

<b>PATENT ASSIGNMENT COVER SHEET</b>
--------------------------------------

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4373016

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
PRESTON A. THOMSON	12/05/2016
PEILING ZHANG	11/22/2016
JUNCHAO CHEN	11/16/2011
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	MICRON TECHNOLOGY, INC.
<b>Street Address:</b>	8000 SOUTH FEDERAL WAY
<b>Internal Address:</b>	MS 525
<b>City:</b>	BOISE
<b>State/Country:</b>	IDAHO
<b>Postal Code:</b>	83716
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15490316
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(612)573-2005
<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>	651-573-2000
<b>Email:</b>	USPTO.PATENTS@dbclaw.com
<b>Correspondent Name:</b>	DICKE, BILLIG & CZAJA - MICRON
<b>Address Line 1:</b>	100 S 5TH ST STE 2250
<b>Address Line 4:</b>	MINNEAPOLIS, MINNESOTA 55402
<b>ATTORNEY DOCKET NUMBER:</b>	M3401.125.101
<b>NAME OF SUBMITTER:</b>	THOMAS W. LEFFERT
<b>SIGNATURE:</b>	/Thomas W. Leffert/
<b>DATE SIGNED:</b>	04/18/2017
<b>Total Attachments: 8</b>	
source=2017-04-18-Assignment#page1.tif	
source=2017-04-18-Assignment#page2.tif	
source=2017-04-18-Assignment#page3.tif	

source=2017-04-18-Assignment-Employment-Chen#page1.tif  
source=2017-04-18-Assignment-Employment-Chen#page2.tif  
source=2017-04-18-Assignment-Employment-Chen#page3.tif  
source=2017-04-18-Assignment-Employment-Chen#page4.tif  
source=2017-04-18-Assignment-Employment-Chen#page5.tif

**ASSIGNMENT**

WHEREAS, we:

**Preston A. Thomson, residing at 7895 S. Brundage Avenue, Boise, Idaho, 83716; and  
Peiling Zhang, residing at 725 Baywood Court, El Dorado Hills, California 95762**

made certain new and useful inventions and improvements for which we executed an application for Letters Patent of the United States herewith, and which is entitled DATA STORAGE WITH DATA RANDOMIZER IN MULTIPLE OPERATING MODES.

AND WHEREAS, Micron Technology, Inc., a corporation organized and existing under and by virtue of the laws of the State of Delaware, and having an office and place of business at 8000 South Federal Way, MS 525, Boise, Idaho, 83716, (hereinafter "Assignee") is desirous of acquiring the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefor;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the said application, all divisions, continuations, continuations-in-part, or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted therefrom; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the said Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the said Assignee, its successors and assigns.

AND, for the consideration aforesaid, we do hereby agree that we and our respective executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the said improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore we covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me/us and that full right to convey the same as herein expressed is possessed by us.

IN TESTIMONY WHEREOF, I have hereunto set my hand this 5th day of December, 2016.

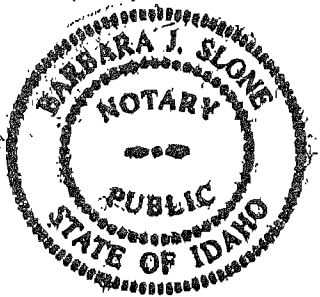
*PTH*

Preston A. Thomson

State of Idaho  
County of Ada

On 12/5/16 before me, Barbara J. Slone appeared Preston Thomson, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity on behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal  
Notary or Consular Officer Barbara J. Slone  
(Seal)



My Commission Expires: 08/26/2020

Docket No.: M3401.125.101  
Serial No.: Unknown  
Title: DATA STORAGE WITH DATA RANDOMIZER IN MULTIPLE OPERATING MODES

Micron Docket No. 2015-0410.00/US  
Filing Date: Herewith  
Page 3 of 3

IN TESTIMONY WHEREOF, I have hereunto set my hand this 22<sup>nd</sup> day of Nov,  
2016

Peiling Zhang  
Peiling Zhang

WITNESS:

HO, CHING  
Printed Name

[Signature]  
Signature

11/22/2016  
(Date)

WITNESS:

Milish Shah  
Printed Name

[Signature]  
Signature

11/22/2016  
(Date)

## CONFIDENTIALITY AND INTELLECTUAL PROPERTY AGREEMENT

### A. INTRODUCTION

This Agreement confirms certain terms of my employment with Micron Semiconductor Asia Pte. Ltd. ("Micron Singapore"), and is a material part of the consideration for my employment by Micron Singapore and the compensation received by me from Micron Singapore from time to time. The headings contained in this Agreement are for convenience only, have no legal significance, and do not change or limit this Agreement in any manner.

### B. DEFINITIONS

#### 1. The "Group"

In this Agreement, the "Group" refers to Micron Singapore, Micron Technology, Inc., and each of their respective subsidiaries and affiliated companies. "Group Member" refers to any member of the Group, and "affiliated company" refers to a company which controls, is controlled by or is under common control of Micron Singapore or Micron Technology, Inc. The expression control (including its correlative meanings, controlling, controlled by or under common control with) means (i) the direct or indirect ownership of in excess of 50% of the equity interests (or interests convertible into or otherwise exchangeable for equity interests) in a company, or (ii) the possession of the direct or indirect right to vote in excess of 50% of the voting shares or to elect in excess of 50% of the board of directors or other governing body of any company (whether through the ownership of voting securities, by contract or otherwise).

#### 2. "Group Documents and Materials"

In this Agreement, "Group Documents and Materials" are documents or other media or tangible items that refer to, relate to, contain or embody Proprietary Information or any other information concerning the business, operations or plans of any Group Member, whether such documents, media or items have been prepared by me or by others.

"Group Documents and Materials" include, but are not limited to, blueprints, drawings, photographs, charts, graphs, notebooks, computer files, disks, tapes or printouts, sound recordings, any media or items from which it is possible to represent words, figures or symbols in a visible form and other printed, typewritten or handwritten documents, sample products, prototypes and models.

#### 3. "Intellectual Property Rights"

In this Agreement, "Intellectual Property Rights" are patents, patent rights, mask work rights, copyrights (including but not limited to "future copyright as defined in the Singapore Copyright Act, Cap. 63), trade secret rights, trademark rights, any application or right to apply for registration of any of those rights and all other intellectual property rights.

#### 4. "Inventions"

In this Agreement, "Inventions" include, but are not limited to, trade secrets, inventions, ideas, processes, software programs and subroutines, source and object code, algorithms, technology, data, formulas, programs, other works of authorship, know-how, improvements, discoveries, developments, designs, and techniques, whether or not patentable.

#### 5. "Proprietary Information"

In this Agreement, "Proprietary Information" is information that was, is or will be developed, created, or discovered by or on behalf of a Group Member; or that became, becomes or will become known by; or was, is or will be conveyed to a Group Member, which has commercial value in a Group Member's business.

"Proprietary Information" includes, but is not limited to: (i) inventions; (ii) information regarding inventions, products, services, plans for research and development and actual research and development, Intellectual Property Rights, marketing and business plans, budgets and forecasts, financial statements, contracts, prices, competitors, suppliers, customers, manufacturing, design and engineering processes, product lines, (iii) information regarding the personal data, skills and/or compensation of a Group Member's employees, contractors, and any other service providers of a Group Member; (iv) the existence of any business discussions, negotiations, or agreements between a Group Member and any third party; (v) any other confidential information of a Group Member; and (vi) any confidential knowledge, data or information of a third party that a Group Member is under a duty to keep confidential. For the avoidance of doubt, Proprietary Information does not include any information which is or which becomes publicly available (other than as a result of a breach of confidentiality by or involving me).

### C. ASSIGNMENT AND CONFIDENTIALITY OF PROPRIETARY INFORMATION

I acknowledge and understand that Group Members possess and will possess Proprietary Information and it is important to their businesses. I acknowledge and understand that my employment creates a relationship of confidence and trust between Micron Singapore and me with respect to Proprietary Information.

All: (a) Proprietary Information; (b) and Intellectual Property Rights and other rights anywhere in the world in connection with Proprietary Information, created, produced or developed by me, either jointly with others or alone: (A) in the course of my

employment; (B) during my employment and relating to the actual or anticipated business or research or development of Micron Singapore or any other Group Member; or (C) with the use of any other Proprietary Information or any of Micron Singapore's or any other Group Member's time, material or facilities, is and will be the sole property of Micron Singapore to the maximum extent permitted by applicable law. I irrevocably and unconditionally assign to Micron Singapore, and waive in favor of Micron Singapore, any and all Intellectual Property Rights and other rights, title and interest I may have or acquire in such Proprietary Information.

At all times, both during my employment and after its termination, I will keep confidential and will not use or disclose any Proprietary Information or anything relating to it without the prior written consent of a duly authorized officer of Micron Singapore, except as may be necessary in the ordinary course of performing the duties of my employment.

D. DISCLOSURE OF INVENTIONS

I will promptly disclose in writing to the Group's legal department all inventions made or discovered or conceived or reduced to practice or developed by me, either alone or jointly with others: (A) in the course of my employment; (B) during my employment and relating to the actual or anticipated business or research or development of Micron Singapore or any other Group Member; or (C) with the use of any Proprietary Information or any of Micron Singapore's or any other Group Member's time, material or facilities.

I will also disclose to the Group's legal department all inventions made, discovered, conceived, reduced to practice, or developed by me within six (6) months after the termination of my employment. Such disclosures will be received in confidence (to the extent such inventions are not assigned to Micron Singapore under Section (F) below) and do not extend the assignment made in Section (F) below.

I will also promptly inform the Group's legal department if I file any patent applications either alone or in conjunction with others within a six (6) month period after the end of my employment with Micron Singapore. These notification and disclosure obligations will not apply in relation to any inventions which are not assigned to Micron Singapore under Section (F) below if such disclosure will cause me to breach any legal obligation to any third party.

E. MAINTENANCE AND RETURN OF GROUP DOCUMENTS AND MATERIALS

I acknowledge and understand that Group Members possess and will possess "Group Documents and Materials" which are important to the businesses of Group Members. All Group Documents and Materials are and will be the sole property of the relevant Group Members.

I agree that during my employment, I will not remove any Group Documents and Materials from the business premises of any Group Member or deliver any Group Documents and Materials to any person or entity outside the Group, except as I am required to do in connection with performing the duties of my employment. I further agree that, immediately upon the termination of my employment for any reason, or during my employment if so requested by a Group Member, I will return or procure the return of all Group Documents and Materials, apparatus, equipment and other physical property of the Group, or any reproduction of such Group Documents and Materials, apparatus, equipment and other physical property that are in my possession, custody or control, excepting only (i) my personal copies of records relating to my compensation; (ii) my personal copy of this Agreement and any other document containing my terms and conditions of employment; and (iii) third-party documents which do not contain any Proprietary Information, except where such third-party documents are in my possession, custody or control because of my employment with Micron Singapore.

F. RIGHT TO NEW IDEAS

1. Assignment of Inventions to the Group

I agree that all inventions which I make, discover, conceive, reduce to practice or develop (in whole or in part, either alone or jointly with others): (A) in the course of my employment; (B) during my employment and relating to the actual or anticipated business or research or development of Micron Singapore or any other Group Member; or (C) with the use of any Proprietary Information or any of Micron Singapore's or any other Group Member's time, material or facilities, will be the sole property of Micron Singapore to the maximum extent permitted by applicable law. For the avoidance of doubt, I agree that I will not retain any Intellectual Property Rights in such inventions. I agree that subject to applicable law, Micron Singapore is entitled to apply in its own name for the registration of patents and/or any other Intellectual Property Right with respect to any and all such inventions. I agree that my wages are full and adequate compensation for my services and for any and all of such inventions.

I acknowledge and agree that Micron Singapore will be the sole owner of all Intellectual Property Rights and other rights in connection with such inventions. I further acknowledge and agree that such inventions including, without limitation, any computer programs, programming documentation, and other works of authorship, are works made under a contract of service for purposes of Micron Singapore's rights under Singapore copyright law and therefore that Micron Singapore will be entitled to any copyright subsisting in the inventions. I irrevocably and unconditionally assign to Micron Singapore, and waive in favor of Micron Singapore any and all rights (including Intellectual Property Rights), title and interest I may have or acquire in connection with such inventions. If in the course of my employment, I incorporate into a Group Member's product, process or machine an existing invention owned by me or in which I have an interest, I hereby grant the relevant Group Member a nonexclusive, royalty-free, irrevocable, perpetual, sublicensable, worldwide license to make, have made, modify, use, market, sell and distribute such existing invention as part of or in connection with such product, process or machine. Where such existing inventions are owned by me jointly with others, I represent

and warrant that I will have secured or will procure, at no additional cost to Micron Singapore, the agreement of the other owner(s) of the Invention to grant the license referred to in the previous sentence. I agree to make and maintain adequate and current written records, in a form specified by Micron Singapore, of all Inventions assigned or to be assigned, or, in relation to an existing Invention, licensed to Micron Singapore, under this Agreement. I acknowledge and agree that such records will be Group Documents and Materials.

## 2. Cooperation

I agree to perform, during and after my employment, all acts deemed necessary or desirable by Micron Singapore to permit and assist it in further evidencing and perfecting the assignments and/or waivers made to or in favor of Micron Singapore under this Agreement and in obtaining, maintaining, defending and enforcing Intellectual Property Rights and any other rights in connection with Inventions, improvements to Inventions and Proprietary Information in any and all countries. Such acts may include, but are not limited to, execution of documents and assistance or cooperation in legal proceedings. I irrevocably designate and appoint Micron Singapore and its duly authorized officers and agents, as my agents and attorney-in-fact to act for and on my behalf and instead of me, to execute and file any documents, applications or related findings and to do all other lawfully permitted acts to further the purposes set forth above in this Subsection (2), with the same legal force and effect as if executed by me.

## 3. Moral Rights

Any assignment of copyright under this agreement (and any ownership of a copyright as a work made for hire) includes all rights of paternity, integrity, disclosure and withdrawal and any other rights that may be known as or referred to as "moral rights" (collectively "Moral Rights"). To the extent such Moral Rights cannot be assigned under applicable law and to the extent the following is allowed by the laws of Singapore, I waive such Moral Rights and voluntarily and unconditionally consent to all and any acts or omissions of a Group Member, or persons authorized by a Group Member, that may violate or infringe such Moral Rights in the absence of such consent. I agree to execute any documents, or take any other steps necessary, to effect the waiver or consent if requested by Micron Singapore.

## 4. List of Inventions

I have attached as Exhibit "A" a complete list of all Inventions or improvements to which I claim ownership ("Prior Inventions") and that I wish to remove from the operation of this Agreement, and I acknowledge and agree that such list is complete. If no such list is attached to this Agreement, I represent that I have no Prior Inventions at the time of signing this Agreement.

I acknowledge that if I give permission for a Prior Invention or a part thereof to be incorporated into any Invention of a Group Member, then I also grant an exclusive worldwide license to each Group Member to use, adapt, modify, sell and sublicense the Prior Invention as a component or underlying part of the Invention of the Group Member.

## G. GROUP AUTHORIZATION FOR PUBLICATION

Prior to my submitting or disclosing for possible publication or dissemination outside the Group any material prepared by me that incorporates information that concerns any Group Member's business or anticipated research, I agree to deliver a copy of such material to the Group's legal department for its review. I understand that within twenty (20) days following such submission, Micron Singapore will notify me in writing whether it believes such material contains any Proprietary Information or Inventions which are the property of any Group Member, or could lead to the disclosure or dissemination of any Proprietary Information or such Inventions, and I agree to make such deletions and revisions as are reasonably requested by Micron Singapore to protect any such Proprietary Information and Inventions. I further agree to obtain the written consent of the Group's legal department prior to any review of such material by persons outside the Group.

## H. SEVERABILITY

I agree that if one or more provisions of this Agreement are held to be unenforceable under applicable law, such provisions will be excluded from this Agreement and the balance of the Agreement will be interpreted as if such provision were so excluded and will be enforceable in accordance with its terms.

## I. AUTHORIZATION TO NOTIFY NEW EMPLOYER

I authorize Micron Singapore to notify my new employer about my rights and obligations under this Agreement following the termination of my employment.

## J. ENTIRE AGREEMENT

This Agreement sets out the entire agreement and understanding between Micron Singapore and me relating to its subject matter and merges all prior discussions between us, including but not limited to any and all statements made by any officer, employee or representative of any Group Member regarding any Group Member's financial condition or future prospects. I understand and acknowledge that, except as set out in this Agreement and in the employment agreement between Micron Singapore and me, (i) no other representation or inducement has been made to me, (ii) I have relied on my own judgment and investigation in accepting my employment (iii) I have not relied on any representation or inducement made by any officer, employee or representative of any Group



Member, and (iv) I have had an opportunity to seek independent advice (including legal advice) about the nature, effect and extent of this Agreement. No modification of or amendment to this Agreement nor any waiver of any rights under this Agreement will be effective unless in writing signed by a member of the Group's legal department and me. I understand and agree that any subsequent change or changes in my duties, salary or compensation will not affect the validity or scope of this Agreement. For the avoidance of doubt, in the event of any inconsistencies between the obligations in this Agreement and any other employment related document, this Agreement will prevail.

K. EFFECTIVE DATE

This Agreement will be effective as of the first day of my employment and will be binding upon me, my heirs, executor, assigns and administrators and will inure to the benefit of the Group Members, their subsidiaries, successors and assigns. Unless replaced by a similar agreement, this Agreement remains in full force and effect if my employment is transferred to any other Group Member. In that event, the Group Member that employs me will be automatically substituted for Micron Singapore with respect to this Agreement.

L. SOLE ENGAGEMENT

I will not, during my period of employment with Micron Singapore, solicit or divert from any Group Member the business of any customers or clients or potential customers or clients of such Group Member for the business of any third party, even if such third party business is not directly competitive with such Group Member.

M. ADDITIONAL POST-EMPLOYMENT COVENANTS

I agree that during or for twelve (12) months after my employment with Micron Singapore ends, regardless of the reason that it ends, I will not solicit, directly or indirectly, any employee to leave his/her employment with any Group Member. By way of example, I will not (a) identify any employees working for any Group Member to any third party as potential employment candidates; (b) personally or through another person recruit or solicit employees working for any Group Member to work for any other employer; or (c) disclose or use information I learned by virtue of my employment concerning the identities, compensation or skills of any employee for the purpose of soliciting any employee to leave his/her employment with any Group Member. I agree that any breach, violation or evasion of this provision will result in immediate and irreparable injuries and harm to the Group, and I agree that the Group Member seeking to enforce this Agreement will have recourse to the remedies of injunction and specific performance, or either of such remedies, as well as all other legal or equitable remedies to which such Group Member may be entitled. I understand and acknowledge that the restrictions in this Section M do not prevent me from being involved in the bona-fide public publication of job vacancies, provided my involvement is not done with the intention to do any of the matters referred to earlier in this Section M.

N. FURTHER ASSIGNMENT

For the avoidance of doubt, I irrevocably and unconditionally consent and waive any objection to the further assignment by Micron Singapore, to any other Group Member, of any of the rights, titles and interests (including Intellectual Property Rights) assigned by me to Micron Singapore under this Agreement.

O. GOVERNING LAW

This Agreement will be interpreted and enforced in accordance with the laws of Singapore.


P. RIGHTS OF THIRD PARTY

Other than the Group or a Group Member, a person who is not a party to this Agreement has no right under the Contracts (Rights of Third Parties) Act (Cap 53B) to enforce any term of this Agreement.

I HAVE READ THIS AGREEMENT CAREFULLY AND I UNDERSTAND AND ACCEPT THE OBLIGATIONS WHICH IT IMPOSES UPON ME WITHOUT RESERVATION. NO PROMISES OR REPRESENTATIONS HAVE BEEN MADE TO ME TO INDUCE ME TO SIGN THIS AGREEMENT. I SIGN THIS AGREEMENT VOLUNTARILY AND FREELY.

Signed, Sealed and Delivered

16-Nov-2011  
Date

  
Employee Signature

CHEN JIACHAO  
Employee Name (Please Print)

Acknowledged and agreed for and on behalf of Micron Semiconductor Asia Pte. Ltd.


  
Signature

EXHIBIT A

1. The following is a complete list of all inventions or improvements to inventions relevant to the subject matter of my employment that have been made or discovered or conceived or first reduced to practice by me or jointly with others prior to my employment that I wish to remove from the operation of this Confidentiality and Intellectual Property Agreement:

- No inventions or improvements.
- See below; any inventions regarding the following:
- Additional sheets attached.

2. The following is a complete list of all patents and patent applications listing me as an inventor, including any patent or patent application filed by me or jointly with others prior to my employment:

- No patents or patent applications.
- See below:

3. I propose to bring to my employment the following materials and documents of a former employer: (NOTE: You do not need to list materials and documents if the former employer has been acquired by a Group Member).

- No materials or documents.
- See below:

16 Nov 2011  
Date

[Signature]  
Employee Signature

CHEW JUNCHAO  
Employee Name (Please Print)