505315590 02/06/2019

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT				
NATURE OF CONVEYANCE:	ASSIGNMENT				

CONVEYING PARTY DATA

Name	Execution Date		
TOMOHARU TANAKA	04/22/2002		
JIAN CHEN	04/15/2002		

RECEIVING PARTY DATA

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City:	TOKYO				
State/Country:	JAPAN				
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City:	SUNNYVALE				
State/Country:	CALIFORNIA				
Postal Code:	94089				

PROPERTY NUMBERS Total: 1

Property Type	Number				
Application Number:	16268726				

CORRESPONDENCE DATA

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SIGNATURE:	/Christopher R. Glembocki/

PATENT 505315590 REEL: 048250 FRAME: 0092

DATE SIGNED: 02/06/2019

Total Attachments: 2
source=1 assignment inventors to Toshiba and SanDisk#page1.tif
source=1 assignment inventors to Toshiba and SanDisk#page2.tif

PATENT REEL: 048250 FRAME: 0093 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:

NON-VOLATILE SEMICONDUCTOR MEMORY DEVICE ADAPTED TO STORE A MULTI-VALUED DATA IN A SINGLE MEMORY CELL

sell and assign to

- (1) KABUSHIKI KAISHA TOSHIBA, a Japanese corporation, having a place of business at I-1, Shibaura 1-chome, Minato-ku, Tokyo, Japan; and
- (2) SanDisk Corporation, a U.S. corporation, having a place of business at 140 Caspian Court, Sunnyvale, CA 94089, U.S.A.

their successors, and 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:

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.

Banner & Witcoff, Ltd., 11th Floor, 1001 G Street, N.W., Washington, D.C. 20001-4597

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_ state

APR. 22.2002

omoharu Tanaka

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APR. 15.2002

Date:

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> PATENT REEL: 048869 FRAME: 0296

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