| | UNITED STATES PATENT AND TRADEMARK OFFICE |
|--|---|
| | |
| | BEFORE THE PATENT TRIAL AND APPEAL BOARD |
| | |
| | |
| | APPLE INC., SAMSUNG ELECTRONICS AMERICA, INC. Petitioner, |
| | v. |
| | UNILOC LUXEMBOURG, S.A., |
| | Patent Owner |
| | |
| | U.S. Patent No. 8,872,646 |
| | |





TABLE OF CONTENTS

| I. INTRODUCTION1 | | | | | |
|---|---|-------------------------|--|--|--|
| II. MANDATORY NOTICES <u>UNDER 37 C.F.R. § 42.8</u> | | | | | |
| A. Real Pa | arty-in-Interest | 1 | | | |
| B. Related | Matters | <u>12</u> | | | |
| C.Lead and | Back-up-C. Counsel and Service Information | 2 | | | |
| III. GROUNDS FOR STANDING | | | | | |
| IV. THE '646 PA | ATENT | 3 | | | |
| A. State of | f the Art_beforeBefore the '646 Patent | 3 | | | |
| B. Overvio | ew of the '646 Patent | 4 | | | |
| C. Prosecu | ıtion History | 5 | | | |
| D. Claim (| Construction | <u>67</u> | | | |
| 1. | "glitch" | 7 <u>8</u> | | | |
| 2. | "a change in the dominant axis" | 8 | | | |
| 3. | "dominant axis logic to determine an idle sample value for a dominant axis of the mobile device based on the motion data" | 8 | | | |
| 4. | "dominant axis logicto compare a difference between a current sample value along the dominant axis determined based on the motion of the device and the idle sample value of the dominant axis against a threshold value" | 9 <u>10</u> | | | |
| 5. | "computation logic to determine whether the motion caused a change in the dominant axis" | 11 | | | |
| 6. | "power logic to wake up the device when the motion of the device indicates a change in the dominant axis of the device" | 11 <u>12</u> | | | |
| 7. | "power logic to move the device from the inactive state to an active state upon detection of a change in the dominant axis which is the axis experiencing the largest effect of gravity" | 13 | | | |



Petition for *Inter Partes* Review of U.S. Patent No. 8,872,646

| 8. | "long average logic to calculate an average of accelerations over a sample period" | 14 |
|---------------|---|------------------------|
| 9. | "device state logic to restore the device to a last active state" | 15 |
| | QUESTED AND THE REASONS FOR THE REQUESTED | |
| VI. IDENTIFIC | ATION OF CHALLENGES | <u>1718</u> |
| A. Challer | nged Claims | <u>1718</u> |
| B. Statuto | ry Grounds for Challenges | 18 |
| | CATION OF HOW THE CLAIMS ARE NTABLE | 19 |
| unpa | nge #1: Claims 1, 3, 5-7, 9-11, 13-15, 17, and 20 are atentable under 35 U.S.C § 103 over Pasolini in view of dman, McMahan, and Mizell | 19 |
| 1. | Summary of Pasolini | 19 |
| 2. | Summary of Goldman | 22 |
| 3. | Reasons to combine Pasolini and Goldman | <u>22</u> <u>23</u> |
| 4. | Summary of McMahan | <u>2425</u> |
| 5. | Reasons to combine McMahan with Pasolini and Goldman | <u>25</u> <u>26</u> |
| 6. | Summary of Mizell | <u>26</u> <u>27</u> |
| 7. | Reasons to combine Mizell with Pasolini and Goldman. | 27 |
| 8. | Detailed Analysis | 28 |
| U.S. | nge #2: Claims 8, 16, and 18 are unpatentable under 35 .C § 103 over Pasolini in view of Goldman, McMahan, ell, and Park | 64 |
| 1. | Summary of Park | 64 |
| 2. | Reasons to Combine Park with Pasolini and Goldman | 64 |
| 3. | Detailed Analysis | 65 |
| VIII. CONCLUS | SION | 70<u>69</u> |
| | | |



LIST OF EXHIBITS

| Ex. 1001 | <u>U.S. Patent No. 8,872,646.</u> |
|----------|--|
| Ex. 1002 | Prosecution History of U.S. Patent No. 8,872,646. |
| Ex. 1003 | U.S. Patent No. 7,409,291 to Pasolini et al. ("Pasolini") |
| Ex. 1004 | Using the LIS3L02AQ Accelerometer, Ron Goldman, Sun |
| | Microsystems Inc. Dated February 23, 2007. ("Goldman") |
| Ex. 1005 | U.S. Patent No. 7,204,123 to McMahan et al. ("McMahan") |
| Ex. 1006 | U.S. Patent Publication No. 2006/0161377 to Rakkola <i>et al</i> . ("Rakkola") |
| Ex. 1007 | Using Gravity to Estimate Accelerometer Orientation, David Mizell, |
| | Proceedings of the Seventh IEEE International Symposium on |
| | Wearable Computers (ISWC '03) 2003. ("Mizell") |
| Ex. 1008 | Declaration of Chris Butler, Under 37 C.F.R. § 1.68. |
| Ex. 1009 | Dictionary of Scientific and Technical Terms, McGraw-Hill. |
| Ex. 1010 | Declaration of Joe Paradiso, Ph.D, Under 37 C.F.R. § 1.68. |
| Ex. 1011 | <u>Curriculum Vitae of Joe Paradiso.</u> |
| Ex. 1012 | Declaration of Ingrid Hsieh-Yee, Under 37 C.F.R. § 1.68. |
| Ex. 1013 | Reserved. |
| Ex. 1014 | U.S. Patent No. 7,028,220 to Park et al. ("Park") |
| Ex. 1015 | Comparison between the Current Petition and Petition in IPR2018- 00289 |



I. INTRODUCTION

U.S. Patent No. 8,872,646 ("the '646 Patent," APPL-Ex. 1001) is generally directed to waking a device from a low power state in response to detected acceleration. Specifically, the claims of the '646 Patent recite well-known accelerometer techniques that involve (i) removing glitches, (ii) capturing accelerometer samples while at rest, (iii) measuring the current acceleration, and (iv) waking the device from the low power state in response to detecting acceleration. However, before the '646 Patent, POSITAs were already using such techniques.

Accordingly, the evidence in this <u>petition</u> demonstrates that claims 1, 3, 5- 11, 13-18, and 20 of the '646 Patent are unpatentable under (pre-AIA) 35 U.S.C. § 103. <u>Apple Inc. Samsung Electronics America, Inc.</u> ("Petitioner") therefore respectfully requests that claims 1, 3, 5-11, 13-18, and 20 be held invalid and cancelled.

This Petition is being submitted concurrently with a Motion for Joinder.

Specifically, Petitioner requests institution and joinder with *Apple Inc. v. Uniloc*Luxembourg SA, IPR2018-00289 ("the Apple IPR Proceeding"), which the Board instituted on June 11, 2018.

II. MANDATORY NOTICES <u>UNDER 37 C.F.R. § 42.8</u>

A. Real Party-in-Interest



DOCKET

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.

