505524402 06/13/2019

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TETSUYA ARAI	04/21/2015
JUNKI TANIGUCHI	04/21/2015

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:	16440565

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	P251678.US.04
NAME OF SUBMITTER:	JEAN WANG
SIGNATURE:	/Jean Wang/
DATE SIGNED:	06/13/2019

Total Attachments: 3

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PATENT 505524402 REEL: 049462 FRAME: 0976

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Tetsuya Arai and Junki Taniguchi

Filed: Concurrently herewith

For : DEVICE HAVING MULTIPLE

CHANNELS WITH CALIBRATION CIRCUIT SHARED BY MULTIPLE

CHANNELS

Docket No. P251678.US.01

Disclosure No. ELPA-0277.00/US

ASSIGNMENT:

<u>X</u>	Enclosed for reco	rding
	Previously record	ed
Date:		
Reel:		

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, the undersigned do 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 "DEVICE HAVING MULTIPLE CHANNELS WITH CALIBRATION CIRCUIT SHARED BY MULTIPLE CHANNELS", which claims priority to JP patent application, filed on May 21, 2014, assigned Application No. 2014-105195, entitled "SEMICONDUCTOR DEVICE HAVING ZQ CALIBRATION CIRCUIT"; 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;

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

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned, and that the 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 Assignee shall consider desirable for securing, maintaining and enforcing proper patent protection for such improvements and for vesting title to such improvements 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.

Signature: Tersuya Arai	Date: 2015.4.2/
Assignor Name: Tetsuya Arai	
Witness # 1:	:
Signature: Shoke Lomita	Date: 4/2/120/5
Witness Name: Shoko Tomita	
XXIII II O.	
Witness # 2:	
Signature: Miku Johemasa	Date: 4/21/2015
Witness Name: Miku Takemasa	

Signature: Junk' Taniguch!	Date: 2015 . 4, 21
Assignor Name: Junki Taniguchi	
Witness # 1:	
Signature: Shoko Jemita	Date: 4/21/20/5
Witness Name: Shoko Tomita	
Witness # 2:	
Signature: Miker Fakemasa	Date: 4/21/2015
Witness Name: Miku Takemasa	