

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT														
NATURE OF CONVEYANCE:	ASSIGNMENT														
CONVEYING PARTY DATA															
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Lisa R. HSU</td> <td>12/20/2012</td> </tr> <tr> <td>Gabriel H. LOH</td> <td>12/13/2012</td> </tr> <tr> <td>Michael IGNATOWSKI</td> <td>12/14/2012</td> </tr> <tr> <td>Michael J. SCHULTE</td> <td>12/20/2012</td> </tr> <tr> <td>Nuwan S. JAYASENA</td> <td>12/13/2012</td> </tr> <tr> <td>James M. O'CONNOR</td> <td>12/12/2012</td> </tr> </tbody> </table>		Name	Execution Date	Lisa R. HSU	12/20/2012	Gabriel H. LOH	12/13/2012	Michael IGNATOWSKI	12/14/2012	Michael J. SCHULTE	12/20/2012	Nuwan S. JAYASENA	12/13/2012	James M. O'CONNOR	12/12/2012
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RECEIVING PARTY DATA															
<table border="1"> <tr> <td>Name:</td> <td>Advanced Micro Devices, Inc.</td> </tr> <tr> <td>Street Address:</td> <td>One AMD Place</td> </tr> <tr> <td>City:</td> <td>Sunnyvale</td> </tr> <tr> <td>State/Country:</td> <td>CALIFORNIA</td> </tr> <tr> <td>Postal Code:</td> <td>94088</td> </tr> </table>		Name:	Advanced Micro Devices, Inc.	Street Address:	One AMD Place	City:	Sunnyvale	State/Country:	CALIFORNIA	Postal Code:	94088				
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PROPERTY NUMBERS Total: 1															
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13725305</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13725305										
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CORRESPONDENCE DATA															
<p>Fax Number: 2023712540 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: (202) 371-2600</p> <p>Email: JasonE@skgf.com, SGadde@skgf.com, TTOPS-Secys@skgf.com</p> <p>Correspondent Name: Sterne, Kessler, Goldstein & Fox P.L.L.C</p> <p>Address Line 1: 1100 New York Avenue, NW</p> <p>Address Line 4: Washington, DISTRICT OF COLUMBIA 20005</p>															
ATTORNEY DOCKET NUMBER:	1972.2980000														

NAME OF SUBMITTER:

Jason D. Eisenberg

Total Attachments: 22

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ASSIGNMENT OF PATENT RIGHTS

This is an assignment of patent rights between inventor(s) **Lisa R. HSU, Gabriel H. LOH, Michael IGNATOWSKI, Michael J. SCHULTE, Nuwan S. JAYASENA and James M. O'CONNOR** (hereinafter referred to as the "Inventor(s)") and Advanced Micro Devices, Inc., having a place of business at One AMD Place, Sunnyvale, California 94088, USA (hereinafter referred to as the "Assignee").

WHEREAS, Inventor(s) are named as inventors in the patent application filed in **USA** on **Herewith**, entitled **Write Endurance Management Techniques in the Logic Layer of a Stacked Memory**, having application no. **To Be Assigned**, and having a docket number of **1972.2980000** (hereinafter referred to as the "Application"); and

WHEREAS, Assignee has a desire to acquire all rights, title, and interest in the invention(s) disclosed in the Application (hereinafter referred to as the "Invention(s)"), including any rights, title, and interest in the Invention(s) not previously transferred to Assignee through prior agreement.

NOW, THEREFORE, the parties agree as follows:

1. To the extent that Inventor(s) are subject to a prior agreement transferring rights, title, and/or interest in the Invention(s) to the Assignee, Inventor(s) hereby confirm such transfer.
2. To the extent that Inventor(s) retain any rights, title, or interest in the Invention(s) not vested in the Assignee on the date(s) of execution of this Assignment, Inventor(s) hereby assign and otherwise transfer to the Assignee their entire right, title, and interest, throughout the world, in and to: the Invention(s), including any patent applications, patents, invention registrations, and equivalents thereof (including any and all provisional, international, regional, and national patents and patent applications, and all divisions, continuations, continuations-in-part, renewals, reissues, reexams, substitutes and extensions thereof), for the Invention(s) and all rights to claim priority thereto. Inventor(s) further assign and otherwise transfer to Assignee all causes of action and remedies arising under any patent or patent application for the Invention(s) prior to, on,

or after the date(s) of execution of this Assignment. Inventor(s) shall not be entitled to an accounting for any causes of action or remedies pursued by Assignee.

3. The transfers set forth in Paragraphs 1 and 2 above are in consideration for the sum of at least one U.S. dollar (US\$1) (or its equivalent) and/or other consideration for which both parties acknowledge to be valuable. Such consideration includes but is not limited to at least one of the following: employment, an independent contractor agreement, monetary payment, or other benefit hereby acknowledged as received.

4. Inventor(s) hereby authorize and request the Commissioner of Patents and Trademarks, or equivalent thereof, to issue the patent for the Invention, and all resulting patents therefrom, insofar as the Inventor(s)' interest is concerned, to the Assignee.

5. Inventor(s) further agree to execute any and all powers of attorney, applications, assignments, declarations, affidavits, and any other papers in connection therewith necessary to perfect Assignee's rights, title, and interest in the Invention(s).


6. Inventor(s) hereby authorize Assignee, its successors and assigns, its legal representatives, or anyone the Assignee may properly designate, to insert in this Assignment of Patent Rights the filing date and/or application number of the Application when ascertained.

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- iv) make all lawful oaths, and assist in vesting title in the Assignee and to aid the Assignee to obtain and enforce proper protection for the subject matter of the Invention(s) in all countries and regions, and
- v) notify Assignee promptly (by facsimile or first class mail) of any subpoena or contact by any person other than Assignee or its agents regarding the Invention or resultant patent(s) issuing therefrom, and in any event at least one week prior to any deposition, legal inquiry or legal proceeding relating to the above identified invention.

This assignment is executed on the date(s) of which the Inventor(s) have signed.

Inventor: **Lisa R. HSU**

 (Signature) 12/20/2012 (Date)
LISA R. HSU (Print Name)

State of _____)

County of _____)

On _____ before me,
 (insert date)

 (insert name and title of the notarizing officer)

personally appeared _____,
 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 upon behalf of
 which the person(s) acted, executed the instrument.


I certify under PENALTY OF PERJURY under the laws of the State of
 _____ that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

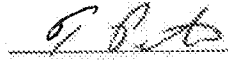
(NOTARY SEAL)

Signature: _____

Witness # 1:

 (Signature) 20 Dec 2012 (Date)
Adam M. Silverstein (Print Name)

Witness # 2:

 (Signature) 20 Dec 2012 (Date)
Thomas Petersen (Print Name)

Inventor: **Gabriel H. LOH**

____ (Signature) _____ (Date)
 _____ (Print Name)

State of _____)

County of _____)

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____ (Signature) _____ (Date)
 _____ (Print Name)

Witness # 2:

____ (Signature) _____ (Date)
 _____ (Print Name)

Inventor: **Gabriel H. LOH**

[Signature] (Signature) 12/13/2012 (Date)
GABRIEL LOH (Print Name)

State of Washington
 County of King

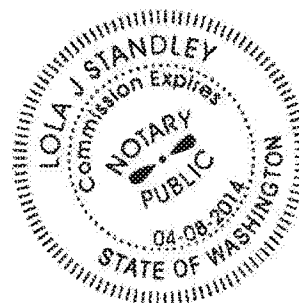
On 12/13/2012 before me,
 (insert date)

Lola J. Standley Administrative Specialist
 (insert name and title of the notarizing officer)

personally appeared Gabriel Loh
 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
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 which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of
Washington that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



(NOTARY SEAL)

Signature: _____

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(Print Name)

Witness # 2:

_____(Signature) _____(Date)
_____(Print Name)

Inventor: Michael IGNATOWSKI

_____ (Signature) _____ (Date)
_____ (Print Name)

State of _____)

County of _____

On _____ before me,
(insert date)

(insert name and title of the notarizing officer)

personally appeared _____

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(NOTARY SEAL)

Signature: _____

Witness # 1:

_____ (Signature) _____ (Date)

_____ (Print Name)

Witness # 2:

_____ (Signature) _____ (Date)

_____ (Print Name)

Inventor: **Michael IGNATOWSKI**

Michael Ignatowski (Signature) 12/14/2012 (Date)

MICHAEL IGNATOWSKI (Print Name)

State of Texas _____)

County of Travis _____)

On December 14, 2012 before me,
(insert date)

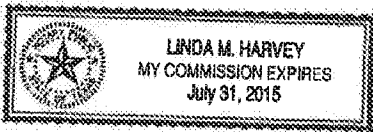
Linda M. Harvey
(insert name and title of the notarizing officer)

personally appeared Michael Ignatowski

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 upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of Texas that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



(NOTARY SEAL)

Signature: Linda M. Harvey

Witness # 1:

____ (Signature) _____ (Date)
 _____ (Print Name)

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Inventor: Michael J. SCHULTE

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I certify under PENALTY OF PERJURY under the laws of the State of
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WITNESS my hand and official seal.

(NOTARY SEAL)

Signature: _____

Witness # 1:

_____ (Signature) _____ (Date)
 _____ (Print Name)

Witness # 2:

_____ (Signature) _____ (Date)
 _____ (Print Name)

Inventor: Michael J. SCHULTE

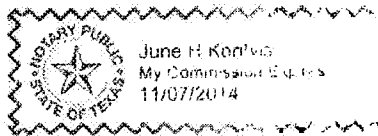
Madeline S. Miller (Signature) 12/20/2012 (Date)
(Print Name)

State of TexasCounty of TravisOn 12/20/2012 before me,
(insert date)June H. Kontrik, notary public
(insert name and title of the notarizing officer)

personally appeared Michael J. Schulte,
 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
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1. To the extent that Inventor(s) are subject to a prior agreement transferring rights, title, and/or interest in the Invention(s) to the Assignee, Inventor(s) hereby confirm such transfer.
2. To the extent that Inventor(s) retain any rights, title, or interest in the Invention(s) not vested in the Assignee on the date(s) of execution of this Assignment, Inventor(s) hereby assign and otherwise transfer to the Assignee their entire right, title, and interest, throughout the world, in and to: the Invention(s), including any patent applications, patents, invention registrations, and equivalents thereof (including any and all provisional, international, regional, and national patents and patent applications, and all divisions, continuations, continuations-in-part, renewals, reissues, reexams, substitutes and extensions thereof), for the Invention(s) and all rights to claim priority thereto. Inventor(s) further assign and otherwise transfer to Assignee all causes of action and remedies arising under any patent or patent application for the Invention(s) prior to, on,

or after the date(s) of execution of this Assignment. Inventor(s) shall not be entitled to an accounting for any causes of action or remedies pursued by Assignee.

3. The transfers set forth in Paragraphs 1 and 2 above are in consideration for the sum of at least one U.S. dollar (US\$1) (or its equivalent) and/or other consideration for which both parties acknowledge to be valuable. Such consideration includes but is not limited to at least one of the following: employment, an independent contractor agreement, monetary payment, or other benefit hereby acknowledged as received.

4. Inventor(s) hereby authorize and request the Commissioner of Patents and Trademarks, or equivalent thereof, to issue the patent for the Invention, and all resulting patents therefrom, insofar as the Inventor(s)' interest is concerned, to the Assignee.

5. Inventor(s) further agree to execute any and all powers of attorney, applications, assignments, declarations, affidavits, and any other papers in connection therewith necessary to perfect Assignee's rights, title, and interest in the Invention(s).

6. Inventor(s) hereby authorize Assignee, its successors and assigns, its legal representatives, or anyone the Assignee may properly designate, to insert in this Assignment of Patent Rights the filing date and/or application number of the Application when ascertained.

7. Inventor(s) hereby further agree to, with respect to any patent application or patent for the Invention(s), at the expense of the Assignee:

- i) testify in any legal proceedings,
- ii) sign all lawful papers,
- iii) execute all divisional, continuation, continuation-in-part, reissue, reexamination, and substitute applications,
- iv) make all lawful oaths, and assist in vesting title in the Assignee and to aid the Assignee to obtain and enforce proper protection for the subject matter of the Invention(s) in all countries and regions, and
- v) notify Assignee promptly (by facsimile or first class mail) of any subpoena or contact by any person other than Assignee or its agents regarding the Invention or resultant patent(s) issuing therefrom, and in any event at least one week prior to any deposition, legal inquiry or legal proceeding relating to the above identified invention.

Inventor: **Nuwan S. JAYASENA**

N.S. Jay (Signature) 12/13/12 (Date)
NUWAN JAYASENA (Print Name)

State of California
 County of Santa Clara

On December 13, 2012 before me,
 (insert date)

Rita S. Marquis
 (insert name and title of the notarizing officer)

personally appeared Nuwan Jayasena,
 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 upon behalf of
 which the person(s) acted, executed the instrument.

I certify, under PENALTY OF PERJURY under the laws of the State of
California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



(NOTARY SEAL)

Signature: Rita S. Marquis

Witness # 1:

____ (Signature) _____ (Date)

ASSIGNMENT OF PATENT RIGHTS

This is an assignment of patent rights between inventor(s) **Lisa H. HSU, Gabriel H. LOH, Michael IGNATOWSKI, Michael J. SCHULTE, Nuwan S. JAYASENA and James M. O'CONNOR** (hereinafter referred to as the "Inventor(s)") and Advanced Micro Devices, Inc., having a place of business at One AMD Place, Sunnyvale, California 94088, USA (hereinafter referred to as the "Assignee").

WHEREAS, Inventor(s) are named as inventors in the patent application filed in **USA** on **Herewith**, entitled **Write Endurance Management Techniques in the Logic Layer of a Stacked Memory**, having application no. **To Be Assigned**, and having a docket number of **1972.2980000** (hereinafter referred to as the "Application"); and

WHEREAS, Assignee has a desire to acquire all rights, title, and interest in the invention(s) disclosed in the Application (hereinafter referred to as the "Invention(s)"), including any rights, title, and interest in the Invention(s) not previously transferred to Assignee through prior agreement.

NOW, THEREFORE, the parties agree as follows:

1. To the extent that Inventor(s) are subject to a prior agreement transferring rights, title, and/or interest in the Invention(s) to the Assignee, Inventor(s) hereby confirm such transfer.
2. To the extent that Inventor(s) retain any rights, title, or interest in the Invention(s) not vested in the Assignee on the date(s) of execution of this Assignment, Inventor(s) hereby assign and otherwise transfer to the Assignee their entire right, title, and interest, throughout the world, in and to: the Invention(s), including any patent applications, patents, invention registrations, and equivalents thereof (including any and all provisional, international, regional, and national patents and patent applications, and all divisions, continuations, continuations-in-part, renewals, reissues, reexams, substitutes and extensions thereof), for the Invention(s) and all rights to claim priority thereto. Inventor(s) further assign and otherwise transfer to Assignee all causes of action and remedies arising under any patent or patent application for the Invention(s) prior to, on,

or after the date(s) of execution of this Assignment. Inventor(s) shall not be entitled to an accounting for any causes of action or remedies pursued by Assignee.

3. The transfers set forth in Paragraphs 1 and 2 above are in consideration for the sum of at least one U.S. dollar (US\$1) (or its equivalent) and/or other consideration for which both parties acknowledge to be valuable. Such consideration includes but is not limited to at least one of the following: employment, an independent contractor agreement, monetary payment, or other benefit hereby acknowledged as received.

4. Inventor(s) hereby authorize and request the Commissioner of Patents and Trademarks, or equivalent thereof, to issue the patent for the Invention, and all resulting patents therefrom, insofar as the Inventor(s)' interest is concerned, to the Assignee.

5. Inventor(s) further agree to execute any and all powers of attorney, applications, assignments, declarations, affidavits, and any other papers in connection therewith necessary to perfect Assignee's rights, title, and interest in the Invention(s).

6. Inventor(s) hereby authorize Assignee, its successors and assigns, its legal representatives, or anyone the Assignee may properly designate, to insert in this Assignment of Patent Rights the filing date and/or application number of the Application when ascertained.

7. Inventor(s) hereby further agree to, with respect to any patent application or patent for the Invention(s), at the expense of the Assignee:

- i) testify in any legal proceedings,
- ii) sign all lawful papers,
- iii) execute all divisional, continuation, continuation-in-part, reissue, reexamination, and substitute applications,
- iv) make all lawful oaths, and assist in vesting title in the Assignee and to aid the Assignee to obtain and enforce proper protection for the subject matter of the Invention(s) in all countries and regions, and
- v) notify Assignee promptly (by facsimile or first class mail) of any subpoena or contact by any person other than Assignee or its agents regarding the Invention or resultant patent(s) issuing therefrom, and in any event at least one week prior to any deposition, legal inquiry or legal proceeding relating to the above identified invention.

Inventor: James M. O'Connor

James M. O'Connor (Signature)
James M. O'Connor (Print Name)

12/12/12 (Date)

State of:

Texas

County of:

Travis

On 12/12/12 before me,
 (insert date)

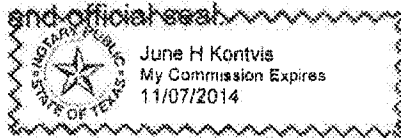
June H. Kontvis, notary public

(insert name and title of the notarizing officer)

personally appeared James M. O'Connor,
 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 upon behalf of
 which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of Texas
 that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



(NOTARY SEAL)

Signature: [Signature]