

RE

08-19-1999



FORM PTO-1596  
1-31-92

U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

Docket No.: 49657-333

101101969

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

MPD 3-18-99

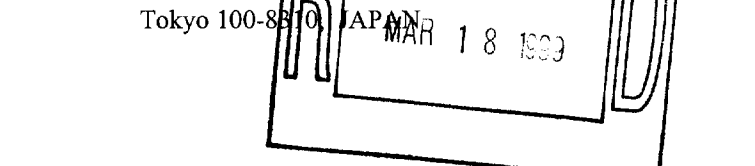
1. Name of Conveying Parties:  
Kiyoyasu AKAI, Masayuki YAMASHITA and Motoi  
ASHIDA

2. Name and address of receiving party:  
Name: Mitsubishi Denki Kabushiki Kaisha  
Address: 2-3, Marunouchi 2-chome  
Chiyoda-ku  
Tokyo 100-8370, JAPAN

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

3. Nature of Conveyance:  
 Assignment  Merger  
 Security Agreement  Change of Name  
 Other

Execution Date: February 23, 1999



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: February 23, 1999

A. Patent Application No(s). 09/267,161

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 & 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) \$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.*

Gene Z. Rubinson, 33,351

March 12, 1999

Name and Registration No. of Person Signing Signature Date  
Total number of pages comprising cover sheet: 1

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

03/22/1999 BMSUYEH 00000194 500417 KIYOYASU AKAI

01 FC:581 40.00 CH

PATENT  
REEL: 010029 FRAME: 0578

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) Kiyoyasu AKAI (4) \_\_\_\_\_ (7) \_\_\_\_\_
- (2) Masayuki YAMASHITA (5) \_\_\_\_\_ (8) \_\_\_\_\_
- (3) Motoi ASHIDA (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 DELAYING ATD PULSE SIGNAL TO GENERATE  
WORD LINE ACTIVATION SIGNAL

- (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 February 23, 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) Kiyoyasu AKAI February 23, 1999  
Name: Kiyoyasu AKAI
- 2) Masayuki Yamashita February 23, 1999  
Name: Masayuki YAMASHITA
- 3) Motoi Ashida February 23, 1999  
Name: Motoi ASHIDA
- 4) \_\_\_\_\_  
Name: \_\_\_\_\_
- 5) \_\_\_\_\_  
Name: \_\_\_\_\_
- 6) \_\_\_\_\_  
Name: \_\_\_\_\_
- 7) \_\_\_\_\_  
Name: \_\_\_\_\_
- 8) \_\_\_\_\_  
Name: \_\_\_\_\_
- 9) \_\_\_\_\_  
Name: \_\_\_\_\_

PATENT