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11-12-2004



102879991

FORM PTO-1595
(Rev. 10/02)

RECORDATION

DEPARTMENT OF COMMERCE
Patent and Trademark Office

Docket No.: 56937-111

PATENT

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

1. Name of Conveying Party(ies):

Toshitaka UCHIKOBA, Tomonori FUJIMOTO and Kiyoto
OHTAAdditional name(s) of conveying party(ies) attached? ☐ Yes ☐ No

3. Nature of Conveyance:

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

Execution Date: June 23, 2004

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

Name: MATSUSHITA ELECTRIC INDUSTRIAL CO.,
LTD.

Address: 1006, Oaza Kadoma

Kadoma-shi, Osaka 571-8501 JAPAN

Additional name(s) & address(es) attached? ☐ Yes ☐ No

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:

A. Patent Application No(s).

10/864,814, filed June 10, 2004

B. Patent No(s).

Additional numbers attached? ☐ Yes ☐ No5. Name and address of party to whom correspondence
concerning document should be mailed:

Name: MCDERMOTT WILL & EMERY LLP

Internal Address:

Street Address: 600 13th Street, N.W.

City: Washington State: D.C. Zip: 20005-3096

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.*

Michael E. Fogarty, Registration No. 36,139

November 5, 2004

Name and Registration No. of Person Signing

Signature

Date

Total number of pages including cover sheet:

3

OMB No. 0651-0027 (exp. 6/30/2005)

11/10/2004 6TOM11 00000161 500417 10864814

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40.00 DA

PATENT
REEL: 015965 FRAME: 0754

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>Toshitaka UCHIKOBA</u>	(4) _____
(2) <u>Tomonori FUJIMOTO</u>	(5) _____
(3) <u>Kiyoto OHTA</u>	(6) _____

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

MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.

1006, Oaza Kadoma

Kadoma-Shi

Osaka 571-8501 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 APPARATUS CAPABLE OF PERFORMING REFRESH
CONTROL

(a) for which an application for United States Letters Patent was filed on June 10, 2004, and identified by United States Serial No.10/864,814; or

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

and the undersigned hereby authorize and request the United States Commissioner for 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>Toshitaka UCHIKOBA</u> Name: Toshitaka UCHIKOBA	<u>June 23, 2004</u>
2) <u>Fujimoto Tomonori</u> Name: Tomonori FUJIMOTO	<u>June 23, 2004</u>
3) <u>Kiyoto Ohta</u> Name: Kiyoto OHTA	<u>June 23, 2004</u>
4) _____ Name: _____	_____
5) _____ Name: _____	_____
6) _____ Name: _____	_____