506147809 07/10/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6194541

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HEEKWON PARK	04/06/2020
HOBIN LEE	04/06/2020
ILGU HONG	04/06/2020
YANG SEOK KI	04/06/2020

RECEIVING PARTY DATA

Name:	SAMSUNG ELECTRONICS CO., LTD.
Street Address:	129, SAMSUNG-RO, YEONGTONG-GU
City:	SUWON-SI, GYEONGGI-DO
State/Country:	KOREA, REPUBLIC OF
Postal Code:	16677

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16843809

CORRESPONDENCE DATA

Fax Number: (626)577-8800

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.

Phone: 626-795-9900 Email: pto@lrrc.com

Correspondent Name: LEWIS ROCA ROTHGERBER CHRISTIE LLP

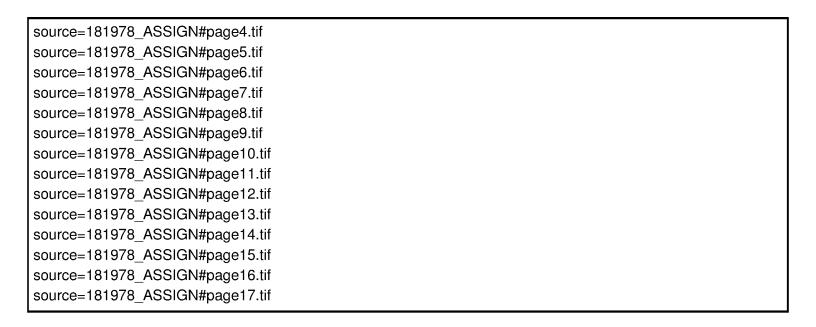
Address Line 1: PO BOX 29001

Address Line 4: GLENDALE, CALIFORNIA 91209

ATTORNEY DOCKET NUMBER:	181978/MJC/FMO
NAME OF SUBMITTER:	FRANCES M. O'BRIEN
SIGNATURE:	/Frances M. O'Brien/
DATE SIGNED:	07/10/2020

Total Attachments: 17

source=181978_ASSIGN#page1.tif source=181978 ASSIGN#page2.tif source=181978_ASSIGN#page3.tif



The undersigned acknowledges that this document is being used both as an assignment of the					
invention	invention and as the declaration (37 CFR 1.63) for a Utility or Design Application.				
WHEREA:	S, the undersigned, hereinafter referred to collectively as Assignor, has invented:				
Title:	RELIABLE KEY-VALUE STORE WITH WRITE-AHEAD-LOG-LESS MECHANISM				
for which	Assignor is about to make or has made United States or International application for				
WHEREA:	S, as a below named inventor(s), I/(we) hereby declare that:				
Section I.	Declaration				
This decla	aration is directed to:				
	The attached U.S. non-provisional patent application, or				
Þ	U.S. non-provisional patent application number <u>16/843,809</u> , filed on <u>April 8, 2020</u> , or				
	PCT international patent application number, filed on				
The abov	e-identified application was made or authorized to be made by me (us).				
	ieve that I am (we are) the original inventor (original joint inventors) of a claimed in the above-identified application.				
¹ This form requires the use of an Application Data Sheet.					
SEC Ref I	No. WB-201909-002-1-US0 Attorney Ref No. 181978				

I (we) 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.

I hereby state that I have reviewed and understand the contents of the above identified application, including the claims.

I acknowledge that I am aware of the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56.

Section II. Assignment

In consideration of and according to the provisions of the Assignor's employment agreement(s), the undersigned hereby sell(s) and assign(s) to

Samsung Electronics Co., Ltd.

having an address at 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do 16677, Republic of Korea (hereinafter designated as the Assignee), the entire (100%) right, title and interest for the United States as defined in 35 USC §100, in the invention or design described in the application identified in Section I of this document.

Assignor hereby confirms any prior assignment to Assignee, and to the extent that Assignor has not already done so, agrees to assign, and hereby does, sell, assign and transfer unto Assignee and its successors in interest, the full and exclusive right, title and interest in the United States of America and throughout the world, including the right to claim priority under the laws of the United States, the Paris Convention, and any foreign countries, to the inventions or designs as described in the aforesaid application, to the aforesaid application itself, and to provisional application(s) 62/903,561 to which the aforesaid application claims priority, and to all divisions, continuations, continuations-in-part, or other applications claiming priority directly or indirectly from the aforesaid application or provisional, and any United States or foreign Letters Patent, utility model, or other similar rights which may be granted thereon, including reissues, reexaminations and extensions thereof, and all copyright rights throughout the world in the aforesaid application and the subject matter disclosed therein, these rights, title and interest to be held and enjoyed by Assignee to the full end of the term for which the Letters Patent, utility model, or other similar rights, are granted and any extensions thereof as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made, and the right to sue for, and recover for past infringements of, or liabilities for, any of the rights

SEC Ref No.	WB-201909-002-1-US0	Attorney Ref No.	181978
	***************************************	•	***************************************

relating to any of the applications, patents, utility models, or other similar rights, resulting therefrom, and the copyright rights;

Assignor hereby covenants and agrees to execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent, utility model, or other similar rights, and for copyright, in the United States and in all foreign countries including, but not limited to, any provisional, continuation, continuation-in-part, divisional, renewal or substitute thereof, and as to letters patent any reissue, re-examination, or extension thereof, and for litigation regarding, or for the purpose of protecting title and to the said invention, the United States application for patent, or Letters Patent therefor, and to testify in support thereof, for the benefit of Assignee without further or other compensation than that above set forth;

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

Assignor hereby requests the United States Patent and Trademark Office to issue the Letters Patent of the United States of America to Assignee, and requests that any official of any country or countries foreign to the United States, whose duty it is to issue or grant patents and applications as aforesaid, to issue the Letters Patent, Utility Model Registration or other similar right to Assignee.

The undersigned hereby grant(s) the law firm of LEWIS ROCA ROTHGERBER CHRISTIE LLP the power to insert on this Declaration and Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

Section III. Inventor(s)/Assignor(s) Signature(s)

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
FIRST INVENTOR/ASSIGNOR	Park	Heekwon	
SIGNATURE	the	04/06/2020 DATE	

SEC Ref No.	WB-201909-002-1-US0	Attorney Ref No.	181978

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
SECOND INVENTOR/ASSIGNOR	Lee	Ho bin	
SIGNATURE		DATE	

LEGAL NAME OF THIRD INVENTOR/ASSIGNOR	Family Name Hong	First Given Name	Second Given Name
SIGNATURE		DATE	

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
FOURTH INVENTOR/ASSIGNOR	Ki	Yang Seok	
SIGNATURE		DATE	

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The undersigned acknowledges that this document is being used both as an assignment of the				
invention	invention and as the declaration (37 CFR 1.63) for a Utility or Design Application.			
WHEREA:	WHEREAS, the undersigned, hereinafter referred to collectively as Assignor, has invented:			
Title:	RELIABLE KEY-VALUE STORE WITH WRITE-AHEAD-LOG-LESS MECHANISM			
for which	Assignor is about to make or has made United States or International application for			
WHEREA:	S, as a below named inventor(s), I/(we) hereby declare that:			
Section I.	Declaration			
This decla	aration is directed to:			
	The attached U.S. non-provisional patent application, or			
Þ	U.S. non-provisional patent application number <u>16/843,809</u> , filed on <u>April 8, 2020</u> , or			
	PCT international patent application number, filed on			
The abov	e-identified application was made or authorized to be made by me (us).			
I (we) believe that I am (we are) the original inventor (original joint inventors) of a claimed invention in the above-identified application.				
This form requires the use of an Application Data Sheet.				
SEC Ref I	No. WB-201909-002-1-US0 Attorney Ref No. 181978			

I (we) 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.

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Section II. Assignment

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Samsung Electronics Co., Ltd.

having an address at 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do 16677, Republic of Korea (hereinafter designated as the Assignee), the entire (100%) right, title and interest for the United States as defined in 35 USC §100, in the invention or design described in the application identified in Section I of this document.

Assignor hereby confirms any prior assignment to Assignee, and to the extent that Assignor has not already done so, agrees to assign, and hereby does, sell, assign and transfer unto Assignee and its successors in interest, the full and exclusive right, title and interest in the United States of America and throughout the world, including the right to claim priority under the laws of the United States, the Paris Convention, and any foreign countries, to the inventions or designs as described in the aforesaid application, to the aforesaid application itself, and to provisional application(s) 62/903,561 to which the aforesaid application claims priority, and to all divisions, continuations, continuations-in-part, or other applications claiming priority directly or indirectly from the aforesaid application or provisional, and any United States or foreign Letters Patent, utility model, or other similar rights which may be granted thereon, including reissues, reexaminations and extensions thereof, and all copyright rights throughout the world in the aforesaid application and the subject matter disclosed therein, these rights, title and interest to be held and enjoyed by Assignee to the full end of the term for which the Letters Patent, utility model, or other similar rights, are granted and any extensions thereof as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made, and the right to sue for, and recover for past infringements of, or liabilities for, any of the rights

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relating to any of the applications, patents, utility models, or other similar rights, resulting therefrom, and the copyright rights;

Assignor hereby covenants and agrees to execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent, utility model, or other similar rights, and for copyright, in the United States and in all foreign countries including, but not limited to, any provisional, continuation, continuation-in-part, divisional, renewal or substitute thereof, and as to letters patent any reissue, re-examination, or extension thereof, and for litigation regarding, or for the purpose of protecting title and to the said invention, the United States application for patent, or Letters Patent therefor, and to testify in support thereof, for the benefit of Assignee without further or other compensation than that above set forth;

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Section III. Inventor(s)/Assignor(s) Signature(s)

LEGAL NAME OF FIRST	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	Park	Heekwon	
SIGNATURE		DATE	

SEC Ref No.	WB-201909-002-1-US0	Attorney Ref No.	181978

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
SECOND INVENTOR/ASSIGNOR	Lee	Ho bin	
SIGNATURE	Laholi	DATE	04/06/2020

LEGAL NAME OF THIRD	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	Hong	llgu	
SIGNATURE		DATE	

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
FOURTH INVENTOR/ASSIGNOR	Ki	Yang Seok	
SIGNATURE		DATE	

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The abov	ve-identified application was made or authorized to be made by me (us).			
	lieve that I am (we are) the original inventor (original joint inventors) of a claimed in the above-identified application.			
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PATENT REEL: 053174 FRAME: 0199

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM

I (we) 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.

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SIGNATURE		DATE	

SEC Ref No.	WB-201909-002-1-US0	Attorney Ref No.	181978

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SECOND INVENTOR/ASSIGNOR	Lee	Ho bin	
SIGNATURE		DATE	

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INVENTOR/ASSIGNOR	Hong	llgu	
SIGNATURE	ilgu hong	04/06/2020 _{DATE}	

LEGAL NAME OF FOURTH	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	Ki	Yang Seok	
SIGNATURE		DATE	

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COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM Page 2 of 5

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COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM Page 3 of 5

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Section III. Inventor(s)/Assignor(s) Signature(s)

	-		
LEGAL NAME OF FIRST	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR			
INVENTORY ASSIGNOR	Park	Heekwon	
SIGNATURE		DATE	
			I
LEGAL NAME OF SECOND	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	Lee	Ho bin	
SIGNATURE		DATE	
			•
LEGAL NAME OF	Family Name	First Given Name	Second Given Name
THIRD			
INVENTOR/ASSIGNOR	Hong	llgu	
<u> </u>		<u> </u>	<u> </u>

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Page 4 of 5

SIGNATURE	DATE	

LEGAL NAME OF FOURTH	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	Ki	Yang Seok	
SIGNATURE	3-1h	DATE	4/6/2020

RECORDED: 07/10/2020