

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT5376059

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
DAVID MALCOLM SYMONS	03/09/2018
PAUL EDWARD HANHAM	03/09/2018
FRANCESCO GIORGIO	03/09/2018
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	OCZ STORAGE SOLUTIONS LIMITED
<b>Street Address:</b>	25B-25C WESTERN AVENUE
<b>Internal Address:</b>	MILTON PARK
<b>City:</b>	ABINGDON, OXON
<b>State/Country:</b>	UNITED KINGDOM
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15917350
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(202)672-5399
<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>	
<b>Phone:</b>	202-672-5300
<b>Email:</b>	ipdocketing@foley.com, dbeardsley@foley.com
<b>Correspondent Name:</b>	FOLEY & LARDNER LLP
<b>Address Line 1:</b>	3000 K STREET N.W.
<b>Address Line 2:</b>	SUITE 600
<b>Address Line 4:</b>	WASHINGTON, D.C. 20007-5109
<b>ATTORNEY DOCKET NUMBER:</b>	117441-0107
<b>NAME OF SUBMITTER:</b>	DANA BEARDSLEY
<b>SIGNATURE:</b>	/ Dana Beardsley /
<b>DATE SIGNED:</b>	02/14/2019
<b>Total Attachments: 4</b>	
source=117441-0107_Assignment#page1.tif	
source=117441-0107_Assignment#page2.tif	
source=117441-0107_Assignment#page3.tif	



## ASSIGNMENT

WHEREAS, the undersigned inventor(s) desires to transfer all right, title and interest in and to the inventions disclosed in the following Invention Disclosure Form(s):

- "Using the measured Mutual Information between the input and output of the soft read channel to predict the Frame Error Rate of an LDPC decoder" submitted on January 11, 2018, by David Malcolm Symons, Paul Edward Hanham and Francesco Giorgio (collectively, the "INVENTORS");

And such inventions which if now or hereafter are disclosed in the patent application(s):

(a)  U.S. patent application executed on herewith and titled "System and Method for Improved Memory Error Rate Estimation,"

(b)  U.S. application no. \_\_\_\_\_ filed on \_\_\_\_\_,

(c)  International (e.g., PCT, JP) application no. \_\_\_\_\_ filed on \_\_\_\_\_,

(collectively, the "INVENTIONS");

WHEREAS, OCZ Storage Solutions Limited ("OCZ UK"), an England corporation with its principal place of business at 25B-25C Western Avenue, Milton Park, Abingdon, Oxon, UK, desires to acquire all of the right, title and interest of David Malcolm Symons, Paul Edward Hanham and Francesco Giorgio (hereinafter referred to as "OCZ INVENTOR(S)") in, to and under the INVENTIONS and OCZ UK further desires to transfer all such right, title and interest to Toshiba Memory America, Inc., (hereinafter referred to as "TMA") organized and existing under the laws of the United States, having a place for the transaction of business at 5231 California Avenue, Irvine, CA 92617.

WHEREAS, TMA desires to acquire all of the right, title and interest of OCZ UK and INVENTOR(S) in, to and under the INVENTIONS and TMA further desires to transfer all such right, title and interest to Toshiba Memory Corporation (hereinafter referred to as "TMC") a corporation duly organized and existing under the laws of Japan, with offices at 1-1, Shibaura 1-chome, Minato-ku, Tokyo 105-8001;

Now, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, OCZ INVENTORS hereby sell(s), assign(s) and transfer(s) to OCZ UK the entire right, title and interest for the United States and its territorial possessions, and in all foreign countries, in and to the INVENTIONS and any and all improvements thereon which are the subject of the INVENTIONS, and in and to any U.S. or foreign patent application for such INVENTIONS and improvements and any legal equivalent thereof in a foreign country, including the right to claim priority, and in and to any division, continuation or continuation-in-part, renewal or substitute thereof, and in and to all resulting Letters Patents or any reissue, reexamination certificate, supplemental examination certificate, post grant review certificate, inter partes review certificate, or otherwise, thereof, to have and to hold the same to the full end of the term or terms for which any and all of said Letters Patent may be granted (collectively, the "ASSIGNED INVENTIONS");

THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, OCZ UK hereby sells, assigns and transfers to TMA the entire right, title and interest to the ASSIGNED INVENTIONS;

OCZ INVENTOR(S) and OCZ UK hereby covenant that OCZ INVENTOR(S) and OCZ UK, respectively, has/have the full power to make this assignment, and that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment; and

Without further payment or compensation by OCZ UK or their successors and assigns, OCZ INVENTOR(S), respectively, further covenant(s) and agree(s) to communicate to OCZ UK, their representatives, agents, their successors or their assigns, or to subsequent assignees of the ASSIGNED INVENTIONS, any facts relating to the ASSIGNED INVENTIONS including evidence for purposes of interference or derivation proceedings or other administrative or legal proceedings whenever requested; to testify in any interference derivation, legal or administrative proceedings whenever requested; to execute and deliver, on request, all lawful papers required to make any of the foregoing provisions effective; and to do everything possible to aid OCZ UK, their successors, assigns, nominees, or to subsequent assignees of the ASSIGNED INVENTIONS to secure, obtain and enforce proper patent protection for the ASSIGNED INVENTIONS in this or any foreign country.

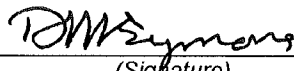
And for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, TMA hereby sells, assigns and transfers to TMC the entire right, title and interest to the ASSIGNED INVENTIONS;

INVENTOR(S), OCZ UK and TMA authorize and request the issuing authority to issue any and all patents on said application or applications to TMC or its successors and assigns;


TMA hereby covenants that it has the full power to make this assignment, and that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment; and

Any attorney of record for TMC, and its successors and assigns, at the direction of TMC is authorized and requested by the execution of this assignment to insert into this assignment any further patent or patent application information in the blanks and check boxes above as necessary for recordation of this document.


IN WITNESS WHEREOF, the INVENTOR(S) has/have hereunto affixed his/her/their signatures on the date below written.

1)       David Malcolm Symons      09/03/2018  
(Signature)      (Type or Print Name)      (Date)

19 Broad Close, Kidlington, Oxon, OX5 1BE  
(Residence Address)

2)       Paul Edward Hanham      09/03/2018  
(Signature)      (Type or Print Name)      (Date)

Harrow Farm Cottage, Froxfield, Marlborough, Wiltshire, SN8 3HT  
(Residence Address)

3)       Francesco Giorgio      09/03/2018  
(Signature)      (Type or Print Name)      (Date)  
09 - MAR / 2018

Flat 24, Ellington Court, North Way, Headington, Oxon, OX3 9EF  
(Residence Address)



**IN WITNESS WHEREOF**, a representative of **OCZ UK** with authorization to make this assignment has hereunto affixed his/her signature on the date below written.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
*James Tout, VP SoC Engineering,  
General Manager UK*

\_\_\_\_\_  
(Date)

**IN WITNESS WHEREOF**, a representative of **TMA** with authorization to make this assignment has hereunto affixed his/her signature on the date below written.

  
\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
*Julius Christensen, Senior Vice  
President and General Counsel*

*5/31/2018*  
\_\_\_\_\_  
(Date)

*Rick Lin, IP Attorney*