

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
CONVEYING PARTY DATA													
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Quang Le</td> <td>12/21/2011</td> </tr> <tr> <td>David J. Seagle</td> <td>12/21/2011</td> </tr> <tr> <td>Guangli Liu</td> <td>12/21/2011</td> </tr> <tr> <td>Yongchul Ahn</td> <td>12/21/2011</td> </tr> <tr> <td>Simon H. Liao</td> <td>12/21/2011</td> </tr> </tbody> </table>		Name	Execution Date	Quang Le	12/21/2011	David J. Seagle	12/21/2011	Guangli Liu	12/21/2011	Yongchul Ahn	12/21/2011	Simon H. Liao	12/21/2011
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RECEIVING PARTY DATA													
Name:	Hitachi Global Storage Technologies Netherlands B.V.												
Street Address:	Locatellikade 1												
Internal Address:	Pamassustoren												
City:	1076 AZ Amsterdam												
State/Country:	NETHERLANDS												
PROPERTY NUMBERS Total: 1													
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13335589</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13335589								
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Application Number:	13335589												
CORRESPONDENCE DATA													
Fax Number:	(408)971-4660												
Phone:	408-971-2573												
Email:	april@zilkakotab.com												
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>													
Correspondent Name:	Zilka-Kotab, PC												
Address Line 1:	P.O. Box 721120												
Address Line 4:	San Jose, CALIFORNIA 95172												
ATTORNEY DOCKET NUMBER:	HIT1P647/HSJ920110091US1												
NAME OF SUBMITTER:	Ronald B. Feece												
Total Attachments: 2 source=HSJ9-2011-0091US1 Assignment#page1.tif source=HSJ9-2011-0091US1 Assignment#page2.tif													

CH \$40.00 13335589

ASSIGNMENT OF PATENT APPLICATION

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

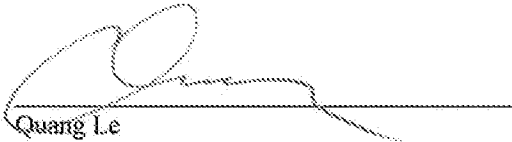
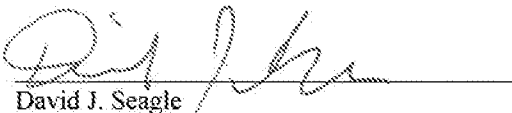
MAGNETIC SENSOR HAVING HARD BIAS STRUCTURE FOR OPTIMIZED HARD BIAS FIELD AND HARD BIAS COERCIVITY

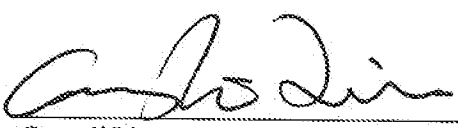
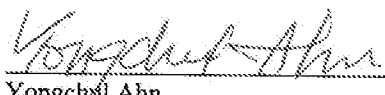
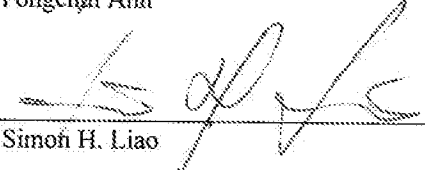
(Atty. Docket No.: HIT1P647/HSJ920110091US1) for which I (we) have executed an application for a United States Letters Patent.

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/we the undersigned inventor(s) hereby:

- 1) Sell(s), assign(s) and transfer(s) to Hitachi Global Storage Technologies Netherlands B.V., a corporation having a place of business at Locatellikade 1, Parnassustoren, 1076 AZ Amsterdam, The Netherlands, (hereinafter referred to as "ASSIGNEE"), the entire right title and interest in any and all improvements and inventions disclosed in, application(s) based upon, and Patent(s) (including foreign patents) granted upon the information which is disclosed in the above referenced application.
- 2) Authorize and request the Commissioner of Patents to issue any and all Letters Patents resulting from said application or any division(s), continuation(s), substitutes(s) or reissue(s) thereof to the ASSIGNEE.
- 3) Agree to execute all papers and documents and, entirely at the ASSIGNEE's expense, perform any acts which are reasonably necessary in connection with the prosecution of said application, as well as any derivative and applications thereof, foreign applications based thereon, and/or the enforcement of patents resulting from such applications.
- 4) Agree that the terms, covenants and conditions of this assignment shall inure to the benefit of the Assignee, its successors, assigns and other legal representative, and shall be binding upon the inventor(s), as well as the inventor's heirs, legal representatives and assigns.
- 5) Warrant and represent that I/we have not entered, and will not enter into any assignment, contract, or understanding that conflicts with this assignment.

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

- 1) Signature: 
Typed Name: Quang Le Date: 12/21/11
- 2) Signature: 
Typed Name: David J. Seagle Date: 12/21/11

- 3) Signature:  Date: 12/21/11
Typed Name: Guangli Liu
- 4) Signature:  Date: 12/21/2011
Typed Name: Yongchul Ahn
- 5) Signature:  Date: 12/21/2011
Typed Name: Simoh H. Liao