PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4515342

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KABUSHIKI KAISHA TOSHIBA	06/14/2017

RECEIVING PARTY DATA

Name:	TOSHIBA MEMORY CORPORATION
Street Address:	1-1, SHIBAURA 1-CHOME
City:	MINATO-KU, TOKYO
State/Country:	JAPAN
Postal Code:	105-8001

PROPERTY NUMBERS Total: 27

Property Type	Number
Application Number:	14620814
Application Number:	14656352
Application Number:	14656498
Application Number:	14748506
Application Number:	14755940
Application Number:	14793161
Application Number:	14794122
Application Number:	14824418
Application Number:	14850387
Application Number:	14852254
Application Number:	14851991
Application Number:	14852228
Application Number:	14852182
Application Number:	14887642
Application Number:	14932470
Application Number:	14950770
Application Number:	15002244
Application Number:	15009455
Application Number:	15063813
Application Number:	15068893

PATENT REEL: 043066 FRAME: 0329

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Property Type	Number
Application Number:	15068938
Application Number:	15244412
Application Number:	15260963
Application Number:	15262346
Application Number:	15447916
Application Number:	15448967
Application Number:	62470417

CORRESPONDENCE DATA

Fax Number:

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.

Phone: 202-626-3600

Email: toshibapatents@whitecase.com

Correspondent Name: WHITE & CASE LLP
Address Line 1: 701 13TH STREET NW
Address Line 4: WASHINGTON, D.C. 20005

ATTORNEY DOCKET NUMBER:	1242236-0001
NAME OF SUBMITTER:	DAVID M. TENNANT
SIGNATURE:	/David M. Tennant/
DATE SIGNED:	07/21/2017

Total Attachments: 4

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> PATENT REEL: 043066 FRAME: 0330

PATENT ASSIGNMENT AGREEMENT

This Patent Assignment Agreement (the "Agreement"), dated as of DATE: 1st April, 2017 (the "Effective Date"), is made by Kabushiki Kaisha Toshiba, a corporation duly organized and existing under the laws of Japan, with offices at 1-1, Shibaura 1-chome, Minato-ku, Tokyo 105-8001 ("Assignor"), and Toshiba Memory Corporation, a corporation duly organized and existing under the laws of Japan, with offices at 1-1, Shibaura 1-chome, Minato-ku, Tokyo 105-8001 ("Assignee").

WHEREAS, Assignor is the sole owner of the patents and patent applications listed in Exhibit A attached to this Agreement;

WHEREAS, Assignor has agreed to sell, assign, transfer, and convey to Assignee all right, title, and interest in and to the patents and patent applications listed in <u>Exhibit A</u>, including the related rights described below;

WHEREAS, Assignee desires to acquire all right, title, and interest in and to the patents and patent applications listed in Exhibit A, including the related rights described below; and

WHEREAS, Assignor will therefore deliver this Agreement and any other intellectual property assignment agreements, for recording with the United States Patent and Trademark Office and corresponding entities or agencies in any applicable jurisdictions.

NOW THEREFORE, Assignor and Assignee agree as follows:

- Assignment. For good and valuable consideration, the receipt of which is hereby
 acknowledged, Assignor hereby does and agrees to (and to the extent applicable, confirms
 that it already has done the following) irrevocably sell, assign, transfer and convey to
 Assignee and its successors and assigns, all right, title and interest that may exist today and in
 the future in and to any and all:
 - (a) the patents and patent applications listed in Exhibit A attached to this Agreement;
 - (b) patents and patent applications to which any of the patents or patent applications listed in <u>Exhibit A</u> directly or indirectly claim, or forms the basis for, priority anywhere in the world, including the right of priority;
 - (c) reissues, reexaminations, extensions, continuations, continuations-in-part, continuing prosecution applications and divisions of any of the items under (a) or (b) of Section 1 of this Agreement;
 - (d) foreign counterparts to any of the items under (a), (b) or (c) of Section 1 of this Agreement, including utility models, inventors' certificates, industrial design

- protection and any other form of governmental grants or issuances for the protection of inventions, designs or discoveries;
- (e) inventions, invention disclosures, designs and discoveries claimed in the items under (a) through (d) of Section 1 of this Agreement;
- (f) patents that issue from any of the items under (a) through (e) of Section 1 of this Agreement (collectively the items listed in (a) through (f), the "Patents");
- (g) claims, causes of action and enforcement rights of any kind, whether currently pending, filed or otherwise, and whether known or unknown, under or arising from any of the items under (a) through (f) of Section 1 of this Agreement, including all rights to pursue and collect damages, costs, injunctive relief and other remedies for past, current, or future infringement of the Patents, and including rights afforded under 35 U.S.C. § 154(d);
- (h) royalties, income and other payments due as of the Effective Date or thereafter under or arising from any of the items under (a) through (g) of Section 1 of this Agreement; and
- (i) rights to apply for, file, register, maintain, extend and renew in any or all countries of the world patents, certificates of invention, utility models, industrial design protection, design patent protection and other governmental grants or issuances of any kind related to any of the items under (a) through (h) of Section 1 of this Agreement.
- 2. Further Actions. Assignor shall take such steps and actions, and provide such cooperation and assistance to Assignee and its successors, assigns and legal representatives, including the execution and delivery of any affidavits, declarations, oaths, exhibits, assignments, powers of attorney, or other documents, as may be necessary to effect, evidence or perfect the assignment of the Patents contemplated hereby to Assignee, or any assignce or successor.
- 3. Recordation. Assignor hereby authorizes and requests the Commissioner for Patents in the United States Patent and Trademark Office and the officials in any of the corresponding patent offices in the applicable jurisdictions to issue any and all patents, utility models or other governmental grants or issuances pertaining to any of the items assigned hereunder in the name of Assignee.
- 4. Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall be deemed to be one and the same agreement. A signed copy of this Agreement delivered by e-mail or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original signed copy of this Agreement.

- Governing Law. This Agreement will be deemed to be made and in all respects will be interpreted, construed and governed by and in accordance with the laws of Japan without regard to the conflicts of laws principles thereof.
- 6. Successors and Assigns. This Agreement will inure to the benefit of Assignee and its successors, assigns and other legal representatives and is binding upon Assignor and its successors, assigns, heirs and legal representatives.

IN WITNESS WHEREOF, Assignor has duly executed and delivered this Agreement as of the Effective Date.

DATE: <u>Lune 12</u> 2017	Kabushiki Kaisha Toshiba
	By: <u>Ikuko SHIMOĞA WARA</u>
*	Title: General Manager, Intellectual Property Division
	Sheho Shiryanan
	Signature
ACCEPTED:	* :
DATE: June 14 2017	Toshiba Memory Corporation
i.	By: <u>Michibito HATSUMI</u>
	Title: General Manager, Intellectual Property Division
	Signature

Exhibit A

. 10 1 100	Application No.	Filing date
1	14/620,814	2015/2/12
2	14/656,352	2015/3/12
3	14/656,498	2015/3/12
4	14/748,506	2015/6/24
5	14/755,940	2015/6/30
6	14/793,161	2015/7/7
7	14/794,122	2015/7/8
8	14/824,418	2015/8/12
9	14/850,387	2015/9/10
10	14/852,254	2015/9/11
11	14/851,991	2015/9/11
12	14/852,228	2015/9/11
13	14/852,182	2015/9/11
14	14/887,642	2015/10/20
15	14/932,470	2015/11/4
16	14/950,770	2015/11/24
17	15/002,244	2016/1/20
18	15/009,455	2016/1/28
19	15/063,813	2016/3/8
20	15/068,893	2016/3/14
21	15/068,938	2016/3/14
22	15/244,412	2016/8/23
23	15/260,963	2016/9/9
24	15/262,346	2016/9/12
25	15/447,916	2017/3/2
26	15/448,967	2017/3/3
27	62/470,417	2017/3/13

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