

1 UNITED STATES PATENT AND TRADEMARK OFFICE

2 -----

3 BEFORE THE PATENT TRIAL AND APPEAL BOARD

4 -----

5 APPLE INC.

6 Petitioner

7 v.

8 ANDREA ELECTRONICS CORPORATION

9 Patent owner

10 -----

11 Case No. IPR2017-00626

12 U.S. Patent 6,363,345

13 Case No. IPR2017-00627

14 U.S. Patent 5,550,924

15

16 DEPOSITION OF BERTRAND M. HOCHWALD, Ph.D.

17 Washington, D.C.

18 October 12, 2017

19 9:38 a.m.

20

21

22 Job No. BO-143617

23 Pages 1 - 193

24 Reported by: Michele E. Eddy, RPR, CRR, CLR

1                   Deposition of BERTRAND M. HOCHWALD, Ph.D.,

2 held at the offices of:

3                   SIDLEY AUSTIN LLP  
4                   1501 K Street, Northwest  
5                   Washington, D.C. 20005

6                   (202) 736-8000

7                   Pursuant to Notice, before Michele E.  
8 Eddy, Registered Professional Reporter, Certified  
9 Realtime Reporter, and Notary public in and for  
10 the District of Columbia.

11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24

A P P E A R A N C E S

ON BEHALF OF THE PETITIONER:

THOMAS A. BROUGHAN, III, ESQUIRE

Sidley Austin LLP

1501 K Street, Northwest

Washington, D.C. 20005

Telephone: (202) 736-8000

tbroughan@sidley.com

- AND -

STEVEN S. BAIK, ESQUIRE

Sidley Austin LLP

Building One, Suite 100

1001 Page Mill Road

Palo Alto, California 94304

Telephone: (650) 565-7000

sbaik@sidley.com

1 ATTENDANCE, Continued

2

3 ON BEHALF OF THE PATENT OWNER:

4 BRADLEY T. LENNIE, ESQUIRE

5 SEAN T. GLOTH, ESQUIRE, LLP

6 Pepper Hamilton LLP

7 600 Fourteenth Street, Northwest

8 Washington, D.C. 20005

9 Telephone: (202) 220-1200

10 lennieb@pepperlaw.com

11 gloths@pepperlaw.com

12 - AND -

13 STEVEN R. PEDERSEN, ESQUIRE

14 The Pedersen Firm

15 13 West River Road, Suite D

16 Rumson, New Jersey 07760

17 Telephone: (312) 342-8600

18 Steve@Pedersenfirm.com

19

20

21

22

23

24

## 1 EXAMINATION INDEX

2		PAGE
3	EXAMINATION BY MR. LENNIE	7
4	EXAMINATION BY MR. BROUGHAN	186

5

6

7

8

9

## E X H I B I T S

10 (Attached to the Transcript)

## 11 DEPOSITION EXHIBIT PAGE

12	Exhibit 1	Petition for Inter Partes Review	11
13		of U.S. Patent No. 6,363,345	

14	Exhibit 2	Figure 2: Flowchart of the SNR	30
15		estimation algorithm	

16	Exhibit 3	Petition for Inter Partes Review	142
17		of U.S. Patent No. 5,550,924	

18

## 19 PREVIOUSLY MARKED AND REFERRED TO

## 20 PATENT OWNER PAGE

21	Exhibit 1001	U.S. Patent No. 6,363,345	8
22	Exhibit 1003	Declaration of Bertrand Hochwald	12
23		Regarding U.S. Patent No. 6,363,345	

24

# 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.