PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3693285

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DONG PING ZHANG	01/12/2016
NUWAN S. JAYASENA	01/12/2016

RECEIVING PARTY DATA

Name:	Advanced Micro Devices, Inc.	
Street Address:	PO Box 3453, One AMD Place	
City:	Sunnyvale	
State/Country:	CALIFORNIA	
Postal Code:	94088-3453	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14993455

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	1458-150068
NAME OF SUBMITTER:	RYAN S. DAVIDSON
SIGNATURE:	/Ryan S. Davidson/
DATE SIGNED:	01/13/2016

Total Attachments: 4

source=150068 Assignment January 13, 2016#page1.tif source=150068 Assignment January 13, 2016#page2.tif source=150068 Assignment January 13, 2016#page3.tif source=150068 Assignment January 13, 2016#page4.tif

PATENT 503646650 REEL: 037474 FRAME: 0344

ASSIGNMENT OF PATENT RIGHTS

This is an assignment of patent rights between inventors **Dong Ping Zhang** and **Nuwan S. Jayasena** (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 01/12/2016, entitled **MEMORY OPERATION ENCRYPTION**, having application no. 14/993,455, and having a docket number of **1458-150068** (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.

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AMD Reference No. 150068

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

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.

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.

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

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Durons	(Signature)	1/12/2016 (Date)	
Dong Ping Zhang			
A notary public or other officer the individual who signed the the truthfulness, accuracy, or v	document to which	certificate verifies only the identity h this certificate is attached, and n iment.	of ot
State of California)			
County of Santa Clar.	<u>(</u>		
On January 13, 3016 (insert date) Rita S Ma		otary Public	
(insert name and t	itle of the notarizin	ng officer)	~:
name(s) is/are subscribed to he/she/they executed the same	is of satisfactory the within instrur e in his /her/t heir e instrument the p	evidence to be the person(s) who ment and acknowledged to me t authorized capacity(i es), and that person(s), or the entity upon behal	tha by
Lightly under PENALTY	OF PERJURY to that the foregoing	under the laws of the State garagraph is true and correct.	0
WITNESS my hand and official	seal.		
RITA S. MARQUIS Commission # 2054591 Notary Public - California Santa Clara County My Comm. Expires Feb 5, 2018			
(A)OTADV OFAL	Sinnet X	In Runck	•63×
(NOTARY SEAL)	Signature:	Y	

Inventor:	(Signature) <u>///2 // 6</u> (Date)
Nuwan S. Jayasena	
	cer completing this certificate verifies only the identity of e document to which this certificate is attached, and not r validity of that document.
State of California)	
County of Santa Cl	L/man
On January 13, 2-0/6 (insert date)	before me,
Kita Si	Marjuis, votary Public
(insert name and personally appeared	d title of the notarizing officer)
who proved to me on the b name(s) is/a/e subscribed to he/she/they executed the sa	asis of satisfactory evidence to be the person(s) whose to the within instrument and acknowledged to me that time in his/her/their authorized capacity(ies), and that by the instrument the person(s), or the entity upon behalf of
Certify under PENALTY	OF PERJURY under the laws of the State of that the foregoing paragraph is true and correct.
WITNESS my hand and offici	al seal.
RITA S. MARQUIS Commission # 2054591 Notary Public - California Santa Clara County My Comm. Expires Feb 5, 2018	
(NOTARY SEAL)	Signature: Lital Hungard

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RECORDED: 01/13/2016