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PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4250464

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MICHAEL MANTOR	01/03/2017
MARK FOWLER	01/25/2017
MIKKO ALHO	12/07/2016
MIKA TUOMI	12/08/2016
KIIA KALLIO	12/08/2016
PATRICK KLAS RUDOLF BUSS	01/27/2017
JARI ANTERO KOMPPA	12/08/2016
KAJ TUOMI	12/08/2016
CHRISTOPHER J. BRENNAN	01/17/2017

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:	15374752

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	AMDATI-160298-US-NP
NAME OF SUBMITTER:	JOSHUA A. HAMBERGER

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SIGNATURE:	/Joshua A. Hamberger/
DATE SIGNED:	01/30/2017
Total Attachments: 11	
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AMD Reference No. 160298-US-NP

ASSIGNMENT OF PATENT RIGHTS

This is an assignment of patent rights between inventor(s) Michael Mantor, Mark Fowler, Mikko Alho, Mika Tuomi, Kiia Kallio, Patrick Klas Rudolf Buss, Jari Antero Komppa, Kaj Tuomi and Christopher J. Brennan (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 December 9, 2016 , entitled REMOVING OR IDENTIFYING OVERLAPPING FRAGMENTS AFTER Z-CULLING, having application no. 15/374,752 , and having a docket number of AMDATI-160298-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,

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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.

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

Inventor: Michael Mantor	
Arka Ma	(Signature) <u>//3/20/7</u> (Date)
Michael Manter	(Print Name)
State of:	Florido)
County of:	Orange)
On Jan. 3, 2017 (insert date)	before me,
(insert date)	***
Jennie L. Wil	son, Receptionist
(insert name and	title of the notarizing officer)
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Inventor: Mark Fowler	
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LISA A. BERTHIAUME
Notary Public
Commonwealth of Massachusetts
My Commission Expires
April 4, 2019

Inventor: Mikko Alho

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Inventor: Mika Tuomi

_______(Signature) <u>8. 3∞ 2076</u> (Date) /∘1/_{CA} T^U≏≁((Print Name)

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Inventor: Kiia Kallio

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Witness # 2:			
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Inventor: Patrick Klas Rudolf Buss

KARÉN

	(Signature)	2017/0/2	* (Date)
DATRICE RUST	(Print Name)		
Witness # 1:			
Charles Tomics	(Signature)	2017/61/2	子 (Date)
<u> Yvan Tunir</u>	(Print Name)		
Witness # 2:			
	(Signature)	2017/01/2	(Date)

(Print Name)

AND Reference No. 160298-US-NP

Inventor, Jan Antero Komppa

(Signature) <u>\$ \(\mathcal{L}\) \(\times \) \(\times \)</u>

Witness # 1:

(Signature)

(Print Name)

(Date)

Witness # 2:

(Signature)

(Print Name)

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PATENT REEL: 041126 FRAME: 0101 Inventor: Kaj Tuomi

 Y nec 2016 (Date)

Witness # 1:

(Signature) (Print Name) X vs. 2016_(Date)

Witness # 2:

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(Print Name)

8 0sc 2016 (Date)

Inventor: Christopher J. Brennan	
Christopher J. Brenner (Pi	gnature)
Christopher J. Brennen (Pi	int Name)
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personally appeared	
who proved to me on the basis of sa name(s) is/are subscribed to the with he/she/they executed the same in his	tisfactory evidence to be the person(s) whose nin instrument and acknowledged to me that /her/their authorized capacity(ies), and that by nent the person(s), or the entity upon behalf of instrument.
I certify under PENALTY OF PERJURY that the foregoing paragraph is true and	***************************************
WITNESS my hand and official seal.	
(NOTARY SEAL)	Signature: Naw a Se Etieseenice
LISA A. BERTHIAUME Notary Public Commonwealth of Massachusetts My Commission Expires April 4, 2019	

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PATENT REEL: 041126 FRAME: 0103

RECORDED: 01/30/2017