

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

Parthenon Unified Memory Architecture LLC,
Patent Owner

PETITION FOR *INTER PARTES* REVIEW

OF

U.S. PATENT NO. 7,542,045

TABLE OF CONTENTS

| | | |
|------|---|----|
| I. | MANDATORY NOTICES | 1 |
| A. | Real Party-in-Interest..... | 1 |
| B. | Related Matters..... | 1 |
| C. | Lead and Back-up Counsel and Service Information | 2 |
| II. | GROUND FOR STANDING..... | 2 |
| III. | INTRODUCTION; RELIEF REQUESTED..... | 3 |
| IV. | REASONS FOR THE REQUESTED RELIEF | 4 |
| A. | The '045 Patent..... | 4 |
| 1. | Overview | 4 |
| 2. | Prosecution History..... | 7 |
| B. | Identification of Challenges | 8 |
| 1. | Challenged Claims | 8 |
| 2. | Statutory Ground for Challenges | 8 |
| 3. | Note Regarding Page Citations | 9 |
| 4. | Redundancy..... | 9 |
| C. | Claim Construction..... | 10 |
| 1. | “decoder” (Claim 12 and 15-17) and “video decoder” (Claims 1, 4, 5, 7, 9, and 10)..... | 11 |
| 2. | “fast bus” (Claim 4) | 12 |
| 3. | Other Claim Terms..... | 13 |
| D. | Identification of How the Claims Are Unpatentable..... | 14 |

| | |
|--|----|
| 1. Challenge #1: Claims 1, 4, 5, 7, 10, 12, 16, and 17 are obvious over Bowes, Datasheet, and Artieri..... | 14 |
| i. Reasons to Combine - Bowes, Datasheet, and Artieri..... | 16 |
| ii. Detailed Analysis | 18 |
| 2. Challenge #2: Claim 9 and 15 are obvious over Bowes, Datasheet, Artieri, and Gove..... | 58 |
| i. Reasons to Further Combine Gove..... | 59 |
| ii. Detailed Analysis | 60 |
| V. Conclusion | 63 |

I. MANDATORY NOTICES

A. Real Party-in-Interest

The real party-in-interest is Apple Inc.

B. Related Matters

As of the filing date of this petition, the '045 Patent has been asserted in:

- *Parthenon Unified Memory Architecture LLC v. Huawei Techs. Co., Ltd. et al.*, No. 2:14-cv-00687-JRG-RSP (E.D. Tex.);
- *Parthenon Unified Memory Architecture LLC v. Motorola Mobility, Inc.*, No. 2:14-cv-00689-JRG-RSP (E.D. Tex.);
- *Parthenon Unified Memory Architecture LLC v. HTC Corp. et al.*, No. 2:14-cv-00690-RSP (E.D. Tex.);
- *Parthenon Unified Memory Architecture LLC v. LG Elecs., Inc. et al.*, No. 2:14-cv-00691-JRG-RSP (E.D. Tex.);
- *Parthenon Unified Memory Architecture LLC v. Samsung Elecs. Co. Ltd. et al.*, No. 2:14-cv-00902-JRG-RSP (E.D. Tex.);
- *Parthenon Unified Memory Architecture LLC v. Qualcomm Inc. et al.*, No. 2:14-cv-00930-JRG-RSP (E.D. Tex.);
- *Parthenon Unified Memory Architecture LLC v. ZTE Corp. et al.*, No. 2:15-cv-00225-JRG-RSP (E.D. Tex.); and
- *Parthenon Unified Memory Architecture LLC v. Apple, Inc.*, No. 2:15-cv-00621-JRG-RSP (E.D. Tex.).

Additionally, the '045 Patent has been challenged in the following *inter partes* review proceedings:

- IPR2015-01502 and IPR2016-00667.

Apple Inc. is not a real party-in-interest in IPR2015-01502 or IPR2016-00667.

C. Lead and Back-up Counsel and Service Information

Lead Counsel

David W O'Brien
HAYNES AND BOONE, LLP
2323 Victory Ave. Suite 700
Dallas, TX 75219

Phone: (512) 867-8457
Fax: (214) 200-0853
david.obrien.ipr@haynesboone.com
USPTO Reg. No. 40,107

Back-up Counsel

Andrew S. Ehmke
HAYNES AND BOONE, LLP
2323 Victory Ave. Suite 700
Dallas, TX 75219

Phone: (214) 651-5116
Fax: (214) 200-0853
andy.ehmke.ipr@haynesboone.com
USPTO Reg. No. 50,271

Please address all correspondence to lead and back-up counsel. Petitioner consents to electronic service by email to the addresses listed above.

II. GROUNDS FOR STANDING

Petitioner certifies that the '045 Patent is eligible for *inter partes* review and that Petitioner is not barred or estopped from requesting *inter partes* review challenging the patent claims on the grounds identified in this petition. Petitioner was served with a complaint asserting infringement of the '045 Patent on June 5, 2015. Petitioner has not filed a civil action challenging the validity of any claim of the '045 Patent.

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.