506595382 04/06/2021

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MUHAMMAD AMBER HASSAAN	03/19/2020
ANIRUDH MOHAN KAUSHIK	03/12/2020
SOORAJ PUTHOOR	03/19/2020
GOKUL SUBRAMANIAN RAVI	03/13/2020
BRADFORD BECKMANN	03/11/2020
ASHWIN AJI	03/11/2020

RECEIVING PARTY DATA

Name:	Advanced Micro Devices, Inc.
Street Address:	2485 Augustine Drive
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State/Country:	CALIFORNIA
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PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16824601

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NAME OF SUBMITTER:	BRENDA L. THOM
SIGNATURE:	/Brenda L. Thom/
DATE SIGNED:	04/06/2021

PATENT 506595382 REEL: 055840 FRAME: 0078

Total Attachments: 8 source=190114_Assignment#page1.tif source=190114_Assignment#page2.tif source=190114_Assignment#page3.tif source=190114_Assignment#page4.tif source=190114_Assignment#page5.tif source=190114_Assignment#page6.tif source=190114_Assignment#page7.tif source=190114_Assignment#page8.tif

AMD Reference No. 190114

ASSIGNMENT OF PATENT RIGHTS

This is an assignment of patent rights between inventor(s) Muhammad Amber HASSAAN, Anirudh Mohan KAUSHIK, Sooraj PUTHOOR, Gokul Subramanian RAVI, Bradford BECKMANN, and Ashwin AJI (hereinafter referred to as the "Inventor(s)") and Advanced Micro Devices, Inc., having a place of business at 2485 Augustine Drive, Santa Clara, 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 March 19, 2020, entitled HARDWARE ASSISTED FINE-GRAINED DATA MOVEMENT, having application no. 16/824,601, and having a docket number of 1458-190114 (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. 190114

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: (Nalle Land)	_(Signature)	<i>Μανιά Μ^φ.</i> (Date)
Muhammad Amber HASSAAN		
Witness # 1:	•	
2000 O Conor	(Signature) (Print Name)	<u> March 19, 200</u> (Date)
Witness # 2:		
	(Signature)	(Date)
	(Print Name)	

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Afress # 1 - Luck Mark Land	(Signature) (Print Name)		
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Inventor:	_(Signature)	03/19/2020 (Date)
Sooral PUTHOOR		
Witness # 1:		
_ Janaki -	_(Signature)	03 19 2020 (Date)
JANAKEN DENI VAYANINAT INZHAKKER PAHAMATUKANI	ह्य (Print Name)	
Witness # 2:		
Brude-	_ (Signature)	03 19 2020 (Date)
SREEDENIKUTTY VAYAYINM	_(Print Name)	

Inventor: () ()	(Signature)	<u> 3/3/20</u> (Date)
Gokul Subramanian RAVI		
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Nwz Ryk Rui Re	(Signature) (Print Name)	<u> </u>

Inventor: Calfunk	(Signature)	3/11/20	<u> </u>	
Bradford BECKMANN				
Witness # 1:				
Malola De	(Signature)	3/11/20	<u>20</u> (Date)	
Nicholas Jao	(Print Name)			
Witness # 2:				
<u> </u>	(Signature)	3/11/2022	(Date)	
A. H. M. C. Transes	(Print Name)			

Inventor:	shwinMA	(Signatur	e) <u>11/</u> Mai	rch/2020	(Date)	
Ashwin AJI	······································		······································		(
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RECORDED: 04/06/2021