

**PATENT ASSIGNMENT**

Electronic Version v1.1  
 Stylesheet Version v1.1

| <b>SUBMISSION TYPE:</b>   | NEW ASSIGNMENT                 |               |                |                            |            |                     |            |               |            |              |            |
|---|--------------------------------|---------------|----------------|----------------------------|------------|---------------------|------------|---------------|------------|--------------|------------|
| <b>NATURE OF CONVEYANCE:</b>  | ASSIGNMENT                     |               |                |                            |            |                     |            |               |            |              |            |
| <b>CONVEYING PARTY DATA</b>   |                                |               |                |                            |            |                     |            |               |            |              |            |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:70%;">Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Haiwen Xi</td> <td>09/30/2008</td> </tr> <tr> <td>Xuefei Michael Tang</td> <td>09/30/2008</td> </tr> <tr> <td>Yuankai Zheng</td> <td>09/30/2008</td> </tr> <tr> <td>Patrick Ryan</td> <td>09/30/2008</td> </tr> </tbody> </table> |                                | Name          | Execution Date | Haiwen Xi                  | 09/30/2008 | Xuefei Michael Tang | 09/30/2008 | Yuankai Zheng | 09/30/2008 | Patrick Ryan | 09/30/2008 |
| Name  | Execution Date                 |               |                |                            |            |                     |            |               |            |              |            |
| Haiwen Xi   | 09/30/2008                     |               |                |                            |            |                     |            |               |            |              |            |
| Xuefei Michael Tang   | 09/30/2008                     |               |                |                            |            |                     |            |               |            |              |            |
| Yuankai Zheng   | 09/30/2008                     |               |                |                            |            |                     |            |               |            |              |            |
| Patrick Ryan  | 09/30/2008                     |               |                |                            |            |                     |            |               |            |              |            |
| <b>RECEIVING PARTY DATA</b>   |                                |               |                |                            |            |                     |            |               |            |              |            |
| <b>Name:</b>  | Seagate Technology LLC         |               |                |                            |            |                     |            |               |            |              |            |
| <b>Street Address:</b>  | 920 Disc Drive                 |               |                |                            |            |                     |            |               |            |              |            |
| <b>City:</b>  | Scotts Valley                  |               |                |                            |            |                     |            |               |            |              |            |
| <b>State/Country:</b>   | CALIFORNIA                     |               |                |                            |            |                     |            |               |            |              |            |
| <b>Postal Code:</b>   | 95066                          |               |                |                            |            |                     |            |               |            |              |            |
| <b>PROPERTY NUMBERS Total: 1</b>  |                                |               |                |                            |            |                     |            |               |            |              |            |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;">Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td><b>Application Number:</b></td> <td>12242620</td> </tr> </tbody> </table>  |                                | Property Type | Number         | <b>Application Number:</b> | 12242620   |                     |            |               |            |              |            |
| Property Type   | Number                         |               |                |                            |            |                     |            |               |            |              |            |
| <b>Application Number:</b>  | 12242620                       |               |                |                            |            |                     |            |               |            |              |            |
| <b>CORRESPONDENCE DATA</b>  |                                |               |                |                            |            |                     |            |               |            |              |            |
| <b>Fax Number:</b>  | (405)232-9659                  |               |                |                            |            |                     |            |               |            |              |            |
| <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>  |                                |               |                |                            |            |                     |            |               |            |              |            |
| <b>Phone:</b>   | 405-232-0621                   |               |                |                            |            |                     |            |               |            |              |            |
| <b>Email:</b>   | Rmccarthy@fellerssnider.com    |               |                |                            |            |                     |            |               |            |              |            |
| <b>Correspondent Name:</b>  | Fellers Snider, et al.         |               |                |                            |            |                     |            |               |            |              |            |
| <b>Address Line 1:</b>  | 100 North Broadway, Suite 1700 |               |                |                            |            |                     |            |               |            |              |            |
| <b>Address Line 4:</b>  | Oklahoma City, OKLAHOMA 73102  |               |                |                            |            |                     |            |               |            |              |            |
| <b>ATTORNEY DOCKET NUMBER:</b>  | STL14500                       |               |                |                            |            |                     |            |               |            |              |            |
| <b>NAME OF SUBMITTER:</b>   | Randall K. McCarthy            |               |                |                            |            |                     |            |               |            |              |            |
| Total Attachments: 2<br>source=2008-09-30-Assignment-STL14500#page1.tif   |                                |               |                |                            |            |                     |            |               |            |              |            |

**OP \$40.00 12242620**



ASSIGNMENT

Seagate Docket No. STL14500

WHEREAS, I/we, Haiwen Xi of 3019 Bobcat Trail N.W., Prior Lake, MN 55372, Xuefei (Michael) Tang of 7850 West 95<sup>th</sup> Street, Bloomington, MN 55438, Yuankai Zheng of 5220 West 102<sup>nd</sup> Street, Apt. 207, Bloomington, MN 55437, and Patrick Ryan of 1249 Scheffer Avenue, St. Paul, MN 55116 am/are the inventor(s) of an invention entitled SEMICONDUCTOR DEVICE WITH THERMALLY COUPLED PHASE CHANGE LAYERS that is the subject matter of: (check all that apply)

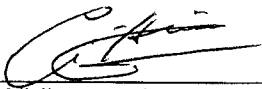
- a provisional application for Letters Patent which is identifiable in the United States Patent and Trademark Office by Application No. filed ;
- an application for Letters Patent which is identifiable in the United States Patent and Trademark Office by Application No. filed herewith; and
- an international application for Letters Patent filed pursuant to the Patent Cooperation Treaty which is identifiable in the United States Receiving Office by Application No. and filed on ; and

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 920 Disc Drive, Scotts Valley, California, 95066 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;

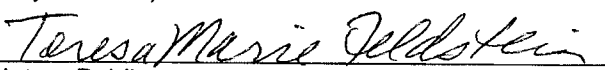
NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, I/we transfer to Assignee, its successors and assigns, my entire right, title and interest in and to the invention, the above-identified applications, all provisional applications for which 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/we 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/We authorize the Assignee, its successors and assigns, to insert in this instrument the filing date(s) and application numbers when ascertained. I/We 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/We represent to the Assignee, its successors and assigns, that I/We have not and shall not execute any writing or do any act whatsoever conflicting with this Assignment. I/We, my/our 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.

  
\_\_\_\_\_  
Haiwen Xi (Inventor)

Subscribed and sworn to before me at Bloomington, MN, a Notary Public, this 30<sup>th</sup> day of September, 2008.  
(city or county and state)

  
\_\_\_\_\_  
Teresa Marie Feldstein  
Notary Public



Michael Tang

Xuefei (Michael) Tang (Inventor)

Subscribed and sworn to before me at Bloomington, MN, a Notary Public, this 30<sup>th</sup> day of September, 2008.

Teresa Marie Feldstein

Notary Public



Zheyu C

Yuankai Zheng (Inventor)

Subscribed and sworn to before me at Bloomington, MN, a Notary Public, this 30<sup>th</sup> day of September, 2008.

Teresa Marie Feldstein

Notary Public



Patrick Ryan

Patrick Ryan (Inventor)

Subscribed and sworn to before me at Bloomington, MN, a Notary Public, this 30<sup>th</sup> day of September, 2008.

Teresa Marie Feldstein

Notary Public

