

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
Seokmin SHIN	11/06/2019
Changhwan PARK	11/17/2019
Joonkui AHN	11/07/2019
Daesung HWANG	11/06/2019
Seunggye HWANG	11/06/2019
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	LG ELECTRONICS INC.
<b>Street Address:</b>	128, YEOUI-DAERO, YEONGDEUNGPO-GU
<b>City:</b>	SEOUL
<b>State/Country:</b>	KOREA, REPUBLIC OF
<b>Postal Code:</b>	07336
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16623318
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(877)769-7945
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<b>ATTORNEY DOCKET NUMBER:</b>	20211-0332US1
<b>NAME OF SUBMITTER:</b>	LYNDZIE HAMM
<b>SIGNATURE:</b>	/Lyndzie Hamm/
<b>DATE SIGNED:</b>	02/13/2020
<b>Total Attachments: 4</b>	

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## ASSIGNMENT

For valuable consideration, the receipt of which we acknowledge, and intending to be bound legally, we, Seokmin SHIN, Changhwan PARK, Joonkui AHN, Daesung HWANG and Seunggye HWANG, each individually assigns 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 AND DEVICE FOR TRANSMITTING NPRACH PREAMBLE IN NARROWBAND IOT SYSTEM SUPPORTING FRAME STRUCTURE TYPE 2," and was or will be filed in the United States Patent and Trademark Office on 12/16/2019, as application 16/623,318 (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 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.

  
Seokmin SHIN

Date: NOV. 06. 2019

\_\_\_\_\_  
Changhwan PARK

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

  
Joonkui SHIN

Date: 2019. 11. 7

  
Daesung HWANG

Date: Nov. 6, 2019

  
Seunggye HWANG

Date: 19. 11. 6

Witnessed by:

Signature: \_\_\_\_\_

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

Print Name: \_\_\_\_\_

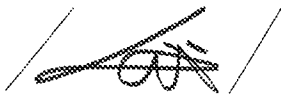
Signature: \_\_\_\_\_

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

Print Name: \_\_\_\_\_

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 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.

\_\_\_\_\_  
Seokmin SHIN



\_\_\_\_\_  
Changhwan PARK

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

Date: **Nov. 17, 2019**

\_\_\_\_\_  
Joonkui AHN

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

\_\_\_\_\_  
Daesung HWANG

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

\_\_\_\_\_  
Seunggye HWANG

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: \_\_\_\_\_

Title: \_\_\_\_\_

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