

11-23-2001



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U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

Docket No.: 57454-292

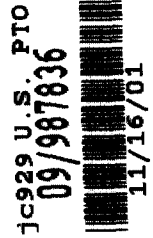
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AGREEMENTS ONLY

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

1. Name of Conveying Party(ies):
Yayoi TSUBOUCHI and Takashi ITOU
11/16/01
Additional name(s) of conveying party(ies) attached? Yes

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



3. Nature of Conveyance:
 Assignment Merger
 Security Agreement Change of Name
 Other
Execution Date: October 23, 2001

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: October 23, 2001
A. Patent Application No(s).
B. Patent No(s).

09/987836

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, 26,527 *[Signature]* November 16, 2001

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

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

11/21/2001 09HED1 00000015 500417 09987836
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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) Yayoi TSUBOUCHI (4) _____ (7) _____
- (2) Takashi ITOU (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 WITH REDUCED POWER CONSUMPTION DURING
REFRESH OPERATION

(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 October 23, 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	DATE SIGNED
1) <u>Yayoi Tsubouchi</u> Name: Yayoi TSUBOUCHI	<u>October 23, 2001</u>
2) <u>Takashi Iton</u> Name: Takashi ITOU	<u>October 23, 2001</u>
3) _____ Name: _____	_____
4) _____ Name: _____	_____
5) _____ Name: _____	_____
6) _____ Name: _____	_____
7) _____ Name: _____	_____
8) _____ Name: _____	_____
9) _____ Name: _____	_____