PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

ersion v1.1 EPAS ID: PAT4925638

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
EIICHI NAKANO	04/03/2018
MARK E. TUTTLE	04/19/2018

RECEIVING PARTY DATA

Name:	MICRON TECHNOLOGY, INC.	
Street Address:	8000 S. FEDERAL WAY	
Internal Address:	P.O. BOX 6	
City:	BOISE	
State/Country:	IDAHO	
Postal Code:	83707-0006	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15852339

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	010829-9258.US00	
NAME OF SUBMITTER:	SAM BEARD	
SIGNATURE:	/Sam Beard/	
DATE SIGNED:	04/20/2018	

Total Attachments: 3

source=2018-04-20 Assignment as Filed (010829-9258.US00)#page1.tif source=2018-04-20 Assignment as Filed (010829-9258.US00)#page2.tif source=2018-04-20 Assignment as Filed (010829-9258.US00)#page3.tif

PATENT 504878898 REEL: 045994 FRAME: 0847

ASSIGNMENT BY INVENTORS

This Assignment is by the following individuals (the "Assignors"):

- Eiichi Nakano, having a mailing address of 4463 S. Epsilon Ave., Boise, ID 83716; and
- Mark E. Tuttle, having a mailing address of 4173 W. Highland Fall Ct., Meridian, ID 83646.

The Assignors invented one or more certain inventions (the "Invention(s)") described in an application for Letters Patent of the United States titled SEMICONDUCTOR DEVICES HAVING ELECTRICALLY AND OPTICALLY CONDUCTIVE VIAS, AND ASSOCIATED SYSTEMS AND METHODS, naming the Assignors as inventors, and filed on <u>December 22, 2017</u> as U.S. Application No. <u>15/852,339</u> (the "Application"). The Assignors authorize the Assignee, identified below, or its representatives to insert the application number and filing date of the Application when known.

Micron Technology, Inc., a corporation of Delaware having its principal place of business at 8000 S. Federal Way, P.O. Box 6, Boise, Idaho 83707-0006 ("Assignce"), desires to acquire the entire right, title and interest in and to the Invention(s) and the Application, and in and to any patents (collectively, "Patents") that may be granted for the Invention(s) in the United States or in any foreign countries.

For valuable consideration, the receipt and sufficiency of which Assignors acknowledge, Assignors hereby sell, assign, and transfer to Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to: the Invention(s), the Application, and any Patents; any divisions, continuations, and continuations-in-part of the Application and any other application claiming priority rights from the Application; any reissues, reexaminations, or extensions of any and all Patents; the right to file foreign applications directly in the name of Assignee; and the right to claim priority rights deriving from the Application (collectively, the "Rights"). Assignors warrant that Assignors own the Rights, and that the Rights are unencumbered. Assignors also agree to not sign any writing or do any act conflicting with this assignment, and, without further compensation, sign all documents and do such additional acts as Assignee deems necessary or desirable to: perfect Assignee's enjoyment of the Rights; conduct proceedings regarding the Rights, including any litigation or interference proceedings; or perfect or defend title to the Rights. Assignors request the Commissioner of Patents to issue any Patent of the United States that may be issued on the Invention(s) to Assignee. This Assignment may be executed in counterparts.

10829-8000/131808356.1

PATENT REEL: 045994 FRAME: 0848

Date: 4-19-2018	Mark E. Tuttle
On this 19 Th day of April personally came Mark E. Tuttle, to me know foregoing instrument, and acknowledged exec	
	Dubolly S Notary Public

Date: Apr 3-1'18 Eiichi Nakano

On this 3rd day of 2018, before me personally came Eichi Nakano, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.

Notary Public

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PATENT REEL: 045994 FRAME: 0850