

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

INTEL CORPORATION,

Petitioner,

v.

UNM RAINFOREST INNOVATIONS,

Patent Owner.

---

PTAB Case No. IPR2020-01576

Patent No. 8,265,096 B2

---

**PETITION FOR *INTER PARTES* REVIEW  
OF U.S. PATENT NO. 8,265,096 B2**

**Claims 1-4 and 6-8**

## TABLE OF CONTENTS

	Page
<b>I. INTRODUCTION .....</b>	<b>1</b>
<b>II. MANDATORY NOTICES .....</b>	<b>2</b>
<b>A. Real Parties in Interest .....</b>	<b>2</b>
<b>B. Related Matters .....</b>	<b>2</b>
<b>C. Notice of Counsel and Service Information .....</b>	<b>3</b>
<b>III. REQUIREMENTS FOR <i>INTER PARTES</i> REVIEW.....</b>	<b>4</b>
<b>A. Standing.....</b>	<b>4</b>
<b>B. Challenge Grounds.....</b>	<b>4</b>
<b>IV. THE BOARD SHOULD NOT DENY INSTITUTION FOR DISCRETIONARY REASONS .....</b>	<b>5</b>
<b>V. OVERVIEW OF THE '096 PATENT .....</b>	<b>9</b>
<b>A. Background: History of Broadband Wireless and the IEEE 802.16 WiMAX Standards .....</b>	<b>9</b>
<b>B. The '096 Patent Discloses Constructing a Frame Structure to Provide Compatibility between 802.16 Systems and Mobility Support .....</b>	<b>14</b>
<b>C. The Challenged Claims of the '096 Patent.....</b>	<b>17</b>
<b>D. Priority Date and Prosecution History of the '096 Patent .....</b>	<b>18</b>
<b>E. Level of Ordinary Skill in the Art .....</b>	<b>21</b>
<b>F. Claim Construction .....</b>	<b>21</b>
<b>VI. OVERVIEW OF THE PRIOR ART RELIED UPON IN THIS PETITION.....</b>	<b>23</b>
<b>A. Talukdar .....</b>	<b>23</b>

<b>B.    Li .....</b>	<b>28</b>
<b>C.    Nystrom .....</b>	<b>30</b>
<b>VII. ARGUMENT: THE CHALLENGED CLAIMS OF THE '096 PATENT ARE UNPATENTABLE OVER THE PREVIOUSLY- UNCONSIDERED PRIOR ART RAISED HERE.....</b>	<b>32</b>
<b>A.    Ground 1: Talukdar and Li Rendered Claims 1-4           and 6-7 Obvious .....</b>	<b>33</b>
<b>1.    Claim 1 .....</b>	<b>33</b>
<b>2.    Claim 2 .....</b>	<b>54</b>
<b>3.    Claim 3 .....</b>	<b>56</b>
<b>4.    Claim 4 .....</b>	<b>57</b>
<b>5.    Claim 6 .....</b>	<b>59</b>
<b>6.    Claim 7 .....</b>	<b>60</b>
<b>B.    Ground 2: Talukdar and Nystrom Rendered Claim 8           Obvious.....</b>	<b>62</b>
<b>VIII. CONCLUSION .....</b>	<b>70</b>

## EXHIBIT LIST

Exhibit	Description
Ex. 1001	U.S. Patent No. 8,265,096 (“the ’096 patent”)
Ex. 1002	Declaration of Dr. Robert Akl (“Akl”)
Ex. 1003	<i>Sand Revolution II, LLC v. Continental Intermodal Group-Trucking LLC</i> , Paper 24, IPR2019-01393 (PTAB June 16, 2020)
Ex. 1004	Seventh Supplemental Order Regarding Court Operations Under Exigent Circumstances Created by the Covid 19 Pandemic (W.D. Tex. Aug. 6, 2020)
Ex. 1005	Excerpts from JEFFREY G. ANDREWS ET AL., FUNDAMENTALS OF WiMAX (2007)
Ex. 1006	Five Criteria Statement for P802.16m PAR Proposal, IEEE 802.16-06/055r3 (Nov. 15, 2006)
Ex. 1007	IEEE 802.16m System Requirements, IEEE 802.16m-07/002r4 (Oct. 19, 2007)
Ex. 1008	Listing of Challenged ’096 Patent Claims
Ex. 1009	U.S. Provisional App. No. 60/929,798
Ex. 1010	Excerpts from ’096 Patent File History
Ex. 1011	Claim Construction Order in <i>STC.UNM v. Apple Inc.</i> , No. 1-20-cv-00351 (W.D. Tex. Apr. 9, 2020), ECF No. 69 (“Markman Order”)
Ex. 1012	U.S. Pub. No. 2009/0067377 A1 (“Talukdar”)
Ex. 1013	U.S. Provisional Application No. 60/956,031 (“Talukdar Provisional”)
Ex. 1014	Canadian Patent Application No. 2 581 166 A1 (“Wang”)
Ex. 1015	WIPO Handbook on Industrial Property Information and Documentation, “Examples and Kinds of Patent Documents” (May 2016)
Ex. 1016	U.S. Pub. No. 2007/0155387 A1 (“Li”)
Ex. 1017	U.S. Pub. No. 2007/0104174 A1 (“Nystrom”)
Ex. 1018	U.S. Pub. No. 2008/0095195 (“Ahmadi”)

Exhibit	Description
Ex. 1019	Excerpts from William Stallings, WIRELESS COMMUNICATIONS AND NETWORKS (2D ED. 2005)
Ex. 1020	U.S. Patent No. 7,460,466 B2 (“Lee”)
Ex. 1021	U.S. Patent No. 8,462,611 B2 (“Ma”)
Ex. 1022	Fixed, nomadic, portable and mobile applications for 802.16-2004 and 802.16e WiMAX networks (November 2005)
Ex. 1023	Mohammad Azizul Hasan, Performance Evaluation of Wi-MAX/IEEE 802.16 OFDM Physical Layer (June 2007)
Ex. 1024	U.S. Patent No. 7,710,910 B2 (“Ode”)
Ex. 1025	IEEE 802.16m System Requirements, IEEE 802.16m-07/002r4 (Jan. 12, 2007)
Ex. 1026	U.S. Pub. No. 2004/0037215 A1 (“Hwang”)
Ex. 1027	Yasamin Mostofi, <i>ICI Mitigation for Pilot-Aided OFDM Mobile Systems</i> (IEEE, Vol. 4, No. 2, Mar. 2005)

# 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.