

Petition for *Inter Partes* Review of
U.S. Patent No. 8,131,391 B2

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner

v.

ONE-E-WAY, INC.,
Patent Owner

Case No. IPR2021-00283
U.S. Patent No. 8,131,391 B2
Issue Date: March 6, 2012

Title: WIRELESS DIGITAL AUDIO MUSIC SYSTEM

**PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT NO. 8,131,391 B2**

Table of Contents

	Page
I. MANDATORY NOTICES UNDER §42.8(A)(1)	1
A. Real Party-In-Interest under §42.8.(b)(1).....	1
B. Related Matters under §42.8(b)(2).....	1
C. Lead and Back-Up Counsel under §42.8(b)(3).....	2
D. Service Information.....	4
II. FEE PAYMENT.....	4
III. REQUIREMENTS UNDER §§ 42.104 AND 42.108 AND CONSIDERATIONS UNDER §§ 314(A) AND 325(D).....	4
A. Grounds for Standing	4
B. Identification of Challenge and Statement of Precise Relief Requested	4
C. §314(a).....	5
D. §325(d)	7
IV. LEVEL OF ORDINARY SKILL.....	7
V. CLAIM CONSTRUCTION	7
VI. THE CHALLENGED CLAIMS ARE UNPATENTABLE.....	9
A. Summary and Date Qualification of the Prior Art.....	10
1. Ham [EX 1010].....	10
2. Sklar [EX1003]	13
3. Xia [EX1011].....	14
4. Groe [EX1009].....	15
5. Haartsen [EX1005]	15
B. Claim 4	16
1. Ground 1 (Ham, Sklar, Xia, Groe).....	17

Table of Contents
(continued)

Page

(a)	4(pre): “A portable wireless digital audio system for digital transmission of an original audio signal representation from a portable audio player to a digital audio receiver, said portable wireless digital audio system comprising:”	17
(b)	4(a): “a digital audio transmitter operatively coupled to said audio player and transmitting a unique user code with said original audio signal representation in packet format, wherein said digital audio transmitter coupled to said audio player is capable of being moved in any direction during operation, said digital audio transmitter comprising:”	19
(c)	4(b): “an encoder operative to encode said original audio signal representation to reduce intersymbol interference;”	35
(d)	4(c): “a digital modulator module configured for independent code division multiple access (CDMA) communication operation and utilizing differential phase shift keying (DPSK) to modulate said original audio signal representation;”	42
(e)	4(d): “said digital audio receiver capable of being moved in any direction during operation and in direct wireless communication with said digital audio transmitter, said digital audio receiver comprising:”	46

Table of Contents
(continued)

Page

(f)	4(e): “a direct conversion module configured to capture packets and the correct bit sequence within the packets aided by lowering signal detection error through reduced intersymbol interference coding of said audio representation signal respective to said mobile digital audio receiver and mobile said digital audio transmitter operatively coupled to said audio player, said packets embedded in the received spread spectrum signal, the captured packets corresponding to the unique user code;”	47
(g)	4(f): “a digital demodulator configured for independent CDMA communication operation;”	54
(h)	4(g): “a decoder operative to decode the applied reduced inter-symbol interference coding of said original audio signal representation;”	55
(i)	4(h): “a digital-to-analog converter generating an audio output of said original audio signal representation; and”	56
(j)	4(i): “a module adapted to reproduce said generated audio output, said audio having been wirelessly transmitted from said audio player virtually free from interference from device transmitted signals operating in the wireless digital audio system spectrum.”	57
2.	Ground 2 (Ham, Sklar, Xia, Groe, Haartsen)	60
C.	Claim 1 (Grounds 1-2)	68
(a)	1(pre): “A wireless digital audio headphone comprising;”	68
(b)	1(a): “a portable digital audio headphone receiver...;”	68
(c)	1(b): “a direct conversion module...;”	69
(d)	1(c): “a digital demodulator...;”	69

Table of Contents
(continued)

	Page
(e) 1(d) “a decoder...;”	69
(f) 1(e): “a digital-to-analog converter...; and”	70
(g) 1(f): “a module adapted to reproduce said generated audio output....”	70
D. Claim 3 (Grounds 1-2)	70
E. Claim 5 (Grounds 1-2)	70
(a) 5(pre): “A wireless digital audio receiver... comprising:”	70
(b) 5(a): “a direct conversion module...;”	71
(c) 5(b): “a digital demodulator...;”	71
(d) 5(c): “a decoder...;”	71
(e) 5(d): “a digital-to-analog converter...; and”	71
(f) 5(e): “a module adapted to reproduce said generated audio output....”	71
F. Claim 6 (Grounds 1-2)	72
(a) 6(pre): “A wireless digital audio headphone... comprising:”	72
(b) 6(a): “a mobile digital audio receiver...;”	72
(c) 6(b): “a direct conversion module...;”	72
(d) 6(c): “a digital demodulator module...;”	72
(e) 6(d): “a decoder...; and”	73
(f) 6(e): “a digital-to-analog converter...; and”	73
(g) 6(f): “a module adapted to reproduce said generated audio output....”	73
G. Claim 10 (Grounds 1-2)	73
(a) 10(pre): “A wireless digital audio headphone... comprising:”	73
(b) 10(a): “a mobile digital audio receiver...;”	73

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.