



To the Honorable Commissioner of Patents and Trademarks

101816200

attached original documents or copy thereof.

1. Name of conveying party(ies):

Kazuhiro SHIMIZU and Fumitaka ARAI

2. Name and address of receiving party(ies):

Name: KABUSHIKI KAISHA TOSHIBA

Address: 1-1, Shibaura 1-chome, Minato-ku, Tokyo, Japan

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

3. Nature of Conveyance:

- Assignment
- Security Agreement
- Other
- Merger
- Change of Name

Execution Date: July 30, 2001

Additional name(s) and address(es) attached?  Yes  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: July 30, 2001

A. Patent Application No.(s)

B. Patent No.(s)

Additional numbers attached?  Yes  No

5. Name and address of party to whom correspondence concerning document should be mailed:

09/925418



22850

6. Total applications and patents involved: 1

7. Total fee (37 CFR 3.41): \$40.00

- Enclosed
- Authorized to be charged to deposit account

8. Deposit account number: 15-0030

(Attach duplicate copy of this page if paying by deposit account)

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.

Marvin J. Spivak

Name of Person Signing

Registration Number: 24,913

G. Irvin Holland

Signature

Registration Number 21,124

8/10/01

Date

Total number of pages including this cover sheet: 3

Do not detach this portion

Mail documents to be recorded with required cover sheet information to:

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

08/13/2001 JBALINAN 00000032 09925418

03 FC:581

40.00 DF

# A S S I G N M E N T

In consideration of value received, I, having a mailing address at c/o Intellectual Property Division, KABUSHIKI KAISHA TOSHIBA, 1-1 Shibaura 1-chome, Minato-ku, Tokyo 105-8001, Japan and a residence as stated below next to my name, the sole inventor (if only one name is listed below) or a joint inventor (if plural inventors are listed below) of an invention described in an application for United States patent entitled:

NON-VOLATILE SEMICONDUCTOR MEMORY DEVICE HAVING MEMORY  
CELL ARRAY SUITABLE FOR HIGH DENSITY AND HIGH  
INTEGRATION

said application having been filed on \_\_\_\_\_  
and assigned Application No. \_\_\_\_\_ ;  
sell and assign to  
KABUSHIKI KAISHA TOSHIBA  
a corporation of Japan, having a business address at  
1-1, Shibaura 1-chome, Minato-ku, Tokyo, Japan

its successors, assigns or nominees, hereinafter referred to as "Assignee", my entire right, title and interest in and to said invention as disclosed, shown and described in said application for United States patent: (check one)

executed concurrently herewith;

executed separately herefrom:

and in and to all applications for patent and patents for said invention, in all countries of the world, including all divisions, reissues, continuations, substitutions and extensions thereof and all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property, including rights of priority, resulting from the filing of any of said applications; and I authorize and request any official whose duty is to issue patents, to issue any patent on said invention or resulting therefrom to said Assignee, and I agree that on request and without further consideration, but at the expense of said Assignee, I will communicate to said Assignee or its representatives all facts known to me respecting said invention and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue, or other applications, make all rightful oaths and declarations, and generally do everything possible to aid said Assignee to obtain and enforce proper patent protection for said invention in all countries.

I hereby grant the following law firm the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the Rules of the U. S. Patent and Trademark Office for recordation of this document.

Oblon, Spivak, McClelland, Maier & Neustadt, P.C., Fourth Floor, 1755  
Jefferson Davis Highway, Arlington, Virginia 22202

ASSIGNMENT

01S0323

Inventor: (Signature)

Date

Residence

*Kazuhiro Shimizu*

JUL. 30. 2001

Yokohama-shi, Japan

Kazuhiro Shimizu

*Fumitaka Arai*

JUL. 30. 2001

Yokohama-shi, Japan

Fumitaka Arai

RECORDING OFFICER:

After recording please return to:  
Oblon, Spivak, McClelland,  
Maier & Neustadt, P.C.,

Fourth Floor,  
1755 Jefferson Davis Highway,  
Arlington, Virginia 22202