PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT3454189

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ERIC W. SINGLETON	09/24/2013
JAE-YOUNG YI	09/24/2013
KONSTANTIN NIKOLAEV	09/24/2013
LIWEN TAN	09/24/2013

RECEIVING PARTY DATA

Name:	SEAGATE TECHNOLOGY LLC
Street Address:	10200 S. DE ANZA BLVD.
City:	CUPERTINO
State/Country:	CALIFORNIA
Postal Code:	95014

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14808430

CORRESPONDENCE DATA

Fax Number: (720)204-5669

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Email: docket@holzeriplaw.com **Correspondent Name:** HOLZERIPLAW, PC Address Line 1: **216 16TH STREET**

Address Line 2: **SUITE 1350**

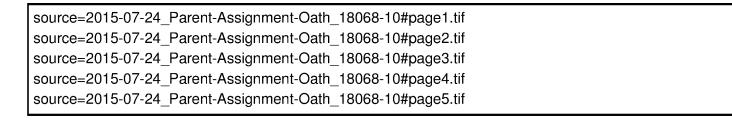
Address Line 4: DENVER, COLORADO 80202

NAME OF SUBMITTER: SOLANGE REOCH /Solange Reoch/ DATE SIGNED: O7/24/2015 This document serves as an Oath/Declaration (37 CFB 1 63)	ATTORNEY DOCKET NUMBER:	STL 18068.10
DATE SIGNED: 07/24/2015	NAME OF SUBMITTER:	SOLANGE REOCH
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This document serves as an Oath/Declaration (37 CFB 1 63)		
This document convoc as an early best at the convoc		This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 5

PATENT REEL: 036172 FRAME: 0008

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PATENT REEL: 036172 FRAME: 0009

COMBINED ASSIGNMENT - OATH

Seagate Docket No.:

18068

Lak	•	AEV of Bloomington, MN is/a	re the inventor(s) of an invention entitled ck all that apply)
	a provisional application for Lette	rs Patent which is identifiable	in the United States Patent and Trademark Office
	by Application No	filed on	
\boxtimes	an application for Letters Patent v	vhich is identifiable in the Unit	ed States Patent and Trademark Office by
	Application No.	filed on	and/or executed on even date
	herewith: and		
	an international application for Le	tters Patent filed pursuant to t	he Patent Cooperation Treaty which is
	identifiable in the United States R		
	; and/or	executed on even date herew	vith:

WHEREAS, Seagate Technology LLC, a limited liability company organized and existing under the laws of the State of Delaware and the United States of America, and having offices at 10200 S. De Anza Blvd, Cupertino, CA 95014 USA, ("Assignee") is desirous of acquiring the entire right, title and interest in and to the invention, the applications, and any and all Letters Patent or similar foreign or domestic legal protection;

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged. I transfer to Assignee, its successors and assigns, my entire right, title and interest in and to the invention, the above-identified applications, all provisional applications from which any of the above-identified applications claim priority, corresponding domestic and foreign applications, any continuation, division, renewal, or substitute for the applications, all Letters Patent, any reissue, re-examination, or similar legal protection issuing related to the Letters Patent, and all rights and benefits under any applicable treaty or convention; and I authorize the Director of the United States Patent and Trademark Office or foreign equivalent to issue the Letters Patent or similar legal protection to the Assignee.

I authorize the Assignee, its successors and assigns, to insert in this instrument the filing date(s) and application numbers when ascertained. I further authorize the Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent or similar legal protection, in its own name if desired, in any and all foreign countries and appoint Assignee the common representative in the above identified international application and any international application for the invention.

I represent to the Assignee, its successors and assigns, that I have not and shall not execute any writing or do any act whatsoever conflicting with this Assignment. I, my executors or administrators, will at any time upon request, without additional consideration, but at the expense of the Assignee, its successors and assigns, execute and deliver to Assignee or its legal representatives such additional writings and do such additional acts as the Assignee, its successors and assigns, may deem desirable to perfect its enjoyment of this grant, and render all assistance in making application for and obtaining, maintaining, and enforcing the Letters Patent or similar legal protection on the invention in any and all countries, including without limitation providing testimony in any related interference. litigation or proceeding.

The above-identified application was made or authorized to be made by me. I believe that I am the original inventor or an original joint inventor of a claimed invention in the application. I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both. I hereby state that I have reviewed and understand the contents of the above identified application, including the claims, as amended by any amendment specifically referred to above. I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-inpart applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

per (n) Lines ERIC W. SINGLETON (Inventor)

9-24-2013

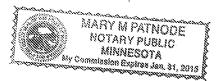
personally appeared (Inventor), who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

paragraph is true and correct.

WITNESS my hand and official seal.

Signature of Notary Public

(Seal)



REEL: 036172 FRAME: 0011

Jae-Young YI (Inventor)

09/24/2013

State of	Minnesota,
County of _	tennegin .

On <u>September 24 2013</u> before me,

Many M Papale

(insert name and title of the officer)

personally appeared (Inventor), 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 Minusota that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature (

Signature of Notary Public



KONSTANTIN NIKOLAEV (Inventor)

	09/24/2013
State of	Date
County of Hange (
On <u>70 /m Or 24 28/3</u> before me,	Mary M. Patrode
	(insert name and title of the officer)
personally appeared	
instrument.	,
I certify under PENALTY OF PERJURY under the laws paragraph is true and correct.	s of the State of <u>/////////</u> that the foregoing
WITNESS my hand and official seal.	
Signature // // // // (Se	eal)

PATENT Rev: 10/18/2012 **REEL: 036172 FRAME: 0013**

	<u>09/24/2013</u>
State of Minusoff County of FRANCIA	
On 50/1/2013 before me,	M. Atral
(iĥsert name and t	title of the officer)
personally appeared	(Inventor), who proved
to me on the basis of satisfactory evidence to be the person whose name and acknowledged to me that he/she executed the same in his/her author signature on the instrument the person, or the entity upon behalf of which instrument.	orized capacity, and that by his/her
I certify under PENALTY OF PERJURY under the laws of the State of paragraph is true and correct.	Minus A that the foregoing
WITNESS my hand and official seal.	
Signature (Seal) Signature of Notary Public	
MARY M PATNODE NOTARY PUBLIC MINNESOTA My Commission Expires Jen. 51, 2018	**

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RECORDED: 07/24/2015

PATENT Rev: 10/18/2012

REEL: 036172 FRAME: 0014