08-02-2001 U.S. DEPARTMENT OF COMMERCE FORM PTO-1595 **RECO** Patent and Trademark Office (REV 6-93) OMB No. 0651-011 (exp.4/94) 101797335 To the Honorable Commissioner of Patents and Trademarks: Please record the attented original documents or copy thereof. Name and address of receiving party(ies): Name of conveying party(ies): Name: Advanced Micro Devices, Inc. Bharath RANGARAJAN Khoi A. PHAN Ramkumar SUBRAMANIAN Internal Address: Additional name(s) of conveying party(ies) attached? [] Yes [x] No Street Address: One AMD Place, P. O. Box 3453 3. Nature of conveyance: [] Merger [X] Assignment Sunnyvale] Security Agreement [] Change of Name City: California, U.S.A. ZIP: 94088 State/Country: Other ___ Execution Date: _____ Additional name(s) & address(es) attached? [] Yes [x] No 4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: $\frac{6/29;7/2;7/3/01}{6/29;7/2;7/3/01}$ B. Patent No.(s) A. Patent Application No.(s) Additional Numbers attached? [] Yes [x] No 5. Name and address of party to whom 6. Total number of applications and patents involved: [1] correspondence concerning document should be mailed: 7. Total fee (37 CFR 3.41)\$_____ Gregory Turocy Name: _____ Internal Address: ___ [X] Enclosed [] Authorized to be charged to deposit account

Street Address: Amin & Turocy, L.L.P. 8. Deposit account number: 24th Floor, 1900 East 9th Street 50-1063 Cleveland City: _ ZIP: 44114 Ohio State: (Attach duplicate copy of this page if paying by deposit account) DO NOT USE THIS SPACE

Statement and signature.

Reg. No.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Gregory Turocy

Name of Person Signing

July 23 2001

Total number of pages including cover sheet attachments, and document: [4]

ASSIGNMENT

For good and valuable consideration received of the hereinafter named assignee, receipt of which is hereby acknowledged, the undersigned

Bharath Rangarajan 2295 Dolores Avenue Santa Clara, California 95050 Khoi A. Phan 3841 Thousand Oaks Drive San Jose, California 95136

Ramkumar Subramanian 4271 Norwalk Drive, # X-105 San Jose, California 95129

hereby sell and assign 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

SYSTEM AND METHOD FOR CONTROL OF HARDMASK ETCH TO PREVENT PATTERN COLLAPSE OF ULTRA-THIN RESISTS

for which application for United States Letters Patent has been filed on under Serial No._____, or was executed by the undersigned on the date below and is being filed concurrently herewith, said application for United States Letters Patent, 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 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

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PATENT REEL: 012017 FRAME: 0912 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.

Signed:

Date:

7/3/0

Bharath Rangarajan

State of County of Sarta Jaka

On 07 03 01 before

before me, WINONA C.

CERTIFICATE OF ACKNOWLEDGMENT

Public-

personally appeared _

Name(s) of Signer(s)

personally known to me - OR - w 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 he/she/they executed the same in his her/their authorized capacity(jes), 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.

WINONA C. ORANGE
Commission # 1296145
Notary Public - California
Santa Clara County
My Comm. Expires Apr 1, 2005

WITNESS my hand and official seal.

Signature of Notary Public

Signature of Notary Public

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RECORDED: 07/23/2001