## 506144500 07/08/2020

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6191231

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
TOSHIBA MEMORY AMERICA, INC.	05/21/2019

#### **RECEIVING PARTY DATA**

Name:	TOSHIBA MEMORY CORPORATION
Street Address:	1-1, SHIBAURA 1-CHOME
Internal Address:	MINATO-KU
City:	TOKYO
State/Country:	JAPAN
Postal Code:	105-8001

### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	16125283

#### **CORRESPONDENCE DATA**

**Fax Number:** (202)672-5399

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.

**Phone:** 202-672-5300

**Email:** ipdocketing@foley.com, kchaffin-penny@foley.com **Correspondent Name:** FOLEY & LARDNER LLP / MARK J. DANIELSON

Address Line 1: 3000 K STREET, N.W.

Address Line 2: SUITE 600

Address Line 4: WASHINGTON, D.C. 20007-5109

ATTORNEY DOCKET NUMBER:	117441-0115
NAME OF SUBMITTER:	KRISTA CHAFFIN-PENNY
SIGNATURE:	/Krista Chaffin-Penny/
DATE SIGNED:	07/08/2020

# **Total Attachments: 6**

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> PATENT REEL: 053155 FRAME: 0650

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PATENT REEL: 053155 FRAME: 0651

#### **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):

 "Pooled front line ECC decoders for efficient targeted decoding with reduced resources," submitted on May 2, 2018, by Paul Edward Hanham, David Malcolm Symons, Francesco Giorgio, Senthilkumar Diraviam and Jonghyeon Kim (collectively, the "INVENTORS"):

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

(a) ⊠ FRONTLINE E	U.S. patent application executed onCC DECODERS IN MEMORY SYSTEMS,"	herewith	and titled "POOLED
(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"), a UK corporation with its principal place of business at 25b-c Western Avenue, Milton Park, Abingdon, OXON, OX14 4SH, U.K., desires to acquire all of the right, title and interest of Benjamin James Kerr, Phillip Rose and Robert Reed (hereinafter referred to as "OCZ UK 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 UK INVENTOR(S) 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 UK INVENTOR(S) and OCZ UK hereby covenant that OCZ UK 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

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Without further payment or compensation by OCZ UK or their successors and assigns, OCZ UK INVENTOR(S), 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 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.

13	In a de minume			2018-0	B-30
•	(Signature)	Paul Edw	vərd Hanham	(Dali	9}
	HADROWFARM WITHOF	, MOXFIECTO	SW8 31	4 1	
		(Residence Addre	·ss)		······································
2)	(Signature)	David Mal	colm Symons	2018/c	<u>&gt;*/30</u>
		KIDUNGTON	OKON C	XS IBE	UK-
	N. 75	(Residence Addre	ss)		
3)	Jeones & Justin (Signature)			2018/08	130
	(Signature)	Frances	sco Giorgio	(Date	
	24 ELLINGTON COURT, B	JOETH WAY	HOTOWARE	0x39EF	VK
	And had	(Residence Addre			
4);	J. Sodle			AUG 3	0/5018
	(Signature)	Senthilku	nar Diraviam	(Date	9)
	549 SACOTE	R SUNNY	JACE CA	94089	US
		(Residence Addre	(22.	,	

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5)	1		8/30/2018
	(Signature)	Jonghyeon Kim	(Date)
	5747 CLEMATIS	DR #R SAN JOSE CA 9 (Residence Address)	15124 USA
	ITNESS WHEREOF, a representant affixed his/her signature on the	ative of OCZ UK with authorization to make the date below written.	nis assignment has
	And Ne.A		30 AUF ZOUP
_	(Signature)	James Tout, GM UK	(Date)
	into affixed his/her signature on the		
	(Signature)	Rick Lin, IP Attorney	(Date)

#### **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):

 "Pooled front line ECC decoders for efficient targeted decoding with reduced resources," submitted on May 2, 2018, by Paul Edward Hanham, David Malcolm Symons, Francesco Giorgio, Senthilkumar Diraviam and Jonghyeon Kim (collectively, the "INVENTORS"):

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

(a) ⊠ FRONTLINE E	U.S. patent application executed onCC DECODERS IN MEMORY SYSTEM	<u>herewith</u> S,"	and titled "POOLED
(b) 🗆	U.S. application no.	filed on	
(c) 🗆	International (e.g., PCT, JP) application	1 no	filed on
(collectively	y, the "INVENTIONS");		

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Now, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, OCZ UK INVENTOR(S) 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 UK INVENTOR(S) and OCZ UK hereby covenant that OCZ UK 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

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Without further payment or compensation by OCZ UK or their successors and assigns, OCZ UK INVENTOR(S), 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)	(Signature)	Paul Edward Hanham	(Date)
***************************************		(Residence Address)	
2)	(Signature)	David Malcolm Symons	(Date)
		(Residence Address)	
3)	(Signature)	Francesco Giorgio	(Date)
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		(Residence Address)	
t)	(Signature)	Senthilkumar Diraviam	(Date)
	3	(Residence Address)	

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<b>3</b> }		
(Signature)	Jonghyeon Kim	(Date)
	(Residence Address)	
IN WITNESS WHEREOF, a represe hereunto affixed his/her signature of	entative of <b>OCZ UK</b> with authorization to make in the date below written.	this assignment has
(Signature)	James Tout, GM UK	(Date)
IN WITNESS WHEREOF, a represented the second control of the second	entative of <b>TMA</b> with authorization to make this in the date below written.	s assignment has
-22-		5-21-2017
(Signature)	Rick Lin, IP Attorney	(Date)

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**RECORDED: 07/08/2020** 

PATENT REEL: 053155 FRAME: 0657