PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KYUSEOK KIM	10/06/2021
HYUNGTAE KIM	10/07/2021
JIWON KANG	10/07/2021
KILBOM LEE	10/27/2021

RECEIVING PARTY DATA

Name:	LG ELECTRONICS INC.
Street Address:	128, YEOUI-DAERO, YEONGDEUNGPO-GU
City:	SEOUL
State/Country:	KOREA, REPUBLIC OF
Postal Code:	07336

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	18098862

CORRESPONDENCE DATA

Fax Number: (877)769-7945

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Phone: +1 (202) 626-7785

ramirez-juarez@fr.com, apsi@fr.com Email:

JONG WAN SUH **Correspondent Name:**

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Address Line 4: MINNEAPOLIS, MINNESOTA 55440-1022

ATTORNEY DOCKET NUMBER:	20211-0623002	
NAME OF SUBMITTER:	VICTOR RAMIREZ-JUAREZ	
SIGNATURE:	/Victor Ramirez-Juarez/	
DATE SIGNED:	05/19/2023	

Total Attachments: 5

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PATENT REEL: 063702 FRAME: 0406

ASSIGNMENT

For valuable consideration, the receipt of which we acknowledge, and intending to be bound legally, we, Kyuseok KIM, Hyungtae KIM, Jiwon KANG and Kilbom LEE, each individually assign to LG ELECTRONICS INC., a corporation formed under the laws of Republic of Korea, and having a principal place of business at 128, Yeoui-daero, Yeongdeungpo-gu, Seoul 07336, Republic of Korea, and its successors, transferees, and assignees (collectively the "Assignee"), all of our individual and joint right, title, and interest throughout the world in the invention(s) (the "Subject Matter") described in a patent application that names us as inventors, is titled "METHOD FOR TRANSMITTING AND RECEIVING PHASE TRACKING REFERENCE SIGNAL IN WIRELESS COMMUNICATION SYSTEM, AND APPARATUS THEREFOR," and was or will be filed in the United States Patent and Trademark Office on

November 2, 2021 , as application 17/608,332 (the "Application"). We authorize the insertion of the filing date and application number above.

This Assignment assigns, in addition to the Subject Matter of the Application, (a) the Application and all other applications that may be made for, and all patents, utility models, design registrations, and other rights of exclusion and inventors' certificates for, any of the Subject Matter (collectively the "Applications and Granted Rights") in every country or region and under every treaty or convention, (b) the right to claim priority based on and the benefit of the filing date of any of the Applications and Granted Rights under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other applicable treaties or conventions, and (c) the right to pursue, collect, and retain in the Assignee's name or otherwise, damages and any other remedies arising from any past, present, or future infringement of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment.

We authorize the Assignee to apply for and pursue protection for any or all of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment in all countries, regions, and territories of the world, in our names or in the Assignee's name.

We represent and warrant that we have the right and power to make this Assignment and that we have not made and will not make any other assignment that conflicts with this Assignment.

We will communicate to the Assignee (or, at the request of the Assignee to other parties) all known facts in any form relating to the Subject Matter; will execute and provide all oaths and

> **PATENT REEL: 063702 FRAME: 0407**

declarations, statements, testimony, assignments, powers of attorney, applications, and documents; and will perform all other lawful acts necessary or desirable to secure fully to the Assignee the rights, titles, and interests assigned by this Assignment.

kyuseok	Date: 06. Oct. 2021
Kyuseok KIM	
	Date:
Hyungtae KIM	
Jiwon KANG	Date:
JIWON KANG	
	Date:
Kilbom LEE	
Witnessed by:	
Signature:	Date:
Print Name:	
Signature:	Date:
Print Name:	
The Assignee hereby acknowledges and accepts the	foregoing assignment.
Assignee: LG ELECTRONICS INC.	
Signature:	Date:
Name:	
Title:	

declarations, statements, testimony, assignments, powers of attorney, applications, and documents; and will perform all other lawful acts necessary or desirable to secure fully to the Assignee the rights, titles, and interests assigned by this Assignment.

	Date:
Kyuseok KIM	
김 형태 Hyungtae KIM	Date: 2021.10.07
	Date:
Jiwon KANG	
	Date:
Kilbom LEE	
Witnessed by:	
Signature:	Date:
Print Name:	
Signature:	Date:
Print Name:	
The Assignee hereby acknowledges and accepts the Assignee: LG ELECTRONICS INC.	foregoing assignment.
Signature:	Date:
Name:	
Title	

declarations, statements, testimony, assignments, powers of attorney, applications, and documents; and will perform all other lawful acts necessary or desirable to secure fully to the Assignee the rights, titles, and interests assigned by this Assignment.

Kyuseok KIM	Date:
Hyungtae KIM	Date:
Jiwon KANO	Date: 2021.10.07
Kilbom LEE	Date:
Witnessed by:	
Signature:	Date:
Print Name:	
Signature:	Date:
Print Name:	
The Assignee hereby acknowledges and accepts the	foregoing assignment.
Assignee: LG ELECTRONICS INC.	
Signature:	Date:
Name:	
Tidle.	

declarations, statements, testimony, assignments, powers of attorney, applications, and documents; and will perform all other lawful acts necessary or desirable to secure fully to the Assignee the rights, titles, and interests assigned by this Assignment.

	Date:
Kyuseok KIM	
	Date:
Hyungtae KIM	
Jiwon KANG	Date:
C.	
Kilbom LEE	Date:2021-10-27
Witnessed by:	
Signature:	Date:
Print Name:	
Signature:	Date:
Print Name:	
The Assignee hereby acknowledges and accepts the	foregoing assignment.
Assignee: LG ELECTRONICS INC.	
Signature:	Date:
Name:	

Assignment Page 2 of 2 **PATENT REEL: 063702 FRAME: 0411**

RECORDED: 05/19/2023