

04-27-2001



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FORM PTO-1596
1-31-92

RECORDATION FORM COVER SHEET

U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office**Docket No.: 57454-057****PATENTS ONLY**

To the Honorable Commissioner for Patents and Trademarks: Please record the attached original documents or copy thereto:

1. Name of Conveying Parties:

Kazutami ARIMOTO, Hiroki SHIMANO, Takeshi FUJINO,
and Takeshi HASHIZUME

3-27-01

Additional name of conveying parties attached? ☐ Yes

3. Nature of Conveyance:

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

Execution Date: March 21, 2001

2. Name and address of receiving party:

Name: MITSUBISHI DENKI KABUSHIKI KAISHA

Address: 2-3, Marunouchi 2-Chome
Chiyoda-Ku
Tokyo 100-8310, JAPAN
 JC979 U.S. PTO
 09/817177
 03/27/01
Additional name & address attached? ☐ Yes

4. Application number or patent number:

If the document is being filed together with a new application, the execution date of the application is: March 21, 2001

A. Patent Application No.

B. Patent No.

09/817177

Additional numbers attached? ☐ Yes

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

Name: MCDERMOTT, WILL & EMERY
Internal Address:Street Address: 600 13th Street, N.W.

City: Washington State: DC Zip: 20005

6. Total number of 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:
500417

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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.

Stephen A. Becker, No. 26,527

Name and Registration No. of Person Signing

Signature

March 27, 2001

Date

Total number of pages comprising cover sheet: 1

CMB No. 0851-0011 (exp. 4/94)

 PATENT
 REEL: 011719 FRAME: 0643

Docket No.:

ASSIGNMENT

In consideration of the premises and other good and valuable consideration in hand paid, the receipt and sufficiency of which is hereby acknowledged, the undersigned,

| | | |
|-----------------------------|------------------------------|-----------|
| (1) <u>Kazutami ARIMOTO</u> | (4) <u>Takeshi HASHIZUME</u> | (7) _____ |
| (2) <u>Hiroki SHIMANO</u> | (5) _____ | (8) _____ |
| (3) <u>Takeshi FUJINO</u> | (6) _____ | (9) _____ |

who have made a certain new and useful invention, hereby sell, assign and transfer unto

Mitsubishi Denki Kabushiki Kaisha of
2-3, Marunouchi 2-chome, Chiyoda-ku, TOKYO 100-8310 JAPAN

its successors and assigns (hereinafter designated "ASSIGNEE") the entire right, title and interest for the United States of America as defined in 35 U.S.C. 100 in the invention entitled

REFRESH-FREE DYNAMIC SEMICONDUCTOR MEMORY DEVICE

(a) for which an application for United States Letters Patent was filed on _____, and identified by United States Serial No. _____; or

(b) for which an application for United States Letters Patent was executed on March 21, 2001

and the undersigned hereby authorize and request the United States Commissioner of Patents and Trademarks to issue any and all United States Letters Patent which may be granted therefor and any and all extensions, divisions, reissues, substitutes, renewals, continuations, or continuations-in-part thereof, and the right to all benefits under the International Convention for the Protection of Industrial Property to the said ASSIGNEE, for its interest as ASSIGNEE, its successors, assigns and legal representatives; the undersigned agree that the attorneys of record in said application shall hereafter act on behalf of said ASSIGNEE:

AND the undersigned hereby agree to transfer a like interest, and to render all necessary assistance in making application for and obtaining original, divisional, reissued or extended Letters Patent of the United States, upon request of the said ASSIGNEE, its successors, assigns and legal representatives, and without further remuneration, in and to any improvements, and applications for patent based thereon, growing out of or related to the said invention; and to execute any papers by the said ASSIGNEE, its successors, assigns and legal representatives, deemed essential to ASSIGNEE's full protection and title in and to the invention hereby transferred.

SIGNED on the dates indicated aside our signatures:

INVENTORS

| | |
|----|--------------------------------|
| 1) | <u>Kazutami Arimoto</u> |
| | Name: <u>Kazutami ARIMOTO</u> |
| 2) | <u>Hiroki Shimano</u> |
| | Name: <u>Hiroki SHIMANO</u> |
| 3) | <u>Takeshi Fujino</u> |
| | Name: <u>Takeshi FUJINO</u> |
| 4) | <u>Takeshi Hashizume</u> |
| | Name: <u>Takeshi HASHIZUME</u> |
| 5) | _____ |
| | Name: _____ |
| 6) | _____ |
| | Name: _____ |
| 7) | _____ |
| | Name: _____ |
| 8) | _____ |
| | Name: _____ |
| 9) | _____ |
| | Name: _____ |

DATE SIGNED

March 21, 2001

March 21, 2001

March 21, 2001

March 21, 2001

PATENT

RECORDED: 03/27/2001

REEL: 011719 FRAME: 0644