

03-15-2006

U.S. DEPARTMENT OF COMMERCE
United States Patent and Trademark Office



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To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)

- 1) Lei Larry Zhang 2) Danning Yang
3) Honglin Zhu 4) Francis H. Liu
5) Yingjian Chen 5) Ki Sup Chung

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance/Execution Date(s):

Execution Date(s) see attached continued sheet

- ☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Joint Research Agreement
☐ Government Interest Assignment
☐ Executive Order 9424, Confirmatory License
☐ Other _____

2. Name and address of receiving party(ies)

Name: WESTERN DIGITAL (FREMONT), INC.

Internal Address: _____

Street Address: 44100 OSGOOD ROAD

City: FREMONT

State: CALIFORNIA

Country: USA Zip: 94539

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application or patent number(s):

☒ This document is being filed together with a new application.

A. Patent Application No.(s)

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

5. Name and address to whom correspondence concerning document should be mailed:

Name: WESTERN DIGITAL TECHNOLOGIES, INC.

Internal Address: INTELLECTUAL PROPERTY DEPT.

DOCKETING E118-G

Street Address: 20511 LAKE FOREST DRIVE

City: LAKE FOREST

State: CALIFORNIA Zip: 92630

Phone Number: (949) 672-7780

Fax Number: (949) 672-6604

Email Address: sandra.genua@wdc.com

6. Total number of applications and patents involved: One (1)

7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00

- ☐ Authorized to be charged by credit card
☒ Authorized to be charged to deposit account
☐ Enclosed
☐ None required (government interest not affecting title)

8. Payment Information

a. Credit Card Last 4 Numbers _____
Expiration Date _____

b. Deposit Account Number 23-1055

Authorized User Name Milad G. Shara, Esq.

9. Signature:

Signature

Date

Jonathan E. Prejean, Esq., Reg. No. 52,132

Name of Person Signing

Total number of pages including cover sheet, attachments, and documents: 7

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

03/14/2006 DBYRME 00000043 231055 11367819
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PATENT
REEL: 017685 FRAME: 0605

Continued Sheet
Prepared by Western Digital

Form PTO-1595 Execution Dates(s)

- 1) 02/03/2006
- 2) 02/02/2006
- 3) 02/02/2006
- 4) 02/09/2006
- 5) 02/07/2006
- 6) 02/27/2006

ASSIGNMENT

Whereas, I, **LEI LARRY ZHANG**, a citizen of USA, residing at **SAN JOSE, California**, have invented certain new and useful improvements in **METHOD AND SYSTEM FOR PROVIDING PERPENDICULAR MAGNETIC RECORDING TRANSDUCERS** (hereafter "Improvements") for which I have executed an application for a United States Patent filed on **HEREWITH**, Application No. **UNKNOWN** (hereafter "Application"); and

Whereas, Western Digital (Fremont), Inc. (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, 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 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 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.

I hereby covenant and agree that I 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.



LEI LARRY ZHANG

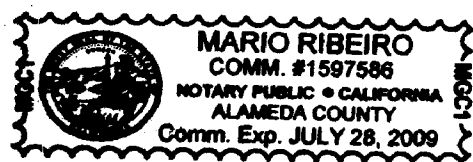
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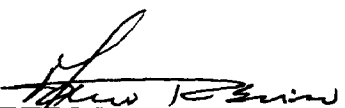
Date

State of California)
) ss.
County of ALAMEDA)

On 3 FEB 2006, before me, MARIO RIBEIRO, Notary Public, personally appeared **LEI LARRY ZHANG** and 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 executed the same in his authorized capacity, and that by his signature on the instrument the person executed the instrument.

Witness my hand and official seal.





Notary Public

Y:\IP PROGRAM\K35R FILES\R1900 - R1999\R1969\PTO\R1969_Assignment_Zhang

ASSIGNMENT

Whereas, I, DANNING YANG, a citizen of PR CHINA, residing at FREMONT, California, have invented certain new and useful improvements in METHOD AND SYSTEM FOR PROVIDING PERPENDICULAR MAGNETIC RECORDING TRANSDUCERS (hereafter "Improvements") for which I have executed an application for a United States Patent filed on HEREWITH, Application No. UNKNOWN (hereafter "Application"); and

Whereas, Western Digital (Fremont), Inc. (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, 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 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 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.

I hereby covenant and agree that I 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.



DANNING YANG

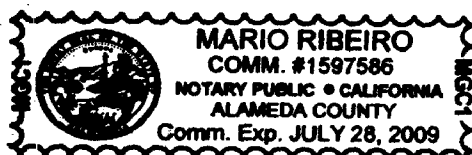
02/02/06
Date

State of California)
) ss.
County of ALAMEDA)

On 03 FEB 2006, before me, MARIO RIBEIRO, Notary Public, personally appeared DANNING YANG and 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 executed the same in his authorized capacity, and that by his signature on the instrument the person executed the instrument.

Witness my hand and official seal.


Notary Public



Y:\IP PROGRAM\K35R FILES\R1900 - R1999\R1969\PTO\R1969_Assignment_Yang

ASSIGNMENT

Whereas, I, **HONGLIN ZHU**, a citizen of **PR CHINA**, residing at **FREMONT, California**, have invented certain new and useful improvements in **METHOD AND SYSTEM FOR PROVIDING PERPENDICULAR MAGNETIC RECORDING TRANSDUCERS** (hereafter "Improvements") for which I have executed an application for a United States Patent filed on **HEREWITH**, Application No. **UNKNOWN** (hereafter "Application"); and

Whereas, Western Digital (Fremont), Inc. (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, 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 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 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.

I hereby covenant and agree that I 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.

Honglin Zhu

HONGLIN ZHU

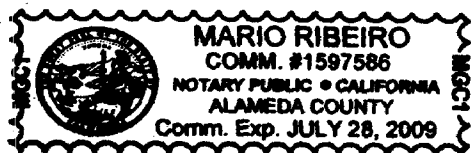
02/02/2006

Date

State of California)
) ss.
County of *ALAMEDA*)

On *03 Feb 2006*, before me, *MARIO RIBEIRO*, Notary Public, personally appeared **HONGLIN ZHU** and 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 executed the same in his authorized capacity, and that by his signature on the instrument the person executed the instrument.

Witness my hand and official seal.



[Signature]

Notary Public

Y:\P PROGRAM_K35R FILES\R1900 - R1999\R1969\PTO\R1969_Assignment_Zhu


ASSIGNMENT

Whereas, I, **FRANCIS H. LIU**, a citizen of **P.R. CHINA**, residing at **FREMONT, California**, have invented certain new and useful improvements in **METHOD AND SYSTEM FOR PROVIDING PERPENDICULAR MAGNETIC RECORDING TRANSDUCERS** (hereafter "Improvements") for which I have executed an application for a United States Patent filed on **HEREWITH**, Application No. **UNKNOWN** (hereafter "Application"); and

Whereas, Western Digital (Fremont), Inc. (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, 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 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 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.

I hereby covenant and agree that I 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.

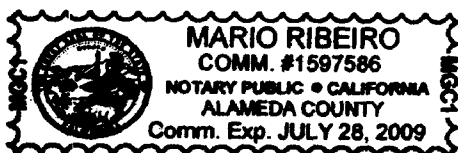

FRANCIS H. LIU

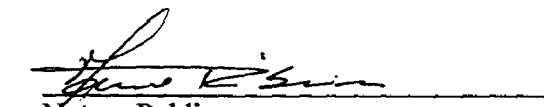
2/9/06
Date

State of California)
) ss.
County of ALAMEDA)

On 09 FEB 2006, before me, MARIO RIBEIRO, Notary Public, personally appeared **FRANCIS H. LIU** and 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 executed the same in his authorized capacity, and that by his signature on the instrument the person executed the instrument.

Witness my hand and official seal.




Notary Public

Y:\P PROGRAM_K35R FILES\R1900 - R1999\R1969\PTO\R1969_Assignment_Liu

ASSIGNMENT

Whereas, I, **YINGJIAN CHEN**, a citizen of **P.R. CHINA**, residing at **FREMONT, California**, have invented certain new and useful improvements in **METHOD AND SYSTEM FOR PROVIDING PERPENDICULAR MAGNETIC RECORDING TRANSDUCERS** (hereafter "Improvements") for which I have executed an application for a United States Patent filed on **HEREWITH**, Application No. **UNKNOWN** (hereafter "Application"); and

Whereas, Western Digital (Fremont), Inc. (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, 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 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 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.

I hereby covenant and agree that I 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.


YINGJIAN CHEN

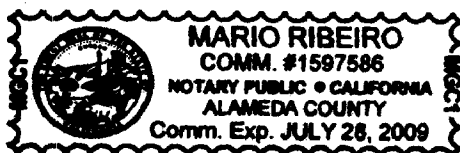
2/7/06
Date

State of California)
) ss.
County of ALAMEDA)

On 07 FEB 2006, before me, MARIO RIBEIRO, Notary Public, personally appeared **YINGJIAN CHEN** and 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 executed the same in his authorized capacity, and that by his signature on the instrument the person executed the instrument.

Witness my hand and official seal.


Notary Public



ASSIGNMENT

Whereas, I, **KI SUP CHUNG**, a citizen of **REPUPLIC OF KOREA**, residing at **SAN JOSE, California**, have invented certain new and useful improvements in **METHOD AND SYSTEM FOR PROVIDING PERPENDICULAR MAGNETIC RECORDING TRANSDUCERS** (hereafter "Improvements") for which I have executed an application for a United States Patent filed on **HEREWITH**, Application No. **UNKNOWN** (hereafter "Application"); and

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KI SUP CHUNG
Date Feb. 27, 06

State of California)
) ss.
County of)

On _____, before me, _____, Notary Public, personally appeared **KI SUP CHUNG** and 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 executed the same in his authorized capacity, and that by his signature on the instrument the person executed the instrument.

Witness my hand and official seal.

Notary Public

Y:\P PROGRAM_K35R FILES\R1900 - R1999\R1969\PTO\R1969_Assignment_Chung