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PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
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| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|--------------------|----------------|
| KIWAMU SAKUMA | 07/03/2014 |
| MASAHIRO KIYOTOSHI | 07/04/2014 |

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PROPERTY NUMBERS Total: 1

| Property Type | Number | | |
|---------------------|----------|--|--|
| Application Number: | 14321994 | | |

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| DATE SIGNED: | 08/04/2014 |

Total Attachments: 2

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> **PATENT REEL: 033454 FRAME: 0653**

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ASSIGNMENT

In consideration of value received, I, having a residence as stated below above my name, the sole inventor (if only one name is listed below) or a joint inventor (if plural inventors are listed below) of an invention described in an application for United States patent entitled:

NONVOLATILE SEMICONDUCTOR MEMORY DEVICE AND METHOD OF MANUFACTURING THE SAME

have sold and assigned and do hereby sell and assign to KABUSHIKI KAISHA TOSHIBA a Japanese corporation, having a business address at 1-1, Shibaura 1-chome, Minato-ku, Tokyo 105-8001, Japan

its successors, assigns or nominees, hereinafter referred to as "Assignee", my entire right, title and interest in and to said invention as disclosed, shown and described in said United States patent application:

| (check one) | [X] | executed concurrently her | | |
|-------------|-----|--|---------|--------------|
| • | ΪĪ | executed on Application No. 14/3219 | j | July 2, 2014 |
| | LXI | Application No. 14/3219 | , illeu | July 4, 2019 |

and in and to all applications for patent and patents for invention including all divisions, reissues, continuations, substitutes and extensions thereof and all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property, including rights of priority, resulting from the filing of any of said applications; and I authorize and request any official whose duty is to issue patents, to issue any patent on said invention or resulting therefrom to said Assignee, and I agree that on request and without further consideration, but at the expense of said Assignee, I will communicate to said Assignee or its representatives all facts known to me respecting said invention and testify in any legal proceedings, sign all lawful papers, execute all divisional, continuing, continued prosecution, reissue, or other applications, make all rightful oaths and declarations, and generally do everything possible to aid said Assignee to obtain and enforce proper patent protection for said invention.

I hereby grant the following law firm the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the Rules of the U.S. Patent and Trademark Office for recordation of this document.

Oblon, Spivak, McClelland, Maier & Neustadt, L.L.P., 1940 Duke Street Alexandria, VA 22314

(04920019)

ASSIGNMENT

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PATENT REEL: 033454 FRAME: 0655