

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT4284739

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
HYUNG JIN LEE	02/14/2017
HYUN GU KANG	02/20/2017
SANG WOOK HAN	02/14/2017
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	SEOUL SEMICONDUCTOR CO., LTD.
<b>Street Address:</b>	97-11, SANDAN-RO 163BEON-GIL
<b>Internal Address:</b>	DANWON-GU, GYEONGGI-DO
<b>City:</b>	ANSAN-SI
<b>State/Country:</b>	KOREA, REPUBLIC OF
<b>Postal Code:</b>	15429
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15438737
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(703)288-5139
<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>	703-288-5105
<b>Email:</b>	patent@park-law.com
<b>Correspondent Name:</b>	H.C. PARK & ASSOCIATES, PLC
<b>Address Line 1:</b>	1894 PRESTON WHITE DRIVE
<b>Address Line 4:</b>	RESTON, VIRGINIA 20191
<b>ATTORNEY DOCKET NUMBER:</b>	P7012USI1
<b>NAME OF SUBMITTER:</b>	HAE-CHAN PARK
<b>SIGNATURE:</b>	/hae-chan park/
<b>DATE SIGNED:</b>	02/21/2017
	This document serves as an Oath/Declaration (37 CFR 1.63).
<b>Total Attachments: 10</b>	
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ASSIGNMENT SERVING AS DECLARATION PER 37 C.F.R. § 1.63(e)

As a below named inventor and Assignor, I declare that:

This assignment and declaration are directed to:

The attached application entitled **ALTERNATING CURRENT-DRIVEN LIGHT EMITTING ELEMENT LIGHTING APPARATUS** having attorney docket number P7012USI1 ("Application"), which is a continuation-in-part of U.S. Application No. 15/317,737, filed December 9, 2016, and claims priority from: Korean Patent Application No. 10-2014-0071474, filed June 12, 2014.

As amended on \_\_\_\_\_ (if applicable);

The above-identified Application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the Application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both.

Whereas, Assignor has invented certain new and useful processes, machines, articles of manufacture, compositions of matter, and/or improvements thereof ("Invention") disclosed in the Application,

Whereas, Assignor desires to convey all rights, titles, and interests in and to the same to:

**Seoul Semiconductor Co., Ltd.**  
97-11, Sandan-ro 163beon-gil  
Danwon-gu, Gyeonggi-do  
Ansan-si 15429  
Republic of Korea

**Seoul Semiconductor Co., Ltd.** herein further referred to as ("Assignee").

Now, for valuable consideration by Assignee to Assignor, the receipt of which is hereby acknowledged, and for other good and valuable consideration, Assignee and Assignor hereby agree as follows:

Assignor hereby conveys, assigns, sells and transfers to Assignee all rights, title and interests in and to the Invention disclosed in said application and in and to any Letters Patent of the United States (US), any continuation, division, renewal, or substitute thereof, and hereby grant to Assignee the right to apply in its own name for patents or Inventor's certificates and related rights heretofore or hereafter filed for the Invention in any and all countries, including (without limitation) all rights to claim priority based thereon, all patents granted thereon and all reissues, extensions and renewals thereof.



Assignor hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this Assignment.

Assignor further covenants that Assignee will, upon Assignee's request, be provided promptly with all pertinent facts and documents relating to the Invention, Patent, Application and any patents granted thereon, as may be known and accessible to Assignor, and Assignor will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to Assignee or Assignee's legal representative any and all papers, instruments or affidavits required to apply for, protect, obtain, maintain, issue, defend and enforce the Application, Patent, Invention, whether in the US or any and all foreign countries and any patents granted thereon and/or for obtaining any reissue or reissues of any patent which may be granted for the invention and perform such further acts which may be necessary or desirable to carry out the intent of this agreement as the Assignee thereof shall hereafter require and prepare at assignee's expense.

IN WITNESS WHEREOF, Inventor and Assignor has hereunto set hand and seal.

First Inventor's and Assignor's Name: Hyung Jin LEE

Address: 1B-25, 97-11, Sandan-ro 163beon-gil  
Danwon-gu, Gyeonggi-do  
Ansan-si 425-851  
Republic of Korea

First Inventor's and Assignor's Signature: 

Date: 2017.02.14

Second Inventor's and Assignor's Name: Hyun Gu KANG

Address: 1B-25, 97-11, Sandan-ro 163beon-gil  
Danwon-gu, Gyeonggi-do  
Ansan-si 425-851  
Republic of Korea

Second Inventor's and Assignor's Signature: \_\_\_\_\_

Date: \_\_\_\_\_



Third Inventor's and Assignor's Name: Sang Wook HAN  
Address: 1B-25, 97-11, Sandan-ro 163beon-gil  
Danwon-gu, Gyeonggi-do  
Ansan-si 15429  
Republic of Korea

Third Inventor's and Assignor's Signature: 한 삼복

Date: 2019. 02. 14



ASSIGNMENT

Whereas, Assignor has invented certain new and useful processes, machines, articles of manufacture, compositions of matter, and/or improvements thereof ("Invention") disclosed in

an application for United States Letters Patent entitled **ALTERNATING CURRENT-DRIVEN LIGHT EMITTING ELEMENT LIGHTING APPARATUS** ("Application"), which is a continuation-in-part of U.S. Application No. 15/317,737, filed December 9, 2016, and claims priority from:

Korean Patent Application No. 10-2014-0071474, filed June 12, 2014.

upon which United States Letters Patent, Patent Number \_\_\_\_\_, has issued ("Patent");

Whereas, Assignor desires to convey all rights, titles, and interests in and to the same to:

**Seoul Semiconductor Co., Ltd.**  
97-11, Sandan-ro 163beon-gil  
Danwon-gu, Gyeonggi-do  
Ansan-si 15429  
Republic of Korea

**Seoul Semiconductor Co., Ltd.** herein further referred to as ("Assignee").

Now, for valuable consideration by Assignee to Assignor, the receipt of which is hereby acknowledged, and for other good and valuable consideration, Assignee and Assignor hereby agree as follows:

Assignor hereby conveys, assigns, sells and transfers to Assignee all rights, title and interests in and to the Invention disclosed in said application and in and to any Letters Patent of the United States (US), any continuation, division, renewal, or substitute thereof, and hereby grant to Assignee the right to apply in its own name for patents or Inventor's certificates and related rights heretofore or hereafter filed for the Invention in any and all countries, including (without limitation) all rights to claim priority based thereon, all patents granted thereon and all reissues, extensions and renewals thereof.

Assignor hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this Assignment.

Assignor further covenants that Assignee will, upon Assignee's request, be provided promptly with all pertinent facts and documents relating to the Invention, Patent, Application and any patents granted thereon, as may be known and accessible to Assignor, and Assignor will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to Assignee or Assignee's legal representative any and all papers, instruments or affidavits required to apply for, protect, obtain, maintain, issue, defend and



enforce the Application, Patent, Invention, whether in the US or any and all foreign countries and any patents granted thereon and/or for obtaining any reissue or reissues of any patent which may be granted for the invention and perform such further acts which may be necessary or desirable to carry out the intent of this agreement as the Assignee thereof shall hereafter require and prepare at assignee's expense.

IN WITNESS WHEREOF, Assignor has hereunto set hand and seal.

First Inventor's Name: Hyun Gu KANG/by (name of representative executing the form)

Address: 1B-25, 97-11, Sandan-ro 163beon-gil  
Danwon-gu, Gyeonggi-do  
Ansan-si 425-851  
Republic of Korea

First Inventor's Signature:

Hyun Gu KANG By. OHJIN KWON

Date:

Feb. 20, 2017



Declaration to Execute Assignment Documents for Unavailable Inventor

I submit this declaration based upon personal knowledge of the facts herein.

In accordance with the employee invention compensation regulation based on Articles 2, 10 and 12 of the Invention Promotion Act of Republic of Korea and contractual agreement(s) with Seoul Semiconductor Co., Ltd. ("Assignee"), the following inventor/ assignor was an employee of Assignee and is obligated under Korea law to assign all rights in and to the following patent application to Assignee.

Title of Invention: ALTERNATING CURRENT-DRIVEN LIGHT EMITTING ELEMENT LIGHTING APPARATUS, which is a continuation-in-part of U.S. Application No. 15/317,737, filed December 9, 2016, and claims priority from Korean Patent Application No. 10-2014-0071474, filed June 12, 2014.

**Second Assignor**

Name: Hyun Gu KANG  
Address: 1B-25, 97-11, Sandan-ro 163beon-gil  
Danwon-gu, Gyeonggi-do  
Ansan-si 425-851  
Republic of Korea

Moreover, I diligently attempted to contact the above-identified inventor/assignor at his last known address, but have not been successful. Accordingly, and pursuant to Korean law, I am authorized to sign the attached Assignment on behalf of this inventor/assignor.

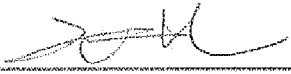
I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both.





Executed on behalf of Seoul Semiconductor Co., Ltd. at Ansan-si, Gyeonggi-do,  
Republic of Korea on the date indicated below.

By:

  
\_\_\_\_\_  
Signature *OH JIN KWON*  
\_\_\_\_\_  
Name *Director of Patent Team*  
\_\_\_\_\_  
Title *Feb. 20, 2017*  
\_\_\_\_\_  
Date

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	ALTERNATING CURRENT-DRIVEN LIGHT EMITTING ELEMENT LIGHTING APPARATUS		
This statement is directed to:			
<input checked="" type="checkbox"/> The attached application,			
OR			
<input type="checkbox"/> United States application or PCT international application number _____ filed on _____.			
<b>LEGAL NAME of inventor to whom this substitute statement applies:</b>			
(E.g., Given Name (first and middle (if any)) and Family Name or Surname)			
Hyun Gu KANG			
Residence (except for a deceased or legally incapacitated inventor):			
City	Ansan-si	State	Country Republic of Korea
Mailing Address (except for a deceased or legally incapacitated inventor):			
1B-25, 97-11, Sandan-ro 163beon-gil, Danwon-gu, Gyeonggi-do			
City	Ansan-si	State	Zip 425-851 Country KR
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 1460, Alexandria, VA 22313-1450.

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

## 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: DH JIN KWON Date (Optional): Feb. 20, 2017

Signature: 

### 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:

Seoul Semiconductor Co., Ltd.

Applicant Name:

Title of Person Executing This Substitute Statement: Manager of IP Department

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 Ansan-si State \_\_\_\_\_ Country Republic of Korea

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

97-11, Sandan-ro 163beon-gil, Danwon-gu, Gyeonggi-do

City Ansan-si State \_\_\_\_\_ Zip 15429 Country Republic of Korea

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.