504440747 06/30/2017

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
RAGHUVEER S. MAKALA	04/27/2017
MURSHED CHOWDHURY	04/27/2017
KEERTI SHUKLA	04/27/2017
TOMOHISA ABE	04/28/2017
YAO-SHENG LEE	04/27/2017
JAMES KAI	04/27/2017

RECEIVING PARTY DATA

Name:	SANDISK TECHNOLOGIES LLC	
Street Address:	TWO LEGACY TOWN CENTER	
Internal Address:	6900 NORTH DALLAS PARKWAY, SUITE 325	
City:	PLANO	
State/Country:	TEXAS	
Postal Code:	75024	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15581575

CORRESPONDENCE DATA

Fax Number: (703)391-2901

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ATTORNEY DOCKET NUMBER:	3590-633US
NAME OF SUBMITTER:	SOPHEAREAK C. IN
SIGNATURE:	/sopheareak c. in/
DATE SIGNED:	06/30/2017

504440747 REEL: 042878 FRAME: 0628

Total Attachments: 2

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PATENT REEL: 042878 FRAME: 0629

Attorney Docket No.: 3590-633US

ASSIGNMENT AND AGREEMENT

WHEREAS, Raghuveer S. MAKALA, Murshed CHOWDHURY, Keerti SHUKLA, Tomohisa ABE, Yao-Sheng LEE, and James KAI (hereinafter referred to singly and collectively as "ASSIGNOR") has invented a certain invention entitled THREE-DIMENSIONAL ARRAY DEVICE HAVING A METAL CONTAINING BARRIER AND METHOD OF MAKING THEREOF, for which U.S. Provisional Application No. 62/426,735 was filed November 28, 2016, and for which a U.S. Non-Provisional Application is filed herewith.

WHEREAS, SANDISK TECHNOLOGIES LLC, having its principal place of business at 6900 NORTH DALLAS PARKWAY, SUITE 325, PLANO, TX 75024 (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

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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: Raghuveer S. MAKALA	Signature:	Date:		
Name: Murshed CHOWDHURY	Signature:	4/27/17 Date:		
	Mans	9/27/17		
Name: Keerti SHUKLA	Signature: Keeth Stulde	Date: 4 / 27 / 17		
Name: Tomohisa ABE	Signature: Tomohisa We	Date: 4/28 / / 7		
Name: Yao-Sheng LEE	Signature:	Date: 4/27/17		
Name: James KAI	Signature:	Date: 4/27/17		

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