

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT5722718

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
JAMES MAC FREITAG	05/11/2017
SUSUMU OKAMURA	05/11/2017
MASAHIKO HASHIMOTO	05/11/2017
ZHENG GAO	05/11/2017
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	WESTERN DIGITAL TECHNOLOGIES, INC.
<b>Street Address:</b>	5601 GREAT OAKS PARKWAY
<b>City:</b>	SAN JOSE
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	95119
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16572551
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<i>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.</i>	
<b>Email:</b>	csingleton@pattersonsheridan.com
<b>Correspondent Name:</b>	STEVEN H. VERSTEEG
<b>Address Line 1:</b>	24 GREENWAY PLAZA
<b>Address Line 2:</b>	SUITE 1600
<b>Address Line 4:</b>	HOUSTON, TEXAS 77046
<b>ATTORNEY DOCKET NUMBER:</b>	WESD/0252D1(SDA-3160-I-US
<b>NAME OF SUBMITTER:</b>	STEVEN H. VERSTEEG
<b>SIGNATURE:</b>	/Steven H. VerSteeg/
<b>DATE SIGNED:</b>	09/17/2019
<b>Total Attachments: 1</b>	
source=SDA-3160-i-US_ASSIGNMENT#page1.tif	

## ASSIGNMENT FOR PATENT APPLICATION

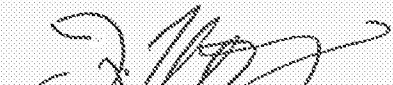
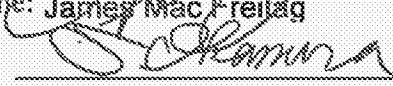
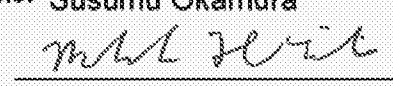
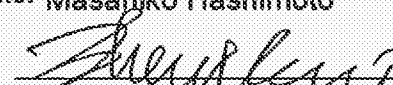
Whereas, I/we the undersigned inventor(s) have invented certain improvements as set forth in the patent application entitled:

### SPIN TRANSFER TORQUE DEVICE WITH OXIDE LAYER BENEATH THE SEED LAYER

Whereas, Western Digital Technologies, Inc., having a place of business at 5601 Great Oaks Parkway, San Jose, California 95119, (hereinafter referred to as "WDT"), desires to acquire the entire right, title and interest in the said application and invention, and to any United States and foreign patents to be obtained therefore;

Now therefore, for a valuable consideration, receipt whereof is hereby acknowledged, I/we, the above named, hereby sell, assign, and transfer to WDT, its successors and assigns, the entire right, title and interest in the said application and invention therein disclosed for the United States and foreign countries, and all rights of priority resulting from the filing of said United States application, and we request the Commissioner of Patents to issue any Letters Patent granted upon the inventions set forth in said application to WDT, its successors and assigns; and we hereby agree that WDT may apply for foreign Letters Patent on said invention and we will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by WDT.

Signed on the date(s) indicated beside my (our) signature(s).

- 1) Signature:   
Typed Name: James Mac Freilag Date: 5/11/2017
- 2) Signature:   
Typed Name: Susumu Okamura Date: 5/11/2017
- 3) Signature:   
Typed Name: Masahiko Hashimoto Date: 5/11/2017
- 4) Signature:   
Typed Name: Zheng Gao Date: 5/11/2017
- 5) Signature: \_\_\_\_\_  
Typed Name: \_\_\_\_\_ Date: \_\_\_\_\_
- 6) Signature: \_\_\_\_\_  
Typed Name: \_\_\_\_\_ Date: \_\_\_\_\_
- 7) Signature: \_\_\_\_\_  
Typed Name: \_\_\_\_\_ Date: \_\_\_\_\_