UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INTEL CORPORATION
Petitioner

v.

ZOND, LLC
Patent Owner

U.S. Patent No. 7,811,421

Inter Partes Review Case No. 2014-00473

PATENT OWNER's PRELIMINARY RESPONSE UNDER 37 CFR § 42.107(a)

TABLE OF CONTENTS

I. INTRODUCTION 4

II. TECHNOLOGY BACKGROUND 9

A. Overview of Sputtering Systems 9

B. The '421 Patent: Dr. Chistyakov Invents an Improved Sputtering Source. 11

III. SUMMARY OF PETITIONER'S PROPOSED GROUNDS 17

IV. CLAIM CONSTRUCTION UNDER 37 C.F.R. §§ 42.104(B)(3) 17

A. Construction of "Weakly Ionized Plasma" and "Strongly Ionized Plasma" 17

V. PETITIONER HAS FAILED TO SHOW A REASONABLE LIKELIHOOD OF PREVAILING. 19

A. Overview of Challenged Claims. 19

B. All of Petition's Obviousness Grounds Fail to Follow the Proper Legal Framework For an Obviousness Analysis. 20

C. All Grounds Rely on Claim Charts Submitted in Violation of Rules 42.24(a)(i) and 42.6(a)(3) 21

D. Defects in the Challenges to the "Group A" Claims. 23

1. Defects in Ground I: Petitioner Failed To Demonstrate That the Group A Claims Are Obvious In View of Mozgrin and Kawatama 25

a. Mozgrin Does Not Anticipate Parent Claims 1, 34 25

i. Overview of Mozgrin 24

ii. Mozgrin Does Not Teach a Sputtering Source Comprising a Cathode Assembly Having a

Sputtering Target Positioned Adjacent to an Anode 28

iii. Mozgrin Does Not Describe the Claimed Pulse for Creating a Weak Plasma and Then a Strongly-Ionized Plasma From the Weak 31

iv. Mozgrin Does Not Teach The Claimed Generation of a Pulse whose Amplitude and Rise Time Are Chosen to Increase Ion Density Without Arcing 32

v. Conclusion: Petitioner Has Not Shown a Reasonable Likelihood of Success that Parent Claims are Anticipated by Mozgrin 34

b. The Petition Fails to Show a Reasonable Likelihood that the Group A Claims are Obvious in View of Mozgrin Combined with Kawamata 35

i. General Scope of Kawamata 36

ii. Differences Between Kawamata and the Claims 37

iii. Claim 5 39

iv. Claim 36 41

v. Conclusion: 43

2. Defects In Ground II: Petitioner Failed To Demonstrate A Reasonable Likelihood That The Group A Claims Are Obvious in View of Wang Combined with Kawamata 43

a. Defects in Ground II: Wang Does not Anticipate Parent Claims 1, 17, 34 44

i. Wang Does Not Show the Claimed Pulse for Creating a Weak Plasma and Then a Strongly-Ionized Plasma From the Weak Without An Occurrence of Arcing. 44

ii. Wang Does Not Teach The Claimed Generation of a Pulse Whose Rise Time Is Chosen to Increase Ion Density Without Arcing. 45

iii. Conclusion: Petitioner Has Not Shown a Reasonable Likelihood of Success that Parent Claims 1, 21, and 34 are Anticipated by Wang as Required By Ground V 47

b. Defects In Ground II: The Petition Fails to Show a Reasonable Likelihood that The Group A Claims are Obvious in View of Wang Combined with Kawamata 48

i. Differences Between Kawamata and the Claims 48

E. Defects in the Challenges to the Group B Claims. 49

1. Differences Between the Claims and the Art 49

2. Conclusion Regarding Group B Claims 51

VI. FINAL CONCLUSION 52

I. Introduction

The present petition is the last of three petitions filed by Intel Inc. for *inter partes* review of U.S. Patent No. 7,811,421 ("the '421 patent"). The first (IPR 2014-00468) seeks cancellation of all independent claims (1, 17, 34, 46, 47, and 48), and selected dependent claims. The second petition (IPR 2014-00468) seeks cancellation of six dependent claims, and this third petition (IPR 2014- 00473) seeks cancellation of the remainder.

This third petition relies on the same arguments and evidence presented against the parent claims in IPR 2014-00468, but for the dependent claims, adds new arguments and evidence. Therefore, this third petition should be categorically denied for the exact same reasons given by the Patent Owner in response to IPR 2014-00468, which are repeated here,[1] but with some supplementary arguments. Furthermore, as explained below, the dependent claims specifically addressed in the present petition are even less likely to be found un-patentable and therefore the Petition does not justify review.

[1] Rule §46.6 prohibits incorporation by reference of the Patent Owner's response from IPR 2014-000455.

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.