

PATENT ASSIGNMENT COVER SHEET

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Stylesheet Version v1.2

EPAS ID: PAT5159512

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MARIKA GUNJI-YONEOKA	09/21/2018
ATSUSHI SUYAMA	09/05/2016
JAYAVEL PACHAMUTHU	09/21/2018
TSUYOSHI HADA	09/28/2016
DAEWUNG KANG	09/21/2018
MURSHED CHOWDHURY	09/21/2018
JAMES KAI	09/21/2018
HIRO KINOSHITA	09/21/2018
TOMOYUKI OBU	09/25/2018
LUCKSHITHA SURIYASENA LIYANAGE	09/28/2016

RECEIVING PARTY DATA

Name:	SANDISK TECHNOLOGIES LLC
Street Address:	5080 SPECTRUM DRIVE
Internal Address:	SUITE 1050W
City:	ADDISON
State/Country:	TEXAS
Postal Code:	75001

PROPERTY NUMBERS Total: 2

Property Type	Number
Application Number:	15279959
Application Number:	62352286

CORRESPONDENCE DATA

Fax Number: (703)391-2901

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: 7033912900

Email: ptonotices@marburylaw.com

Correspondent Name: THE MARBURY LAW GROUP PLLC

Address Line 1: 11800 SUNRISE VALLEY DRIVE

Address Line 2: 15TH FLOOR

PATENT

Address Line 4: RESTON, VIRGINIA 20191

ATTORNEY DOCKET NUMBER: 3590-607US

NAME OF SUBMITTER: PATRICK MCCONVILLE

SIGNATURE: /pmconville/

DATE SIGNED: 09/26/2018

Total Attachments: 6

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ASSIGNMENT AND AGREEMENT

WHEREAS, Marika GUNJI-YONEOKA, Atsushi SUYAMA, Jayavel PACHAMUTHU, Tsuyoshi HADA, Daewung KANG, Murshed CHOWDHURY, James KAI, Hiro KINOSHITA, Tomoyuki OBU, and Luckshitha Suriyasena LIYANAGE, (hereinafter referred to singly and collectively as "ASSIGNOR") has invented a certain invention entitled **THREE-DIMENSIONAL MEMORY DEVICE HAVING EPITAXIAL GERMANIUM-CONTAINING VERTICAL CHANNEL AND METHOD OF MAKING THEREOF**, for which a U.S. Provisional Application No. 62/352,286 was filed June 20, 2016, and for which a US Non-Provisional Application No. 15/279,959 was filed September 29, 2016.

WHEREAS, SANDISK TECHNOLOGIES LLC, having its principal place of business at **5080 SPECTRUM DRIVE, SUITE 1050W, ADDISON, TX 75001** (hereinafter referred to as "ASSIGNEE") is desirous of acquiring the entire interest therein;

NOW THEREFORE, in view of good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, ASSIGNOR has sold, assigned, and transferred, and by these presents hereby sells, assigns, and transfers, unto ASSIGNEE, its successors and assigns, the full and exclusive right, title, and interest in and to (a) the above-identified invention or inventions and all improvements and modifications thereof, (b) the above-identified application and all other applications for Letters Patent of the United States and countries foreign thereto for the above-identified invention or inventions and all improvements and modifications thereof, (c) all Letters Patent which may issue from said applications in the United States and countries foreign thereto, (d) all divisions, continuations, reissues, and extensions of said applications and Letters Patent, and (e) the right to claim for any of said applications the full benefits and priority rights under the International Convention and any other international agreement to which the United States adheres; such right, title, and interest to be held and enjoyed by ASSIGNEE, its successors 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 ASSIGNOR had this Assignment not been made.

ASSIGNOR HEREBY AUTHORIZES AND REQUESTS the Commissioner of Patents and Trademarks to issue said Letters Patent to ASSIGNEE as assignee of the entire interest, for the sole use and benefit of ASSIGNEE, its successors and assigns.

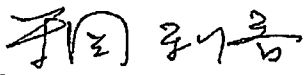

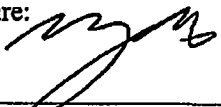


ASSIGNOR HEREBY AGREES (a) to communicate to ASSIGNEE, its successors and assigns, or their representatives or agents, all facts and information known or available to ASSIGNOR respecting said invention or inventions, improvements, and modifications including evidence for interference, reexamination, reissue, opposition, revocation, extension, or infringement purposes or other legal, judicial, or administrative proceedings, whenever requested by ASSIGNEE; (b) to testify in person or by affidavit as required by ASSIGNEE, its successors and assigns, in any such proceeding in the United States or a country foreign thereto; (c) to execute and deliver, upon request by ASSIGNEE, all lawful papers including, but not limited to, original, divisional, continuation, and reissue applications, renewals, assignments, powers of attorney, oaths, affidavits, declarations, depositions; and (d) to provide all reasonable assistance to ASSIGNEE, its successors and assigns, in obtaining and enforcing proper title in and

protection for said invention or inventions, improvements, and modifications under the intellectual property laws of the United States and countries foreign thereto.

ASSIGNOR HEREBY REPRESENTS AND WARRANTS that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

ASSIGNOR HEREBY GRANTS to the law firm of **The Marbury Law Group PLLC** the power and authority 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.

ASSIGNOR UNDERSTANDS AND AGREES that the attorneys and agents of the law firm of **The Marbury Law Group PLLC** do not personally represent ASSIGNOR or ASSIGNOR's legal interests, but instead represent the interests of ASSIGNEE; since said attorneys and agents cannot provide legal advice to ASSIGNOR with respect to this Assignment, ASSIGNOR acknowledges its right to seek its own independent legal counsel.


NAMES AND SIGNATURES OF INVENTORS		
Name: Marika GUNJI-YONEOKA	Signature: 	Date: 9/21/18
Name: Atsushi SUYAMA	Signature:	Date:
Name: Jayavel PACHAMUTHU	Signature: 	Date: 9/21/18
Name: Tsuyoshi HADA	Signature:	Date:
Name: Daewung KANG	Signature: 	Date: 9/21/2018
Name: Murshed CHOWDHURY	Signature: 	Date: 9-21-2018
Name: James KAI	Signature: 	Date: 9/21/2018

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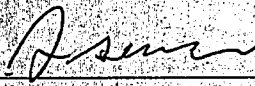
NAMES AND SIGNATURES OF INVENTORS		
Name: Marika GUNJI-YONEOKA	Signature:	Date:
Name: Atsushi SUYAMA	Signature:	Date:
Name: Jayavel PACHAMUTHU	Signature:	Date:
Name: Tsuyoshi HADA	Signature: 	Date: 2016.9.28
Name: Daewung KANG	Signature:	Date:
Name: Murshed CHOWDHURY	Signature:	Date:
Name: James KAI	Signature:	Date:

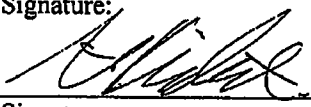

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NAMES AND SIGNATURES OF INVENTORS		
Name: Marika GUNJI-YONEOKA	Signature:	Date:
Name: Atsushi SUYAMA	Signature: 	Date: 09/05/16
Name: Jayavel PACHAMUTHU	Signature:	Date:
Name: Tsuyoshi HADA	Signature:	Date:
Name: Daewung KANG	Signature:	Date:
Name: Murshed CHOWDHURY	Signature:	Date:
Name: James KAI	Signature:	Date:
Name: Hiro KINOSHITA	Signature:	Date:

Name: Hiro KINOSHITA	Signature: 	Date: 9/21/2013
Name: Tomoyuki OBU	Signature: 	Date: 9/25/2013
Name: Luckshitha Suriyasena LIYANAGE	Signature:	Date:

Name: Hiro KINOSHITA	Signature:	Date:
Name: Tomoyuki OBU	Signature:	Date:
Name: Luckshitha Suriyasena LIYANAGE	Signature: L. S. Liyanage	Date: 09/28/2016