PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE: ASSIGNMENT	

CONVEYING PARTY DATA

Name	Execution Date
Qunwen LENG	07/24/2009
Christian KAISER	07/27/2009
Yimin GUO	07/27/2009
Mahendra PAKALA	07/24/2009
Sining MAO	07/24/2009

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12506978

CORRESPONDENCE DATA

Fax Number: (949)672-6604

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 949-672-7871

Email: renee.quick@wdc.com

Correspondent Name: WESTERN DIGITAL

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Address Line 2: 20511 LAKE FOREST DRIVE
Address Line 4: LAKE FOREST, CALIFORNIA 92630

ATTORNEY DOCKET NUMBER: F3818

NAME OF SUBMITTER: Mark J. Itri, Reg. No. 36,171

PATENT

REEL: 023149 FRAME: 0401

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500946531 REEL: 0

Total Attachments: 6

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> PATENT REEL: 023149 FRAME: 0402

Atty. Docket No.: F3818

ASSIGNMENT

Whereas, we, QUNWEN LENG, a citizen of the United States of America, residing at Palo Alto, California; CHRISTIAN KAISER a citizen of Germany, residing at San Jose, California; YIMIN GUO, a citizen of the United States of America, residing at San Jose, California; MAHENDRA PAKALA, a citizen of the United States of America, residing at Fremont, California; and SINING MAO, a citizen of the United States of America, residing at Fremont, California, have invented certain new and useful improvements in MAGNETORESISTIVE SENSORS HAVING AN IMPROVED FREE LAYER (hereafter "Improvements") for which we have executed an application for a United States Patent filed July 21, 2009, Application No. 12/506,978 (hereafter "Application"); and

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

Now, therefore, that for good and valuable consideration, the receipt of which is hereby acknowledged, we hereby acknowledge that we 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 Application and all divisions, renewals and continuations thereof, 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 we 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 me 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: MAGNETORESISTIVE SENSORS HAVING AN IMPROVED FREE LAYER
QUINWEN LENG 67/24/09 Date
State of California) ss. County of ALAMEDA)
On <u>O7/24/2009</u> , before me, <u>MARIO PINSEIRO</u> , Notary Public, personally appeared QUNWEN LENG who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person 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 hand and official seal. Notary Public
MARIO RIBEIRO COMM. #1597586 NOTARY PUBLIC • CALLEFORNIA PO ALAMEDA COUNTY COMM. EVD. II II Y 28 2009

Title of Invention: MAGNETORESISTIVE SENSORS HAVING AN IMPROVED FREE LAYER		
Miller		
CHRISTIAN KAISER	7-27-2009 Date	
State of California)		
County of ALAMEDA)		
On $\frac{7/27/2005}{}$, before me, MARIO appeared CHRISTIAN KAISER who proved to me whose name is subscribed to the within instrument	Notary Public, personally on the basis of satisfactory evidence to be the person and acknowledged to me that he/she executed the sher signature on the instrument the person, or the ad the instrument.	
I certify under PENALTY OF PERJURY under th paragraph is true and correct.	e laws of the State of California that the foregoing	
WITNESS my hand and official seal.	- Eben	
	Notary Public	
MARIO RIBEIRO COMM. #1597586 NOTARY PUBLIC • CALIFORNIA RALAMEDA COUNTY Comm. Exp. JULY 28, 2009		

Atty. Docket No.: F3818

Title of Invention: MAGNETORESISTIVE SENSORS HAVING AN IMPROVED FREE LAYER
VIMIN GUO → T/27/09 Date
State of California) ss. County of ALAMEDA) On 07/27/2009, before me, MARIO ZIBEIRO, Notary Public, personally appeared YIMIN GUO who proved to me on the basis of satisfactory evidence to be the person whose
name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person 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 hand and official seal. Notary Public
MARIO RIBEIRO COMM. #1597586 ALAMEDA COUNTY Comm. Exp. JULY 28, 2009

PATENT

Atty. Docket No.: F3818

THE OF INVENTION. MAGNETORESISTIVE SENSORS HAVING AN IMPROVED FREE LAYER
MAHENDRA PAKALA $ \frac{7/24/2509}{\text{Date}} $
State of California)) ss. County of ALAMEDA)
On <u>07/24/2005</u> , before me, <u>MARIO TEIRO</u> , Notary Public, personally appeared MAHENDRA PAKALA who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person 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 hand and official seal.
MARIO RIBEIRO COMM. #1597586 NOTARY PUBLIC • CALIFORNIA CALIFORNIA COUNTY Comm. Exp. JULY 28, 2009

Title of Invention: MAGNETORESISTIVE	SENSORS HAVING AN IMPROVED FREE LAYER
SINING MAO	7/24/09 Date
State of California)) ss. County of ALAHEDA) On 07/24/2005 before me, Manappeared SINING MAO who proved to me on the contraction of the state o	PRIO PIBEIRO Notary Public, personally the basis of satisfactory evidence to be the person whose d acknowledged to me that he/she executed the same in
	signature on the instrument the person, or the entity upon
I certify under PENALTY OF PERJURY under paragraph is true and correct.	er the laws of the State of California that the foregoing
WITNESS my hand and official seal.	Notary Public
MARIO RIBEIRO COMM. #1597586 NOTARY PUBLIC • CALIFORNIA GO ALAMEDA COUNTY Comm. Exp. JULY 28, 2009	