

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

**DECLARATION OF EREZ ZADOK, PH.D.
IN SUPPORT OF PETITION FOR INTER PARTES REVIEW OF
U.S. PATENT 8,504,746**

Apple 1003
IPR2016-01862

Table of Contents

I.	Introduction.....	1
II.	Qualifications.....	2
III.	My understanding of claim construction.....	8
IV.	My understanding of obviousness.....	9
V.	Level of ordinary skill in the art.....	10
VI.	Overview of the '746 Patent.....	11
VII.	Background of the technologies disclosed in the '746 patent.....	14
	A. Device emulation.....	14
	B. Hard disk interface technologies.....	20
	C. Operating systems and file systems.....	26
VIII.	Claim construction.....	30
IX.	Ground 1: The combination of Ard, Schmidt, and Webb renders claims 1, 6, 7, 8, 14, 20, 21, 30, and 34 obvious.....	31
	A. Overview of Ard.....	31
	B. Overview of Schmidt.....	33
	C. Overview of Webb.....	34
	D. The combination renders claim 1 <i>obvious</i>	35
	1. The combination discloses the “ <i>analog data acquisition device</i> ” recited in the preamble of claim 1 [1P].....	35
	a) “ <i>analog data acquisition device</i> ”.....	36
	b) computer architecture/operation component.....	37
	2. The combination discloses the analog data acquisition device architectural limitations.....	42
	a) “a program memory” [1A].....	42
	b) “an analog signal acquisition channel for receiving a signal from an analog source” [1B].....	43
	c) the “ <i>processor</i> ” limitation [1C].....	45
	3. The combination discloses the “ <i>data generation process</i> ” of claim element [1D].....	50
	a) “data generation process” [1D.1].....	51

b)	“analog data is processed and digitized” [1D.2].....	51
c)	“file system” [1D.3].....	52
4.	The combination discloses claim limitation [1E].	53
a)	“parameter indicative of the class of devices” [1E.2]	53
b)	“the processor executes at least one instruction set” [1E.1].....	56
c)	“not within the class of devices” [1E.3].	58
5.	The combination discloses claim element [1F].....	58
a)	file transfer process [1F.2]	59
b)	“at least one other instruction set” [1F.1].	60
c)	appearance of the device as part of the class of devices [1F.3]....	61
6.	The combination discloses claim limitation [1G].	61
E.	The combination renders claim 6 obvious.	66
F.	The combination renders claim 7 obvious.	67
G.	The combination renders claim 8 obvious.	68
H.	The combination renders claim 14 obvious.	69
I.	The combination renders claim 20 obvious.	70
J.	The combination renders claim 21 obvious.	74
K.	The combination renders claim 30 obvious.	75
L.	The combination renders claim 34 obvious.	77
1.	The combination discloses “[a] method for analog data acquisition and interfacing to a host device wherein the host device includes a device driver” as recited in the preamble of claim 34 [34P].....	77
2.	The combination discloses the “interfacing” step of claim 34 [34A].	78
3.	The combination discloses the “acquiring” step of claim 34 [34B].	79
4.	The combination discloses the “sending” step of claim 34 [34C].	80
5.	The combination discloses the “transferring” step of claim 34 [34D].	81
X.	Ground 2: The combination of Ard, Schmidt, and Araghi renders claims 4 and 11 obvious.	83
A.	The combination renders claim 4 obvious.	83
B.	The combination renders claim 11 obvious.	84

XI.	Ground 3: The combination of Ard, Schmidt, Webb, and Steinle renders claims 10 and 35 obvious.	87
A.	The combination renders claim 10 obvious.	87
B.	The combination renders claim 35 obvious.	90
XII.	Ground 4: The combination of Ard, Schmidt, Webb, and Reisch renders claim 23 obvious.....	91
XIII.	Adequacy of the German priority application.	96
XIV.	Conclusion.	102

I. Introduction.

I, Dr. Erez Zadok, declare as follows:

1. I have been retained on behalf of Apple Inc. for the above-captioned *inter partes* review proceeding. I understand that this proceeding involves U.S. Patent No. 8,504,746 (“the ’746 patent”) titled “Flexible Interface for Communication Between a Host and an Analog I/O Device Connected to the Interface Regardless the Type of the I/O Device” by Michael Tasler, and that the ’746 patent is currently assigned to Papst Licensing GmbH & Co. KG.

2. In preparing this declaration, I have reviewed and am familiar with all the references cited herein.

3. The ’746 patent describes an interface device that “simulates, both in terms of hardware and software, the way in which a conventional input/output device functions, preferably that of a hard disk drive.” (’746 patent, 4:14–17.) I am familiar with the technology described in the ’746 patent as of its September 27, 2010 filing date and its claimed March 4, 1997 priority date.

4. I have been asked to provide my independent technical review, analysis, insights, and opinions regarding the ’746 patent and the references that form the basis for the four grounds of rejection set forth in the Petition for *Inter Partes* Review of the ’746 patent.

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.