### UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SONY CORPORATION; SONY MOBILE COMMUNICATIONS AB; SONY MOBILE COMMUNICATIONS (USA) INC; AND SONY ELECTRONICS INC.

Petitioners

Patent No. 7,296,121
Issue Date: Nov. 13, 2007
Title: REDUCING PROBE TRAFFIC IN MULTIPROCESSOR SYSTEMS

## PETITION FOR INTER PARTES REVIEW

OF U.S. PATENT NO. 7,296,121

No. IPR2015-00158



# **Table of Contents**

I.	Man	datory Notices (37 C.F.R. § 42.8)	1
II.	Grou	ands for Standing (37 C.F.R. § 42.104(a))	2
III.	Identification of Challenge (37 C.F.R. § 42.104(b)(1)-(3)) and Relief Requested (37 C.F.R. § 42.22(a)(1))		
	Α.	Background of the '121 Patent	2
	В.	Prosecution History of the '121 Patent	4
	C.	Priority Date of the '121 Patent	4
	D.	Patents and Printed Publications Relied On	7
	Е.	Statutory Grounds for Challenge	13
	F.	Claim Construction	13
IV.	How the Challenged Claims Are Unpatentable (37 C.F.R. § 42.104(b)(4)-(5))		
	Α.	Koster Anticipates Claims 1-3, 8, 11-12, 14-16 and 25 Under 35 U.S.C. § 102(e)	19
	В.	Koster Alone Renders Claims 17-18 and 24 Obvious Under 35 U.S.C. § 103(a).	24
	C.	Koster in view of Kuskin Renders Claims 19-23 Obvious Under 35 U.S.C. § 103(a).	25
	D.	Koster in view of Kuskin and Park Renders Claims 15 and 25 Obvious Under 35 U.S.C. § 103(a)	29
	Е.	Luick in view of Kosaraju Renders Claims 1-3, 8, 11-12, 14-18, and 24-25 Obvious Under 35 U.S.C. § 103(a)	
	F.	Luick in view of Kosaraju and Kuskin Renders Claims 19-23 Obvious Under 35 U.S.C. § 103(a)	
	G.	Luick in view of Kosaraju, Kuskin, and Park Renders Claims 15 and 25 Obvious Under 35 U.S.C. § 103(a).	
	Н.	The Grounds Based on Koster (A, B, C, and D) are Not Redundant Over the Grounds Based on Luick in view of Kosaraju (E, F, and G)	



## Petition for Inter Partes Review of U.S. Pat. No. 7,296,121

	I.	The Grounds Based on Kuskin and Park (D and G) are Not Redundant Over the Grounds Without Kuskin and Park (A and E)	40
V.	Con	clusion	47
VI.	Appendix: Abridged Claim Charts		48
	Α.	Koster	48
	В.	Kuskin	51
	C.	Park	52
	D.	Luick	53
	F	Kosaraju	50



# List of Exhibits

Ex. No.	Exhibit Name
Sony-1001	U.S. Patent No. 7,296,121 ("the '121 Patent")
Sony-1002	File History for U.S. Pat. App. No. 10/966,161
Sony-1003	U.S. Patent No. 7,003,633 ("the '633 Patent")
Sony-1004	Comparison of '121 Patent and '633 Patent Specifications
Sony-1005	U.S. Patent No. 7,698,509 to Koster ("Koster")
Sony-1006	Jeffrey Kuskin, et al., <i>The Stanford FLASH Multiprocessor</i> , PROCEEDINGS ON THE 21ST ANNUAL INTERNATIONAL SYMPOSIUM ON COMPUTER ARCHITECTURE, IEEE (1994) ("Kuskin")
Sony-1007	S. Park et al., Verification of Cache Coherence Protocols by Aggregation of Distributed Transactions, Theory of Computing Systems 31 (1998) ("Park")
Sony-1008	U.S. Patent No. 6,088,769 to Luick ("Luick")
Sony-1009	U.S. Pat. Pub. 2002/0073261 ("Kosaraju")
Sony-1010	AUTHORITATIVE DICTIONARY OF IEEE STANDARDS TERMS (2000)
Sony-1011	Jeffrey L. Hilbert, APPLICATION SPECIFIC INTEGRATED CIRCUIT (ASIC) TECHNOLOGY (Academic Press 1991)
Sony-1012	Ronald Sass, Andrew G. Schmidt, EMBEDDED SYSTEMS DESIGN WITH PLATFORM FPGAS: PRINCIPLES AND PRACTICES (Morgan Kaufmann 2010)
Sony-1013	Expert Declaration of Daniel J. Sorin
Sony-1014	Curriculum Vitae of Daniel J. Sorin



## I. Mandatory Notices (37 C.F.R. § 42.8)

<u>Real Party-in-Interest</u>: Sony Corporation; Sony Electronics Inc.; Sony Mobile Communications AB; and Sony Mobile Communications (USA) Inc. ("Sony" or "Petitioners").

Related Matters: Memory Integrity LLC initiated lawsuits against twenty one companies in the United States District Court for the District of Delaware, alleging infringement of U.S. Patent No. 7,296,121. Nineteen cases remain pending.

Accordingly, the following pending matters may affect or be affected by the decision in this proceeding: 13-cv-01795-GMS (D. Del.); 13-cv-01796-GMS (D. Del.); 13-cv-01797-GMS (D. Del.); 13-cv-01798-GMS (D. Del.); 13-cv-01799-GMS (D. Del.); 13-cv-01800-GMS (D. Del.); 13-cv-1801-GMS (D. Del.); 13-cv-01802-GMS (D. Del.); 13-cv-01803-GMS (D. Del.); 13-cv-01804-GMS (D. Del.); 13-cv-1805-GMS (D. Del.); 13-cv-1806-GMS (D. Del.); 13-cv-1807-GMS (D. Del.); 13-cv-1808-GMS (D. Del.); 13-cv-1809-GMS (D. Del.); 13-cv-1810-GMS (D. Del.); 13-cv-1811-GMS (D. Del.); 13-cv-1983-GMS (D. Del.); and 13-cv-1984-GMS (D. Del.).

<u>Lead Counsel</u>: Lewis V. Popovski, Reg. No. 37,423.

Backup Counsel: Zaed M. Billah, Reg. No. 71,418; Michael Sander, Reg. No. 71,667.

E-Service: MemoryIntegrityv.Sony10760-225@kenyon.com.

<u>Delivery</u>: Kenyon & Kenyon LLP, One Broadway, New York, NY 10004.

<u>Telephone</u>: 212-425-7200

<u>Facsimile</u>: 212-425-5288



# DOCKET

# 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.

