

Paper No. _____

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC., HTC CORPORATION, AND HTC AMERICA INC.,
Petitioners,

v.

PARTHENON UNIFIED MEMORY ARCHITECTURE LLC,
Patent Owner

Case IPR2016-00923
Patent No. 5,812,789

PETITIONER'S REPLY

TABLE OF CONTENTS

I. Introduction.....1

II. Lambrecht anticipates each and every limitation recited in claims 1, 3, 5, 11, and 13.....2

 A. Lambrecht anticipates “a shared bus . . . having a sufficient bandwidth to enable the decoder to access the memory and operate in real time.”3

 1. The PCI bus in Fig. 21 of Lambrecht communicates data between the memory and the multimedia devices when in the multimedia mode.3

 2. No additional logic is needed in the PCI bridge chipset in Fig. 21 for the multimedia devices communicate data to the main memory in multimedia mode.....12

 B. Lambrecht anticipates “a decoder that requires access to the memory sufficient to maintain real time operation.”14

 C. Lambrecht anticipates “a shared bus . . . having sufficient bandwidth to enable the decoder to access the memory and operate in real time.”17

 D. Lambrecht anticipates “the bus having a sufficient bandwidth to enable the decoder to access the memory and operate in real time when the first device simultaneously accesses the bus.”20

III. The combination of Lambrecht and Artieri renders claim 4 obvious.....22

IV. The combination of Lambrecht and Moore renders claim 6 obvious.....23

V. Conclusion24

VI. Certificate of Word Count25

PETITIONER'S UPDATED EXHIBIT LIST

February 24, 2017

Exhibit	Description
Ex. 1001	U.S. Patent No. 5,812,789 (“the ’789 patent”)
Ex. 1002	File History for U.S. Patent No. 5,812,789
Ex. 1003	Reserved
Ex. 1004	ISO/IEC 11172-2: 1993: Information technology—Coding of moving pictures and associated audio for digital storage media at up to about 1,5 Mbit/s—Part 2: Video, (1 st ed. August 1, 1993) (“ <i>MPEG Standard</i> ”)
Ex. 1005	S. Rathnam <i>et al.</i> , “An Architectural Overview of the Programmable Multimedia Processor, TM-1,” IEEE Proceedings of COMPCON ’96, pp. 319-326 (1996) (“ <i>Rathnam</i> ”)
Ex. 1006	R.J. Gove, “The MVP: A Highly-Integrated Video Compression Chip,” Proceedings of the IEEE Data Compression Conference (DCC ’94), pp. 215-224 (March 29-31, 1994)
Ex. 1007	U.S. Patent No. 5,774,676 (“ <i>Stearns</i> ”)
Ex. 1008	Reserved
Ex. 1009	Reserved
Ex. 1010	WorldCat Entry for <i>Rathnam</i>
Ex. 1011	Patent Owner Claim Construction Brief in Case No. 2: 14-cv-690, April 7, 2015
Ex. 1012	Patent Owner Claim Construction Brief in Case No. 2: 14-cv-902, June 18, 2015
Ex. 1013	Reserved
Ex. 1014	Brad Hansen, <i>The Dictionary of Multimedia</i> , 1997
Ex. 1015	U.S. Patent No. 8,681,164
Ex. 1016	Excerpt of File History for U.S. Patent No. 8,681,164
Ex. 1017	Reserved

Exhibit	Description
Ex. 1018	Reserved
Ex. 1019	Shanley, et al., "PCI System Architecture," Addison-Wesley Publishing Company, 1995 (3 rd ed.) (" <i>Shanley</i> ")
Ex. 1020	Stone, H., "Microcomputer Interfacing," Addison-Wesley Publishing Company, 1982
Ex. 1021	Reserved
Ex. 1022	Reserved
Ex. 1023	U.S. Patent No. 5,797,028 (" <i>Gulick 028</i> ")
Ex. 1024	"Accelerated Graphics Port Interface Specification," Intel Corporation, July 31, 1996 (Revision 1.0) (" <i>AGP</i> ")
Ex. 1025	VESA Unified Memory Architecture Hardware Specifications Proposal, Version 1.0p (" <i>VUMA</i> ")
Ex. 1026	Reserved
Ex. 1027	Reserved
Ex. 1028	Reserved
Ex. 1029	Curriculum Vitae of Dr. Harold Stone
Ex. 1030	Expert Declaration of Dr. Harold Stone (" <i>Stone Decl.</i> ")
Ex. 1031	Reserved
Ex. 1032	U.S. Patent No. 5,682,484 (" <i>Lambrecht</i> ")
Ex. 1033	Reserved
Ex. 1034	Slavenburg, G., "The TriMedia VLIW-Based PCI Multimedia Processor," Microprocessor Forum 1995, Oct. 10-11, 1995 (" <i>Slavenburg</i> ")
Ex. 1035	G. Moore, "Cramming more components onto integrated circuits," Electronics, Vol. 38, No. 8, Apr. 19, 1965 (" <i>Moore</i> ")
Ex. 1036	U.S. Patent No. 5,579,052 (" <i>Artieri</i> ")
Ex. 1037	Reserved
Ex. 1038	Reserved
Ex. 1039	Reserved

Exhibit	Description
Ex. 1040	Reserved
Ex. 1041	Declaration of Curt Holbreich in Support of Motion for <i>Pro Hac Vice</i> Admission
Ex. 1042	Declaration of Yakov Zolotorev in Support of Motion for <i>Pro Hac Vice</i> Admission
Ex. 1043	Deposition Transcript of Dr. Mitchell A. Thornton
Ex. 1044	Second Expert Declaration of Harold S. Stone, Ph.D.
Ex. 1045	U.S. Patent No. 5,461,679 (" <i>Normile</i> ")
Ex. 1046	Errata sheet for Deposition of Dr. Stone included as Ex. 2004

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.