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FORM PTO-1596

1-31-92

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U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

Docket No.: 49657-583

101734257

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

## 1. Name of Conveying Party(ies):

Mitsutaka NIIRO

Additional name(s) of conveying party(ies) attached? ☐ Yes

## 3. Nature of Conveyance:

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

Execution Date: December 9, 1999

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

Name: Mitsubishi Denki Kabushiki Kaisha

Address: 2-3, Marunouchi 2-chome, Chiyoda-ku

TOKYO 100-8310, JAPAN

Additional name(s) & address(es) attached? ☐ Yes

## 4. Application number(s) or patent number(s):

If the document is being filed together with a new application, the execution date of the application is: December 9, 1999

## A. Patent Application No(s).

09478 335

## B. Patent No(s).

Additional numbers attached? ☐ Yes

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

Name: MCDERMOTT, WILL &amp; EMERY

Internal Address:

Street Address: 600 13<sup>th</sup> 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)

☐ Enclosed☒ Authorized to be charged to deposit account

\$40.00

## 8. Deposit account number:

500417

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.*

Stephen A. Becker, 26,527

January 6, 2000

Name and Registration No. of Person Signing

Signature

Date

Total number of pages comprising cover sheet: 1

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

PATENT

REEL: 011834 FRAME: 0954

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) Mitsutaka NIIRO (4) \_\_\_\_\_ (7) \_\_\_\_\_  
 (2) \_\_\_\_\_ (5) \_\_\_\_\_ (8) \_\_\_\_\_  
 (3) \_\_\_\_\_ (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

SEMICONDUCTOR MEMORY DEVICE PREVENTING REPEATED USE OF SPARE MEMORY CELL  
AND REPAIRABLE BY CELL SUBSTITUTION UP TO TWO TIMES

(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 December 9, 1999,

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

DATE SIGNED

1) Mitsutaka Niiro  
 Name: Mitsutaka NIIRO

December 9, 1999

2) \_\_\_\_\_  
 Name: \_\_\_\_\_

3) \_\_\_\_\_  
 Name: \_\_\_\_\_

4) \_\_\_\_\_  
 Name: \_\_\_\_\_

5) \_\_\_\_\_  
 Name: \_\_\_\_\_

6) \_\_\_\_\_  
 Name: \_\_\_\_\_

7) \_\_\_\_\_  
 Name: \_\_\_\_\_

8) \_\_\_\_\_  
 Name: \_\_\_\_\_

9) \_\_\_\_\_  
 Name: \_\_\_\_\_

PATENT

RECORDED: 01/06/2000

REEL: 011834 FRAME: 0955