

## PATENT ASSIGNMENT COVER SHEET

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|---|------------------------------------|
| <b>SUBMISSION TYPE:</b>   | NEW ASSIGNMENT                     |
| <b>NATURE OF CONVEYANCE:</b>  | ASSIGNMENT                         |
| <b>CONVEYING PARTY DATA</b>   |                                    |
| <b>Name</b>   | <b>Execution Date</b>              |
| JIN QUAN SHEN   | 03/09/2020                         |
| XIONG LIU   | 03/09/2020                         |
| BRIAN T. EDGAR  | 03/09/2020                         |
| JAE IK SONG   | 03/09/2020                         |
| <b>RECEIVING PARTY DATA</b>   |                                    |
| <b>Name:</b>  | SEAGATE TECHNOLOGY LLC             |
| <b>Street Address:</b>  | 10200 S. DE ANZA BOULEVARD         |
| <b>City:</b>  | CUPERTINO                          |
| <b>State/Country:</b>   | CALIFORNIA                         |
| <b>Postal Code:</b>   | 95014                              |
| <b>PROPERTY NUMBERS Total: 1</b>  |                                    |
| <b>Property Type</b>  | <b>Number</b>                      |
| <b>Application Number:</b>  | 16817819                           |
| <b>CORRESPONDENCE DATA</b>  |                                    |
| <b>Fax Number:</b>  | (405)553-2855                      |
| <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> |                                    |
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| <b>Correspondent Name:</b>  | HALL ESTILL ATTORNEYS AT LAW       |
| <b>Address Line 1:</b>  | 100 NORTH BROADWAY, SUITE 2900     |
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| <b>ATTORNEY DOCKET NUMBER:</b>  | STL074652                          |
| <b>NAME OF SUBMITTER:</b>   | TYLER J. MANTOOTH                  |
| <b>SIGNATURE:</b>   | /Tyler J. Mantooth/                |
| <b>DATE SIGNED:</b>   | 03/13/2020                         |
| This document serves as an Oath/Declaration (37 CFR 1.63).  |                                    |
| <b>Total Attachments: 3</b><br>source=Assignment#page1.tif  |                                    |

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## COMBINED ASSIGNMENT-DECLARATION

Seagate Dkt. No. STL074652

WHEREAS, Jin Quan Shen of Blk 9, Compassville Road, #12-38, Singapore, 544758, Xiong Liu of 935 Bukit Timah Road, #05-34, Singapore, 589645, Brian T. Edgar of 4028 Oakland Avenue, Minneapolis, Minnesota, 55407, and Jae Ik Song of 25 Hillview Avenue #05-04, Singapore 669558 are the inventors of an invention entitled DATA STORAGE SYSTEM WITH ADAPTIVE CACHE MANAGEMENT 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 on \_\_\_\_\_;
- an application for Letters Patent which is identifiable in the United States Patent and Trademark Office by Application No. \_\_\_\_\_ filed on \_\_\_\_\_ and/or executed on even date 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. \_\_\_\_\_ filed on \_\_\_\_\_; and/or executed on even date herewith:

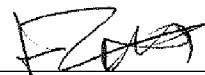
WHEREAS, Seagate Technology LLC, a limited liability company organized and existing under the laws of the State of Delaware and the United States of America, and having offices at 10200 S. De Anza Blvd, Cupertino, CA 95014 USA, ("Assignee") is desirous of acquiring the entire right, title and interest 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.

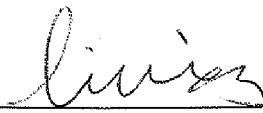
The above-identified application was made or authorized to be made by me. I believe that I am the original inventor or an original joint inventor of a claimed invention in the application. I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 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-in-part 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.

  
Jin Quan Shen (Inventor)

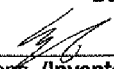
Date

09 Mar 2020

STL074652

  
Xiong Liu (Inventor) 9 March 2020  
Date

\_\_\_\_\_  
Brian Edgar (Inventor)  
Date

  
Jae Ik Song (Inventor) 9 March 2020  
Date

Xiong Liu (Inventor)

Date

*Brian T. Edgar*

Brian T. Edgar (Inventor)

Date

2020/3/9

Jae Ik Song (Inventor)

Date