507421107 08/03/2022 PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7468036

SUBMISSION TYPE:		NEW ASSIGNMENT			
NATURE OF CONVEYANCE:		ASSIGNMENT			
CONVEYING PARTY I	ΔΑΤΑ				
			Name	Execution Date	
HOYOUN KIM				05/17/2022	
RECEIVING PARTY D	ΑΤΑ				
Name:	SAMS	UNG	ELECTRONICS CO., LTD.		
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City:	SUWC	N-SI,	GYEONGGI-DO		
State/Country:	KORE	A, RE	PUBLIC OF		
Postal Code:	16677				
PROPERTY NUMBER					
Property Type	•		Number		
Application Number:		1781	7348		
CORRESPONDENCE	DATA				
Fax Number:		(516))692-8889		
			e-mail address first; if that is unst hat is unsuccessful, it will be sent		
Phone:	provide		928888	via US Mall.	
Email:			.@CHAUIPLAW.COM		
		F. CH	IAU & ASSOCIATES, LLC		
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•		130 1			
•			DBURY, NEW YORK 11797		
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Address Line 1: Address Line 4: ATTORNEY DOCKET N		WOC	DDBURY, NEW YORK 11797		
Address Line 1: Address Line 4: ATTORNEY DOCKET N NAME OF SUBMITTER		WOC	DBURY, NEW YORK 11797 8269S-271		
Address Line 1: Address Line 4: ATTORNEY DOCKET N NAME OF SUBMITTER SIGNATURE:		WOC	DBURY, NEW YORK 11797 8269S-271 DAVID L. HEATH		
Address Line 1:		WOC	DBURY, NEW YORK 11797 8269S-271 DAVID L. HEATH /DAVID L. HEATH/	Declaration (37 CFR 1.63).	
Address Line 1: Address Line 4: ATTORNEY DOCKET N NAME OF SUBMITTER SIGNATURE:		WOC	DBURY, NEW YORK 11797 8269S-271 DAVID L. HEATH /DAVID L. HEATH/ 08/03/2022	Declaration (37 CFR 1.63).	
Address Line 1: Address Line 4: ATTORNEY DOCKET N NAME OF SUBMITTER SIGNATURE: DATE SIGNED: Total Attachments: 3	:	WOC	DBURY, NEW YORK 11797 8269S-271 DAVID L. HEATH /DAVID L. HEATH/ 08/03/2022 This document serves as an Oath/	/	
Address Line 1: Address Line 4: ATTORNEY DOCKET N NAME OF SUBMITTER SIGNATURE: DATE SIGNED: Total Attachments: 3 source=8269S-271_CO	: MBINED-I	WOC	DBURY, NEW YORK 11797 8269S-271 DAVID L. HEATH /DAVID L. HEATH/ 08/03/2022	f	

COMBINED DECLARATION (37 CFR §1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM¹

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The undersigned acknowledges that this document is being used both as an assignment of the invention and as the declaration (37 CFR 1.63) for a Utility or Design Application.

WHEREAS, the undersigned, hereinafter referred to collectively as Assignor, has invented:

Title: MEMORY SYSTEM, REFRESH CONTROL CIRCUIT, AND REFRESH CONTROL METHOD

for patent.	e de la competente de la competente de la competente de la competente de la competencia de la competencia de la En la competencia de l	97 17 18 18
WHEREAS, a	s a below named inventor(s), I/(we) hereby declare that:	
Section I. Di	eclaration	
This declarat	ion is directed to:	
Ø	The attached U.S. non-provisional patent application, or DRAM # St7111 (01.9.21)/21 2. 31/hoyoun kim	
	U.S. non-provisional patent application number	, filed
	PCT international patent application number	, filed on
The above-ic	lentified application was made or authorized to be made by	y me (us).
I (we) believ	e that I am (we are) the original inventor (original joint inve the above-identified application.	ntors) of a claimed

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.

¹ This form requires the use of an Application Data Sheet.

SEC Ref No.	ID-202108-013-1-US0	Attorney Ref No.	82695-271
			(OPP-2021-2265-
			PATENT
		REEL: (060713 FRAME: 0907

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 the sum of One Dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned, 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 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 as described in the aforesaid application, to the aforesaid application itself, and all divisions, continuations, continuations-in-part, or other applications claiming priority directly or indirectly from the aforesaid application, 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 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

SEC Ref No. ID-202108-013-1-US0 Attorney Ref No. 82695-271 (OPP-2021-2265-PATENT COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPL REEL: 060713 FRAME: 0908 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, reexamination, 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 **F. Chau & Associates, LLC** 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 FIRST	Family Name	First Given Name	Second Given Name	
INVENTOR/ASSIGNOR	Kim	Hoyoun		
		···· •		
SIGNATURE	jb-	DATE	2022_05_197_	

DRAM碼句계號(剛兒出)/召应包/hoyoun.kim

SEC Ref No. ID-202108-013-1-US0 Attorney Ref No. 82695-271 (OPP-2021-2265-PATENT RECORDED: 08/03/2022 REEL: 060713 FRAME: 0909