# PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
KIOXIA ISRAEL LIMITED	04/09/2022

### **RECEIVING PARTY DATA**

Name:	KIOXIA AMERICA, INC.
Street Address:	5231 CALIFORNIA AVENUE
City:	IRVINE
State/Country:	CALIFORNIA
Postal Code:	92617

## **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	17135722

### **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:** 2026725300

Email: ipdocketing@foley.com

Correspondent Name: FOLEY & LARDNER LLP

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

Address Line 2: SUITE 600

Address Line 4: WASHINGTON, D.C. 20007

ATTORNEY DOCKET NUMBER:	117441-0185
NAME OF SUBMITTER:	MIJY O'NEILL
SIGNATURE:	/MIJY O'NEILL/
DATE SIGNED:	09/29/2022

## **Total Attachments: 7**

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#### **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):

 EFFICIENT HARD DECODING METHODS FOR NAND FLASH MEMORIES submitted by Avi Steiner, Amir Nassie, Anat Rot, Ofir Kanter, and Hanan Weingarten (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 and entitled, "HARD DECODING METHODS IN DATA STORAGE DEVICES",
(b) ☑ U.S. application no. <u>17/135722</u> filed on <u>12-28-2020</u> ,
(c) International (e.g., PCT, JP) application no filed on
(collectively, the "INVENTIONS");

WHEREAS, Kioxia Israel Limited ("KIOXIA ISRAEL"), an Israel corporation with its principal place of business at 24 Raul Wallenberg Street, Tel Aviv, 69719, Israel, desires to acquire all of the right, title and interest of Avi Steiner, Amir Nassie, Anat Rot, Ofir Kanter, and Hanan Weingarten (hereinafter referred to as "KIOXIA ISRAEL INVENTOR(S)") in, to and under the INVENTIONS and KIOXIA ISRAEL further desires to transfer all such right, title and interest to Kioxia America, Inc., (hereinafter referred to as "KAI") 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, KAI desires to acquire all of the right, title and interest of KIOXIA ISRAEL in, to and under the INVENTIONS and KAI further desires to transfer all such right, title and interest to KIOXIA Corporation (hereinafter referred to as "KC") 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, KIOXIA ISRAEL INVENTORS hereby sell(s), assign(s) and transfer(s) to KIOXIA ISRAEL, 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, KIOXIA ISRAEL hereby sells, assigns and transfers to KAI the entire right, title and interest to the ASSIGNED INVENTIONS;

KIOXIA ISRAEL INVENTOR(S), KIOXIA ISRAEL, hereby covenant that KIOXIA ISRAEL INVENTOR(S), KIOXIA ISRAEL, 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 KIOXIA ISRAEL, or their successors and assigns, KIOXIA ISRAEL INVENTOR(S), respectively, further covenant(s) and agree(s) to communicate to KIOXIA ISRAEL, 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 KIOXIA ISRAEL, 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, KAI hereby sells, assigns and transfers to KC the entire right, title and interest to the ASSIGNED INVENTIONS:

INVENTOR(S), KIOXIA ISRAEL authorize and request the issuing authority to issue any and all patents on said application or applications to KC or its successors and assigns;

KAI 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 KC, and its successors and assigns, at the direction of KC 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)	Avi Slavno	Avi Steiner	10/4/2022
·	(Signature)	(Type or Print Name)	(Date)
	15 Habrosh St. Kiriat M	lotzkin Israel	
		(Residence Address)	
2)		Amir Nassie	
	(Signature)	(Type or Print Name)	(Date)
		(Residence Address)	
3)		Anat Rot	
	(Signature)	(Type or Print Name)	(Date)

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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 KIOXIA ISRAEL, or their successors and assigns, KIOXIA ISRAEL INVENTOR(S), respectively, further covenant(s) and agree(s) to communicate to KIOXIA ISRAEL, 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 KIOXIA ISRAEL, 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, KAI hereby sells, assigns and transfers to KC the entire right, title and interest to the ASSIGNED INVENTIONS;

INVENTOR(S), KIOXIA ISRAEL authorize and request the issuing authority to issue any and all patents on said application or applications to KC or its successors and assigns;

KAI 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 KC, and its successors and assigns, at the direction of KC 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)		Avi Steiner	
	(Signature)	(Type or Print Name)	(Date)
		(Residence Address)	
2)	9W}	Amir Nassie	April 4th 2022
	(Signature) V	(Type or Print Name)	(Date)
_		(Residence Address)	
3)		Anat Rot	
	(Signature)	(Type or Print Name)	(Date)
		(Residence Address)	

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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 KIOXIA ISRAEL, or their successors and assigns, KIOXIA ISRAEL INVENTOR(S), respectively, further covenant(s) and agree(s) to communicate to KIOXIA ISRAEL, 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 KIOXIA ISRAEL, 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, KAI hereby sells, assigns and transfers to KC the entire right, title and interest to the ASSIGNED INVENTIONS:

INVENTOR(S), KIOXIA ISRAEL authorize and request the issuing authority to issue any and all patents on said application or applications to KC or its successors and assigns;

KAI 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 KC, and its successors and assigns, at the direction of KC 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)		Avi Steiner	
,	(Signature)	(Type or Print Name)	(Date)
	(,	Residence Address)	
2)	(Signature)	Amir Nassie (Type or Print Name)	(Date)
		Residence Address)	
3)	(Signature)	Anat Rot (Type or Print Name)	<u>April 11th </u> 2022 <i>(Date)</i>
		Residence Address)	

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4) (	hir keeper	Ofir Kanter	10/04/2022
·/	(Signature)	(Type or Print Name)	(Date)
		(Residence Address)	
)		Hanan Weingarten	
	(Signature)	(Type or Print Name)	(Date)
		(Residence Address)	
		ve of <b>KIOXIA ISRAEL</b> with authorization signature on the date below written.	n to make this
			n to make this
		signature on the date below written.	n to make this  (Date)
ssignme 	nt has hereunto affixed his/her (Signature)  ESS WHEREOF, a representative	signature on the date below written.  Oded Ilan, President (Name and Title)  ve of <b>KAI</b> with authorization to make thi	(Date)
ssignme 	nt has hereunto affixed his/her (Signature)	signature on the date below written.  Oded Ilan, President (Name and Title)  ve of <b>KAI</b> with authorization to make thi	(Date)
ssignme	nt has hereunto affixed his/her (Signature)  ESS WHEREOF, a representative	signature on the date below written.  Oded Ilan, President (Name and Title)  ve of <b>KAI</b> with authorization to make thi	(Date)

4)		Ofir Kanter	
·	(Signature)	(Type or Print Name)	(Date)
	(	(Residence Address)	
) _	Haven Uliyartan (Signature)	Hanan Weingarten (Type or Print Name)	<u>April 11, 2022</u> (Date)
	, -	,	(24:0)
	Hamesila 13, Herzliya, 4658013		
	•	(Residence Address)	
	NESS WHEREOF, a representative o		on to make this
	NESS WHEREOF, a representative on ment has hereunto affixed his/her sign		on to make this
		nature on the date below written.	on to make this
			on to make this (Date)
ssignn —	ment has hereunto affixed his/her sigr	nature on the date below written.  Oded Ilan, President (Name and Title)  of KAI with authorization to make th	(Date)
ssignn —	nent has hereunto affixed his/her sign (Signature)  NESS WHEREOF, a representative of	nature on the date below written.  Oded Ilan, President (Name and Title)  of KAI with authorization to make th	(Date)

4) _	(Signature)	Ofir Kanter (Type or Print Name)	(Date)
-		(Residence Address)	
5) _	(Signature)	Hanan Weingarten (Type or Print Name)	(Date)
	(Signature)	(Type of Thin Name)	(Date)
-		(Residence Address)	
N WI	TNESS WHEREOF, a representat	ive of <b>KIOXIA ISRAEL</b> with authorizatior	ı to make this
	nment has hereunto affixed his/her	signature on the date below written.	
			o to make this  04.09.2022 (Date)
assigr -	nment has hereunto affixed his/her	Signature on the date below written.  Oded Ilan, President (Name and Title)  ive of <b>KAI</b> with authorization to make this	04.09.2022 (Date)
assigr -	nment has hereunto affixed his/her  Oclocy for  (Signature)  TNESS WHEREOF, a representate	Signature on the date below written.  Oded Ilan, President (Name and Title)  ive of <b>KAI</b> with authorization to make this	04.09.2022 (Date)

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**RECORDED: 09/29/2022**