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PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JIASHENG CHEN	06/17/2016
QINGCHENG WANG	06/20/2016
YUNXIAO ZOU	06/20/2016
MICHAEL MANTOR	06/20/2016
BIN HE	06/17/2016
TIMOUR T. PALTASHEV	06/17/2016

RECEIVING PARTY DATA

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Street Address:	ONE AMD PLACE
City:	SUNNYVALE
State/Country:	CALIFORNIA
Postal Code:	94085

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15189054

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ATTORNEY DOCKET NUMBER:	AMDATI-150197-US-NP
NAME OF SUBMITTER:	ABHIK A. HUQ
SIGNATURE:	/Abhik A. Huq/
DATE SIGNED:	07/19/2016

Total Attachments: 8 source=150197-US-NP_Executed_Assignment_AMD#page1.tif source=150197-US-NP_Executed_Assignment_AMD#page2.tif source=150197-US-NP_Executed_Assignment_AMD#page3.tif source=150197-US-NP_Executed_Assignment_AMD#page4.tif source=150197-US-NP_Executed_Assignment_AMD#page5.tif source=150197-US-NP_Executed_Assignment_AMD#page6.tif source=150197-US-NP_Executed_Assignment_AMD#page7.tif source=150197-US-NP_Executed_Assignment_AMD#page8.tif

AMD Reference No. 150197-US-NP

ASSIGNMENT OF PATENT RIGHTS

This is an assignment of patent rights between inventor(s) Jiasheng Chen, QingCheng Wang, YunXiao Zou, Michael Mantor, Bin He, and Timour T. Paltashev (hereinafter referred to as the "Inventor(s)") and Advanced Micro Devices, Inc., having a place of business at One AMD Place, Sunnyvale, California, USA (hereinafter referred to as the "Assignee").

WHEREAS, Inventor(s) are named as inventors in the patent application filed in the United States of America on June 22, 2016 , entitled METHOD AND PROCESSING APPARATUS FOR GATING REDUNDANT THREADS, having application no. 15/189,054, and having a docket number of AMDATI-150197-US-NP (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,

AMD Reference No. 150197-US-NP

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.

4172970-1

Inventor: Jiasheng Chen Taskeng Chen (Signature) Jan 7, 207 (Date)
Trasheng Chen (Print Name) State of: County of: On <u>June 17, 2016</u> before me, (insert date) personally appeared $\frac{\int iQ \le h eng}{Chen}$, 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 <u>Florida</u> that the foregoing paragraph is true and correct. WITNESS my hand and official seal. (NOTARY SEAL)

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

4172970-1

JENNIE L. WILSON Notary Public - State of Florida Ay Comm. Expires May 20, 2018 Commission & FF 092008

Inventor: QingCheng Wang		
QingCheng Wang. QingCheng Wang	(Signature) (Print Name)	<u>06/20/20/6</u> (Date)
Witness # 1: Weiliang Li Weiliang Li	(Signature) (Print Name)	<u>o b / Z≫ / Z≫ / b</u> (Date)
Witness # 2: Tiver Zhon	(Signature)	06/20/20/6 (Date)

JiWei Zhou (Print Name)

AMD Reference No. 150197-US-NP

nventor: YunXiao Zou		
Yunxino Zoul Yunxiao Zou	(Signature) (Print Name)	June 20, 20/6 (Date)
Witness # 1: Nei ใกละจุ การ Neiliang Li	(Signature) (Print Name)	June 20, 201 (Bate)
Witness # 2:	(Signature) (Print Name)	June 20, 20/6 (Date)

Inventor: Michael Mantor	
Michael Marte	(Signature) 6/20/20/1 (Date) (Print Name)
Michael Mant	(Print Name)
State of:	Florida) Ocanger)
County of:	Orange e
On <u>June 20, 2016</u> (insert date)	before me,
<u>Jennie L. W. Iso</u> (insert name and t	<u>η, Receρhonis F</u> itle of the notarizing officer)
name(s) is/are subscribed he/she/they executed the	basis of satisfactory evidence to be the person(s) whose to the within instrument and acknowledged to me that same in his/her/their authorized capacity(ies), and that by the instrument the person(s), or the entity upon behalf of executed the instrument.
I certify under PENALTY Of that the foregoing paragraph	F PERJURY under the laws of the State of <u>Florida</u> h is true and correct.
WITNESS my hand and offi	cial seal.
(NOTARY SEAL)	Signature: January January
JENNIE L. WILSON Notary Public - State of Flori My Comm. Expires May 20, 20	18

4172970-1

Inventor: Bin He		
yorke	(Signature)	<u>06/1> 2016</u> (Date)
Bin He	(Print Name)	
State of:	<u>Florida</u>	
County of:	Orange,)	
On <u>June 17, 2016</u> (insert date)	before me,	
	n, Reception	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
	title of the notarizing offi	cer)
name(s) is/are subscribed he/she/they executed the	e basis of satisfactory of d to the within instrum same in his/her/their a on the instrument the po	evidence to be the person(s) whose nent and acknowledged to me that authorized capacity(ies), and that by erson(s), or the entity upon behalf of t.
I certify under PENALTY C that the foregoing paragrap	OF PERJURY under the look is true and correct.	laws of the State of <u>Fbrida</u>
WITNESS my hand and of	ficial seal.	
JENNIE L. WILS Notary Public - State of My Comm. Expires May Commission # FF O	of Florida 20, 2018	STAKT
(NOTARY SEAL)	Signature	<u> </u>

Inventor: Timour T. Paltashev	
Timour Paltasheb	Signature) <u>CG/17/16</u> (Date) Print Name)
State of: CAU1	CLATA
County of: South	CLAKA)
On <u>June 17,2016</u> bef (insert date)	ore me,
Susp	s P. FLORES
(insert name and title of the r	notarizing officer)
personally appeared	2. T. PALTASHEV
who proved to me on the basis of s name(s) is/are subscribed to the w he/she/they executed the same in h	satisfactory evidence to be the person(s) whose ithin instrument and acknowledged to me that is/her/their authorized capacity(ies), and that by iment the person(s), or the entity upon behalf of
I certify under PENALTY OF PERJUR' that the foregoing paragraph is true an	Y under the laws of the State of Chiffelia
WITNESS my hand and official seal.	SUSAN P. FLORES Commission # 2012086 Notary Public - California \$ Santa Clara County My Comm. Expires Mar 15, 2017
(NOTARY SEAL)	Signature:

PATENT REEL: 039193 FRAME: 0058

RECORDED: 07/19/2016