdings, Inc. v. United States</i> , 129 Fed. Cl. 25 (2016)	12
<i>Unirac, Inc. v. EcoFasten Solar, Inc.</i> , IPR2021-00532, Paper 7 (P.T.A.B. July 22, 2021)	3
<i>Xerox Corp. v. Bytemark, Inc.</i> , IPR2022-00624, Paper 12 (P.T.A.B., Feb. 10, 2023).....	8

EXHIBIT LIST

Exhibit No.	Brief Description
2001	Excerpts from John Backus, <i>The Acoustical Foundations of Music</i> (2nd ed. 1977).
2002	Excerpts from Harry F. Olson, <i>Music, Physics and Engineering</i> (2nd ed. 1967).
2003	Excerpts from <i>McGraw-Hill Dictionary of Scientific and Technical Terms</i> (6th ed. 2003).
2004	Excerpts from Arthur H. Benade, <i>Fundamentals of Musical Acoustics</i> (2nd ed. 1976).
2005	Excerpts from Harvey E. White, <i>Physics and Music: The Science of Musical Sound</i> (1980).
2006	Excerpts from <i>Random House Webster's Unabridged Dictionary</i> (2nd ed. 2001).
2007	Excerpts from Glen M. Ballou, <i>Handbook for Sound Engineers</i> (3rd ed. 2002).
2008	U.S. Patent No. 6,995,521.
2009	Microsoft Word comparison of the specification text of Ex. 1005 to the specification text of U.S. Patent No. 6,504,870.
2010	Shah Mahdi Hassan, <i>Breaking down confusions over Fast Fourier Transform (FFT)</i> , Medium (Apr. 15, 2020), https://medium.com/analytics-vidhya/breaking-down-confusions-over-fast-fourier-transform-fft-1561a029b1ab (last visited July 31, 2023).
2011	Deposition transcript of Dr. Michael Scordilis dated July 28, 2023.

I. PETITIONER FAILS TO DEMONSTRATE THAT THE CHALLENGED CLAIMS ARE OBVIOUS¹

A. *Cabot* Teaches Away from the Proposed Combinations

Petitioner's attempt to summarily dismiss *Cabot's* express teachings is unavailing. As detailed in over ten pages of Patent Owner's Response, *Cabot's* teachings are diametrically opposed to Petitioner's theory that a POSA reading *Cabot* would understand that phase shifts between fundamental tones and third harmonics are inaudible and, thus, good frequency candidates to encode data via phase manipulation. (Paper 27 ("POR"), 23-33.)

Specifically, Patent Owner explained that (1) *Cabot* does not present the issue of whether the human ear can detect relative phase shifts as a settled question; (2) *Cabot's* experimental evidence showed that listeners can detect a wide variety of phase shifts; (3) Petitioner's arguments glossed over *Cabot's* ultimate conclusion that "[t]he experiment shows phase shifts of harmonic complexes to be detectable" (POR, 16.); and (4) *Cabot* tested only five study participants for their second experiment involving phase shifts of 0 to 22.5 degrees because the authors "were already satisfied that a difference could be reliably perceived." (POR, 27.). On that basis, Patent Owner argued that, while Petitioner relies on *Cabot* as purportedly teaching the inaudibility of phase shifts between a

¹ All emphasis added by Patent Owner unless indicated otherwise.

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.