

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT7686387

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
SEOUL NATIONAL UNIVERSITY R&DB FOUNDATION	11/24/2022
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<b>Postal Code:</b>	16677
<b>PROPERTY NUMBERS Total: 2</b>	
<b>Property Type</b>	<b>Number</b>
<b>Patent Number:</b>	10886276
<b>Patent Number:</b>	10210921
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<b>DATE SIGNED:</b>	12/09/2022
<b>Total Attachments: 3</b>	
source=2022-11-24 US Assignment - Seoul National University to Samsung#page1.tif	
source=2022-11-24 US Assignment - Seoul National University to Samsung#page2.tif	
source=2022-11-24 US Assignment - Seoul National University to Samsung#page3.tif	

## ASSIGNMENT

### CORPORATE

**Seoul National University R&DB Foundation**, having a principal place of business at 1, Gwanak-ro, Gwanak-gu, Seoul, 08826, Republic of Korea (hereafter the "Assignor"), is the owner by respective Assignment of the United States Patent Applications identified in Attachment A (hereafter the "Patent Applications").

**Samsung Electronics Co., Ltd.**, having a principal place of business at 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do 16677, Republic of Korea (hereafter the "Assignee"), desires to acquire all of the rights of the Patent Applications and all inventions described and claimed therein.

THEREFORE, in consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to it, Assignor hereby sells and assigns to the Assignee the entire right, title, and interest in and to the Patent Applications identified in Attachment A, and all inventions described and claimed therein, and in any and all reissues and reexaminations as well as any and all continuations and divisionals thereof, such entire right, title, and interest to be held and enjoyed by the above-named Assignee the same as they would have been held and enjoyed by the Assignor had this Assignment and sale not been made.

By its undersigned representative, the Assignor agrees

- a. to execute all papers necessary in connection with the Patent Applications and any reissues and reexaminations as well as any continuations and divisionals thereof and also to execute separate Assignment in connection with such applications or Letters Patent thereof as the Assignee may deem necessary or expedient;
- b. to execute all papers necessary in connection with any interference which may be declared concerning the Patent Applications and any reissues and reexaminations as well as any continuations and divisionals thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference; and
- c. to perform all affirmative acts which may be necessary to obtain a grant of a valid patent to the Assignee on inventions described in the Patent Applications and any reissues and reexaminations as well as any and all continuations and divisionals thereof.

The Assignor hereby covenants that it has the right to convey its interest in the Patent Applications identified in Attachment A, and that it has not executed, and will not execute, any agreement in conflict therewith.

The Assignor certifies that it is the Owner of the entire right, title, and interest in the Patent Applications identified in Attachment A by virtue of an Assignment for of the Patent Applications. This Assignment was recorded as shown in Attachment A.

The undersigned has reviewed the documents in the Patent Applications identified in Attachment A and, to the best of undersigned's knowledge and belief, title is in the Assignor identified above.

The undersigned is empowered to sign this certificate on behalf of the Assignor.

The undersigned hereby declares that all statements made herein of his/her own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing therefrom.

IN WITNESS WHEREOF, executed by the Assignor's undersigned representative on the date following the undersigned's name.

**Seoul National University R&DB Foundation**

By: Kim Mi Hui  
Mi Hui Kim

Title: Senior Manager

Date: Nov. 24, 2022

**ATTACHMENT A**

<b>Application No.</b>	<b>Filing Date</b>	<b>Patent No.</b>	<b>Grant Date</b>	<b>Title</b>	<b>Assignment Reel/Frame</b>
15/268,602	09-18-2016	10,886,276	01-05-2021	SEMICONDUCTOR MEMORY DEVICE AND METHOD OF FABRICATING THE SAME	040088/0476
15/903,216	02-23-2018	10,210,921	02-19-2019	NON-VOLATILE FERROELECTRIC MEMORY DEVICE AND METHOD OF DRIVING THE SAME	045992/0861