1. Name of conveying party(ies):
   Hiroyuki TAKAHASHI; Hideo INABA; Masatoshi SONODA; Yoshiyuki KATO; Atsushi NAKAGAWA

   Additional name(s) of conveying party(ies) attached? Yes __ No X

   Nature of conveyance:
   (X) Assignment ( ) Merger
   ( ) Security Agreement ( ) Change of Name
   ( ) Other:

   Execution Date: August 29, 2002

2. Name and address of receiving party(ies)
   Name: NEC Corporation
   Internal Address: _______________________________________________________________
   __________________________
   Street Address: 7-1 Shiba 5 chome
   Minato-ku, Tokyo JAPAN

   Additional name(s) & address(es) attached? Yes No X

3. Application number(s) or patent number(s):

   If this document is being filed together with a new application, the execution date of the applications is: August 29, 2002

   A. Patent Application No.(s) B. Patent No.(s)

   Additional numbers attached? Yes No X

4. Name and address of party to whom correspondence concerning document should be mailed:
   Name: Patent Group
   Internal Address: Choate, Hall & Stewart
   Street Address: Exchange Place, 53 State Street
   City: Boston State: MA ZIP: 02109-2804

5. Total number of applications and patents involved: 1

6. Total fee (37 CFR 3.41) $40.00
   (X) Enclosed
   ______ Authorized to be charged to deposit account

7. Deposit account number:
   (Attached duplicate copy of this page if paying by deposit account)

8. 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.

   Donald W. Muirhead: 33,978
   Name of Person Signing

   __________________________
   Signature
   September 6, 2002
   Date

   Total number of pages including cover sheet, attachments, and document: 3

Mail documents to be recorded with required covered sheet information to:
Commissioner of Patents & Trademarks, Box Assignments
Washington, D.C. 20231

HWD3454510v1

PATENT
REEL: 013416 FRAME: 0419
ASSIGNMENT

WHEREAS, each of the Undersigned has developed certain inventions described in U.S. patent application entitled:

SEMICONDUCTOR MEMORY DEVICE

( ) executed on even date herewith;
( ) executed on ________________;
( ) now U.S. Application No. ________________ filed ________________;

and has full right to convey their entire interest, both legal and equitable, in and to said inventions free from all prior assignments, agreements, licenses, mortgages, security interests, or other encumbrances whatsoever; and

WHEREAS, NEC Corporation ("ASSIGNEE"), a Japanese corporation having executive offices at 7-1, Shiba 5-chome, Minato-ku, Tokyo, Japan, is desirous of acquiring the entire right, title and interest in and to said invention or inventions and any and all patents to be obtained therefor;

NOW, THEREFORE, in consideration of the sum of One Dollar ($1.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by each of the Undersigned, each of the Undersigned hereby sells, assigns and transfers unto said ASSIGNEE, its successors and assigns, their entire right, title and interest in and to said invention or inventions, as described in the aforesaid application and all applications resulting therefrom, including any and all divisionals, continuations, continuations in part, substitute application, and reissues or extensions thereof; and all resulting patents;

AND each of the Undersigned hereby authorizes and requests the issuing authority to issue any and all patents on said application or applications to said ASSIGNEE or its successors and assigns; the Undersigned agree(s) that the attorney of record in said application shall hereinafter act on behalf of said ASSIGNEE;

AND, each of the Undersigned further agrees, without any further payment or compensation by said ASSIGNEE or its successors and assigns, to communicate to said ASSIGNEE, its representatives or agents or its successors and assigns, any facts relating to said invention or inventions including evidence for interference purposes or for other legal proceedings whenever requested; to testify in any interference or other legal proceedings, whenever requested; to execute and deliver, on request, all lawful papers required to make any of the foregoing provisions effective; and to generally do everything possible to aid said ASSIGNEE, its successors or assigns and nominees to secure, obtain and enforce proper patent protection for said invention or inventions in this or any foreign country;

Each of the undersigned hereby authorizes Hutchins, Wheeler & Dittmar, of 101 Federal Street, Boston, MA 02110, to insert hereon any further identification information necessary or desirable for recordation of this document.

Inventors(s)

Date Signed

Witnesses

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( ) Additional inventors are being named on separately numbered sheets attached hereto.
<table>
<thead>
<tr>
<th>Inventors(s)</th>
<th>Date Signed</th>
<th>Witnesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. <strong>Atsushi Nakagawa</strong>&lt;br&gt;</td>
<td>August 29, 2002</td>
<td><strong>[Signature]</strong></td>
</tr>
</tbody>
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