

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT6124914

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
WEI-TING CHEN	02/21/2020
TSUNG-HAN TSAI	03/06/2020
KUN-TSANG CHUANG	03/06/2020
PO-JEN WANG	03/06/2020
YING-HAO CHEN	03/06/2020
CHIEN-CHENG HUANG	03/10/2020
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.
<b>Street Address:</b>	NO. 8, LI-HSIN RD. 6
<b>Internal Address:</b>	HSINCHU SCIENCE PARK
<b>City:</b>	HSINCHU
<b>State/Country:</b>	TAIWAN
<b>Postal Code:</b>	300-77
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16549835
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(202)371-2540
<i>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.</i>	
<b>Phone:</b>	2023712600
<b>Email:</b>	mbennett@sternekessler.com
<b>Correspondent Name:</b>	STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
<b>Address Line 1:</b>	1100 NEW YORK AVENUE, NW
<b>Address Line 4:</b>	WASHINGTON, D.C. 20005
<b>ATTORNEY DOCKET NUMBER:</b>	4630.2430000
<b>NAME OF SUBMITTER:</b>	ROBERT SOKOHL, REG. NO. 36,013
<b>SIGNATURE:</b>	/Robert Sokohl Reg. No. 36,013/
<b>DATE SIGNED:</b>	05/27/2020

**Total Attachments: 8**

source=2020-05-27-Assignment-4630-2430000#page1.tif

source=2020-05-27-Assignment-4630-2430000#page2.tif

source=2020-05-27-Assignment-4630-2430000#page3.tif

source=2020-05-27-Assignment-4630-2430000#page4.tif

source=2020-05-27-Assignment-4630-2430000#page5.tif

source=2020-05-27-Assignment-4630-2430000#page6.tif

source=2020-05-27-Assignment-4630-2430000#page7.tif

source=2020-05-27-Assignment-4630-2430000#page8.tif

P201836820500  
Atty. Docket No. 4630.2430000②  
TL

NP-25612-0-05-B6

**ASSIGNMENT**

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned inventors: **Wei-Ting. CHEN, Tsung-Han TSAI, Kun-Tsang CHUANG, Po-Jen WANG, Ying-Hao CHEN and Chien-Cheng CHUANG**, hereby sell and assign to **Taiwan Semiconductor Manufacturing Co., Ltd.**, a corporation formed under the laws of Taiwan, Republic of China, whose mailing address is No. 8, Li-Hsin Rd. 6, Hsinchu Science Park, Hsinchu, Taiwan 300-77 (hereafter referred to as the Assignee), his/her entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages, for the United States of America (as defined in 35 U.S.C. § 100) and throughout the world,

(a) in the invention(s) known as **METAL-INSULATOR-METAL CAPACITORS WITH HIGH BREAKDOWN VOLTAGE** for which application(s) for patent in the United States of America has a filing date or a 371(c) date of \_\_\_\_\_ (also known as United States Application No. To Be Assigned), in any and all applications thereon, in any and all Letters Patent(s) therefor, and

(b) in any and all applications that claim the benefit of the patent application listed above in part (a), including non-provisional applications, continuing (continuation, divisional, or continuation-in-part) applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (a), to the full extent of the term or terms for which Letters Patents issue, and

(c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the undersigned inventors had this assignment and sale not been made.

The undersigned inventors agree to execute all papers necessary in connection with the application(s) and any non-provisional, continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate

Appl. No. *To Be Assigned*  
Atty. Docket No. 4630.2430000

assignments in connection with such application(s) as the Assignee may deem necessary or expedient.

The undersigned inventors agree to execute all papers necessary in connection with any judicial or administrative proceeding, including but not limited to an interference, derivation, post-grant proceeding, or patent enforcement action (judicial or otherwise) related to the application(s) or any non-provisional, continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application(s) thereof or Letters Patent(s) therefor and to cooperate with the Assignee in every way possible in obtaining evidence and assisting with such judicial or administrative proceeding.

The undersigned inventors hereby represent that he/she has full right to convey the entire interest herein assigned, and that he/she has not executed, and will not execute, any agreement in conflict therewith.

The undersigned inventors hereby grant the patent practitioners associated with **CUSTOMER NUMBER 134593** the power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

The undersigned inventors hereby represent that he/she understands that the patent practitioners associated with **CUSTOMER NUMBER 134593** are the legal representatives of, and attorneys for, the assignee, and are NOT the legal representatives of, and attorneys for, the inventors.

IN WITNESS WHEREOF, executed by the undersigned inventors on the date opposite his/her name.

Date: 2020 / 2 / 21 Signature of Inventor: Wei-Ting Chen  
Wei-Ting CHEN

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Tsong-Han TSAI

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Kun-Tsang CHUANG

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Po-Jen WANG

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Ying-Hao CHEN

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Chien-Cheng CHUANG

13636252\_1.docx

**ASSIGNMENT**

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned inventors: **Wei-Ting. CHEN, Tsung-Han TSAI, Kun-Tsang CHUANG, Po-Jen WANG, Ying-Hao CHEN and Chien-Cheng CHUANG**, hereby sell and assign to **Taiwan Semiconductor Manufacturing Co., Ltd.**, a corporation formed under the laws of Taiwan, Republic of China, whose mailing address is No. 8, Li-Hsin Rd. 6, Hsinchu Science Park, Hsinchu, Taiwan 300-77 (hereafter referred to as the Assignee), his/her entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages, for the United States of America (as defined in 35 U.S.C. § 100) and throughout the world,

(a) in the invention(s) known as **METAL-INSULATOR-METAL CAPACITORS WITH HIGH BREAKDOWN VOLTAGE** for which application(s) for patent in the United States of America has a filing date or a 371(c) date of \_\_\_\_\_ (also known as United States Application No. To Be Assigned), in any and all applications thereon, in any and all Letters Patent(s) therefor, and

(b) in any and all applications that claim the benefit of the patent application listed above in part (a), including non-provisional applications, continuing (continuation, divisional, or continuation-in-part) applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (a), to the full extent of the term or terms for which Letters Patents issue, and

(c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the undersigned inventors had this assignment and sale not been made.

The undersigned inventors agree to execute all papers necessary in connection with the application(s) and any non-provisional, continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate

assignments in connection with such application(s) as the Assignee may deem necessary or expedient.

The undersigned inventors agree to execute all papers necessary in connection with any judicial or administrative proceeding, including but not limited to an interference, derivation, post-grant proceeding, or patent enforcement action (judicial or otherwise) related to the application(s) or any non-provisional, continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application(s) thereof or Letters Patent(s) therefor and to cooperate with the Assignee in every way possible in obtaining evidence and assisting with such judicial or administrative proceeding.

The undersigned inventors hereby represent that he/she has full right to convey the entire interest herein assigned, and that he/she has not executed, and will not execute, any agreement in conflict therewith.

The undersigned inventors hereby grant the patent practitioners associated with **CUSTOMER NUMBER 134593** the power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

The undersigned inventors hereby represent that he/she understands that the patent practitioners associated with **CUSTOMER NUMBER 134593** are the legal representatives of, and attorneys for, the assignee, and are NOT the legal representatives of, and attorneys for, the inventors.

IN WITNESS WHEREOF, executed by the undersigned inventors on the date opposite his/her name.

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Wei-Ting CHEN

Date: 2020.3.6 Signature of Inventor: Tsung-Han Tsai  
Tsung-Han TSAI

Date: 2020.3.6 Signature of Inventor: Kun Tsang  
Kun-Tsang CHUANG

Date: 2020.03.06 Signature of Inventor: Po-Jen Wang  
Po-Jen WANG

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Ying-Hao CHEN

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Chien-Cheng CHUANG

13636252\_1.docx

TL (2)

P 201036820500  
Atty. Docket No. 4630.2430000

MP 25612-0-0586

**ASSIGNMENT**

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned inventors: **Wei-Ting. CHEN, Tsung-Han TSAI, Kun-Tsang CHUANG, Po-Jen WANG, Ying-Hao CHEN and Chien-Cheng CHUANG**, hereby sell and assign to **Taiwan Semiconductor Manufacturing Co., Ltd.**, a corporation formed under the laws of Taiwan, Republic of China, whose mailing address is No. 8, Li-Hsin Rd. 6, Hsinchu Science Park, Hsinchu, Taiwan 300-77 (hereafter referred to as the Assignee), his/her entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages, for the United States of America (as defined in 35 U.S.C. § 100) and throughout the world,

(a) in the invention(s) known as **METAL-INSULATOR-METAL CAPACITORS WITH HIGH BREAKDOWN VOLTAGE** for which application(s) for patent in the United States of America has a filing date or a 371(c) date of \_\_\_\_\_ (also known as United States Application No. To Be Assigned), in any and all applications thereon, in any and all Letters Patent(s) therefor, and

(b) in any and all applications that claim the benefit of the patent application listed above in part (a), including non-provisional applications, continuing (continuation, divisional, or continuation-in-part) applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (a), to the full extent of the term or terms for which Letters Patents issue, and

(c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the undersigned inventors had this assignment and sale not been made.

The undersigned inventors agree to execute all papers necessary in connection with the application(s) and any non-provisional, continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate

Appl. No. To Be Assigned  
Atty. Docket No. 4630.2430000

assignments in connection with such application(s) as the Assignee may deem necessary or expedient.

The undersigned inventors agree to execute all papers necessary in connection with any judicial or administrative proceeding, including but not limited to an interference, derivation, post-grant proceeding, or patent enforcement action (judicial or otherwise) related to the application(s) or any non-provisional, continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application(s) thereof or Letters Patent(s) therefor and to cooperate with the Assignee in every way possible in obtaining evidence and assisting with such judicial or administrative proceeding.

The undersigned inventors hereby represent that he/she has full right to convey the entire interest herein assigned, and that he/she has not executed, and will not execute, any agreement in conflict therewith.

The undersigned inventors hereby grant the patent practitioners associated with **CUSTOMER NUMBER 134593** the power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

The undersigned inventors hereby represent that he/she understands that the patent practitioners associated with **CUSTOMER NUMBER 134593** are the legal representatives of, and attorneys for, the assignee, and are NOT the legal representatives of, and attorneys for, the inventors.

IN WITNESS WHEREOF, executed by the undersigned inventors on the date opposite his/her name.

Date: _____	Signature of Inventor: _____ Wei-Ting CHEN
Date: _____	Signature of Inventor: _____ Tsung-Han TSAI
Date: _____	Signature of Inventor: _____ Kun-Tsang CHUANG
Date: _____	Signature of Inventor: _____ Po-Jen WANG
Date: <u>✓ 2020/3/6</u>	Signature of Inventor: <u>✓ Ying-Hao Chen</u> Ying-Hao CHEN
Date: _____	Signature of Inventor: _____ Chien-Cheng CHUANG

13636252\_1.docx



7L (2)  
MP-25612-0-05-86  
**ASSIGNMENT**

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned inventors: **Wei-Ting. CHEN, Tsung-Han TSAI, Kun-Tsang CHUANG, Po-Jen WANG, Ying-Hao CHEN and Chien-Cheng HUANG**, hereby sell and assign to **Taiwan Semiconductor Manufacturing Co., Ltd.**, a corporation formed under the laws of Taiwan, Republic of China, whose mailing address is No. 8, Li-Hsin Rd. 6, Hsinchu Science Park, Hsinchu, Taiwan 300-77 (hereafter referred to as the Assignee), his/her entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages, for the United States of America (as defined in 35 U.S.C. § 100) and throughout the world,

(a) in the invention(s) known as **METAL-INSULATOR-METAL CAPACITORS WITH HIGH BREAKDOWN VOLTAGE** for which application(s) for patent in the United States of America has a filing date or a 371(c) date of \_\_\_\_\_ (also known as United States Application No. To Be Assigned), in any and all applications thereon, in any and all Letters Patent(s) therefor, and

(b) in any and all applications that claim the benefit of the patent application listed above in part (a), including non-provisional applications, continuing (continuation, divisional, or continuation-in-part) applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (a), to the full extent of the term or terms for which Letters Patents issue, and

(c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the undersigned inventors had this assignment and sale not been made.

The undersigned inventors agree to execute all papers necessary in connection with the application(s) and any non-provisional, continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to

execute separate assignments in connection with such application(s) as the Assignee may deem necessary or expedient.

The undersigned inventors agree to execute all papers necessary in connection with any judicial or administrative proceeding, including but not limited to an interference, derivation, post-grant proceeding, or patent enforcement action (judicial or otherwise) related to the application(s) or any non-provisional, continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application(s) thereof or Letters Patent(s) therefor and to cooperate with the Assignee in every way possible in obtaining evidence and assisting with such judicial or administrative proceeding.

The undersigned inventors hereby represent that he/she has full right to convey the entire interest herein assigned, and that he/she has not executed, and will not execute, any agreement in conflict therewith.

The undersigned inventors hereby grant the patent practitioners associated with **CUSTOMER NUMBER 134593** the power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

The undersigned inventors hereby represent that he/she understands that the patent practitioners associated with **CUSTOMER NUMBER 134593** are the legal representatives of, and attorneys for, the assignee, and are NOT the legal representatives of, and attorneys for, the inventors.

IN WITNESS WHEREOF, executed by the undersigned inventors on the date opposite his/her name.

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Wei-Ting CHEN

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Tsung-Han TSAI

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Kun-Tsang CHUANG

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Po-Jen WANG

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Ying-Hao CHEN

Date: 2020/03/10 Signature of Inventor: Chien-Cheng Huang  
Chien-Cheng HUANG

13636252\_1.docx