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Commissioner of Patents & Trademarks, Box Assignments  
Washington, D.C. 20231

AMD Docket No. H0620US

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**ASSIGNMENT**

For good and valuable consideration, receipt and sufficiency of which are hereby acknowledged, the undersigned

Edward Hsia, 18723 Wood Dell Court, Saratoga, California 95070  
Darlene G. Hamilton, 5824 Ponce, San Jose, California 95118  
Kulachet Tanpairoj, 948 Wing Place, Palo Alto, California 94305  
Mimi Lee, 2362 Bohannon Drive, Santa Clara, California 95050  
Alykhan F. Madhani, 1321 Jonathan Street #3, Santa Clara, California 95050  
Yi He, 3919 Riverbend Terrace, Fremont, California 94555

hereby sell(s) and assign(s) to ADVANCED MICRO DEVICES, INC., a corporation of Delaware having a place of business at One AMD Place, P.O. Box 3453, Sunnyvale, California 94088-3453, U.S.A., its successors and assigns, the entire right, title and interest, so far as concerns the United States and the Territories and Possessions thereof and all foreign countries, in and to the inventions entitled

**METHOD OF PROGRAMMING AND READING A DUAL CELL MEMORY DEVICE**

for which application for United States Letters Patent has been filed on 4/24/03 under Serial No. 10/422,276, or was executed by the undersigned on the date below and is being filed concurrently herewith, said application for United States Letters Patent, and all United States provisional patent applications on which priority is claimed, including but not limited to, application Serial No. \_\_\_\_\_, filed on \_\_\_\_\_, any and all other applications for Letters Patent on said inventions in countries foreign to the United States, including all divisional, renewal, substitute, continuation and Convention applications based in whole or in part upon said inventions or upon said applications, and any and all Letters Patent and reissues and extensions of Letters Patent granted for said inventions or upon said applications, and every priority right that is or may be predicated upon or arise from said inventions, said applications and said Letters Patent; said assignee being hereby authorized to file patent applications in any or all countries on any or all said inventions in the name of the undersigned or in the name of said assignee or otherwise as said assignee may deem advisable, under the International Convention or otherwise; the Commissioner of Patents and Trademarks of the United States of America and the empowered officials of all other governments being hereby authorized to issue or transfer all said Letters Patent to said assignee in accordance herewith; this assignment being under covenant, not only that full power to make the same is had by the undersigned, but also that such assigned right is not encumbered by any grant, license, or other right heretofore given, and that the undersigned will do all acts reasonably serving to assure that said inventions, patent applications and Letters Patent shall be held and enjoyed by said assignee as fully

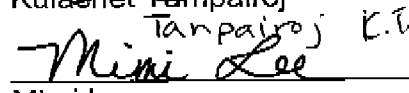

AMD Docket No. H0620US

and entirely as the same could have been held and enjoyed by the undersigned if this assignment had not been made, and particularly to execute and deliver to said assignee all lawful documents including petitions, specifications, oaths, assignments, invention disclaimers, and lawful affidavits in form and substance which may be requested by said assignee, to furnish said assignee with all facts relating to said inventions or the history thereof and any and all documents, photographs, models, samples or other physical exhibits which may be useful for establishing the facts of conception, disclosure and reduction to practice of said inventions, and to testify in any proceedings relating to said inventions, patent applications and Letters Patent.

I authorize the patent attorney of record and/or having power of attorney in the U.S. patent application identified above to insert the serial number and filing date information for the patent application in the appropriate spaces in this assignment document when that information becomes available.

Signed:

Date:

  
Edward Hsia12/19/02  
Darlene G. Hamilton1-27-03  
Kulaekhet Tampairoj1/14/03  
Mimi Lee1/31/03  
Alykhan F. MadhaniAP 47/03  
FEB 07, 2003  
Yi He1-31-03

AMD Docket No. H0620US

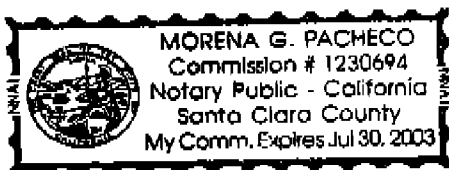
**CERTIFICATE OF ACKNOWLEDGMENT**State of CaliforniaCounty of Santa ClaraOn Dec. 19, 2002 before me,  
Morena G. Pacheco, Notary Public

Name and Title of Officer (e.g., "Jane Doe, Notary Public")

personally appeared Edward Asia

Name(s) of Signer(s)

☐ personally known to me - OR - ☒ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



WITNESS my hand and official seal

Morena G. Pacheco  
Signature of Notary Public

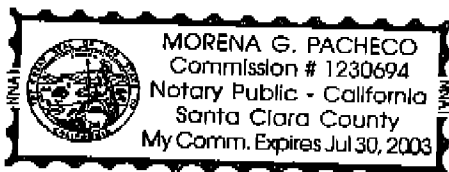
**CERTIFICATE OF ACKNOWLEDGMENT**State of CaliforniaCounty of Santa ClaraOn Jan. 27, 2003 before me, Morena G. Pacheco, Notary Public

Name and Title of Officer (e.g., "Jane Doe, Notary Public")

personally appeared Darlene G. Hamilton

Name(s) of Signer(s)

☐ personally known to me - OR - ☒ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



WITNESS my hand and official seal

Morena G. Pacheco  
Signature of Notary Public

AMD Docket No. H0620US

**CERTIFICATE OF ACKNOWLEDGMENT**

State of California  
County of Santa Clara  
On Jan. 14, 2003 before me, Morena G. Pacheco, Notary Public,  
Name and Title of Officer (e.g., "Jane Doe, Notary Public")  
personally appeared Kulachet Tanpairoj  
Name(s) of Signer(s)

☐ personally known to me - OR - ☒ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



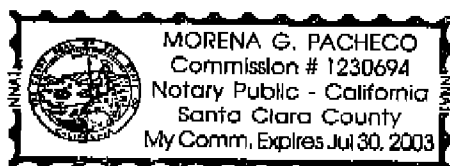
WITNESS my hand and official seal.

Morena G. Pacheco  
Signature of Notary Public

**CERTIFICATE OF ACKNOWLEDGMENT**

State of California  
County of Santa Clara  
On January 31, 2003 before me, Morena G. Pacheco, Notary Public,  
Name and Title of Officer (e.g., "Jane Doe, Notary Public")  
personally appeared Mimi Lee  
Name(s) of Signer(s)

☐ personally known to me - OR - ☒ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



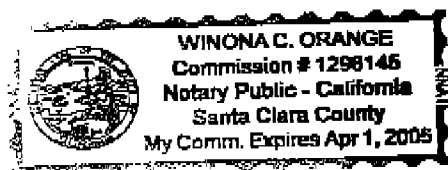
WITNESS my hand and official seal.

Morena G. Pacheco  
Signature of Notary Public

AMD Docket No. H0620US

**CERTIFICATE OF ACKNOWLEDGMENT**State of CaliforniaCounty of Santa ClaraOn February 7, 2003 before me, WINONA C. ORANGE, Notary Public  
Name and Title of Officer (e.g., "Jane Doe, Notary Public")personally appeared Alykhan F. Madhani  
Name(s) of Signer(s)

☒ personally known to me - OR - ☒ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

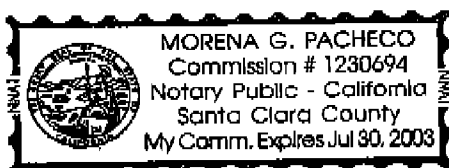


WITNESS my hand and official seal.

Winona C. Orange  
Signature of Notary Public

**CERTIFICATE OF ACKNOWLEDGMENT**State of CaliforniaCounty of Santa ClaraOn January 31, 2003 before me, Morena G. Pacheco, Notary Public  
Name and Title of Officer (e.g., "Jane Doe, Notary Public")personally appeared Yi He  
Name(s) of Signer(s)

☐ personally known to me - OR - ☒ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



WITNESS my hand and official seal.

Morena G. Pacheco  
Signature of Notary Public

LAW OFFICES

**RENNER, OTTO, BOISSELLE & SKLAR, LLP**

1621 EUCLID AVENUE, NINETEENTH FLOOR

CLEVELAND, OHIO 44115-2191

TEL: (216) 621-1113 FAX: (216) 621-6165

EMAIL: MAILROOM@RENNEROTTO.COM

May 7, 2003

Direct email: dgalin@rennerotto.com

Mail Stop Assignment Recordation Services  
Director of the U.S. Patent and Trademark Office  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

**Re: Recordal of Assignment for  
U.S. Patent Application Serial No. 10/422,276  
Our Ref.: H0620US**

Sir:

Please record the attached Assignment document with respect to the above U.S. patent application, and return same to the undersigned.

We authorize the USPTO to charge the amount of \$40.00 in satisfaction of the recordal fee to our Deposit Account No. 18-0988, Order No. AMDSPH0620US. A duplicate copy of this letter is enclosed for fee processing.

Very truly yours,



M. David Galin  
Reg. No.: 41,767

MDG/kh  
Attachments

**CERTIFICATE OF FACSIMILE TRANSMISSION UNDER 37 C.F.R. § 1.8(a)**

I hereby certify that this paper and the documents attached herewith are being facsimile transmitted to Mail Stop Assignment Recordation Services, the U.S. Patent and Trademark Office, facsimile number (703) 306-5995, on the date indicated below.

Date: May 7, 2003  
M. David Galin

\\robs-2k\secretary\SEC109\CASES\amds\H files\H0620us\amdsph0620us.assign fax record