PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ROBERT N. HASBUN	04/23/2018
DANIELE BALLUCHI	04/19/2018

RECEIVING PARTY DATA

Name:	MICRON TECHNOLOGY, INC.
Street Address:	8000 SOUTH FEDERAL WAY
City:	BOISE
State/Country:	IDAHO
Postal Code:	83716-9632

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16905030

CORRESPONDENCE DATA

Fax Number: (612)659-9344

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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Correspondent Name: BROOKS, CAMERON & HUEBSCH, PLLC Address Line 1: 1201 MARQUETTE AVENUE SOUTH

Address Line 2: SUITE 400

Address Line 4: MINNEAPOLIS, MINNESOTA 55403

ATTORNEY DOCKET NUMBER:	1003.0390004[17-109701US]	
NAME OF SUBMITTER:	JACOB T. KERN	
SIGNATURE:	/Jacob T. Kern/	
DATE SIGNED:	06/18/2020	

Total Attachments: 5

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Robert N. Hasbun, et al. Docket No. 1003.0390001

Disclosure No. 2017-1097.00/US

Filed: Concurrently Herewith

For: APPARATUSES AND METHODS FOR COUNTER UPDATE OPERATIONS

ASSIGNMENT

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, the undersigned does hereby:

SELL, ASSIGN, AND TRANSFER TO Micron Technology, Inc. (the "Assignee"), a corporation of Delaware, having a place of business at 8000 South Federal Way, Boise, Idaho 83716-9632, the entire right, title, and interest for the United States and all foreign countries, in and to any and all improvements which are disclosed in the application for United States Letters Patent, which has been executed by the undersigned concurrently herewith and is entitled "APPARATUSES AND METHODS FOR COUNTER UPDATE OPERATIONS"; such application and all divisional, continuing, substitute, renewal, reissue and all other applications for patent which have been or shall be filed in the United States and all foreign countries on any of such improvements; all original and reissued patents which have been or shall be issued in the United States and all foreign countries on such improvements; and specifically including the right to file foreign applications under the provisions of any convention or treaty and claim priority based on such application in the United States of America;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such improvements to the Assignee:

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PATENT REEL: 052977 FRAME: 0389 ASSIGNMENT Page 2 of 2

Attorney Docket No.: 1003.0390001 [2017-1097.00/US]

Serial No.: Not Yet Assigned Filing Date: Concurrently Herewith

WARRANT AND CONVENANT that no assignment, grant mortgage, license, or other agreement affecting the right and property herein conveyed has been or will be made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned;

COVENANT that, when requested and at the expense of the Assignee, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such improvements; execute all rightful oaths, declarations, assignments, powers of attorney, and other papers; communicate to the Assignee all facts known to the undersigned relating to such improvements and the history thereof; and generally do everything possible which the Assignce shall consider desirable for securing, maintaining, and enforcing proper patent protection for such improvements and for vesting title to such improvement in the Assignee;

TO BE BINDING on the heirs, assigns, representatives, and successors of the undersigned and extend to the successors, assigns, and nominees of the Assignee.

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	· · · · · · · · · · · · · · · · · · ·	Date: 04/23/2018
Robert N. Hasbun		,
STATE OF CALIFORNIA		
COUNTY OF SAN MAREO		
on April 23°0, 2018	before me.	Damionne Degraffinreaidt, Notary Public.
	•••	(insert name and title of the officer)
	LOBERT	HASBUN
subscribed to the within instrument and in his/her/their authorized capacity(ies),	actory evider acknowledg and that by	nce to be the person(s) whose name(s) is/are ged to me that he/she/they executed the same his/ber/their signature(s) on the instrument person(s) acted, executed the instrument.
I certify under PENALTY OF PERJUR' foregoing paragraph is true and correct.	Y under the	laws of the State of California that the
WITNESS my hand and official seal	Sæ	Aracum Notaly ALLOWINGEMENT
[SEAL] - SEE ATTACHED	Notary My Con	ATACHED NOTARY ALAOWIEDE MENT or Consular Officer January 11, 2021 nmission Expires January 11, 2021

CALIFORNIA ALL-PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

State of California	A Notary Public or other officer completing this certificate verifies only the identity of the individual who signed the
County of San Mareo	document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.
On Apen 23,20/8 before me. Da	mionne Degraffinreaidt, Notary Public.
personally appeared Lobber 4	(Here insert name and title of the others) AS BUN
the within instrument and acknowledged to me th	dence to he the person(s) whose name(s) is/are subscribed to not he/she/they executed the same in his/her/their authorized fon the instrument the person(s), or the entity upon behalf of t.
I certify under PENALTY OF PERJURY under the is true and correct.	DAMIONNE DEGRAFFINHEAIDT Notary Public - California
WINNESS my liand and Difficial scal.	San Mateo County Commission # 2175446 My Comm. Expires Jan 11, 2021
ADDITIONAL OI	PTIONAL INFORMATION
DESCRIPTION OF THE ATTACHED DOCUMENT ATEM ASSISTANCES (Title or description of attached document)	INSTRUCTIONS FOR COMPLETING THIS FORM day acknowledgment completed in Cultivisia must contain verticize exactly as appears above in the noticy section or a separate acknowledgment form must be properly completed and attached in that document. The only exception is if a document is in he executed outside of Cultivisia hi such instances, any alternative acknowledgment verbrage as may be printed on such a document so along as the verbrage does not require the many to do something that is illegal for a natury in Cultivisia by executing that archives a superior of the signer). Please sheek the
(Title or description of attached document continued) Number of Pages Z Document Date 1/23/2016 Document No. 1003, 0340001	document carefully for proper internal wording and utach this form if required * State and County information must be the State and County where the document signer(s) personally appeared before the notary public for acknowledgment * Date of notarization must be the date that the signer(s) personally appeared which must also be the same date the acknowledgment is completed.
(Additional information)	 The natury public most print his or her name as a appears within his or her commission followed by a comma and then your title (notary public) Print the namers) of document signer(s) who personally appear at the time of notarization
CAPACLEY CLAIMED BY THE SIGNER Individual (s) Cl. Corporate Officer (Dife) D. Partner(s) L. Attomey-in-Fact	Indicate the correct singular or planal forms by crossing off incorrect forms (i.e., he/she/shey- is /hre.) or circling the correct forms. Fadure to correctly indicate this information may lead to rejection of document recording. The notacy scal impression must be clear and photographically reproducible impression must not cover text or lines. If scal impression smudges, re-scal if a sufficient area periods, otherwise complete a different acknowledgment form. Signature of the outary public must much the signature on file with the office of the county cierk. Additional information is not required but could help to ensure this.
☐ Trustee(s) ☐ Other	** Additional and the state of the stat

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PATENT REEL: 052977 FRAME: 0391

Securely attach this document to the signed document

ASSIGNMENT

WHEREAS, I, <u>Daniele Balluchi</u>, residing at <u>Via Gorizia 14B</u>, <u>Cernusco Sul Naviglio</u>, <u>MI, 20063</u>, ITALY, made certain new and useful inventions and improvements for which we executed an application for Letters Patent of the United States on or even date herewith, which is entitled: APPARATUSES AND METHODS FOR COUNTER UPDATE OPERATIONS

AND WHEREAS, Micron Technology, Inc., a corporation organized and existing under and by virtue of the laws of the State of <u>Delaware</u>, and having an office and place of business at 8000 South Federal Way Boise, Idaho 83716-9632, (hereinafter "Assignee") is desirous of acquiring the entire right, title and interest in and to said inventions, improvements, and application and in and to the Letters Patent to be obtained therefore;

NOW THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, I have sold, assigned, and transferred, and by these presents do sell, assign, and transfer unto said Assignee, its successors or assigns, the right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the said application, all divisions, continuations, continuations-in-part, or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said inventions and improvements, including an assignment for all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted therefrom; and I do hereby authorize and request the Commissioner of Patent and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the said Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the said Assignee, its successors and assigns.

AND, for the consideration aforesaid, I do hereby agree that I and my executors and legal representatives will make, execute, and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable to more effectually secure and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the said improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned, and conveyed, or intended so to be.

PATENT REEL: 052977 FRAME: 0392 Attorney Docket No.: 1003,0390001 [2017-1097.00/US]

Page 2 of 2

Serial No.: Unknown

Filing Date: Concurrently Herewith

AND, furthermore we covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by me and that full right to convey the same as herein expressed is possessed by me.

	eunto set my hand this 🐧 day of 🟦 ril , 2016
2018.	Buniel Bolland
Dan	iele Ballitchit
WITNESS 1:	
EMANUELE CONFALONIEM Printed Name	Signature
so its	
ACRIL 19 ⁺⁴ 2013 (Date)	
WITNESS 2:	
PAOLO AMATO	toolor Cornot-
Printed Name	Signature

APRIL 18 14 2018	
(Date)	

PATENT REEL: 052977 FRAME: 0393

RECORDED: 06/18/2020