

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5485475

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|---|---------------------------------------|
| SUBMISSION TYPE: | NEW ASSIGNMENT |
| NATURE OF CONVEYANCE: | ASSIGNMENT |
| CONVEYING PARTY DATA | |
| Name | Execution Date |
| MING SANG KWAN | 10/20/2017 |
| SHENQING FANG | 10/09/2017 |
| YOUSEOK SUH | 04/22/2019 |
| MICHAEL A VAN BUSKIRK | 10/11/2017 |
| RECEIVING PARTY DATA | |
| Name: | Cypress Semiconductor Corporation |
| Street Address: | 198 Champion Court |
| City: | San Jose |
| State/Country: | CALIFORNIA |
| Postal Code: | 95134 |
| PROPERTY NUMBERS Total: 1 | |
| Property Type | Number |
| Application Number: | 16029440 |
| CORRESPONDENCE DATA | |
| Fax Number: | (408)545-6911 |
| <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> | |
| Phone: | 408-943-6878 |
| Email: | patents@cypress.com, smni@cypress.com |
| Correspondent Name: | CYPRESS SEMICONDUCTOR CORPORATION |
| Address Line 1: | 198 CHAMPION COURT |
| Address Line 4: | SAN JOSE, CALIFORNIA 95134 |
| ATTORNEY DOCKET NUMBER: | SPN09048CIP1C1 |
| NAME OF SUBMITTER: | KIN HUNG LAI |
| SIGNATURE: | /Kin Hung Lai/ |
| DATE SIGNED: | 04/22/2019 |
| Total Attachments: 11 | |
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ASSIGNMENT OF PATENT APPLICATION

Attorney Docket No.: SPN09048CIP1

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/we, the undersigned, Ming Sang Kwan, Shengqing Fang, Youseok Suh, and

Michael A. Van Buskirk

hereby sell, assign, and transfer to Cypress Semiconductor Corporation

a corporation of Delaware

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

having a principal place of business at 198 Champion Court, San Jose, California 95134-1709

("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

NAND MEMORY CELL STRING HAVING A STACKED SELECT GATE

STRUCTURE AND PROCESS FOR FORMING SAME

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 15/277,819 filed 09-27-2016

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;

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

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:

_____, 20____
Date Signature

Ming Sang Kwan

Printed/Typed Name

Oct. 9, 2017
Date

Signature

Shenqing Fang

Printed/Typed Name

_____, 20____
Date Signature

Youseok Suh

Printed/Typed Name

Assignment Document Return Address:
CYPRESS SEMICONDUCTOR CORPORATION
198 Champion Court
San Jose, CA 95134
(408) 545-7194

ASSIGNMENT OF PATENT APPLICATION

Attorney Docket No.: SPN09048CIP1

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

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United States Patent Application Number 15/277,819 filed 09-27-2016

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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

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:

10/20, 20 17
Date


Signature

Ming Sang Kwan

Printed/Typed Name

_____, 20____
Date

Signature

Shenqing Fang

Printed/Typed Name

_____, 20____
Date

Signature

Youseok Suh

Printed/Typed Name

Assignment Document Return Address:
CYPRESS SEMICONDUCTOR CORPORATION
198 Champion Court
San Jose, CA 95134
(408) 545-7194

ASSIGNMENT OF PATENT APPLICATION

Attorney Docket No.: SPN09048CIP1

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/we, the undersigned, Ming Sana Kwan, Shengqing Fang, Youseok Suh, and Michael A. Van Buskirk

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

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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:

_____, 20____
Date

Signature

Ming Sang Kwan

Printed/Typed Name

_____, 20____
Date

Signature

Shengqing Fang

Printed/Typed Name

_____, 20____
Date

Signature

Youseok Suh

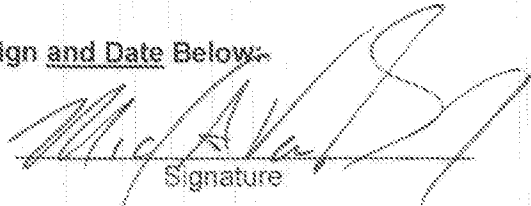
Printed/Typed Name

Assignment Document Return Address:
CYPRESS SEMICONDUCTOR CORPORATION
198 Champion Court
San Jose, CA 95134
(408) 545-7194

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:

October 11, 2017
Date



Michael A. Van Buskirk

Printed/Typed Name

_____, 20____
Date

Signature

Printed/Typed Name

_____, 20____
Date

Signature

Printed/Typed Name

Assignment Document Return Address:

CYPRESS SEMICONDUCTOR CORPORATION

198 Champion Court

San Jose, CA 95134

(408) 545-7194

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**SUBSTITUTE STATEMENT IN LIEU OF AN OATH OR DECLARATION FOR UTILITY
OR DESIGN PATENT APPLICATION (35 U.S.C. 115(d) AND 37 CFR 1.64)**

| | | | |
|---|--|---------|---------|
| Title of Invention | NAND MEMORY CELL STRING HAVING A STACKED SELECT GATE STRUCTURE AND PROCESS FOR FORMING SAME | | |
| This statement is directed to: | | | |
| <input type="checkbox"/> The attached application, | | | |
| OR | | | |
| <input checked="" type="checkbox"/> United States application or PCT international application number <u>16/029,440</u> filed on <u>7-6-2018</u> . | | | |
| LEGAL NAME of inventor to whom this substitute statement applies: | | | |
| (E.g., Given Name (first and middle (if any)) and Family Name or Surname) | | | |
| Youseok Suh | | | |
| Residence (except for a deceased or legally incapacitated inventor): | | | |
| City | State | Country | |
| Cupertino | CA | US | |
| Mailing Address (except for a deceased or legally incapacitated inventor): | | | |
| City | State | Zip | Country |
| Cupertino | CA | 95014 | US |
| I believe the above-named inventor or joint inventor to be the original inventor or an original joint inventor of a claimed invention in the application. | | | |
| The above-identified application was made or authorized to be made by me. | | | |
| I hereby acknowledge that any willful false statement made in this statement is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both. | | | |
| Relationship to the inventor to whom this substitute statement applies: | | | |
| <input type="checkbox"/> Legal Representative (for deceased or legally incapacitated inventor only), | | | |
| <input checked="" type="checkbox"/> Assignee, | | | |
| <input type="checkbox"/> Person to whom the inventor is under an obligation to assign, | | | |
| <input type="checkbox"/> Person who otherwise shows a sufficient proprietary interest in the matter (petition under 37 CFR 1.46 is required), or | | | |
| <input type="checkbox"/> Joint Inventor. | | | |

[Page 1 of 2]

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PATENT
REEL: 048955 FRAME: 0811

SUBSTITUTE STATEMENT

Circumstances permitting execution of this substitute statement:

- ☐ Inventor is deceased,
☐ Inventor is under legal incapacity,
☒ Inventor cannot be found or reached after diligent effort, or
☐ Inventor has refused to execute the oath or declaration under 37 CFR 1.63.

If there are joint inventors, please check the appropriate box below:

- ☒ An application data sheet under 37 CFR 1.76 (PTO/AIA/14 or equivalent) naming the entire inventive entity has been or is currently submitted.

OR

- ☐ An application data sheet under 37 CFR 1.76 (PTO/AIA/14 or equivalent) has not been submitted. Thus, a Substitute Statement Supplemental Sheet (PTO/AIA/11 or equivalent) naming the entire inventive entity and providing inventor information is attached. See 37 CFR 1.64(b).

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

PERSON EXECUTING THIS SUBSTITUTE STATEMENT:

| | |
|---|-----------------------------------|
| Name: Timothy R. Croll Reg. No. 36,771 | Date (Optional): 4-22-2019 |
|---|-----------------------------------|

Signature: **/ Timothy R Croll36771/**

APPLICANT NAME AND TITLE OF PERSON EXECUTING THIS SUBSTITUTE STATEMENT:

If the applicant is a juristic entity, list the applicant name and the title of the signer:

Cypress Semiconductor Corporation

Applicant Name:

Title of Person Executing This Substitute Statement: **Deputy General Counsel IP**

The signer, whose title is supplied above, is authorized to act on behalf of the applicant.

Residence of the signer (unless provided in an application data sheet, PTO/AIA/14 or equivalent):

| | | |
|-----------------------|-----------------|-------------------|
| City San Ramon | State CA | Country US |
|-----------------------|-----------------|-------------------|

Mailing Address of the signer (unless provided in an application data sheet, PTO/AIA/14 or equivalent)

| | | | |
|----------------------|-----------------|------------------|-------------------|
| City San Jose | State CA | Zip 95134 | Country US |
|----------------------|-----------------|------------------|-------------------|

Note: Use an additional PTO/AIA/02 form for each inventor who is deceased, legally incapacitated, cannot be found or reached after diligent effort, or has refused to execute the oath or declaration under 37 CFR 1.63.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.