

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

REMBRANDT WIRELESS TECHNOLOGIES, LP,
Patent Owner.

Cases IPR2020-00033, IPR2020-00034, IPR2020-00036, IPR2020-00037
U.S. Patent Nos. 8,023,580 and 8,457,228

DECLARATION OF NIKIL JAYANT

Rembrandt Wireless

TABLE OF CONTENTS

| | | |
|------|--|----|
| I. | Introduction | 5 |
| II. | Qualifications | 6 |
| III. | Legal Standards..... | 9 |
| A. | Claim Construction | 9 |
| B. | Person of Ordinary Skill in the Art..... | 10 |
| C. | Validity..... | 10 |
| IV. | Background | 15 |
| A. | Person of Ordinary Skill in the Art..... | 15 |
| B. | State of the Art..... | 15 |
| C. | The '580 and '228 Patent Invention..... | 20 |
| D. | Overview of the Cited Art | 28 |
| 1. | The Pager Art and the FLEX™ Protocol | 28 |
| 2. | Briancon..... | 31 |
| 3. | Leitch | 39 |
| 4. | Ayerst..... | 40 |
| 5. | Siwiak '306..... | 41 |
| 6. | Siwiak '038..... | 44 |

Rembrandt Wireless

| | |
|--|----|
| 7. Yamano | 46 |
| 8. Davis | 52 |
| 9. Christian..... | 53 |
| V. The Prior Art and Arguments are Substantially the Same as Those Before the District Court..... | 55 |
| VI. The Prior Art and Arguments are Substantially the Same as Those Previously Presented to the Office..... | 63 |
| VII. Claim Construction | 71 |
| A. The Claimed “Master/Slave Relationship” Requires a Configuration Capable of Performing All Other Claim Limitations and Necessarily Requires That Slaves Only Respond to the Master When Polled By The Master..... | 72 |
| B. The Claim Limitation “Indicates An Impending Change” or “Indicative Of An Impending Change” In Modulation Requires A Change In Modulation That Is Imminent (or About To Happen) | 77 |
| C. “Second Message” Requires a “Payload Portion” that Imminently Follows the “Third Information” | 80 |
| D. The Claimed “Indicates that Reversion from the Master to the Slave Has Reverted to the First Modulation” Requires Both an Indication and a Reversion | 82 |

| | |
|--|-----|
| VIII. Validity of the Claims..... | 83 |
| A. The ‘580 Patent..... | 83 |
| 1. Validity of the Claims over Briancon, Leitch, and Ayerst..... | 83 |
| 2. Validity of the Claims over Siwiak ‘306 and Siwiak ‘038..... | 105 |
| 3. Validity of the Claims over Yamano, Davis, and Christian..... | 118 |
| B. The ‘228 Patent..... | 137 |
| 1. Validity of the Claims over Briancon, Leitch, and Ayerst..... | 137 |
| 2. Proposed Ground 3 Fails to Present a Reasonable Likelihood of Prevailing 155 | |
| 3. Validity of the Claims over Yamano, Davis, and Christian..... | 166 |
| IX. The Pager Art is Not Analogous Art to the ‘228 and ‘580 Patents | 186 |
| X. Conclusion..... | 191 |

I, Nikil Jayant, Ph.D., do hereby declare as follows:

I. Introduction

1. I am currently Emeritus Chaired Professor in the School of Electrical and Computer Engineering at the Georgia Institute of Technology, and an Adjunct Professor at the University of California at Santa Barbara.

2. I have been retained by Edell, Shapiro and Finnan, LLC (hereinafter "the Edell Firm"), to provide various opinions regarding U.S. Patent No. 8,023,580 (hereinafter "the '580 patent") and U.S. Patent No. 8,457,228 (hereinafter "the '228 patent"). I understand that my declaration is being submitted in connection with a Patent Owner Preliminary Response in *inter partes* reviews of the '580 patent and the '228 patent. Unless otherwise noted, the statements made herein are based on my personal knowledge and, if called to testify with regards to this declaration, I could and would do so competently and truthfully. For purposes of this declaration, cites to the 1000 series are from IPR2020-00033 and cites to the 1100 series are from IPR2020-00034, unless indicated otherwise.

3. I have been retained in this matter by the Edell Firm as a technical expert in the field of electrical engineering, particularly within the context of telecommunications and modulation. I am being compensated for my work in this matter at my usual and customary rate. I have no personal or financial stake or interest in the outcome of the *inter partes* reviews or any related action. My

Rembrandt Wireless

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.