**IN THE UNITED STATES DISTRICT COURT**

**FOR THE EASTERN DISTRICT OF TEXAS**

**MARSHALL DIVISION**

| | |
|---|---|
| **OPTIS WIRELESS TECHNOLOGY, LLC, OPTIS CELLULAR TECHNOLOGY, LLC, UNWIRED PLANET, LLC, UNWIRED PLANET INTERNATIONAL LIMITED, AND PANOPTIS PATENT MANAGEMENT, LLC.,**<br><br>**Plaintiffs,**<br><br>**v.**<br><br>**APPLE INC.,**<br><br>**Defendant.** | Civil Action No. 2:19-cv-00066-JRG<br><br>**JURY TRIAL DEMANDED** |

**DEFENDANT APPLE INC.'S P.R. 3-3 SECOND AMENDED INVALIDITY CONTENTIONS**

DOCKET ALARM

Find authenticated court documents without watermarks at docketalarm.com.

## TABLE OF CONTENTS


I. INTRODUCTION ..... 1
II. RESERVATIONS ..... 2
III. GENERAL COMMENTS APPLICABLE TO ALL PATENTS-IN-SUIT ..... 6
A. Standards in the Wireless Communications Industry ..... 6
B. Evolution of Mobile Telecommunications Standards and Products ..... 6
C. General Reasons to Modify, Extend, or Combine Prior Art References ..... 7
1. Portions of a Cellular Standard May Be Treated as a Single Reference ..... 8
2. It Was Known and Obvious to Support Standards in Actual Devices ..... 9
IV. IDENTIFICATION OF PRIOR ART PURSUANT TO P.R. 3-3(A) ..... 10
A. The '154 Patent ..... 10
1. Prior Art Patent References ..... 10
2. Prior Art Publications ..... 10
3. Other References ..... 12
4. Prior Art Under 35 U.S.C. § 102(f) ..... 12
B. The '332 Patent ..... 13
1. Prior Art Patent References ..... 13
2. Prior Art Publications ..... 14
3. Other References ..... 15
4. Prior Art Under 35 U.S.C. § 102(f) ..... 15
C. The '833 Patent ..... 18
1. Prior Art Patent References ..... 18
2. Prior Art Publications ..... 18
3. Other References ..... 23
4. Prior Art Under 35 U.S.C. § 102(f) ..... 24
D. The '284 Patent ..... 28
1. Prior Art Patent References ..... 28
2. Prior Art Publications ..... 28
3. Other References ..... 30
4. Prior Art Under 35 U.S.C. § 102(f) ..... 30
E. The '557 Patent ..... 32
1. Prior Art Patent References ..... 32
2. Prior Art Publications ..... 32
3. Other References ..... 33



DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

4. Prior Art Under 35 U.S.C. §102(g) ..... 34
F. The '774 Patent ..... 34
1. Prior Art Patent References ..... 34
2. Prior Art Publications ..... 35
3. Other References ..... 36
V. CLAIM CHARTS PURSUANT TO P.R. 3-3(C) ..... 36
VI. DISCLOSURE OF INVALIDITY DUE TO ANTICIPATION PURSUANT TO P.R. 3-3(B) AND (C) ..... 36
A. The '154 Patent ..... 37
1. Claims 33, 34, 37, and 38 are anticipated by the IEEE 802.16e Documents. ..... 37
B. The '332 Patent ..... 37
1. Claims 1-10 are anticipated by Chung. ..... 37
2. Claims 1-10 are anticipated by R1-081675. ..... 37
3. Claims 1-10 are anticipated by R1-082322. ..... 37
C. The '833 Patent ..... 37
1. N/A ..... 37
D. The '284 Patent ..... 37
1. N/A ..... 37
E. The '557 Patent ..... 37
1. Claims 1-6, 9, and 10 are anticipated by Harris. ..... 37
F. The '774 Patent ..... 37
1. Claims 6-10 are anticipated by Murakami '807. ..... 37
2. Claims 6-10 are anticipated by Murakami '103. ..... 37
3. Claims 6-10 are anticipated by Hottinen. ..... 37
4. Claims 6-10 are anticipated by Onggosanusi ..... 37
5. Claims 6-10 are anticipated by IEEE 802.16 Standard, CL-MIMO Contribution, and Uplink Channel Reuse Contribution (collectively the "802.16 References"). ..... 37
VII. DISCLOSURE OF INVALIDITY DUE TO OBVIOUSNESS PURSUANT TO P.R. 3-3(B) AND (C) ..... 38
A. The '154 Patent ..... 39
1. Obviousness Combinations ..... 39
2. Reasons to Modify, Extend, or Combine ..... 40
B. The '332 Patent ..... 68
1. Obviousness Combinations ..... 68

DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

2. Reasons to Modify, Extend, or Combine ..... 69
C. The '833 Patent ..... 75
1. Obviousness Combinations ..... 76
2. Reasons to Modify, Extend, or Combine ..... 77
D. The '284 Patent ..... 94
1. Obviousness Combinations ..... 94
2. Reasons to Modify, Extend, or Combine ..... 99
E. The '557 Patent ..... 116
1. Obviousness Combinations ..... 116
2. Reasons to Modify, Extend, or Combine ..... 117
F. The '774 Patent ..... 144
1. Obviousness Combinations ..... 144
2. Reasons to Modify, Extend, or Combine ..... 145
VIII. CONTENTIONS UNDER 35 U.S.C. § 112 PURSUANT TO P.R. 3-3(D) ..... 185
A. The '154 Patent ..... 186
B. The '332 Patent ..... 187
C. The '833 Patent ..... 191
D. The '284 Patent ..... 192
E. The '557 Patent ..... 194
F. The '774 Patent ..... 195

DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

had a reasonable expectation of success in combining the teachings of the Random Hash Function References with the Blind Decoding References. Specifically, each of the Blind Decoding References seeks to accomplish the same goal using the same tool (*e.g.*, a "random function" or "random hash function" or "pseudo-random number generator," *see* R1-080028 at 3, R1-080675 at 3, Buckley at 5:3-11) to randomize the start position for a UE's decoding search space, while the "most commonly employed" and "quite easy to design" such tool to obtain such a random number is the linear congruential method and predictable variations thereof, as described in the Random Hash Function References (*see, e.g.*, L'Ecuyer at 742, Cormen at 234). Using the "most popular random number generator[]"—first introduced to those of ordinary skill in 1949 (Knuth at 9)—as the random function for selecting a start location for a specific PDCCH candidate from among a set of PDCCH candidates disclosed in the Blind Decoding References would have been an obvious substitution, yielding known, predictable results. *See also KSR*, 550 U.S. at 420-21 (A POSITA is "a person of ordinary creativity, not an automaton," and "in many cases … will be able to fit the teachings of multiple patents together like pieces of a puzzle."); *AstraZeneca*, 603 F. App'x at 1002 (claimed invention obvious where claim elements were among the known prior art features in the "toolbox" of a POSITA).

**C. The '833 Patent**

In accordance with P.R. 3-3(b), prior art references rendering the asserted claims of the '833 patent obvious, alone or in combination with other references, are discussed below and included in Exhibits C-1 through C-7. Further reasons to combine the references identified in Exhibits C-1 through C-7 include the nature of the problem being solved, the express, implied and inherent teachings of the prior art, the knowledge of persons of ordinary skill in the art, that such combinations would have yielded predictable results, and that such combinations would have represented known alternatives to a person of ordinary skill in the art. Apple additional

DOCKET ALARM Find authenticated court documents without watermarks at docketalarm.com.

DOCKET ALARM

# 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.