04-05-2001 FORM PTQ-1595 U.S. DEPARTMENT OF COMMERCE **RECORDATI** (Rev. 6-93) Patent and Trademark Office OMB No. 0651-0011 (exp. 4/94) 101669111 To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof. 2. Name and address of receiving party(ies) 1. Name of conveying party(ies): Name: NEC Corporation Yasuhiro NANBA Internal Address: Additional name(s) of conveying party(ies) attached?

Yes XX No 3. Nature of conveyance: Street Address: 7-1, Shiba 5-chome, **EX Assignment** □ Merger Minato-ku, Tokyo, Japan ☐ Security Agreement □ Change of Name Other Execution Date: March 19, 2001 Additional name(s) & address(es) attached? ☐ Yes XXNo 4. Application number(s) or patent number(s): filed herewith ATTORNEY DOCKET NO.: 5000-7 If this document is being filed together with a new application, the execution date of the application is: March 19, 2001 A. Patent Application No.(s) B. Patent No.(s) 09/815802 Additional numbers attached?

Yes XX No. Total number of applications and patents involved: 5. Name and address of party to whom correspondence concerning document should be mailed: LAFF, WHITESEL, CONTE & SARET, LTD. 7. Total fee (37 CFR 3.41).....\$\(\frac{40.00}{}{} ATTORNEYS AT LAW 401 NORTH MICHIGAN AVENUE CHICAGO, ILLINOIS 60611-4212 **XX** Enclosed Direct Telephone Calls to: J. Warren Whitesel **XX**Authorized to be charged to deposit account at telephone No. (312) 661-2100. Fax (312) 661-0029 CERTIFICATE OF MAILING I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to: 8. Deposit account number: 12-0064 Commissioner of Patents and Trademarks, Box Assignments, Washington, D.C. 20231 on ∠ Date: (Attach duplicate copy of this page if paying by deposit account) TYPED NAME: 4/05/2001 DBYRNE 00000036 09815802 DO NOT USE THIS SPACE 9. 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.

Signature Total number of pages including cover sheet, attachments, and document:

J. Warren Whitesel

Name of Person Signing

0 - 032200

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Atty Dkt No. 5000-7

ASSIGNMENT

FOR VALUE RECEIVED, the receipt of which is hereby acknowledged, the following inventor or inventors (hereinafter called "ASSIGNOR")

Yasuhiro Nanba of Tokyo, Japan

hereby assigns, transfers and sets over to:

NEC Corporation

of 7-1, Shiba 5-chome, Minato-ku, Tokyo, Japan

(hereinafter called "ASSIGNEE"), the entire worldwide right, title and interest in and to the invention known as:

SEMICONDUCTOR MEMORY DEVICE WITH A REFRESH FUNCTION

- (1) The ASSIGNOR agrees without charge to said ASSIGNEE but at its expense (a) to execute (i) all necessary papers to be used in connection with this application and any additional, continuing, or divisional applications, as the ASSIGNEE may deem necessary or expedient, (ii) all papers in connection with any interference or other legal or quasi-legal proceedings relating to this application or any additional, continuing, or divisional application thereof, (iii) all papers and documents which may be necessary in connection with the preparation and filing of any foreign applications or with making claims to priority rights granted under the provisions of the International Convention for Protection of Industrial Property or similar agreements; (b) to cooperate with ASSIGNEE in every way possible in obtaining evidence and going forward in any such proceedings; and (c) to perform all other affirmative acts which may be necessary or desirable to obtain a grant of a valid patent for said invention in any country throughout the world.
- (2) ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks of the United States, and the appropriate officials in any other country, to issue any and all Letters Patent that may be granted upon any patent application or any additional, continuing or divisional applications thereof to the ASSIGNEE, its successors and assigns.
- (3) ASSIGNOR hereby covenants and warrants that he has full right to convey the entire right, title and interest by this instrument, free of any encumbrances and that no other agreement has been or will be executed in conflict herewith.
- (4) ASSIGNOR hereby grants to the law firm of LAFF, WHITESEL & SARET, LTD. of Chicago, Illinois, authority and power to insert on this instrument any further identification which may be necessary or desirable for purposes of recordation in the United States Patent and Trademark Office or a Patent Office of any foreign country.

Date Mar. 19,2001	Signature of Inventor	Yasukiro	Kanba	E.E.	_(SEAL)
Date	Signature of Inventor	Yasuhiro Nan	ba		_(SEAL)
Date	Signature of Inventor				_(SEAL)
Date	Signature of Inventor				_(SEAL)
Date	Signature of Inventor				_(SEAL)
Date	Signature of Inventor				_(SEAL)
Witness:		Nitashi	Clkai	_	

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PATENT REEL: 011640 FRAME: 0552