

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.
Petitioner,

v.

ANDREA ELECTRONICS INC.,
Patent Owner.

Patent No. 6,363,345

IPR2017-00626

Petitioner's Opening Remand Brief

Table of Contents

I. Introduction.....1

II. Procedural Background.....1

A. Summary of the Claims at Issue1

B. Scope of Issues to Be Decided.....2

III. Argument.....3

A. Martin’s Noise Floor Tracking Algorithm Teaches the Elements of Claims 6-93

B. Martin Teaches the Future Minimum of Claim 4.....4

C. Martin Teaches Setting a Current Minimum to a Future Minimum Value “Periodically,” as Required by Claim 6.....8

D. The Skilled Person Would Have Been Motivated to Set Hirsch’s Noise Threshold Using Martin’s Noise Tracking Algorithm.....9

IV. Conclusion10

TABLE OF AUTHORITIES

Cases	Page(s)
<i>KSR Intern. Co. v. Teleflex Inc.</i> , 127 S. Ct. 1727 (2007).....	10

I. Introduction

The sole question to be addressed in this remanded proceeding—whether claims 6 to 9 of the '345 Patent would have been obvious over Hirsch (Ex. 1005) and Martin (Ex. 1006)—has been substantially narrowed by prior events in this case. First, Andrea did not appeal the Board's finding that the apparatus described in Hirsch meets every requirement of claim 1 of the '345 Patent. Second, Andrea did not appeal the Board's determination that claim 25 was obvious in view of Hirsch and Martin, and now cannot dispute that a skilled person would have considered Hirsch and Martin together or that “techniques such as those shown in Hirsch and Martin are routinely combined.” Final Written Decision (FWD) at 16; *see also* 949 F.3d 697, 703 (Fed. Cir. 2020) (“Hirsch refers to Martin as a ‘known’ approach ‘to avoid the problems of speech pause detection and to estimate the noise characteristics just from a past segment of noisy speech.’”). The obviousness question thus distills down to a question of how Martin's sound floor algorithm works, and whether when integrated into Hirsch, the resulting device will meet the requirements of claims 6 to 9. The answer, based on the arguments and evidence in this record, is yes. The Board should find claims 6 to 9 unpatentable.

II. Procedural Background

A. Summary of the Claims at Issue

Claims 6-9 ultimately depend from claim 1, which defines “[a]n apparatus for canceling noise” by, *inter alia*, setting a threshold for each frequency bin using

a noise estimation process and detecting whether each bin's magnitude is less than the corresponding threshold. Ex. 1001, 9:34-46. Claim 4 depends from claim 1 and specifies "...set[ting] the threshold for each frequency bin in accordance with a *current minimum value* of the magnitude of the corresponding frequency bin; said *current minimum value* being derived in accordance with a *future minimum value* of the magnitude of the corresponding frequency bin." *Id.*, 9:54-60. Claim 5 adds that the "*future minimum value* is determined as the minimum value of the magnitude of the corresponding frequency bin within a predetermined period of time." Claim 6 depends from claim 5 and specifies that "said *current minimum value* is set to said *future minimum value* periodically."¹ *Id.*, 9:65-67. Claims 7 and 8 depend from claim 6, and address updating of the future minimum and current minimum values, respectively, while claim 9 depends from claim 5, and addresses updating of the future minimum value.

B. Scope of Issues to Be Decided

The Board's remand order (Paper 28) specifies that briefing is limited to issues previously raised in the Response, Reply, or Observations on Cross. In those papers, Andrea addressed Apple's patentability challenges to claims 6-9 by contending that Hirsch and Martin did not teach an apparatus as defined in claims

¹ "Periodically" means a fixed interval of time. *See* 949 F.3d at 709.

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.