IBM Docket No.: SJO920020054US01 Altera Docket No.: 501.411US01

Recordation Form Cover Sheet Form PTO 1595 U.S. Department of Commerce PATENTS ONLY Patent and Trademark Office To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof 1. Name of conveying party(ies) Name and address of receiving party(ies): Edward Hin Pong Lee International Business Machines Corporation Robert Langland Smith New Orchard Road Armonk, New York 10504 Additional names(s) of conveying party(ies)

Yes
No Additional name(s) & addresses attached? 3. Nature of conveyance: Assignment Merger Security Agreement Change of Name Other Execution Date: September 19, 2002 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: September 19, 2002 A. Patent Application Number(s) Patent Number(s) Additional numbers attached? ☐ Yes ☒ No Name and address of party to whom correspondence Total number of applications and patents involved: One concerning document should be mailed: Total fee (37 C.F.R. §3.41) \$40.00 David W. Lynch Enclosed Name Authorized to charged to deposit account Address: Altera Law Group 6500 City West Parkway - Suite 100 Minneapolis, Minnesota 55344-7704 8. Please charge any additional fees or credit any 00000124 10254285 overpayments to our Deposit Account number: 50-1038 10/01/2002 TDIAZ1 DO NOT USE THIS SPACE 40.00 DP 01 FC:581 Statement and Signature: 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. David W. Lynch Name of Person Signing Total number of pages including cover sheet, attachments, and document: 2

> PATENT REEL: 013336 FRAME: 0104

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PATENT ASSIGNMENT TO CORPORATION WORLDWIDE

WHEREAS,

- 1. Edward Hin Pong Lee residing at 5838 Vargas Ct., San Jose, California 95120 and a citizen of U.S.A.
- 2. Robert Langland Smith residing at 1651 Kalispell Court, Sunnyvale, California 94087 and a citizen of U.S.A.
- 3. residing at and a citizen of

hereafter referred to as "THE UNDERSIGNED", have made an invention entitled: METHOD AND APPARATUS FOR BALANCED SHIELD SHUNTS, LEADS AND PADS FOR ELECTRICAL NOISE REDUCTION IN READ HEADS

AND, WHEREAS, INTERNATIONAL BUSINESS MACHINES CORPORATION, hereafter referred to as ASSIGNEE, a corporation organized under the laws of the state of New York and whose place of business is New Orchard Road, Armonk, New York 10504, is desirous of acquiring the entire right, title and interest in the same:

NOW, THEREFORE in consideration of the sum of One Dollar, the receipt whereof is acknowledged, and other good and valuable consideration, THE UNDERSIGNED hereby sell, assign and transfer unto ASSIGNEE the full and exclusive right to the said invention in the United States and the entire right, title and interest in and to all divisionals, continuations, continuations in part, reissues, reexaminations or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extension of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said invention including an assignment of all rights under the provision of international conventions and all Letters Patent of foreign countries which may be granted therefrom; the UNDERSIGNED hereby authorize the Commissioner of Patents to issue any and all United States Letters Patent for the aforesaid invention to ASSIGNEE of the entire right, title and interest in and to the same, for the use of the ASSIGNEE, its successors and assigns.

THE UNDERSIGNED, hereby agree that THE UNDERSIGNED, their executors and legal representatives will make, execute and deliver (without charge but at the expense of the ASSIGNEE) any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said ASSIGNEE, its successors and representatives all facts Known to THE UNDERSIGNED relating to said invention and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable to vest the ASSIGNEE, its successors or assigns the entire right, title and interest in and to the said invention, applications, Letters Patent, rights, titles and benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

THE UNDERSIGNED represent and agree with said Assignee its successors and assignees, that no assignment grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by THE UNDERSIGNED, and that full right to convey the same as herein expressed is possessed by THE UNDERSIGNED.

IN TESTIMONY WHEREOF, THE UNDERSIGNED have hereunto set their hand on the dates indicated below.

Robert Langland Smith

No Legalization Required

PATENT REEL: 013336 FRAME: 0105

RECORDED: 09/25/2002