PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT3872926

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY AGREEMENT

CONVEYING PARTY DATA

Name	Execution Date
HGST, INC.	05/12/2016

RECEIVING PARTY DATA

Name:	JPMORGAN CHASE BANK, N.A., AS COLLATERAL AGENT
Street Address:	IL 1-1145/54/63 P.O. BOX 6026
City:	CHICAGO
State/Country:	ILLINOIS
Postal Code:	60680

PROPERTY NUMBERS Total: 7

Property Type	Number
Application Number:	14177216
Application Number:	14177219
Application Number:	14803091
Application Number:	14835642
Application Number:	14841672
Application Number:	14956173
Application Number:	14967025

CORRESPONDENCE DATA

Fax Number:

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.

Email:	michael.barys@thomsonreuters.com
Correspondent Name:	ELAINE CARRERA, LEGAL ASSISTANT
Address Line 1:	80 PINE STREET
Address Line 2:	C/O CAHILL GORDON & REINDEL LLP
Address Line 4:	NEW YORK, NEW YORK 10005

NAME OF SUBMITTER:	ELAINE CARRERA
SIGNATURE:	/Michael Barys/
DATE SIGNED:	05/13/2016

Total Attachments: 5

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RECORDATION FORM COVER SHEET
PATENTS ONLY

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)

HGST, Inc.

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

2. Name and address of receiving party(ies)

Name: JPMorgan Chase Bank, N.A., as Collateral Agent

Internal Address: _____

Street Address: IL1-1145/54/63, P.O. Box 6026

City: Chicago

State: IL

Country: USA   Zip: 60660

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

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

Execution Date(s) May 12, 2016

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

4. Application or patent number(s):   ☐ This document is being filed together with a new application.

A. Patent Application No.(s)
See Schedule A

B. Patent No.(s)
See Schedule A

Additional numbers attached? ☒ Yes ☐ No

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

Name: Elaine Carrera, Legal Assistant

Internal Address: _____

Street Address: c/o Cahill Gordon & Reindel LLP

80 Pine Street

City: New York

State: NY   Zip: 10005

Phone Number: (212) 701-3365

Docket Number: _____

Email Address: ecarrera@cahill.com

6. Total number of applications and patents involved: 7

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

☐ Authorized to be charged to deposit account
☐ Enclosed
☐ None required (government interest not affecting title)

8. Payment Information

Deposit Account Number _____

Authorized User Name _____

9. Signature: *Elaine Carrera*   May 12, 2016

Signature   Date

Elaine Carrera
Name of Person Signing

Total number of pages including cover sheet, attachments, and documents: 5

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

Patent Collateral Agreement

This Thursday, May 12, 2016, HGST, INC. ("*Debtor*"), for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, grants to JPMORGAN CHASE BANK, N.A., a national banking association (the "*Agent*"), acting as collateral agent hereunder for the Secured Parties as defined in the Bridge Security Agreement, dated as of May 12, 2016, among Debtor, Agent and the other debtors party thereto, as the same may be amended, restated, amended and restated or otherwise modified from time to time (the "*Bridge Security Agreement*") for the benefit of the Secured Parties, a lien on and security interest in, all right, title, and interest of such Debtor in and to all of the following (collectively, "*Patent Collateral*"):

> (i) Each patent and patent application owned by Debtor, other than to the extent the same constitutes Excluded Property, that is listed on <u>Schedule A</u> hereto (the "*Patents*"); and

> (ii) All proceeds of the foregoing, including any claim by Debtor against third parties for damages by reason of past, present or future infringement of any Patent, in each case together with the right to sue for and collect said damages.

All capitalized terms used herein without definition have the meanings given to such terms in the Bridge Security Agreement.

Debtor and Agent do hereby further acknowledge and affirm that the rights and remedies of the Agent with respect to the grant of a security interest in the Patent Collateral made hereby are more fully set forth in, and subject to, the Bridge Security Agreement, the terms and provisions of which are incorporated herein by reference as if fully set forth herein. In the event of any conflict between the terms of this Patent Collateral Agreement and the terms of the Bridge Security Agreement, the terms of the Bridge Security Agreement shall govern.

THIS PATENT COLLATERAL AGREEMENT AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES HEREUNDER SHALL BE GOVERNED BY, AND CONSTRUED BY AND INTERPRETED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK.

[SIGNATURE PAGE TO FOLLOW]

IN WITNESS WHEREOF, the undersigned Debtor has caused this Patent Collateral Agreement to be duly executed as of the date and year last above written.

HGST, INC.

By: _____

Name: Michael C. Ray

Title: Secretary

Accepted and agreed to as of the date and year last above written.

JPMORGAN CHASE BANK, N.A., as Agent

By: _____

Name: Caitlin Stewart
Title: Vice President

SCHEDULE A
TO PATENT COLLATERAL AGREEMENT

U.S. PATENT APPLICATIONS

No.	Title	Patent Application Number
1.	MEMORY APPARATUS AND METHODS THEREOF FOR PREVENTING READ ERRORS ON WEAK PAGES IN A NON-VOLATILE MEMORY SYSTEM	14/177,216
2.	SHUTDOWNS AND DATA RECOVERY TO AVOID READ ERRORS WEAK PAGES IN A NON-VOLATILE MEMORY SYSTEM	14/177,219
3.	INCREMENTAL ERROR DETECTION AND CORRECTION FOR MEMOERIES	14/803091
4.	3-D PLANES MEMORY DEVICE	14/835642
5.	4F2 SCR MEMORY DEVICE	14/841672
6.	DEPOSITION METHOD FOR PLANAR SURFACES	14/956173
7.	METHOD FOR FORMING PCM AND RRAM 3-D MEMORY CELLS	14/967025

PATENT

RECORDED: 05/13/2016

REEL: 038701 FRAME: 0021