

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
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EPAS ID: PAT4961868

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	KABUSHIKI KAISHA TOSHIBA	06/30/2017
RECEIVING PARTY DATA		
Name:	TOSHIBA MEMORY CORPORATION	
Street Address:	1-1, SHIBAURA 1-CHOME	
City:	MINATO-KU, TOKYO	
State/Country:	JAPAN	
Postal Code:	105-0023	
PROPERTY NUMBERS Total: 1		
	Property Type	Number
	Application Number:	15638445
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<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>		
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ATTORNEY DOCKET NUMBER:	14302.0008-03	
NAME OF SUBMITTER:	JULIANNA C SHIN	
SIGNATURE:	/JULIANNA C SHIN/	
DATE SIGNED:	05/15/2018	
Total Attachments: 4		
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source=14302-0008-03assignmenttoTMC#page4.tif		

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
Shinichi ITO)
Application No.: 15/638,445) Art Unit: 2882
Filed: June 30, 2017) Examiner: Peter B. KIM
For: RESIST PATTERN FORMING) Confirmation No: 5682
METHOD, SEMICONDUCTOR)
APPARATUS USING SAID)
METHOD, AND EXPOSURE)
APPARATUS THEREOF)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

SUBMISSION OF ASSIGNMENT

This application is a continuation of Application No. 12/923,666 (now abandoned), which is a continuation of Application No. 12/385,064 (now U.S. Pat. No. 7,821,616), which is a continuation of Application No. 11/084,001 (now U.S. Pat. No. 7,524,618).

On August 1, 2017, the attached Assignment was recorded at Reel 043151 Frame 0011 with respect to, *inter alia*, U.S. Patent Nos. 7,821,616 and 7,524,618, which (as indicated above) are the grandparent and great-grandparent, respectively, of the present Application.

In accordance with 37 C.F.R. § 3.28 and M.P.E.P. § 306, Applicant respectfully requests that the attached Assignment be supplementally recorded with respect to the present Application.

This request is submitted electronically. Therefore, in accordance with 37 C.F.R. § 1.21(h)(1), no fee is due. If this is incorrect, please charge any required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: May 15, 2018

By: /John M. Mulcahy/
John M. Mulcahy
Reg. No. 55,940
(202) 408-4000

ASSIGNMENT

WHEREAS, KABUSHIKI KAISHA TOSHIBA, a corporation of Japan, whose post office address is 1-1, Shibaura 1-Chome, Minato-Ku, Tokyo 105-8001, JAPAN (hereinafter referred to as "KKT"), owns by assignment, all right, title and interest in the U.S. patent(s) and/or patent application(s) listed in attached Exhibit A, and in any inventions claimed therein ("the patent properties"); and

WHEREAS, TOSHIBA MEMORY CORPORATION (hereinafter referred to as "Assignee") desires to own KKT's entire right, title, and interest in and to the patent properties and the inventions claimed therein;

NOW THEREFORE, be it known that, for good and valuable consideration, receipt of which is hereby acknowledged, KKT hereby sells, assigns, transfers and sets over to Assignee, its lawful successors and assigns, KKT's entire right, title, and interest in and to the patent properties, the inventions claimed therein and all reissues, reexaminations and extensions thereof;

AND, KKT HEREBY further covenants that Assignee has the full right to convey the interest assigned by this Assignment, KKT will take all action and execute all documents necessary to perfect the interest assigned hereby, and KKT has not executed and will not execute any agreement in conflict with this Assignment.

AND, KKT HEREBY further covenants and agrees that KKT, through its officers and employees, will, without further consideration, communicate with the Assignee, its successors and assigns, any facts known to KKT and its officers and employees respecting the patent properties and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver all papers that may be necessary or desirable to perfect the title to the patent properties in Assignee, its successors and assigns, execute all divisional, continuation, and reissue applications, make all rightful oaths, and generally do everything possible to aid the Assignee, its successors and assigns, to obtain and enforce the patent properties in the United States, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, its successors and assigns.

IN TESTIMONY WHEREOF, each party has caused its authorized representative to execute this Assignment.

KABUSHIKI KAISHA TOSHIBA

TOSHIBA MEMORY CORPORATION

By: *Ikuko Shimodawara*
Name: Ikuko Shimodawara
Title: General Manager, IP Division
Date: June 30, 2017

By: *M. Hatsumi*
Name: Michihito Hatsumi
Title: General Manager, IP Division
Date: July 3, 2017

EXHIBIT A
U.S. PATENT APPLICATION NOS.

15/255,517
14/527,373
15/226,852
14/664,520
15/231,616
15/456,641
15/151,839

U.S. PATENT NOS.

9,361,408
9,177,854
9,034,467
9,450,181
8,768,373
8,008,732
7,821,616
7,524,618
9,601,331
9,202,722
8,728,943
7,851,363
9,367,503
8,516,178
8,219,733
8,015,338
7,774,533
7,779,192
7,350,009
7,237,052
7,162,561
7,051,142
6,842,818