503107453 12/18/2014

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3154060

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HONGPING YUAN	12/04/2014
BING K. YEN	12/16/2014
LING WANG	12/04/2014
XIANZHONG ZENG	12/04/2014
DUJIANG WAN	12/04/2014
HAI SUN	12/04/2014

RECEIVING PARTY DATA

Name:	WESTERN DIGITAL (FREMONT), LLC	
Street Address:	44100 OSGOOD ROAD	
City:	FREMONT	
State/Country:	CALIFORNIA	
Postal Code:	94539	

PROPERTY NUMBERS Total: 2

Property Type	Number
Application Number:	14230828
Application Number:	61894540

CORRESPONDENCE DATA

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NAME OF SUBMITTER:	SUSAN BARTHOLOMEW
SIGNATURE:	/SUSAN BARTHOLOMEW/
DATE SIGNED:	12/18/2014

503107453 REEL: 034547 FRAME: 0685

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Total Attachments: 7 source=F6669_Assignment_EFS#page1.tif source=F6669_Assignment_EFS#page2.tif source=F6669_Assignment_EFS#page3.tif source=F6669_Assignment_EFS#page4.tif source=F6669_Assignment_EFS#page5.tif source=F6669_Assignment_EFS#page6.tif source=F6669_Assignment_EFS#page7.tif

PATENT REEL: 034547 FRAME: 0686

ASSIGNMENT

Whereas, we, HONGPING YUAN, a citizen of the United States of America, residing at Fremont, California; BING K. YEN, a citizen of the United States of America, residing at Cupertino, California; LING WANG, a citizen of the United States of America, residing at San Ramon, California; XIANZHONG ZENG, a citizen of the United States of America, residing at Fremont, California; DUJIANG WAN, a citizen of People's Republic of China, residing at Fremont, California; and HAI SUN, a citizen of the United States of America, residing at Milpitas, California, have invented certain new and useful improvements in SYSTEMS AND METHODS FOR USING DOUBLE MASK TECHNIQUES TO AHCIEVE VERY SMALL FEATURES (hereafter "Improvements") for which we have executed an application for a United States Patent filed March 31, 2014, Application No. 14/230,828 and a provisional application for a United States Patent filed October 23, 2013, Application No. 61/894,540 (hereafter "Applications"); and

Whereas, Western Digital (Fremont), LLC (hereafter "Assignee"), a Delaware limited liability company, desires to acquire the entire right, title, and interest in and to the Improvements and the Applications.

Now, therefore, that for good and valuable consideration, the receipt of which is hereby acknowledged, I, the inventor, do hereby acknowledge that I have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the Assignee, its successors, legal representatives and assignees, the entire right, title, and interest throughout the world in, to and under the Improvements, and the Applications and all divisions, renewals and continuations thereof, and all applications claiming priority to the Applications, and all Letters Patent of the United States which may be granted thereof and all reissues and extensions thereof, and all rights of priority under International Conventions and applications for Letters Patent which may hereafter be filed for the Improvements in any country or countries foreign to the United States and all extensions, renewals and reissues thereof; and I hereby authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patents for the Improvements to the Assignee, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

We hereby covenant and agree that we will communicate to the Assignee, its successors, legal representatives and assigns, any facts known to us respecting the Improvements, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths and aid the Assignee, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for the Improvements in all countries.

Title of Invention: SYSTEMS AND METHODS FOR USING DOUBLE MASK TECHNIQUES TO AHCIEVE VERY SMALL FEATURES
// // // // // // // // // // // // //
A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.
State of California) ss. County of AZAMEDA) On
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.
WITNESS my hand and official seal. Signature: Signature of Notary Public MARIO RISERIO Commission # 2031934 Notary Public - California Sama Ciara County My Comm. Expires Jul 28, 2017

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BING K. YEN		12/16/2014 Date	
BING K. YĚN		Date	
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State of California)) ss.		
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appeared BING K, YEN v whose name(s) is/are subsexecuted the same in his/he	who proved to me cribed to the within cribed to the within cr/their authorized of	on the basis of satisfactory eviden in instrument and acknowledged t capacity(ies), and that by his/her/th alf of which the person(s) acted, exe	ce to be the person(s) o me that be/sbe/they teir signature(s) on the
I certify under PENALTY paragraph is true and correct		der the laws of the State of California	mia that the foregoing
WITNESS my hand and off	icial seal.		
Signature: Signature of	Notary Public		

Title of Invention: SYSTEMS AND METHOD TO AHCIEVE VERY SMALL FEATURES	S FOR USING DOUBLE MASK TECHNIQUES
LING WANG	12,404,42014 Date
A notary public or other officer completing this certific the document to which this certificate is attached, and no	ate verifies only the identity of the individual who signed at the truthfulness, accuracy, or validity of that document.
appeared LING WANG who proved to me on the whose name(s) is/are subscribed to the within interested the same in his/her/their authorized capacinstrument the person(s), or the entity upon behalf of I certify under PENALTY OF PERJURY under the	Notary Public, personally e basis of satisfactory evidence to be the person(s) strument and acknowledged to me that he/she/they ity(ies), and that by his/her/their signature(s) on the which the person(s) acted, executed the instrument.
WITNESS my hand and official seal. Signature: Signature of Notary Public	MARIO RIBEIRO Commission # 2031934 Notary Public - California Santa Clara County My Comm. Expires Jul 28, 2017

Title of Invention: SYSTEMS AND MET TO AHCIEVE VERY SMALL FEATURE	THODS FOR USING I S	OOUBLE MASK TECHNIQUES
X/WZ Zz XIANZHONG ZENG	/2/4/. Date	2014
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the document to which this certificate is attached State of California) ss. County of AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	, and not the truthfulness, as	ccuracy, or validity of that document.
On /2/24///, before me, // appeared XIANZHONG ZENG who prove person(s) whose name(s) is/are subscribed he/she/they executed the same in his/her/ signature(s) on the instrument the person(s) executed the instrument.	ed to me on the basis of to the within instrume /their authorized capaci	of satisfactory evidence to be the nt and acknowledged to me that ty(ies), and that by his/her/their
I certify under PENALTY OF PERJURY un paragraph is true and correct.	nder the laws of the Sta	te of California that the foregoing
WITNESS my hand and official seal.	Sections	
Signature: Signature of Notary Public		MARIO RISEIRO Commission # 2031934 Notary Public - California Santa Clara County My Comm. Expires Jul 28, 2017

and the second second	· /
	12/4/2014
DUJIANG WAN	Date
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State of California)	
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County of AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	e me, <u>MANO TEIRO</u> , Notary Public, pers
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On Selection of the person of the entire of the person of the person of the entire of the person of	e me, Notary Public, persproved to me on the basis of satisfactory evidence to be the perspondence to the within instrument and acknowledged to me that he/sh authorized capacity(ies), and that by his/her/their signature(s) atty upon behalf of which the person(s) acted, executed the instruction of the State of California that the foreign that the foreign capacity and the laws of the State of California that the foreign capacity is the state of the State of California that the foreign capacity is the state of the State of California that the foreign capacity is the state of the State of California that the foreign capacity is the state of the state

RECORDED: 12/18/2014

Title of Invention: SYSTEMS AND METHODS FOR USING DOUBLE MASK TECHNIQUES TO AHCIEVE VERY SMALL FEATURES
12/4/14 HAI SUN Date
A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.
State of California) ss. County of ALAMEDA Defore me, MALIO I Notary Public, personally appeared HAI SUN who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.
WITNESS my band and official seal. Signature: Signature of Notary Public MARIO RISEIRO Commission # 2031934 Notary Public - California Santa Clara County My Comm. Expires Jul 28 201