

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT																						
NATURE OF CONVEYANCE:	ASSIGNMENT																						
CONVEYING PARTY DATA																							
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Tsuyoshi TAKAHASHI</td> <td>01/23/2013</td> </tr> <tr> <td>Yuichiro MASUDA</td> <td>01/23/2013</td> </tr> <tr> <td>Shigeo FURUTA</td> <td>01/24/2013</td> </tr> <tr> <td>Touru SUMIYA</td> <td>01/23/2013</td> </tr> <tr> <td>Masatoshi ONO</td> <td>01/25/2013</td> </tr> <tr> <td>Yutaka HAYASHI</td> <td>01/24/2013</td> </tr> <tr> <td>Tetsuo SHIMIZU</td> <td>02/05/2013</td> </tr> <tr> <td>Kumaragurubaran SOMU</td> <td>02/04/2013</td> </tr> <tr> <td>Hiroshi SUGA</td> <td>01/28/2013</td> </tr> <tr> <td>Yasuhisa NAITOU</td> <td>02/05/2013</td> </tr> </tbody> </table>		Name	Execution Date	Tsuyoshi TAKAHASHI	01/23/2013	Yuichiro MASUDA	01/23/2013	Shigeo FURUTA	01/24/2013	Touru SUMIYA	01/23/2013	Masatoshi ONO	01/25/2013	Yutaka HAYASHI	01/24/2013	Tetsuo SHIMIZU	02/05/2013	Kumaragurubaran SOMU	02/04/2013	Hiroshi SUGA	01/28/2013	Yasuhisa NAITOU	02/05/2013
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PATENT

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13819247

CORRESPONDENCE DATA

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NAME OF SUBMITTER:	Jeffrey D. Sanok
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Signature:	/Jeffrey D. Sanok, Reg. No. 32,169/
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Date:	05/01/2013
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Total Attachments: 4

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ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor has sold and assigned, and by these presents hereby sells and assigns, unto:

(1) NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND
TECHNOLOGY

3-1, Kasumigaseki 1-chome, Chiyoda-ku, Tokyo 100-8921 Japan

(2) FUNAI ELECTRIC ADVANCED APPLIED TECHNOLOGY RESEARCH
INSTITUTE INC.

7-7-1, Nakagaito, Daito-shi, Osaka 574-0013 Japan

(3) FUNAI ELECTRIC CO., LTD.

7-7-1, Nakagaito, Daito-shi, Osaka 574-0013 Japan

(hereinafter ASSIGNEE) all right, title and interest for the United States, its territories and possessions in and to his invention relating to:

DRIVE METHOD FOR MEMORY ELEMENT AND STORAGE DEVICE USING MEMORY
ELEMENT

as set forth in his United States Patent Application (check one):

- ☐ executed concurrently herewith,
☐ executed on ____,
☐ Serial No. _____, filed _____,
☒ PCT International Application, No.: PCT/JP2011/069117, filed August 25, 2011,

in and to said United States Patent Application including any and all divisions or continuations thereof and in and to any and all Letters Patent of the United States which may issue on any such application or for said invention, including any and all reissues or extensions thereof, to be held and enjoyed by said ASSIGNEE, its successors, legal representatives and assigns to the full end of the term or terms for which any and all such Letters patent may be granted as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not been made;

Each of the undersigned hereby authorizes and requests the Commissioner of Patents and Trademarks to issue any and all such Letters patent to said ASSIGNEE, its successors or assigns in accordance herewith;

Each of the undersigned warrants and covenants that he has the full and unencumbered right to sell and assign the interests herein sold and assigned and that he has not executed and will not execute any document or instrument in conflict herewith;

Each of the undersigned further covenants and agrees he will communicate to said ASSIGNEE, its successors, legal representatives or assigns all information known to him relating to said invention or patent application and that he will execute and deliver any papers, make all rightful oaths, testify in any legal proceedings and perform all other lawful acts deemed necessary or desirable by said ASSIGNEE, its successors, legal representatives or assigns to perfect title to said invention, to said application including divisions and continuations thereof and to any and all Letters Patent which may be granted therefor or thereon, including reissues or extensions, in said ASSIGNEE, its successors, or assigns or to assist said ASSIGNEE, its successors, legal representatives or assigns in obtaining, reissuing or enforcing Letters Patent of the United States for said invention;

Each of the undersigned hereby grants the firm of **CROWELL & MORING, L.L.P.**, or any partner thereof, the power to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

Signature:

Inventor one:

高橋 剛
Tsuyoshi TAKAHASHI

Jan. 23, 2013
DATE

Signature:

Inventor two:

Yuichiro Masuda
Yuichiro MASUDA

Jan. 23, 2013
DATE

Signature:

Inventor three:

古田 成生
Shigeo FURUTA

Jan. 24, 2013
DATE

Signature:

Inventor four:

角谷 透
Touji SUMIYA

Jan. 23, 2013
DATE

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Inventor five:

Masatoshi Ono
Masatoshi ONO

Jan. 25, 2013
DATE

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Inventor six:

Yutaka Hayashi
Yutaka HAYASHI

Jan. 24, 2013
DATE

Signature:

Inventor seven:

Toshimi FUKUOKA

DATE

Signature:

Inventor eight:

Tetsuo SHIMIZU

DATE

Signature:

Inventor nine:

Kumaragurubaran SOMU

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Signature:

Inventor ten:

Hiroshi SUGA

DATE

Signature:

Inventor eleven:

Yasuhisa NAITOU

DATE

Note: Prima facie evidence of execution may optionally be obtained by execution of this document before a U.S. Consul or before a local officer authorized to administer oaths whose authority is proved by a certificate from a U.S. Consul.

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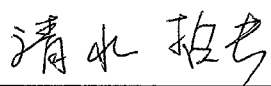
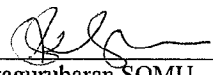
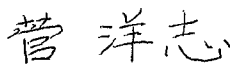
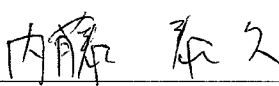
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Signature: Inventor one:	<u>Tsuyoshi TAKAHASHI</u>	<u>DATE</u>
Signature: Inventor two:	<u>Yuichiro MASUDA</u>	<u>DATE</u>
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Signature: Inventor seven:	<u>Toshimi FUKUOKA</u>	<u>DATE</u>
Signature: Inventor eight:	<u></u> Tetsuo SHIMIZU	<u>Feb. 05, 2013</u> DATE
Signature: Inventor nine:	<u></u> Kumaragurubaran SOMU	<u>Feb. 04, 2013</u> DATE
Signature: Inventor ten:	<u></u> Hiroshi SUGA	<u>Jan. 28, 2013</u> DATE
Signature: Inventor eleven:	<u></u> Yasuhisa NAITOU	<u>Feb. 05, 2013</u> DATE

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