### 503250030 04/03/2015

# PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
JIANGRONG CAO	09/30/2014
MICHAEL V. MORELLI	09/29/2014
HONGXING YUAN	09/19/2014
PENG ZHANG	09/18/2014
BRAD V. JOHNSON	09/30/2014
MATTHEW R. GIBBONS	09/29/2014

## **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:	14324505
Application Number:	62010057

## CORRESPONDENCE DATA

Fax Number: (949)672-6604

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: (949) 672-7871

Email: paulette.halili@wdc.com WESTERN DIGITAL Correspondent Name:

ATTN: IP LAW DEPARTMENT Address Line 1:

Address Line 2: 3355 MICHELSON DRIVE, SUITE 100

Address Line 4: IRVINE, CALIFORNIA 92612

ATTORNEY DOCKET NUMBER: F7414 NAME OF SUBMITTER: PAULETTE HALILI /Paulette Halili/ SIGNATURE: **DATE SIGNED:** 04/03/2015

PAIENI REEL: 035330 FRAME: 0515 503250030

# Total Attachments: 8 source=F7414\_Acceptance-Assignment\_EFS#page1.tif source=F7414\_Acceptance-Assignment\_EFS#page2.tif source=F7414\_Acceptance-Assignment\_EFS#page3.tif source=F7414\_Acceptance-Assignment\_EFS#page4.tif source=F7414\_Acceptance-Assignment\_EFS#page5.tif source=F7414\_Acceptance-Assignment\_EFS#page6.tif source=F7414\_Acceptance-Assignment\_EFS#page7.tif source=F7414\_Acceptance-Assignment\_EFS#page8.tif

PATENT REEL: 035330 FRAME: 0516

Atty. Docket No.: F7414

### ASSIGNMENT

Whereas, we, JIANGRONG CAO, a citizen of the United States of America, residing at Fremont, California; MICHAEL V. MORELLI, a citizen of the United States of America, residing at San Jose, California; HONGXING YUAN, a citizen of Singapore, residing at San Ramon, California; PENG ZHANG, a citizen of China, residing at Pleasanton, California; BRAD V. JOHNSON, a citizen of the United States of America, residing at Santa Clara, California; and MATTHEW R. GIBBONS, a citizen of the United States of America, residing at San Jose, California, have invented certain new and useful improvements in NEAR FIELD TRANSDUCER USING DIELECTRIC WAVEGUIDE CORE WITH FINE RIDGE FEATURE (hereafter "Improvements") for which we have executed an application for a United States Patent filed July 7, 2014, Application No. 14/324,505 and a provisional application for a United States Patent filed June 10, 2014, Application No. 62/010,057 (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.

Atty. Docket No.: F7414

Title of Invention: NEAR FIELD TRANSDUCER USING DIELECTRIC WAVEGUIDE CORI WITH FINE RIDGE FEATURE
JIANGRONG CAO Date
State of California ) ss.  County of AZAMEDA  OnOJO_/, before me,MARIO, Notary Public, personally appeared JIANGRONG CAO 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/the 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 foregoin paragraph is true and correct.
WITNESS my hand and official seal.  MARIO RIBERO Commission # 2031934 Notary Public - California Signature: Signature of Notary Public My Comm. Expires Jul 28, 2017

ASSIGNMENT PATENT
Atty. Docket No.: F7414

Title of Invention: NEAR FIELD TRANSDUC WITH FINE RIDGE FEATURE	CER USING DIELECTRIC WAVEGUIDE CORE
	***************************************
	3/22/14
MICHAEL V. MORELLI	Date
State of California ) ) ss. County of <i>みょみがか</i> か )	
County of ALAMEDA )	
person(s) whose name(s) is/are subscribed to th he/she/they executed the same in his/her/their	Notary Public, personally to me on the basis of satisfactory evidence to be the e within instrument and acknowledged to me that authorized capacity(ies), and that by his/her/their he entity upon behalf of which the person(s) acted,
I certify under PENALTY OF PERJURY under it paragraph is true and correct.	he laws of the State of California that the foregoing
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

ASSIGNMENT

PATENT Atty. Docket No.: F7414

Title of Invention: NEAR FIELD TRANSDUCER USING DIELECTRIC WAVEGUIDE CORE WITH FINE RIDGE FEATURE		
S C) O O O O O O O O O O O O O O O O O O	2014	
HUNGAING YUAN Date '		
State of California		
State of California ) ss.  County of ALAMEDA )		
On	isfactory evidence to be the person(s) knowledged to me that he/she/they it by his/her/their signature(s) on the	
I certify under PENALTY OF PERJURY under the laws of the S paragraph is true and correct.	itute of California that the foregoing	
WITNESS my hand and official seal.		
Signature: Signature of Notary Public	MARIO RIBEIRO Commission # 2031834 Notary Public - California Santa Clara County My Comm. Expires Jul 28, 2017	

PATENT

MARIO RIBEIRO Commission # 2031934 Notary Public - California Santa Clara County My Comm Expires Jul 26, 2017

Atty. Docket No.: F7414

Title of Invention: NEAR FIELD TRANSDUCER USING DIELECTRIC WAVEGUIDE CORE WITH FINE RIDGE FEATURE		
BRAD V. JOHNSON E	30.5692614 Page	
State of California ) ss.  County of ALAMEDA )  On before me,	the basis of satisfactory evidence to be the within instrument and acknowledged to me that thorized capacity(ies), and that by his/her/their	
I certify under PENALTY OF PERJURY under the paragraph is true and correct.	laws of the State of California that the foregoing	
WITNESS my hand and official scal.  Signature:  Signature of Notary Public	MARIO RIBEIRO  Commission # 2031934  Notary Public - California  Santa Clara County  My Comm Expires Jul 28 2017	

ASSIGNMENT PATENT
Auy. Docket No.: F7414

Title of Invention: NEAR FIELD TRANSDUCER USING DIELECTRIC WAVEGUIDE CORE WITH FINE RIDGE FEATURE State of California ) ss. County of AZAMEM On 09/29/14 before me, MARIO 72176160, Notary Public, personally appeared MATTHEW R. GIBBONS 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 hand and official scal. MARIO RIBEIRO Commission & 2031934 Notary Public - California Santa Clara County My Comm. Expires Jul 28, 2017

U.S. Serial No. 14/324,505 (Attorney Docket No. F7414) U.S. Serial No. 62/010,057 (Attorney Docket No. F7414.P)

# ACCEPTANCE OF ASSIGNMENT

(Patent Application)

Assignce Western Digital (Fremont), LLC ("Assignce") hereby acknowledges that Jiangrong CAO, Michael V. MORELLI, Hongxing YUAN, Peng ZHANG, Brad V. JOHNSON and Matthew R. GIBBONS have executed the above assignment concerning a utility (provisional or non-provisional) or design patent application entitled

"NEAR FIELD TRANSDUCER USING DIELECTRIC WAVEGUIDE CORE WITH FINE RIDGE FEATURE"

filed with the U.S. Patent & Trademark Office on July 7, 2014 and assigned Serial No. 14/324,505; and

"NEAR FIELD TRANSDUCER USING DIELECTRIC WAVEGUIDE CORE WITH FINE RIDGE FEATURE"

filed with the U.S. Patent & Trademark Office on June 10, 2014 and assigned Serial No. 62/010,057.

Assignce further acknowledges receipt of the entire right, title and interest in and to the patents and/or patent application(s) listed herein ("Application(s)"), 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 listed Application(s) in any country or countries foreign to the United States and all extensions, renewals and reissues thereof.

Signature:

Rambod Nader, Patent Counsel

Assignee Western Digital (Fremont), LLC

PATENT REEL: 035330 FRAME: 0524

Date: 1/2 / 17, 2015

RECORDED: 04/03/2015