507279195 05/11/2022

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KALYAN CHAKRAVARTHY C. KAVALIPURAPU	07/27/2020
CHANG H. SIAU	07/23/2020
SHIGEKAZU YAMADA	08/04/2020

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:	17742294

CORRESPONDENCE DATA

Fax Number: (650)328-2799

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.

Phone: 6504335800

Email: escaletta@lowenstein.com
Correspondent Name: LOWENSTEIN SANDLER LLP
Address Line 1: ONE LOWENSTEIN DRIVE

Address Line 4: ROSELAND, NEW JERSEY 07068

ATTORNEY DOCKET NUMBER:	34300.1793 (L0422C)
NAME OF SUBMITTER:	PAUL M. KRUEGER
SIGNATURE:	/Paul M. Krueger/
DATE SIGNED:	05/11/2022

Total Attachments: 6

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PATENT REEL: 059943 FRAME: 0732

Attorney Docket No.: 34300.422 (L0422)

ASSIGNMENT OF PATENT APPLICATION For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/we, the undersigned, Kalyan Chakravarthy C. Kavalipurapu, Chang H. Siau, and Shiqekazu Yamada, hereby sell, assign, and transfer to Micron Technology. Inc. (Type of Assignee: e.g., corporation, company, partnership, university, etc.) having a principal place of business at 8000 South Federal Way, Boise, Idaho 83716-9632, ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions or improvements that are disclosed in the application (provisional or non-provisional) for the United States patent which may have a declaration executed by the undersigned prior hereto or concurrently herewith and is entitled ASYMMETRIC PLANE DRIVER CIRCUITS IN A MULTI-PLANE MEMORY DEVICE said patent application also identified as follows (when known): [I/we hereby authorize an attorney or agent for said Assignee to insert below the application number and filing date of said patent application when known.] United States Patent Application Number 16/947,525 filed August 5, 2020 and in and to said application (provisional or non-provisional) and all provisional applications, nonprovisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said inventions or improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said inventions or improvements; and in and to all rights of priority resulting from the filing of said United States application and all rights to claim priority to said United States application:

agree that said Assignee may apply for and receive a patent or patents for said inventions or improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional applications, nonprovisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said inventions or improvements; execute all rightful oaths. assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said inventions or improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said inventions or improvements and for vesting title to said inventions or improvements, and all applications for patents and all patents on said inventions or improvements, in said Assignee, its successors, assigns, and legal representatives: and

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

Each Inventor: Please Sign and Date Below:

Jdy 27th 2020	Kalyane
Date	Kalyan Chakravarthy C. Kavalipurap
Date	Chang H. Siau
Date	Shigekazu Yamada

Client Ref. No. 2019*2595.00/US Attorney Docket No.: 34300.422 (L0422)

AS

SSIGNMENT OF PATENT APPLICATION		
For good and valuable consideration, the receipt and sufficiency of which is hereby		
acknowledged, I/we, the undersigned, Kalyan Chakravarthy C. Kavalipurapu, Chang H. Siau, and		
Shigekazu Yamada,		
hereby sell, assign, and transfer to <u>Micron Technology, Inc.</u>		
a <u>corporation</u> (Type of Assignee: e.g., corporation, company, partnership, university, etc.) of <u>Delaware</u> ,		
having a principal place of business at 8000 South Federal Way, Boise, Idaho 83716-9632,		
("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions or improvements that are disclosed in the application (provisional or non-provisional) for the United States patent which may have a declaration executed by the undersigned prior hereto or concurrently herewith and is entitled		
ASYMMETRIC PLANE DRIVER CIRCUITS		

IN A MULTI-PLANE MEMORY DEVICE said patent application also identified as follows (when known):

[I/we hereby authorize an attorney or agent for said Assignee to insert below the application number and filing date of said patent application when known.]

United States Patent Application Number	<u>16/947,525</u>	filedAugust 5, 2020
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and in and to said application (provisional or non-provisional) and all provisional applications, nonprovisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said inventions or improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said inventions or improvements; and in and to all rights of priority resulting from the filing of said United States application and all rights to claim priority to said United States application;

agree that said Assignee may apply for and receive a patent or patents for said inventions or improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional applications, nonprovisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said inventions or improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said inventions or improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said inventions or improvements and for vesting title to said inventions or improvements, and all applications for patents and all patents on said inventions or improvements, in said Assignee, its successors, assigns, and legal representatives; and

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

Each Inventor: Please	e <u>Sign and Date</u> Below:
Date	Kalyan Chakravarthy C. Kavalipurapu
07/23/2020 	Chang H. Siau
 Date	_ Shigekazu Yamada

Client Ref. No. 2019*2595.00/US Attorney Docket No.: 34300.422 (L0422)

ASSIGNMENT OF PATENT APPLICATION

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/we, the undersigned, Kalyan Chakravarthy C. Kavalipurapu, Chang H. Siau, and Shigekazu Yamada, hereby sell, assign, and transfer to Micron Technology, Inc.

a corporation of Delaware , (Type of Assignee: e.g., corporation, company, partnership, university, etc.)

having a principal place of business at 8000 South Federal Way, Boise, Idaho 83716-9632,

("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions or improvements that are disclosed in the application (provisional or non-provisional) for the United States patent which may have a declaration executed by the undersigned prior hereto or concurrently herewith and is entitled

ASYMMETRIC PLANE DRIVER CIRCUITS IN A MULTI-PLANE MEMORY DEVICE

said patent application also identified as follows (when known):

[I/we hereby authorize an attorney or agent for said Assignee to insert below the application number and filing date of said patent application when known.]

United States Patent Application Number	16/947 <u>,525</u>	_filed_	August 5, 2020
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and in and to said application (provisional or non-provisional) and all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said inventions or improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said inventions or improvements; and in and to all rights of priority resulting from the filing of said United States application and all rights to claim priority to said United States application;

agree that said Assignee may apply for and receive a patent or patents for said inventions or improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said inventions or improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said inventions or improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said inventions or improvements and for vesting title to said inventions or improvements, and all applications for patents and all patents on said inventions or improvements, in said Assignee, its successors, assigns, and legal representatives; and

PATENT REEL: 059943 FRAME: 0737 Client Ref. No. 2019*2595.00/US

RECORDED: 05/11/2022

Attorney Docket No.: 34300.422 (L0422)

assignment, grant, mortgage, license	e, or other agreement affecting the rights and property herein by the undersigned, and that full right to convey the same as the undersigned.
Each Inventor: Please §	Sign and Date Below:
Date	Kalyan Chakravarthy C. Kavalipurapu
Date	Chang H. Siau
8/4/2020 Date	Shigkayu Yamada

covenant with said Assignee, its successors, assigns, and legal representatives that no

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