

11-20-2001



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U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

FORM PTO-1596
1-31-92

Docket No.: 57454-269

101898380

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

1. Name of Conveying Party(ies):
Hiroaki TANIZAKI, Shigeki TOMISHIMA, Mitsutaka NIRO, Masanao MARUTA, Hiroshi KATO, Masatoshi ISHIKAWA, Takaharu TSUJI, Hideto HIDAHA and Tsukasa OOISHI
11/14/01
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

Name: MITSUBISHI ELECTRIC ENGINEERING CO., LTD.
Address: 6-2, Ootemachi 2-chome
Chiyoda-ku
Tokyo 100-0004 JAPAN

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

3. Nature of Conveyance:
 Assignment Merger
 Security Agreement Change of Name
 Other
Execution Date: October 2, 2001

4. Application number(s) or patent number(s): *09/987277*
If the document is being filed together with a new application, the execution date of the application is: October 2, 2001
A. Patent Application No(s).
B. Patent No(s).

Additional numbers attached? Yes

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

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

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 *[Signature]* November 14, 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)

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PATENT
REEL: 012307 FRAME: 0704

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) Hiroaki TANIZAKI (4) Masanao MARUTA (7) Takaharu TSUJI
 (2) Shigeki TOMISHIMA (5) Hiroshi KATO (8) Hideto HIDAKA
 (3) Mitsutaka NIRO (6) Masatoshi ISHIKAWA (9) Tsukasa OOISHI

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

(1) Mitsubishi Denki Kabushiki Kaisha of
2-3, Marunouchi 2-chome, Chiyoda-ku, TOKYO 100-8310 JAPAN
 (2) Mitsubishi Electric Engineering Company Limited of
6-2, Ootemachi 2-chome, Chiyoda-ku, TOKYO 100-0004 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 CAPABLE OF REDUCING LEAKAGE CURRENT FLOWING
INTO SUBSTRATE

(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 2, 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>Hiroaki Tanizaki</u> Name: Hiroaki TANIZAKI	<u>October 2, 2001</u>
2) <u>Shigeki Tomishima</u> Name: Shigeki TOMISHIMA	<u>October 2, 2001</u>
3) <u>Mitsutaka Niuro</u> Name: Mitsutaka NIRO	<u>October 2, 2001</u>
4) <u>Masanao Maruta</u> Name: Masanao MARUTA	<u>October 2, 2001</u>
5) <u>Hiroshi Kato</u> Name: Hiroshi KATO	<u>October 2, 2001</u>
6) <u>Masatoshi Ishikawa</u> Name: Masatoshi ISHIKAWA	<u>October 2, 2001</u>
7) <u>Takaharu Tsuji</u> Name: Takaharu TSUJI	<u>October 2, 2001</u>
8) <u>Hideto Hidaka</u> Name: Hideto HIDAKA	<u>October 2, 2001</u>
9) <u>Tsukasa Oishi</u> Name: Tsukasa OOISHI	<u>October 2, 2001</u>

PATENT

RECORDED: 11/14/2001

REEL: 012307 FRAME: 0705