
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC., HTC CORPORATION, HTC AMERICA, INC., SAMSUNG
ELECTRONICS CO. LTD, SAMSUNG ELECTRONICS AMERICA, INC.,
SAMSUNG TELECOMMUNICATIONS AMERICA, LLC AND
AMAZON.COM, INC.
Petitioners

v.

MEMORY INTEGRITY, LLC
Patent Owner

U.S. Patent No. 7,296,121

Inter Partes Review Case No. 2015-00163

**MEMORY INTEGRITY, LLC'S PATENT OWNER
PRELIMINARY RESPONSE PURSUANT TO 37 CFR § 42.107(a)**

TABLE OF CONTENTS

I. INTRODUCTION1

II. TECHNOLOGY BACKGROUND.....1

III. SUMMARY OF PETITIONERS’ PROPOSED GROUNDS FOR REVIEW3

IV. THE PENDING PETITIONS FOR *INTER PARTES* REVIEW OF THE ’121 PATENT PRESENT REDUNDANT GROUNDS3

V. MEMORY INTEGRITY’S CLAIM CONSTRUCTIONS10

 A. “states associated with selected ones of the cache memories” (claims 1, 16, and 25)11

 1. The claimed “states” refers to cache coherence protocol states ...12

 2. A cache coherence protocol state is the current state of a data block in a protocol used to maintain the coherency of caches, in which a data block can only be in one current state at a time, and in which the current state can transition to a different state upon one or more triggering events or conditions15

 3. “states associated with selected ones of cache memories” refers to the cache coherence protocol state(s) of data block(s) which are *stored* in the selected cache memories20

 B. “accumulate responses to each probe” and “accumulating probe responses” (claims 15 and 25).....22

VI. THERE IS NO REASONABLE LIKELIHOOD OF PETITIONERS PREVAILING AS TO A CHALLENGED CLAIM OF THE ’121 PATENT23

 A. Claims 1-3, 8, 15-16, 17-18 and 25 Are Entitled To A Priority Date Of November 4, 2002 And Therefore Koster Does Not Qualify As Prior Art Against These Claims23

 B. Petitioners Failed to Demonstrate That Koster Anticipates Claims 1-6, 8, 11, 12 and 1629

1.	Koster Does Not Disclose “Probe Filtering Information” “Representative Of States Associated With Selected Ones Of The Cache Memories” As Recited In Claims 1-6, 8, 11, 12 and 16.....	30
2.	Koster Does Not Disclose That “Each Of The Processing Nodes Is Programmed To Complete A Memory Transaction After Receiving A First Number Of Responses” As Recited In Claims 11 and 12.....	34
3.	Koster Does Not Disclose “Temporary Storage Associated Therewith For Holding Read Response Data” As Recited in Claim 12.....	37
C.	Petitioners Failed To Demonstrate That Claims 9 and 10 Are Obvious Over Koster In View of Duato.....	38
1.	The Petition Fails to Demonstrate That The Combination of Koster And Duato Teaches All Of The Limitations Of Claims 9 or 10.....	38
a.	The Petition Fails To Demonstrate That The Combination Of Koster And Duato Teaches The “Probe Filtering Information Representative Of States” Limitation Of Claims 9 and 10.....	38
b.	The Petition Fails To Demonstrate That The Combination Of Koster And Duato Teaches The “Routing Table” As Recited in Claims 9 and 10.....	39
2.	Petitioners Failed To Show That A Person Of Ordinary Skill In The Art Would Have Been Motivated To Combine The Teachings Of Koster And Duato.....	40
D.	Petitioners Failed To Demonstrate That Claims 15 and 25 Are Obvious Over Koster In View of O’Krafka.....	43
1.	The Petition Fails to Demonstrate That The Combination of Koster And O’Krafka Teaches All Of The Limitations Of Claims 15 Or 25.....	43

a.	The Combination of Koster and O’Krafka Does Not Teach “Probe Filtering Information Representative Of States” As Recited In Claims 15 and 25	43
b.	The Combination of Koster and O’Krafka Does Not Teach That “The Probe Filtering Unit Is Operable to Accumulate Responses” As Recited in Claims 15 and 25.....	44
(1)	O’Krafka Does Not Disclose “Accumulating” At All	44
(2)	O’Krafka Does Not Disclose Accumulating Responses to Local Probes.	46
c.	The Combination of Koster and O’Krafka Does Not Teach “Respond[ing] to Requesting Nodes in Accordance with the Accumulated Responses” As Recited in Claims 15 and 25	47
d.	The Combination Of Koster And O’Krafka Does Not Teach “Evaluating The Probe With The Probe Filtering Unit To Determine Whether A <i>Valid</i> Copy Of The Memory Line Is In Any Of The Cache Memories” As Recited in Claim 25	48
2.	Petitioners Failed To Show That A Person Of Ordinary Skill In The Art Would Have Been Motivated To Combine The Teachings Of Koster And O’Krafka	50
E.	Petitioners Failed To Demonstrate That Claims 17-24 Are Obvious Over Koster In View of Smith	51
1.	The Petition Fails To Demonstrate That The Combination Of Koster And Smith Teaches The “Probe Filtering Information Representative Of States” Limitation Of Claims 17-24	51
VII.	CONCLUSION	51

EXHIBIT LIST

Exhibit No.	Description
Memory Integrity-2001	Plaintiff Memory Integrity, LLC's Initial Identification of Asserted Claims And Accused Products, served on Petitioners in <i>Memory Integrity LLC v. Amazon.com Inc., et al.</i> , Nos. 1:13-cv-01795, -01796, -01802, -01808 (D. Del. served Oct. 13, 2014)
Memory Integrity-2002	Excerpts from D. E. Culler, J. P. Singh, and A. Gupta PARALLEL COMPUTER ARCHITECTURE, pp. 279-280 (1999)
Memory Integrity-2003	Sorin <i>et al.</i> , "Specifying and Verifying a Broadcast and a Multicast Snooping Cache Coherence Protocol," IEEE TRANSACTIONS ON PARALLEL AND DISTRIBUTED SYSTEMS, Vol. 13, No. 6, pp. 1-23(June 2002)
Memory Integrity-2004	Excerpts from Merriam-Webster's Collegiate Dictionary (10 th ed. 1999)
Memory Integrity-2005	Excerpts from David A. Patterson, <i>et al.</i> , COMPUTER ORGANIZATION AND DESIGN (3d ed. 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.